



MINISTRY OF WATER AND SANITATION

**KENYA WATER SECURITY AND CLIMATE RESILIENCE PROJECT-
PHASE 1**

**REVIEW AND UPDATE OF RESETTLEMENT ACTION PLAN
(RAP) FOR LOWER NZOIA IRRIGATION PROJECT (LNIP)
AND NZOIA FLOOD PROTECTION STRUCTURES**

FINAL RAP I REPORT – HEADWORKS CANALS

PREPARED BY



APRIL 2018

FINAL REPORT

CONTENTS

Chapter	Description	Page
1	EXECUTIVE SUMMARY	1-1
1.1	Introduction	1-1
1.1.1	Authority of the Report	1-1
1.1.2	Background of the Assignment	1-1
1.2	Description of the Project	1-2
1.2.1	Irrigation Area	1-2
1.2.2	Lower Nzoia Irrigation Project Phase I Component	1-2
1.2.3	Nzoia Flood Protection Structures Component	1-2
1.3	Beneficiaries of the Lower Nzoia Project	1-3
1.4	Objectives of the RAP	1-3
1.5	Scope of the RAP	1-3
1.6	Project Infrastructure that are going to affect Property and Cause Displacement	1-4
1.7	Socio-economic Study and Findings	1-4
1.7.1	Socio-economic study / survey	1-4
1.7.2	Socio-economic study findings	1-5
1.8	Census Study and Findings	1-6
1.8.1	Census study / survey	1-6
1.8.2	Census Findings	1-7
1.9	Stakeholder and PAP Consultation Meetings	1-9
1.9.1	Courtesy Calls	1-9
1.9.2	Stakeholders' Meeting with local administration and opinion leaders	1-9
1.9.3	Community Introductory and Sensitization Meetings	1-9
1.9.4	Progress Meeting with Locational Chiefs	1-10
1.9.5	Consultation Meeting for Establishment of Sub- Locational and Location Resettlement Compensation Committees.	1-10
1.10	Cut-off-Date	1-11
1.11	Resettlement Policy and Entitlements	1-11
1.12	PAPs Concerns	1-11
1.13	Summary of Project Impacts and Mitigation Measures	1-12
1.14	Eligibility Criteria for Compensation	1-14
1.15	Valuation, Compensation and Entitlement Matrix	1-14
1.15.1	Valuation of Assets	1-14
1.15.2	Entitlement Matrix	1-14

1.16	Minimising Resettlement Costs	1-18
1.17	Institutional Framework for RAP Implementation	1-18
1.18	Grievance Redress	1-20
1.19	Resettlement for Permanently Displaced PAHs	1-22
1.20	Rap I Total Cost Estimate	1-23
1.21	Livelihood Restoration	1-23
1.21.1	Key Principles Guiding Livelihood Restoration Planning	1-23
1.21.2	Proposed Livelihood Restoration Program	1-24
1.21.3	Livelihood Restoration Programme (LRP) Cost Estimate	1-24
1.22	Summary of RAP Study Outcome	1-25
1.23	Monitoring and Evaluation	1-26
2	INTRODUCTION	2-1
2.1	Background of the Assignment	2-1
2.2	Kenya Water Security and Climate Resilience Program	2-1
2.3	Kenya Water Security and Climate Resilience Project Phase I	2-1
2.4	The Lower Nzoia Project	2-2
2.5	The Lower Nzoia Irrigation Project	2-4
2.6	The Lower Nzoia Irrigation Project Phase I	2-4
2.6.1	Sub-component 1: Irrigation and Drainage Infrastructure	2-4
2.6.2	Sub-component 2: Agricultural Support and Value Chain Sub-Component:	2-7
2.6.3	Sub-component 3: Participatory Irrigation Management	2-7
2.6.4	Sub-component 4: Project Management	2-7
2.7	The Nzoia Flood Protection Structures	2-8
2.8	Project Components Necessitating Land Acquisition and Resettlement	2-8
2.8.1	Irrigation and Drainage Infrastructure Components Requiring Land Acquisition	2-8
2.8.2	Flood Protection Structures Components Requiring Land Acquisition	2-10
2.9	Resettlement Action Plans	2-10
2.10	Resettlement Action Plan for RAP I Area (RAP I)	2-11
3	REVIEW AND UPDATING OF THE RAP	3-1
3.1	Justification for Review and Updating of the previous RAP Reports	3-1
3.2	The Objectives and Scope of the RAP Review and Update	3-1
3.2.1	Objectives	3-1
3.2.2	Scope of the Review and Update	3-2
3.3	Activities Carried Out During RAP Preparation	3-2
3.3.1	Stage 1 - Inception Stage Activities	3-3
(a)	Mobilisation of the Consultant	3-3
(b)	Start-up Meeting with Client	3-4

	(c) Inception Field Stage Activities	3-4
3.3.2	Stage 2 and 3 Activities – Full Study and Draft and Final Reporting	3-5
3.4	Limitations and Solutions	3-5
3.5	RAP Team	3-6
3.6	Report Format	3-6
4	RAP STUDY METHODOLOGY	4-1
4.1	Desk study	4-1
4.2	Field Work Preparation Activities	4-1
4.3	Cadastral Mapping and Geo Information Systems (GIS) Database	4-2
4.4	Way-leaves Adopted	4-3
4.5	Community Mobilization and Sensitisation Meetings	4-3
4.6	Census Approach and Methodology	4-5
4.6.1	Objective of the Census Survey	4-5
4.6.2	Approach and Methodology	4-5
4.7	Socio-economic Baseline Survey Approach and Methodology	4-6
4.7.1	Introduction	4-6
4.7.2	Objective of the socio-economic survey	4-6
4.7.3	Expected Outputs	4-6
4.7.4	Approach and Methodology	4-7
	(a) Literature review and secondary data collection	4-7
	(b) Fieldwork and Data collection	4-7
	(c) Training Enumerators and Pretesting the Data Collection Tools	4-7
	(d) Sampling design	4-8
	(e) Data Analysis	4-8
4.7.5	Research Instruments	4-8
	(a) Household Questionnaires	4-8
	(b) Key Informants	4-8
	(c) Focussed Group Discussions	4-9
	(d) Participatory Observations	4-9
	(e) Transect Walks	4-9
	(f) Secondary Data Collection	4-9
4.8	References for Baseline Survey	4-9
4.9	Valuation Process for Land and Assets	4-10
4.9.1	Valuation of land using Comparison Method	4-10
4.9.2	Valuation of Structures using Full Replacement Approach	4-11
4.9.3	Valuation of Trees using Guidelines from Kenya Forestry Service	4-11
4.9.4	Valuation of Perennial Crops using Guidelines from Ministry of Agriculture	4-11
4.9.5	Valuation of Special Assets (Sacred Places and Graves)	4-11
4.9.6	Valuation for Loss of Regular Income	4-11
4.9.7	Loss of access to river bed	4-12
4.10	Agencies/Individuals Contacted for Assets Survey	4-12
5	POLICY AND LEGAL FRAMEWORK	5-1
5.1	Policy Framework	5-1
5.1.1	World Bank Operational Policy on Involuntary Resettlement-O P 4.12	5-2

5.1.2	World Bank Policy on Gender and Development -O P 4.20	5-3
5.2	Legal Framework	5-3
5.2.1	The Constitution of Kenya	5-3
5.2.2	The National Land Commissions Act 2012	5-4
5.2.3	The Land Act 2012	5-4
	(a) Principles and values to guide Land management and administration	5-4
	(b) Compensation in respect to public right of way	5-5
	(c) Acquisition of private land for public use	5-6
	(d) Land transfers	5-9
	(e) Transmission of land ownership upon death	5-9
5.2.4	The Valuers Act, Cap 532	5-10
5.2.5	Land Adjudication Act, Cap. 284	5-10
	(a) Public Land	5-11
	(b) Community/Trust Land	5-11
	(c) Private Land	5-11
	(d) Freehold Tenure	5-11
	(e) Leasehold Tenure	5-12
5.2.6	Land Related Legal Issues	5-12
5.2.7	Other Interests include:	5-12
5.2.8	Land Acts Repealed by the Land Act 2012	5-12
5.2.9	The Land Registration Act 2012	5-12
5.2.10	Land Acts Repealed by the Land Registration Act 2012	5-13
5.2.11	Community Land Act 2016	5-13
5.2.12	The Land Laws (Amendment) Act, 2016	5-14
5.2.13	The Land and Environment Court Act 2011	5-14
5.2.14	The Prevention, Protection and Assistance to Internally Displaced Persons and Affected Communities Act, 2012	5-14
5.2.15	The Matrimonial Property Act 2013	5-15
5.2.16	The Children Act, 2001 (Revised 2010 and 2012)	5-15
5.3	Formal Processes Involved with Compulsory Acquisition	5-16
5.3.1	The Need to Acquire Land for the Project	5-16
5.3.2	Process Involved with Land Acquisition	5-16
5.4	Comparison of GOK Constitution and World Bank OP 4.12	5-18
6	CENSUS FINDINGS	6-1
6.1	Census Coverage	6-1
6.2	Census Exercise Activities	6-1
6.2.1	Cut-off dates for Eligibility for Compensation	6-1
6.2.2	Census activities	6-1
6.3	Census Findings	6-2
6.3.1	Population of Project Affected Persons (PAPs)	6-2
6.3.2	Property Holders Losing Land	6-2
6.3.3	Property Holders Losing Structures	6-3
6.3.4	Property Holders losing both Land and Structures	6-3
6.3.5	Property Holders Losing Businesses	6-3
6.3.6	Loss of Special Assets (Graves)	6-3
6.3.7	Property Holders losing Trees and Crops.	6-3
6.3.8	Public / Community Structures	6-3
6.3.9	Affected Land Area – Lower Nzoia Irrigation Project (RAP I Area)	6-3
6.3.10	Vulnerable PAPs	6-3
6.3.12	Preferred Mode of Compensation	6-5
6.3.13	Summary of Affected Property Holders and Property	6-5
7	SOCIO-ECONOMIC SURVEY FINDINGS	7-1

7.1	Socio-Economic Baseline Survey Activities	7-1
7.2	Socio-Economic Baseline Survey Findings	7-1
7.2.1	Project Beneficiary Population	7-1
7.2.2	Demographic Characteristics and Administrative Settings	7-1
	(a) Administrative Settings and Leadership Line Up	7-1
	(b) Population Distribution at Sub-Locational Level in Project Area	7-2
	(c) Population Settlement patterns	7-2
7.2.3	Social Amenities	7-2
	Roads infrastructure, Energy Sources/Electricity, Communication, Security and Social Capital/ and Cultural sites	7-3
	(a) Energy and Electricity Connections	7-3
	(b) Communication	7-3
	(c) Road Infrastructure	7-3
	(d) Market Centers in RAP I Project Area	7-4
	(e) Security – Police posts	7-4
	(f) Social Capital in RAP I Project Area	7-4
	(g) Cultural Sites in RAP I Area	7-5
7.2.4	Poverty Index in RAP I Project Area	7-5
	(a) Poverty at Household Level	7-5
	(b) Poverty and Vulnerability	7-6
7.2.5	Housing and Home Dwelling	7-7
7.2.6	Household Demographic characteristics	7-8
	(a) Household Heads Age distribution	7-8
	(b) Gender Distribution of Household Heads among the PAPs in RAP I Area	7-8
	(c) Education	7-10
	(d) Capacities and Capabilities of PAPs in RAP Area	7-10
	Educational Level	7-10
	(e) Health and Nutrition Status	7-11
	(f) Water and sanitation	7-12
7.2.7	Land Tenure and Land as a Means of Production	7-13
	(a) Land Tenure System and Land Ownership	7-13
	(b) Land Ownership	7-15
	(c) Land Use Patterns	7-15
7.2.8	Household Economy	7-15
	(a) Sources of Income at household level	7-15
	(b) Average Household Expenditure	7-16
	(c) Household Use for Credit	7-17
7.2.9	Food Security at the Household Level	7-17
7.2.10	Access to Financial Services	7-18
7.2.11	Gender Analysis	7-19
7.2.12	Participation in the Project	7-21
	(a) Project Awareness Levels at Household Level	7-21
	(b) Positive Effects of the Project	7-21
	(c) Magnitude of the expected loss in total or partial of assets, and the extent of displacement,	7-22
	physical or economic	7-22
	(d) Project Negative Effects	7-22

8	STAKEHOLDER PARTICIPATION AND CONSULTATION	8-1
8.1	Introduction	8-1
8.2	Public Consultation and Disclosure	8-1
8.3	Consultations with Key Informants and Government Officials	8-1
8.3.1	Stakeholders' Meeting with local administration and opinion leaders	8-2
8.4	Community Consultations	8-2

8.4.1	Initial community Introductory and Sensitization meetings	8-3
(i)	Plate No 1 - Meeting at Nzoia Market - Block 1	8-4
(ii)	Plate No 2 - Meeting at Ligega Back Flow Site	8-4
(iii)	Plate No 3 - Meeting at Umala Backflow Site	8-5
8.4.2	Observations made during the meetings include:	8-5
8.4.3	Key Stakeholders Consultative Meeting – Good Samaritan	8-7
8.5	PAP Consultation Formal Meetings and Formation of Resettlement and Compensation Committees at Locational and Sub-Locational Levels	8-7
(i)	PAP and Stakeholders Meeting at Nzoia Market	8-8
(ii)	PAP and Stakeholders Meeting at Ligega	8-9
8.6	Direct Interviews	8-11
8.6.1	Questionnaire Administration	8-11
8.6.2	Focused Group Discussions	8-12
8.6.3	Meeting with Local Administration Officials	8-12
8.6.4	Summary of Comments from Public Consultations	8-12
(a)	Acceptance of the Project	8-12
(b)	Resettlement	8-12
(c)	Infrastructure	8-12
(d)	County Resources vis a vis the Proposed Project	8-12
(e)	Employment	8-13
(f)	Environmental Impacts	8-13
(g)	Institutional Concerns	8-13
8.7	Disclosure of the RAP Report	8-13
8.7.1	Background	8-13
8.7.2	Disclosure of the RAP Report by Ministry of Water and Irrigation (MOWI)- Kenya Water Security and Climate Resilience Project- Phase I (KWSCR-P-I)	8-13

9	POTENTIAL PROJECT IMPACTS AND MITIGATION MEASURES	9-1
9.1	Affected Areas	9-1
9.2	Project Affected Persons	9-1
9.2.1	Affected Individual	9-1
9.2.2	Affected Households	9-1
9.2.3	Vulnerable Groups and Households	9-2
9.3	Potential Positive Impacts	9-2
9.3.1	Impact on Poverty Reduction	9-2
9.3.2	The Impacts on Gender and Inequality	9-2
9.3.3	Impact on road infrastructure	9-3
9.3.4	Impact on Livelihoods and Food Production	9-3
9.3.5	Employment Opportunities	9-3
9.4	Potential Negative Impacts and Mitigation Measures	9-4
9.4.1	Land Loss	9-4
9.4.2	Loss of Structures	9-4
9.4.3	Impact on Graves	9-5
9.4.4	Loss of Crops and Trees	9-6
9.5	Impact on Educational Facilities	9-9
9.6	Impact on religious institutions	9-9
9.7	Impact on Public Infrastructure	9-9
9.8	Management of the Wayleave after Compensation	9-9

10	INSTITUTIONAL FRAMEWORK FOR RAP IMPLEMENTATION	10-1
10.1	Existing Institutions of Relevance to this RAP	10-1
10.2	Ministry of Water and Irrigation	10-1
10.3	Kenya Water Security and Climate Resilience Project (KWSCRCP / PMU)	10-1
10.3.1	Communication and Coordination	10-1
10.3.2	Management of RAP Implementation	10-2
10.3.3	Change Management	10-2
10.3.4	Capacity Building	10-2
10.4	National Irrigation Board / Project Implementation Unit (NIB-PIU & SPIU)	10-2
10.5	National Land Commission	10-3
10.6	Ministry of Lands	10-3
10.6.1	County Lands Board	10-3
10.6.2	County Lands Officer, County Lands Survey Office, and Valuation Surveyor	10-3
10.7	Ministry of Interior and Coordination	10-4
10.8	County Governments of Siaya and Busia	10-4
10.9	Irrigation Water Users Association(IWUAs)	10-5
10.10	Proposed RAP Implementation Arrangements	10-5
10.10.1	Sub-county Resettlement and Compensation Committees (SCRCCs)	10-5
11	VALUATION, COMPENSATION AND ENTITLEMENT FOR LOSSES	11-1
11.1	Eligibility Criteria for Compensation	11-1
11.2	Project Principles of Compensation for Resettlement	11-1
11.3	Compensation Framework for Loss of Land, Structures and Trees	11-2
11.3.1	Compensation Methodology	11-2
11.3.2	Project Compensation Categories	11-3
11.3.3	Compensation Procedure	11-3
11.3.4	Entitlement Matrix	11-3
11.3.5	Land parcels in Dispute	11-4
12	LIVELIHOOD RESTORATION	12-1
12.1	Key Principles Guiding Livelihood Restoration Planning	12-1
12.2	Proposed Livelihood Restoration Program	12-2
12.2.1	Compensation and Resettlement	12-2
12.2.2	Transitional Support	12-2
12.2.3	Agricultural Capacity Enhancement	12-3
12.2.4	Capital Support and Development of Small Businesses	12-3
12.2.5	Financial Management	12-3
12.2.6	Employment during Construction	12-3
12.2.7	Provision of training and support on HIV/AIDS awareness	12-3
12.2.8	Re-establishing Vulnerable Groups Livelihood	12-4
12.2.9	Livelihood Restoration Program Cost Estimate	12-5
13	GRIEVANCE REDRESS	13-1
13.1	General Information	13-1

	13.2	Subject Matter of Grievances / Expected Grievances	13-1
	13.3	Proposed Grievance Mechanism	13-2
	13.3.4	Grievance Redress Service	13-6
14		IMPLEMENTATION SCHEDULE	14-1
15		COSTS AND BUDGETS	15-1
	15.1	Affected Property Holders and Property	15-1
	15.2	Budget Requisition and Flow of Funds for RAP Implementation	15-2
	15.3	Compensation Payments	15-2
	15.3.1	Compensation Prices for Structures	15-2
	15.3.2	Special Assistance for Vulnerable Households	15-2
	15.3.3	Special Assistance for relocating graves	15-3
	15.3.4	Livelihood Restoration Program Cost Estimate	15-3
	15.4	Compensation and Resettlement Costs	15-4
	15.4.1	The Total Valuation Cost of the Projects	15-4
16		MONITORING AND EVALUATION	16-1
	16.1	Objective of LNIP RAP Monitoring	16-1
	16.1.1	Internal Monitoring	16-1
	16.1.2	External Monitoring	16-1
	16.1.3	Responsibility	16-2
	16.1.4	Performance Monitoring	16-2
	16.1.5	Impact Monitoring	16-2
	16.1.6	Monitoring and Evaluation Indicators	16-2
	16.2	Monitoring Approach	16-8
	16.2.1	Agency Responsibilities	16-8
	16.2.2	Methodology	16-8
	16.2.1	Database Management and Storage	16-8
	16.2.2	Reporting	16-8
	16.3	Evaluation Method of Monitoring Results	16-9
	•	Appendices	
	•	Appendix 1 Letter of Client on preparation of separate Reports and Response to Comments	
	•	Appendix 2 Start-up/introductory stakeholders meeting	
	•	Appendix 3 Community Participation and Stakeholders Consultation Meetings	
	•	Appendix 4 Census and Socio-economic Questionnaires and Training of Enumerators	
	•	Appendix 5 Cadastral Maps and Database	
	•	Appendix 6 Census Roll	
	•	Appendix 7 List of fully displaced PAHs	
	•	Appendix 8 Establishment of Locational Resettlement and Compensation Committees.	
	•	Appendix 9 Valuation Roll	

- Appendix 10 Crossing Points

LIST OF TABLES

Table 1-1	Extents of RAP I Components	1-4
Table 1-2	Summary Table of Affected Property Holders and Property	1-8
Table 1-3	Schedule of community Introductory and Sensitization Meeting	1-10
Table 1-4	Meetings with Locational Chiefs	1-10
Table 1-5	Schedule of Meetings with the Local Leadership	1-10
Table 1-6	Project Impacts and Mitigations	1-13
Table 1-7	Entitlement Matrix	1-15
Table 1-8	PAHs permanently displaced	1-22
Table 1-9	Summary Table of Properties / Assets Affected and Costs	1-23
Table 1-10	Livelihood Support Cost Estimate	1-24
Table 1-11	Summary Table of Affected Households, PAPs and Property	1-25
Table 2-1	Irrigation and Drainage Components Requiring Land Acquisition	2-9
Table 2-2	Irrigation Structures	2-9
Table 2-3	Flood Protection Structures Requiring Land Acquisition	2-10
Table 2-4	Related Flood Protection Structures	2-10
Table 2-5	RAP I Components Necessitating Land Acquisition	2-11
Table 2-6	RAP I Affected Areas	2-11
Table 3-1	Summary of Activities by stage	3-3
Table 3-2	Limitations and Resolutions	3-5
Table 4-1	Observation on secondary data related to cadastral maps	4-2
Table 4-2	Cadastral Maps Coverage – Area under RAP 1	4-3
Table 4-3	Adopted Way-leaves	4-3
Table 4-4	Schedule of Community Mobilization and Sensitization Meetings	4-4
Table 4-5	List of Agencies / Individuals consulted during Asset Inventory and Valuation Exercise	4-12
Table 5-1	Comparison of Kenyan and WB Policies	5-19
Table 6-1	Total Number of Property Holders and PAPs Population	6-2
Table 6-2	Affected Land Area	6-3
Table 6-3	Vulnerable PAPs Categories	6-4
Table 6-4	Special Assistance for Vulnerables	6-4
Table 6-5	Property Holders Permanently Displaced	6-5
Table 6-6	Summary Table of Affected Property Holders and Property	6-7
Table 7-1	Population Distribution at Sub-Locational Level	7-2
Table 7-2	Community Organizations Working in the RAP I Project Affected Area	7-4
Table 7-3	Nature of Vulnerability	7-6
Table 7-4	Housing and Home Dwelling Roofing, Walling and Flooring Materials	7-7
Table 7-5	Homestead Composition in RAP I Project Area	7-7
Table 7-6	Number of Schools in RAP 1 Project Affected Area	7-10
Table 7-7	Education levels of house hold head, education level by gender in RAP 1 Project Affected Area	7-10
Table 7-8	Health Institutions in the RAP I Project Area	7-11
Table 7-9	Disease prevalence - Common illnesses in RAP I Project Area	7-11
Table 7-10	Water Sources in RAP I Area	7-12
Table 7-11	Sanitation Coverage in RAP I Area	7-13
Table 7-12	Land Registration Status in Project Affected Area	7-14
Table 7-13	Sources of Income at Household Level	7-16
Table 7-14	Annual household Income	7-16
Table 7-15	Average Daily Expenditure	7-17
Table 7-16	Household Use for Credit	7-17
Table 7-17	Accessibility to financial services	7-19
Table 7-18	Resource Ownership at Household Level	7-19
Table 7-19	Gender Roles	7-20
Table 7-20	Project Positive Effects	7-21
Table 7-21	PAPs to be displaced per block/section	7-22
Table 7-22	Expected Negative Effects	7-22
Table 8-1	Key Informants	8-2
Table 8-2	Meetings with Locational Chiefs	8-2
Table 8-3	Schedule of Community Introductory and Sensitization Meetings	8-3

Table 8-4	Summary of Questions and Responses from Community Introductory and Sensitization Meetings.....	8-6
Table 8-5	Schedule of Meetings with the Local Leadership	8-8
Table 8-6	UmalaSub- location Resettlement and Compensation Committee	8-8
Table 8-7	LigegaSub- location Resettlement and Compensation Committee	8-9
Table 8-8	Summary of Questions and Responses during the Formation of Compensation and Resettlement Committees.....	8-10
Table 8-9	Meetings with Locational Chiefs	8-12
Table 9-1	Project Affected Areas in Ugunja and Ugenya Sub-counties	9-1
Table 9-2	Compensation cost of relocating graves	9-5
Table 9-3	Vulnerable PAPs Categories	9-6
Table 9-4	Summary of impacts and mitigation measures.....	9-10
Figure10-1	Organogram for the Proposed RAPIC	10-8
Table 11-1	Adopted Way-leaves.....	11-3
Table 11-2	Entitlement Matrix	11-5
Table 12-1	Vulnerable Livelihood Restoration Options.....	12-4
Table 12-2	Livelihood Support Cost Estimate	12-5
Table 15-1	Summary Table of Affected Property Holders and Property	15-1
Table 15-2	Compensation Price Rates	15-2
Table 15-3	Special Assistance for Vulnerables	15-3
Table 15-4	Breakdown on cost of relocating graves.....	15-3
Table 15-5	Livelihood Support Cost Estimate	15-3
Table 15-6	Summary Table of Properties / Assets Affected and Costs	15-4
Table 16-1	LNIP Monitoring and Evaluation Indicators	16-3

LIST OF FIGURES

Figure 2-1	General location and development area (adopted from ISC Report of June 2017) ...	2-2
Figure 2-2	Project Location on 1:50,000 Topo Map.....	2-3
Figure 2-3	Layout of Irrigation Blocks	2-5
Figure 2-4	Irrigation and Dykes Infrastructure for RAP Study.....	2-6
Figure 2-5	Area / Infrastructure under RAP I	2-12
Figure 2-6	Administrative map of the Project Area	2-13
Figure 5-1	Procedure for Land Acquisition.....	5-8
Figure 7-1	Energy Use Distribution on Lighting and Cooking in RAP I Project Area	7-3
Figure 7-2	Road conditions in Phase I Area.....	7-4
Figure 7-3	Age distribution of household heads	7-8
Figure 7-4	Gender distribution of household heads	7-9
Figure 7-5	Marital Status of Household Heads	7-9
Figure 7-6	Sanitation Coverage in RAP I Area	7-13
Figure 7-7	Food sufficiency at Household Level	7-18
Figure 7-8	Alternative Food Sources for Households.....	7-18
Figure 7-9	Project Awareness and Source of Project Information	7-21
Figure 13-1	Flowchart of the Proposed Grievance Redress / Resolution Mechanism	13-7
Figure 14-1	RAP I Implementation Schedule.....	14-2

LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AMREF	African Medical and Research Foundation
AP	Administrative Police
ASDSP	Agriculture Sector Development Support Program
CEC	County Executive Committee
CHC	Community Health Committee
CIDP	County Integrated Development Plan
CoK	Constitution of Kenya
DCC	Deputy County Commissioner
ECD	Early Childhood Development
ESIA	Environmental Social Impact Assessment
FFS	Farmers' Field Schools
FGD	Focused Group Discussion
GoK	Government of Kenya
GPS	Global Positioning System
HH	Household
HIV	Human Immunodeficiency Virus
IFC	International Finance Corporation
IFMS	Improvement of Flood Mitigation Structures
ISC	Implementation Support Consultants
IWUA	Irrigation Water Users Association
KDHS	Kenya Demographic and Health Survey
KFS	Kenya Forest Service
KfW	Kreditanstalt Fur Wiederaufbau (Reconstruction Credit Institute)
KIHBS	Kenya Integrated Household Budget Survey
KNBS	Kenya National Bureau of Statistics
KSH	Kenya Shillings
KWFT	Kenya Women Finance Trust
KWSCR	Kenya Water Security and Climate Resilience Project
LLGC	Location Level Grievances Committee
LNIP	Lower Nzoia Irrigation Development Project
LNP	Lower Nzoia Project
LRCC	Location Resettlement and Compensation Committee
MACEPA	Malaria Coordination, Education and Partnership in Africa
MOWI	Ministry of Water and Irrigation
NFPS	Nzoia Flood Protection Structures
NGO	Non-governmental Organization
NIB	National Irrigation Board
NLC	National Land Commission
NRC	NIB Resettlement Committee
OVC	Orphans and Vulnerable Children
PAH	Project Affected Household
PAP	Project Affected Person
PIU	Project Implementation Unit
PMU	Project Management Unit
PWD	Persons With Disabilities
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SACCO	Savings And Credit Corporative Organization
SCRCC	Sub-County Resettlement and Compensation Committee
TOR	Terms of Reference
USAID	United States Agency for International Development
USD	U.S. Dollar
WB	World Bank
RAPIC-	Resettlement Action Plane Implementation Committee

1 EXECUTIVE SUMMARY

1.1 Introduction

1.1.1 Authority of the Report

This Final Reviewed and Updated RAP I report has been prepared in compliance with Section V (7) of the Terms of Reference (TOR) for *Consultancy Services for Review and Update of Resettlement Action Plan (RAP) for Lower Nzoia Irrigation Project (LNIP-I) and Nzoia Flood Protection Structures (NFPS) Tender No. MOWI/KWSCR-1/006/2016-2017* dated 27 March 2017 between **Ministry of Water and Irrigation (MOWI)- Kenya Water Security and Climate Resilience Project- Phase I (KWSCR-I) and the Consultant, GEDO Associates Ltd.**

This report is one of the three RAP reports that have been prepared in line with recommendation from the Client. The three separate reports cover different parts of the project area as follows:

- **RAP I Report** Nzoia Intake area to Head Works Canal / Regulator;
- **RAP II Report** Southern and Northern Dykes;
- **RAP III Report** Blocks 1 – 14 (Irrigation areas).

A copy of the e-mail letter directing separation of the reports is presented in Appendix 1.1.

This final report has taken into consideration comments received from the Client, World Bank and KfW on the revised RAPs 1 and 2 Draft Reports. The responses to the comments are presented in Appendix 1.2 of this report.

1.1.2 Background of the Assignment

Prior to the preparation of this RAP Report, there existed two Resettlement Action Plan reports, one for Lower Nzoia Irrigation Project prepared by Panafcon Ltd in 2013 and 2015 and the other for Nzoia Dykes prepared by Tech Training and Research Ltd in 2015. The two reports were based on detailed design documents prepared by different consultants.

The reasons for review and update of the two reports are:

1. Likelihoods that the designs for the projects would change based on the design review action that was to be undertaken by the **Implementation Support Consultant (ISC)** for the LNIP project. The Consultant was expected to conduct a final review of the design and provide recommendations (*reviews completed in June 2017 by ISC Consultant and outputs used in this RAP Study*).
2. The fact that over 3 years had elapsed since the RAP reports were prepared without implementation, in essence meaning that the socio-economic baseline situation, census and assets valued in 2013 would certainly be different (*new census and socio-economic surveys and asset inventory and valuation carried out in this RAP Study*).
3. The initial LNIP RAP report did not include the irrigation drainage canals (*now included*).
4. The need to merge the LNIP with the Nzoia dykes project into a single project and a single RAP due to the envisaged overlap in project implementation area and likelihood of the same PAPs being enumerated in both project sites (*this has been addressed in this report*).

The review and updating of the RAPs entailed verification and updating of the census of the

Project Affected Persons (PAPs) identified as per the earlier declared cut-off date, the affected assets, the socio-economic baseline data of the PAPs, the scope and the magnitude of the social impacts borne by the PAPs and design of an appropriate resettlement action plan that will provide social safeguard and compensation measures to effectively remedy the impacts of involuntary resettlement on the livelihoods of the PAPs.

This RAP I Report, just like the other two reports, presents a review and update of the previous RAP report prepared by Tech Training and Research Ltd (Draft RAP Report on Flood Mitigation Structures along Lower Banks of River Nzoia - Dykes Construction, April 2015).

The review and update has been further based on final designs of the Lower Nzoia Irrigation Project, LNIP and the Nzoia Flood Protection Structures prepared by the Implementation Support Consultants (ISC) lead by Lahmeyer International Consultants dated June 2017.

The Census and Asset Inventory Surveys for all PAPs were carried out from 6 May - 1 August 2017 and Baseline Socio-Economic Survey from 5 – 19 July 2017 within the affected areas from above the intake area up to the tail end of the project in Mabinju sub-location on the shores of Lake Victoria.

1.2 Description of the Project

1.2.1 Irrigation Area

The gross command area of LNIP-1 is around 5,800 ha excluding swamp area and the net irrigation area is 4,075 ha divided into 14 irrigation blocks (Blocks 1-14). The existing Bunyala Pump Irrigation Scheme developed in the late sixties is included within the project area and will be rehabilitated.

1.2.2 Lower Nzoia Irrigation Project Phase I Component

LNIP-1 has been identified as the first investment for financing under the KWSCRPI contributing to the productive use of water that serves climate resilience objectives.

LNIP 1 activities include:

- 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. The weir location has been proposed at a point about 4km upstream of the Nzoia Bridge;
- 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- 3,622ha on right bank);
- Rehabilitation/modification of the Bunyala Irrigation Schemes;
- Provision of agricultural support and value chain services to the project farmers;
- Enhancement of institutional capacity for effective service provision and scheme management by NIB and farmers' organizations;
- Capacity Building of NIB staff, farmers and farmers' organizations; and
- Project management including provisions for M&E, environmental and social safeguards.

1.2.3 Nzoia Flood Protection Structures Component

The Nzoia Flood Protection Structures entail improvement and realignment of the existing flood protection structures, which comprises of two dykes - Southern and Northern – each approximately 17km). The existing dykes were constructed in 1970s and the local community has since then settled within the vicinity of the dykes.

1.3 Beneficiaries of the Lower Nzoia Project

The investment in the Lower Nzoia Irrigation Project is expected to directly benefit over 20,000 people (2,100 households), including smallholder farmers who are currently engaged in rain-fed subsistence agriculture (primarily maize and beans) and livestock rearing. Another estimated 50,000 people are expected to benefit through linkages to the scheme activities and outputs. In addition, the economy of local sub-counties would be enhanced by irrigated agriculture.

1.4 Objectives of the RAP

As per the TOR in Section 7, the objectives of the RAP review and update are:

- a) To review and update the project's existing RAP, in order to enhance compliance with the applicable Government of Kenya Laws and the relevant World Bank policies, standards and guidelines. Specifically, reference should be made to the World Bank operation policy 4.12 on Involuntary Resettlement and where the Lender's standards are confirmed to hold a wider scope than the national provisions, the former are expected to take precedence and the RAP is required to provide accordingly.
 - b) To verify, review, and, update the census survey undertaken to ensure that all potential PAPs eligible as per the cutoff date and the involuntary resettlement impacts of the proposed project are identified and appropriate measures to remedy resettlement effects and safeguard livelihoods are recommended.
 - c) To undertake socio-economic survey of the PAPs and ensure that baseline data are generated for the purposes of monitoring and evaluation during the project implementation period.
 - d) To verify and update the asset inventory survey and ensure that all potential assets that will be affected by the proposed project are enumerated, valued and costed.
 - e) To map out the affected properties (structures, crops, trees, fences) using the GPS with an accuracy of 1 metre in UTM Coordinate System
 - f) To verify compliance with the Bank's Involuntary Resettlement Policies and any other laws on relocation and resettlement regulations that govern the infrastructural development sector
 - g) To provide guidelines/strategies to enhance stakeholders and PAPs participation in identification, implementation and monitoring of processes to minimize resettlement impacts of the project. The guidelines will include a stakeholder management framework (stakeholder analysis, stakeholder matrix and communication plan) for the management of stakeholder activities through the project cycle.
 - h) To recommend cost effective and sustainable measures to be implemented to restore and enhance the livelihoods of the vulnerable affected people.
 - i) To prepare a revised Resettlement Action Plan (RAP) report compliant with Government of Kenya (GoK) regulations and the Bank's policies, standards and guidelines.
-

1.5 Scope of the RAP

The scope of the RAP as per TOR included the following:

- Description of the project;

- Review and update of the legislative and regulatory framework;
- Census and socio-economic survey studies;
- Public participation, consultation and communication;
- Impacts of the project;
- Valuation and compensation for losses;
- Determination of eligibility;
- Proposals for resettlement measures and entitlement matrix;
- Grievance redress procedures;
- Institutional arrangements;
- Measures for monitoring and evaluation;
- Preparation of an implementation schedule;
- Resettlement cost estimate and RAP budget.

The RAP reports have been prepared based on the guiding principles detailed in the RPF for KWSCR for involuntary resettlement. The main objective of the RAP is to minimize the adverse impacts to project affected persons (PAPs) and enhance or at least restore their livelihood to that of the pre-project level. The RAP includes the institutional arrangements, schedules, the budgets to facilitate compensation & resettlement and grievance redress mechanism that will be followed to address any grievances/complaints arising from the project.

1.6 Project Infrastructure that are going to affect Property and Cause Displacement

The irrigation infrastructure works will require substantive acquisition of land to enable its implementation. The area under RAP list the uppermost section of the Lower Nzoia Project and comprises the following:

- Backflow area upstream of the intake weir;
- Area around the intake and Connecting Canal;
- Head works Canal up to the Sand Trap / Head works Regulator.

Table 1-1 shows the extents of the RAP I components above necessitating resettlement / acquisition of land.

Table 1-1 Extents of RAP I Components

Affected Area	Length (Km)
Intake Weir / Reach of the Backflow	5
Connecting Canal, CC	0.145
Head works canal, HWC	2.78
Total length (reach and canals)	7.925

1.7 Socio-economic Study and Findings

1.7.1 Socio-economic study / survey

The socio-economic survey was conducted between 6 – 19 July 2017 for the whole project starting with RAP I area using household questionnaires which consisted of questions divided into sections on household characteristic, economic activities, social amenities including infrastructure, education, health characteristics, land ownership and utilization and beneficiary

participation. The socio-economic survey sampled 94 out of a projected population of 239 PAPs within the project corridor, which is about 44 %.

1.7.2 Socio-economic study findings

Some of the findings from the Socio-economic study are as follows:

- The RAP I area is located in Ligea, Ambira and Umala Sub Locations of Ugunja Sub-county in Siaya County. The estimated total population is 17,859 (male 8,361 and female 9,498) and 4,118 households as per 2012 population projections from the 2009 census);
- The area has fair to good social amenities and infrastructure comprising roads, security, communication, energy, market centres, etc;
- Poverty level is taken as that of Siaya County, which is around 48% (County Integrated Development Plan 2013 - 2017) and higher than the national average of 34 per cent, hence considered as high;
- The causes of poverty in these areas are diverse and include poor soil fertility leading to low farm yields, low income among households to afford farm inputs, over-reliance on traditional methods of farming and lack of alternative sources of income;
- The survey revealed that some households had more than one vulnerable person comprising of elderly (over 65 years of age – 38%), people physical or mental disabilities (12%), orphans (45%), chronically ill (15%) and HIV/Aids (20%);
- It was noted that affected households include female household heads which make up 43% of those interviewed. These include widows who form the larger group in this category of female household heads while the others are separated or single women. The widows are considered as vulnerable persons and will need special attention.
- The average population in the area are educated with most having received basic education of certificate in primary education and above and it was clear from meetings that they have capacity to interrogate information given and even how it affects and serves the people and this can be attributed to the level of education.
- There exists a health facility in each of the Sub Locations and within reasonable proximity (< 5 Km). Most common disease is malaria (93%) followed by other water borne diseases (31%) which include Diarrhoea, Typhoid, Cholera and Amoeba calling for measures to ensure water treatment combined with sanitation improvements.
- HIV/AIDS is at 20% and is a major challenge as it is appreciably higher than the national prevalence of 6.2% (rate in Siaya County is 17.8%). HIV/AIDS pandemic over burdens the household economy and the health services providers. In the RAP process those affected will need extra assistance especially if they relocate to make sure that they continue to access care and treatment therapy.
- There exists poor nutrition in the area and there is an outreach program by the Community Health Volunteers/Health Committees in collaboration with AMREF which provides food/nutrition supplements to affected children. According to the latest KDHS report (2008-09), 34% of children below 5 years of age in Western region, including Siaya are food poor due to poverty and inadequate food particularly for children;
- In the study it was revealed that those with access to clean water draw it from a either a borehole, tap or water tank and form 38.3% (wet season) and 24.4% (dry season). The rest use surface water which is not safe for domestic use and this may be a cause for the already common water related diseases;
- About 20% of the households do not have access to sanitation facilities and there exists open defecation and this poses a health risk that affects all in the community. The main type of sanitation facility at the household levels is pit latrines at 77%.
- Land tenure - land is individually owned and about 98.9% of land is inherited and quite a number of title deeds remain in the deceased's name because succession has not been done and most people (88.9%) have not taken the initiative to register their land and claimed that registration is expensive. Land sizes average 1-2 acres and even smaller due to sub-division;
- In most cases land is used for settlement, crop and livestock farming. Crop farming / agriculture is at subsistence level. Both food and cash crops are cultivated;

- Land Ownership - The communities are primarily patrilineal and therefore the men own land and inheritance of any form of property is clearly defined along male lines of descendants. The man is the households' head and owns the land. From a cultural stand point a woman does not own land and may not inherit land even when the husband is deceased;
- There are 35 project affected widows who may be disenfranchised during this RAP as underscored during FGD. In mitigation these will be given special consideration during land adjudication and compensation processes;
- The main source of income for most respondents (87.1%) is crop farming, which is mainly practiced under rain-fed conditions, which at times is low and unreliable. Use of certified seeds, fertilizer and farm inputs is rare. Crop production is however expected to improve with the introduction of irrigation and new farming technologies;
- Other income sources include livestock, fishing, formal and informal employment, business, remittances, pensions, etc.
- Household income averages Ksh 14,592 per month (USD142 per month or USD4.7 per day) and mainly from those in formal employment, business and casual labour;
- There exists food insecurity at the household level as farmers are unable to produce enough under rain-fed conditions due to the unpredictable weather patterns and from the interviews most household expenses are high on food as the harvest is not adequate to meet household food security needs. Successful irrigated farming will increase food production.
- Gender Analysis - women have access to family property and perform management roles with no control of the proceeds and men have decision making power and own as well as control land which is a main resource under this project and is also critical under the RAP process. Culturally women do not own land but have access to it for food production. Women do not claim ownership to land within the family and the male youths can only own land when they have started their own family;
- Project Awareness Levels at Household Level - From the interviews and FGD discussions, It emerged that 95.7% of respondents were aware of the proposed LNIP project and over 90.8% support it;
- Positive Benefits of the Project - Over 74% indicated that the project will provide water for irrigation and domestic use, improved agriculture, food security, and maximum land utilization which is desirable;
- Negative effects of the Project - Respondents expressed that the project will have some negative effects such as division/loss of land and/or property, relocation / loss of homes, deforestation and interference with the ecosystem, exposure to danger / diseases, noise and soil pollution, among others. They made suggestions on possible mitigation measures and these are presented in Section 7.2.12 of this report;
- The PAPs expressed anxiety and proposed measures that would cushion them from project effects:
 - The project affected persons requiring relocation would not wish to move too far from the current homestead.
 - Affected persons should be adequately compensated and given time to relocate.
 - Measures should be put in place to assist farmers market their produce.
- The project has taken too long to implement. Project area community is waiting to reap the benefits of the project;

1.8 Census Study and Findings

1.8.1 Census study / survey

The census survey was carried out within RAP I Area starting with the Connecting and Head works Canal from 8 -14 May 2017, and the Backflow Area from 26 – 27 June 2017. The census was carried out in close collaboration with the project area administration and affected

communities and a lot of consultations were done (See Minutes and Lists of Attendance in Appendix 3).

The census involved field visits and interviews at each homestead and household that was found within the project infrastructure way leaves corridors to identify the owners and size of the affected land, type and size of affected structures and type, size and number of affected trees, crops, and special assets such as graves as well as affected businesses.

The census data of each of the affected households was collected using a semi-structured household questionnaire pertaining to *land ownership details including verification of ownership documents, demographic data of households, affected assets and other structures, compensation preferences, vulnerable groups e.g. the disabled, widows, and aged, Orphan and Vulnerable Children (OVCs), female headed households and cultural aspects, among other details using the census tool*. In addition, identification and enumeration of community and institutional assets and infrastructures, both private and public, were recorded for purposes of compensation, and / or relocation.

1.8.2 Census Findings

Data collected from the field was analyzed and the following have been established, among others:

- Persons affected by the project (PAPs);
- Total Land affected;
- Parcel numbers affected;
- Natural resources affected;
- Identification of Vulnerable PAPs e.g. the disabled, widows, aged, Orphan and Vulnerable Children (OVCs) among others.
- Details of affected structures and other assets;
- Compensation preferences.

The analyzed census data collected is presented in form of a Census Roll in Appendix 6.1 of this report.

From the census, the numbers of affected PAPs / property holders and related affected properties have been established and this is summarized in Table 1-2.

From the table, the number of PAPS / property holders is 239. The affected PAP population is 943 persons, out of which there are 292 Vulnerable Persons in 121 households.

The affected properties include land, structures, trees and crops and special assets (graves). No businesses and public land or assets have been affected as indicated in the table.

The affected land area is 57 ha (142 acres) and there are 29 PAPs losing both land and structures.

Table 1-2 Summary Table of Affected Property Holders and Property

No.	Items	Number	
A	Affected Population		
	Total No. of Affected Property Holders (Individuals, Households and Institutions)	239	
	PAP Population	Total	943
		Adults	Male 316
			Female 217
		Children	Male 153
			Female 101
		Not classified (adults or children)	Male 95
			Female 61
	Vulnerable Group of Persons	Affected households	121
		Elderly / Aged	58
		Mentally Challenged	22
		Orphans	58
		Physically Challenged	21
		Chronically ill or Sick (Asthmatic, Epileptic, Sickle Cell Anemia, etc)	49
		Sick (HIV Positive)	31
		Widowed	35
	Permanently displaced PAPs		11
B	Affected Land		
	Total Number of Affected Land Parcels	220	
	Land Parcels Belonging to Individual Land Owners	220	
	Schools/College	0	
	County Governments	0	
	Churches	0	
	Community Land	0	
	Total Land Size to be Acquired for LNIDP Phase 2	56.6 ha / 141 acres	
C	Affected Structures		
	Total No. of Households with Affected Structures	29	
	Total No. of Affected Structures	86	
D	Affected trees and crops		
	Total No. of Households with Affected Trees	100	
	Trees for wood products (Acacia, Eucalyptus, Pine, Gravellia, Cypress, Ober', 'Ciala, etc) and Fruit trees (Mango, Avocado, , Guava, Paw, etc')	3,839	
	Total No. of Households with Affected Crops	6	
	Total No. of Affected Crops	Various crops	
E	Affected Business		
	Total No. of Households with Affected Business	0	
	Total no. of Affected Businesses	0	
	Total Value of Affected Business	0	
F	Graves		
	Total No. of Households with Affected Graves	1	
	Total No. of Affected Graves	2	

The vulnerable persons affected by the Project are people who by virtue of gender, cultural practices, age, physical or mental disability, economic disadvantage or social status may be more adversely affected by resettlement than others and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits. It is necessary to have their numbers in order to make sure that during compensation they are represented and their plight is not neglected. The grievances address committee will deliberately have their issues represented adequately during compensation.

The Vulnerable households are eligible for transitional assistance of **Kshs. 100,000/-** per household under the RAP because they have special needs. The amount takes care of land preparation, training and credit, counselling, social care and building social networks for the vulnerables. In addition, the widows will need extra support in terms of land succession making sure they are not disinherited.

1.9 Stakeholder and PAP Consultation Meetings

Stakeholder and PAP consultation meetings were held within the Project area from 27 April - 15 May 2017. The stakeholder and PAP Consultation meetings included the following:

- Courtesy calls and introductory meetings at the county and sub-county offices;
- Stakeholders meeting with local administration and opinion leaders;
- Community Introductory and Sensitization Meetings;
- Progress meeting with Location Chiefs within the area;
- Consultation meetings with affected PAPs for Establishment of Sub- locational and Locational Resettlement Compensation Committees.

A summary of the above are presented below:

1.9.1 Courtesy Calls

A courtesy call was made to Siaya County on 25 April at the inception stage. During the courtesy call meeting, the Client gave a brief background of the Lower Nzoia Irrigation Project (LNIP) and the Nzoia Flood Protection Structures and then introduced GEDO Associates Ltd, the RAP Consultant that was tasked with the review and update the Resettlement Action Plans for the Irrigation and Drainage System and the Nzoia Flood Protection Structures. Details of the meetings were presented in the Inception Report of May 2017.

1.9.2 Stakeholders' Meeting with local administration and opinion leaders

A stakeholders' meeting for entire project area was convened on 27 April 2017 at Urunga Good Samaritan Centre with the local administration (Assistant County Commissioner, Chiefs and assistant Chiefs) and Block farmers' representatives. This meeting was crucial for the Client, as represented by Ms Nyawira of NIB, to introduce the Consultant's team. Leaders agreed and committed to participate in the RAP process and a community sensitization meeting's program was drawn. The leaders conducted the mobilization and meetings were conducted as per the program.

1.9.3 Community Introductory and Sensitization Meetings

Community Introductory and Sensitization meeting was held at the intake and reservoir areas on the right and left river banks. During the introductory meetings, the RAP Consultant Team was introduced by the host local administration after which the Consultant gave a brief background of the Project and informed the participants that GEDO Associates Ltd had been contracted by Ministry of Water and Irrigation to carry out a Review and Update of the Resettlement Action Plans for The Lower Nzoia Irrigation Project (LNIP) and the Nzoia Flood Protection Structures (NFPS) prepared between 2013 – 2015.

The Consultant outlined the activities that would be undertaken during the field work at this stage as follows:

- Determination and acquisition of the canal corridor, both on the left hand and right bank referred to as (Southern and Northern Backflow area, SBF and NBF respectively).
- Survey and marking of the infrastructure;

- Identification of Persons Affected By project Census and Socioeconomic baseline survey of PAPs;
- Valuation of affected assets;
- PAPs sensitization meetings;
- Formation of Grievances and Dispute resolution Committees.

The Consultant underscored the need for the community to co-operate with the Consultants' Team, locally recruited enumerators, village elders and IWUA /farmers' representatives during the data collection. In addition, the community was informed about the RAP coverage and it was explained this exercise would start from the backflow area then to the intake weir followed by the connecting and head works canal up to the sand trap / head regulator(See Minutes and Attendance List in appendix 3).

Table 1-3 Schedule of community Introductory and Sensitization Meeting

No.	Date of Meeting	Venue of Meeting	Purpose
1	15/5/2017	Ligega Sub Location Assistant Chief's Office (Northern Backflow)	Introducing the irrigation project and inviting those within the back flow area to be part of the project and actively participate in all subsequent project activities.
2	15/5/2017	Umala and Ambira at the Backflow site (Southern Backflow)	

1.9.4 Progress Meeting with Locational Chiefs

Further meetings were arranged with the Location Chiefs and these were consultations on the progress of the assignment and also to engage in deeper discussion on economic, social and cultural issues of respective community. Two of these meetings were held in RAP I area as indicated in Table 1-4 below.

Table 1-4 Meetings with Locational Chiefs

No.	Date	Venue	Location and Block
1	6/7/2017	Chiefs Office Ligega	Right Bank at Back flow (reservoir) and Intake area
2	6/7/2017	Chief' Office Central Ugenya	Left Bank at Back flow (reservoir) and Intake area

1.9.5 Consultation Meeting for Establishment of Sub- Locational and Location Resettlement Compensation Committees.

Additional meetings were held in July with PAPs at sub-location and location levels which resulted in the formation of Sub-location and Location Resettlement and Compensation Committees within the RAP I area. The committees are to address all grievances and disputes related to resettlement and compensation. The committee members were elected from among the PAPs. The schedule of the meetings is given in Table1-5.

Table 1-5 Schedule of Meetings with the Local Leadership

Date	Administrative location	Venue
July 21, 2017	West Alego Umala&bAmbira	Rabar dispensary grounds Nzoia Market
July 22, 2017	Ligega	Reservoir Site

1.10 Cut-off-Date

The entitlement cut-off date was set as 3 May 2017 and was communicated to the PAPs during the consultative forums and the date was formally adopted by all the PAPs. The date established a deadline for entitlement to compensation for those eligible and listed because the LNIP-1 and NFPS is to acquire land, assets, trees, crops and structures within the infrastructure area. Any new development or structures put up by the PAPs on the surveyed project infrastructure corridor after the entitlement cut-off date are not eligible for resettlement assistance and compensation. This was because this exercise was an update of the RAPs that were undertaken in 2013 and 2015 and that is why it was undertaken at the beginning of census.

1.11 Resettlement Policy and Entitlements

The study has been conducted in accordance with all the relevant legislation pertaining to Land Act 2012, Land Registration Act 2012, National Land Commission Act, 2012 as well as the World Bank Involuntary Resettlement Policy (OP 4.12), among others, as outlined in Section 5 of this report.

The evictions and Resettlement Bill has been forwarded to the Attorney General for Publication. The bill touches on involuntary evictions, compensation and resettlement. The Kenyan land laws and the Constitution of Kenya (CoK) recommends that there should be just compensation to those affected but it is not clear on specifics of what constitutes just compensation. World Bank OP.4.12 recommends full replacement costs. This RAP study has recommended full replacement cost for land and structures at current market rates.

World Bank Safeguard Policies relating to Relocation and Resettlement

Relevant World Bank Safeguard Policies have also been reviewed. The Project has been assessed and considerations made on how the legislations and policies are triggered.

Involuntary Resettlement: OP/BP 4.12

The Bank's Operational Policy 4.12: Involuntary Resettlement is triggered by the project since the Irrigation Project and the Flood Protection Structures will take up land, affect residential houses, other structures and trees.

1.12 PAPs Concerns

During the census and socio-economic study, project affected person (PAPs) were concerned that the irrigation infrastructure is going to disturb the social relations and interactions. The project activities are going to impact, to some extent, communication and movement among the PAPs as a result of the canal infrastructure.

There may be limited movement within communities and between communities and access to some social and public facilities. Access to Nzoia River, which is a source of water for household use as well as fisheries and livestock, will be hindered.

However, to mitigate these impacts, the project design has included footpaths, bridges and steps to ensure easy access between affected neighbourhoods and communities as well as continuous access to water for affected households and livestock. Watering points for domestic animals have also been provided for along the canal at regular intervals.

1.13 Summary of Project Impacts and Mitigation Measures

As already mentioned, the project activities are going to cause impacts that can be mitigated. A summary of the potential project impacts and mitigation measures are outlined in Table 1-9 and include the following.

- Loss of land;
- Loss of crops;
- Loss of trees;
- Loss of residential structures;
- Impact on graves.
- **Impact on Vulnerable persons**

This report proposes compensation for loss of all the above property and assets at full replacement costs.

Table 1-6 Project Impacts and Mitigations

#	Affected Population	Affected Property	Impacts	Mitigation
1.	Individuals resident within the project corridor	Residential Houses, Sanitary facilities and other structures	<ul style="list-style-type: none"> • 943 (Male-564, Female- 379) displaced by the project • Loss of 86 structures including pit latrines and fences. 	<ul style="list-style-type: none"> • Sensitisation • Compensation and resettlement
2.	Individuals with land along canal wayleave,	Land only	<ul style="list-style-type: none"> • Acquisition of 220 parcels of land 	<ul style="list-style-type: none"> • Sensitisation • Compensation and resettlement at full replacement cost
4.	Individuals	Trees for timber (Eucalyptus, Pine, Cypress, Euphorbia, Avocado, , Jacaranda, Graviella, "Ciala", "Ober", "Ng'owo", "Murende", Grevillea etc) Fruit trees (Mango, Guava, avacado,bananas).	<ul style="list-style-type: none"> • Loss of Trees. • 3,839 Trees Affected 	<ul style="list-style-type: none"> • Sensitisation and encouragement to replace the lost trees • Compensation • Support re-afforestation of farm forestry initiatives
5.	Individual farmers	Subsistence farms with crops and livestock	<ul style="list-style-type: none"> • Disruption of regular subsistence farming and keeping of livestock 	<ul style="list-style-type: none"> • Compensation and resettlement • Education on good farming techniques • Sensitisation on Zero Grazing and keeping of productive livestock
6	Individual Subsistence farmers	Perennial crops	<ul style="list-style-type: none"> • Loss of crops • Various crops are affected including(cassava,sweet potatoes,maize, pineapple heads) 	<ul style="list-style-type: none"> • Compensation for perennial crops • Ample notice to allow for harvest of any seasonal crop in the field during compensation.
6.	Individuals at household level	Graves	<ul style="list-style-type: none"> • 2 graves 	<ul style="list-style-type: none"> • Compensation and relocation of the graves
7.	Vulnerable groups (Widows,, Mentally Challenged, Elderly, Sick & Bedridden and Orphaned	Land, structures, Trees, Crops and Livelihoods	<ul style="list-style-type: none"> • 121 vulnerable Households are affected • 292 vulnerable affected • Challenges with adjusting to changes and new environment • Exposure to unfair treatment by other community members • Limited ability to fend for themselves 	<ul style="list-style-type: none"> • Livelihood restoration options(transitional support, agricultural capacity enhancement, employment). Refer to Section 12.

1.14 Eligibility Criteria for Compensation

In line with O P 4.12, displaced persons may be classified in one of the following three groups:

- (a) Those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country)
- (b) Those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan
- (c) Those who have no recognizable legal right or claim to the land they are occupying

Majority (88.9%) of the PAPs fall under category (b) and (c) while 11.1 % of the PAPs fall under category (a).

1.15 Valuation, Compensation and Entitlement Matrix

1.15.1 Valuation of Assets

The assets affected by the proposed project have been categorised as Land, Structures, Trees, Crops and Specialized assets which have been valued on the basis of their net current realisable market value for compensation purposes:

- The value of land has been determined using the full replacement cost;
- Structure values have been determined using full replacement cost;
- The values of trees have been guided by Kenya Forest Service (KFS) and prevailing market value in the local market;
- The valuation of crops have been guided by schedules prepared by State Department of Agriculture for various types and age but considering level of management;
- Valuation for loss of regular income- as part of income restoration, compensation is to be paid to the business PAPs a total amount equivalent to **6 months** income.
- Specialized assets – Mainly graves @ Kshs 150,000 each. Refer to Section 15.3.3 for a breakdown of the figure.
- Special assistance to the Vulnerable Households set at Kshs.100,000per household.

1.15.2 Entitlement Matrix

The census survey has provided data that enables the RAP study team to identify the project affected persons (PAPs), Land, Assets, resources and businesses/livelihood that are going to be affected by the project. The values of the land and affected assets have also been determined. These have been listed in the Entitlement Matrix Table below.

Table 1-7 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. • Sensitisation/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 customary or legal acquisitions	<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 compensation paid for the acquired portion at full replacement cost. • Sensitisation 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	<ul style="list-style-type: none"> • Loss of land for grazing livestock therefore affecting livelihood. 	<ul style="list-style-type: none"> • Sensitisation/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

No.	Types Of Loss	Property Type/Use	Entitled Person	Type of Impact	Restorative Compensation
			Allotments through customary or legal acquisitions		if it is not fully acquired. <ul style="list-style-type: none"> Disturbance allowance is 15% of the land value.
2.	Structures	Residential Houses,	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 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
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 Sensitisation and Education of PAPs on restoration through replanting
5	<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.
6	<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 	<ul style="list-style-type: none"> Psychological effect Not able to take care of themselves due to the status 	<ul style="list-style-type: none"> All vulnerable PAHs entitled to livelihood restoration support as defined in Section 12.

No.	Types Of Loss	Property Type/Use	Entitled Person	Type of Impact	Restorative Compensation
			be permanently displaced.	in society	

1.16 Minimising Resettlement Costs

The detailed design by Lahmeyer International / GFA Consultants and Quadrant Consulting Engineers of June 2017 has been made to align the canals so as to avoid or minimize relocation and resettlement and reduce disturbances arising from the project in line with the World Bank OP 4.12. The other steps that have been taken to reduce project impact include:

- The final design includes bridges, pathways, steps and watering point to ensure continuous access between and within communities, and access to the river for both domestic use, livestock watering, sand harvesters and fisheries operations.
 - Roads have been included alongside the canals (Main and Secondary Canals) to limit social disturbances and destruction of the environment.
 - All those that shall be affected by the project will be fully compensated before project commencement.
 - PAPs that will be required to relocate will be given adequate notice (3 months) to ensure they construct new houses and effect smooth relocation and vulnerable PAPs will be given an option of constructing houses on their own or being constructed for as they so wish.
-

1.17 Institutional Framework for RAP Implementation

The LNIP- 1 and the Nzoia Flood Protection Structures Project is being implemented by Kenya Water Security and Climate Resilience Project (KWSCR) in collaboration with National Irrigation Board (NIB) through the Ministry of Water and Irrigation (MOWI).

The Ministry of Water and Irrigation will mobilize funds from GoK for implementation of RAP (Compensation and Resettlement of PAPs). The overall responsibility of compensation and resettlement rests with the project sponsor, the Government of Kenya through the Ministry of Water and Irrigation and Kenya Water Security and Climate Resilience Project (KWSCR - PMU) / National Irrigation Board (NIB - PMU) will oversee its implementation. The National Land Commission (NLC) has been established and operational. They will be responsible for actual implementation of compensation payment to the PAPs during the settlement of displaced persons as one of their main mandates.

1.17.1 Sub-county Resettlement and Compensation Committees (SCRCCs)

The SCRCCs will not engage in land acquisition or compensation as this remains the prerogative of the NIB. Each of the 2 Sub-Counties affected by LNIP will constitute a SCRCC. PMU will help constitute the SCRCC with the Land Offices at the Sub-County level which will be chaired by the Deputy County Commissioner (DCC). SCRCC will help NLC / PMU / NIB carry out their mandates efficiently; particularly ensuring effective communication between NLC with the affected communities. Members to SCRCC will include representation from the following agencies:

- The Sub-County Administration representative, who in this case will be the Deputy County Commissioner and will provide the much-needed community mobilization, and support the project in the process of resettlement. The DCC will chair respective SCRCCs in each respective Sub-County;
- A representative of PMU as the implementing agency implementing the Lower Nzoia Irrigation Project;
- Sub-County Land Survey Officer to help with survey works and demarcation of land to be acquired;
- A representative from County Government at the Sub-County level;

- PAPs representative introduced by the Location Resettlement and Compensation Committee – act as voice for the PAPs. Each of the 2 locations will elect 2 PAP representatives (male and female) to be part of the 2 SCRCCs;
- NGOs and CBOs locally active in relevant fields to ensure PAPs are assisted throughout the RAP implementation and help with the livelihood restoration, information dissemination, among other things.

PAPs will elect their representative to SCRCC while the Sub-County Social and Gender Officer will identify an active NGO/CBO in the project area. The SCRCC will have the following specific responsibilities as regard implementation of the RAP:

- Ensuring effective flow of information between NLC, PMU and PAPs
- Coordinate Locational Resettlement and Compensation Committees (LRCCs);
- Validate inventories of PAPs and affected assets;
- Guide and monitor the implementation of relocation
- Coordinate activities between the various organizations involved in relocation
- Facilitate grievance and conflict resolution
- Assist with the livelihood restoration activities

1.17.2 Location Resettlement and Compensation Committees (LRCCs)

Locational Resettlement and Compensation Committees (LRCCs), based in each administrative location have been established and accepted. The LRCCs were constituted by the Consultant Team with the assistance of local administration from 21- 22 July 2017 within the RAP I Area. The LRCCs will work under guidance and coordination of SCRCC. Their membership comprise of the following:

- *The Chief, who is the Government administrative representative at the locational level and who deals with community disputes will represent the Government in LRCC*
- *Assistant Chiefs, who support the locational Chief and Government in managing local community disputes in village units, will form membership of the team.*
- *Female PAP, elected by women PAPs, will represent women and children related issues as regards resettlement and compensations*
- *Youth representative, elected by youths, will represent youth related concerns in the LRCCs*
- *Vulnerable persons representative, will deal and represent vulnerable persons issues in the LRCC.*
- *Representative of Irrigation Water Users Association (IWUA), if functional in that location.*

Memberships to LRCCs were elected by each category of PAPs except the Locational Chief and assistant chiefs who are automatic members of the team by virtue of their positions. Each LRCC elected their Chairpersons and a Secretary. The roles of LRCCs will include among others the following:

- *Conducting extensive public awareness and consultations with the affected people.*
- *Help ensure that local concerns raised by PAPs as regards resettlement and compensation among others are promptly addressed by relevant authorities*
- *Assist the effective working of RAP consultants in validation and updating of the RAP after the detailed design study is completed*
- *Resolve manageable disputes that may arise relating to resettlement and compensation process. If it is unable to resolve, help refer such grievances to the DRCC.*
- *Ensure that the concerns of vulnerable persons such as the disabled, widowed women, orphaned children affected by the sub project are addressed.*
- *Help the vulnerable during the compensation and restoration for their livelihoods*
Ensure that all the PAPs in their locality are informed about the content of the RAP

1.18 Grievance Redress

During the Elders FGDs, the study team probed on the appropriate proposals to compensation to avoid the occurrence of the noted problems during compensation, such as family feuds and conflict. Members agreed that the most appropriate method would be to go through the local administration in case the issue was not solved at family level.

The organization structure for conflict resolution that was discussed by the attendees is as follows.

- The chief was given the responsibility of summoning members with disputes and solving problems arising from compensation.
- The chief will receive the cheques of all members who have agreed to be compensated.
- For those who have not agreed on how to divide the money/ have other disputes, the money will be deposited in Escrow Account with National Land Commission.
- Depending on the agreement and solution reached upon by the conflicting family, the chief will write to the bank to advice on how to divide the money among the beneficiaries.

This pre-supposes that the area Chief will be tasked with the main administrative roles within the local grievance resolution mechanism.

The findings from the FGDs also raised suggestion that while the proposed grievance mechanism should be through the local administration, other members of the mechanism should include PAP representatives from all locations affected as well as local and external professionals.

The following grievance mechanism is proposed for the implementation of this RAP:

1.18.1 Level One: Local Committee

A Local Grievance Committee constituted of the following members has been formed at the local level:

- Chairman: Area MCA;
- Secretary: Area Chief;
- Ward Administrator;
- Village Elder where the grieving PAP comes from;
- Members: Four PAP representatives consisting of a man, a woman and a youth (18 to 30 years) and an elder.
- An elected PAP from amongst the representatives to act as the focal point.

This committee will sit at the office of the Ward Representative every two weeks. The following procedure is proposed:

1. A PAP registers a grievance and within one working day, the committee members are alerted of the case;
2. The affected person is immediately informed of the next date of the scheduled hearing. Depending on the case load, a maximum of 7 working days should be given between the date that a case is recorded and the date when the hearing is held;
3. The committee meets once every seven calendar days to deal with emerging cases. At these meetings, hearings with the affected persons and related witnesses will be held;
4. The committee will communicate its judgement to the affected persons within 3 working days;
5. If no resolution is met or the PAP is not satisfied with the judgement, the case is moved to the next level by the committee. This will be done within 5 working days of the hearing;
6. If the PAP is not satisfied with the judgement, he or she will be allowed to move the case to the next level.

1.18.2 Level Two: County Committee

Some grievances may require calls for witnesses, unbiased parties or technical evaluations prior to proposing a solution. Local mechanisms may not have the capacity to meet all these requirements and would therefore require some form of support.

A County Level Committee constituted of the following members is therefore proposed:

- Respected Opinion Leader in the Community such as a religious leader or a community elder elected by PAPs;
- A specifically delegated representative from NIB;
- A specifically delegated representative from Ministry of Water;
- A specifically delegated representative from KWSCR/PMU office;
- A representative of the County Government e.g. the Chief Officer Lands Ministry;
- Deputy County Commissioner (DCC);
- Members: three PAP representatives consisting of a man, a woman and a youth.
- An elected PAP from amongst the representatives to act as the focal point.

This committee will be chaired by the Opinion leader but the proposed secretary will be either the Sub-County Commissioner or his representative.

This committee may also invite an arbiter or qualified representatives from the Attorney General's Office at the County Level. Other specialists from the line ministries can also be invited to provide expert advice as the need arises. These may include officers from the MLHUD such as the District Lands Surveyor and / or the District Land Registrar.

This committee will sit once a month or as need be basis at the County Government Office.

The following procedure is proposed:

1. A grievance is forwarded from the Local Level Committee and logged at the County Government Office. This includes cases forwarded from the Local Committee Level;
2. Within five working days, a notice is sent out to all the interested parties informing them of the date of the hearing;
3. Prior to the hearing, the chairman and the secretary will determine the need for an arbitrator and invite them to the hearing;
4. A hearing will then be held within twenty days of the grievance being raised;
5. In cases where an arbitrator is required, the committee's ruling is final. The complainant should however be made aware of the fact early prior to commitment to the arbitration;
6. The ruling of the hearing should be communicated within 5 working days;
7. Disputes that cannot be resolved at this level should be forwarded by the committee to the next level within five working days.

1.18.3 Level Three: Project Committee

Some grievances may also occur that are outside of the direct control of the Resettlement Action Plan Implementation Committee (RAPIC) and would require intervention at national or county policy level. These include disputes that require policy interpretation or investigations prior to a conclusive resolution. In such cases, the RAPIC may require legal interpretation on certain aspects.

A Project Level Committee constituted of the following members is therefore proposed:

- Chairman: Chief Executive Lands Housing and Urban Development;
- Secretary: County Commissioner;
- A specifically delegated representative from KWSCR/PMU;
- A specifically delegated representative from National Lands Commission;
- Members: three PAP representatives consisting of a man, a woman and a youth.

This committee will sit once a quarter at the County Government Office. The following procedure is proposed:

1. A grievance is logged at the County Government Office and within five working days, a notice is sent out to all the interested parties informing them of the date of the hearing. This includes cases forwarded from the County Committee Level;
2. A hearing will then be held within thirty days of the grievance being raised;
3. If investigations and technical witnesses are required, a maximum of thirty (30) calendar days will be taken prior to a hearing being held;
4. The committee's decision will be communicated in writing within 5 working days of the date of the hearing;
5. If the committee does not resolve an issue, the affected persons are free to go to the Land and Environment Court.

Considering the various levels of decision making required at this stage, it is proposed that the final decision from this committee be communicated within three months (a quarter within the financial year).

1.19 Resettlement for Permanently Displaced PAHs

11 PAHs whose homesteads are affected by the project (out of which there are 2 Vulnerable Households) and will be required to permanently relocate have indicated the following:

- They are willing to give up the land since the project is going to generate income to the community and enhance food security;
- The first preference for resettlement is within their community where they have established good relationships and they understand one another and are willing to assist each other when need arises. Being resettled in a different area would create challenges for the elderly members of the family.

During the various consultative forums it was indicated that Land is available locally on a willing buyer willing seller basis. In the project area there are opportunities of buying land from those who own more than one parcel.

The PAHs also indicated that they would prefer being paid the money and they source for land on their own.

A summary of the PAHs permanently displaced is as indicated in the table below.

Table 1-8 PAHs permanently displaced

No.	Block/Section	No. of Permanently Displaced PAHs	No. of Permanently Displaced Vulnerable PAHs
1	Southern Backflow (SBF)	8	1
2	Northern Backflow (NBF)	1	0
3	Connecting canal (CC)	0	0
4	Head works Canal (HWC)	0	0
5	New NIB Office area	2	1
Total		11	2

Though the 11 PAHs prefer cash compensation, this puts their whole household entitlement at risk of being misappropriated and further has the risk of delaying the project as they need to move out of the intake area before construction begins, especially the 3 households living at the intake area.

Consequently, the 11 PAHs will be assisted and facilitated by the project in securing new land and paying for it, upon which the balance of their entitlement will be given to them in cash as preferred by them.

The 2 Vulnerable households will receive additional support / assistance as outlined in Sections 6.3.10 and 12.2.9.

1.20 Rap I Total Cost Estimate

The value of the properties affected within the RAP 1 Study Area covering a total land area of 141 acres/ 56.6 ha is **KShs. 80,521,231**(including 15% and 10% implementation and contingency costs respectively) The distribution of the compensation values is presented in the Table 1-9 below.

Table 1-9 Summary Table of Properties / Assets Affected and Costs

No.	Property	No. of Affected Property Holders	Size Affected (Acres)	Total No. of Affected Units	Total Amount (KShs.)
1	Land	220	141	220	34,142,460.00
2	Structures	22	-	86	15,164,458.00
3	Loss of Business	0	-	0	0.00
4	Trees	100	-	3,839	5,640,645.00
5	Crops	6	-	Various crops	103,000.00
6	Graves	1	-	2	300,000
	Sub-total 1 (KShs.)				55,350,563.00
7	Statutory Allowance (15% of Sub-total)				8,302,584.00
	Sub-total 2 (KShs.)				63,653,147.00
8	15% Implementation Cost				9,547,972.00
	Sub-Total 3(Kshs)				73,201,119.00
9	Add 10% Contingencies				7,320,112.00
	Grand Total				80,521,231.00

Due to the slow process of land adjudication, update of land registry records and lack of commitment by land owners to pursue change of land records, half of affected land parcels are registered under previous owners some of whom are currently deceased. Some of the land parcels are held as a block (land subdivision has only been done on the ground but records have not been amended to reflect the ground situation).

1.21 Livelihood Restoration

1.21.1 Key Principles Guiding Livelihood Restoration Planning

The sustainable approach to livelihood restoration is based on the following principles:

- Livelihoods are multi-faceted strategies and a combination of approaches is therefore required to support restoration of income and the re-establishment of community support networks;
- Active participation of intended beneficiaries in planning and decision making to ensure proposed support reflects local realities / priorities and have PAPs active buy-in;
- PAPs should be provided with choices so that they can self-determine how their household will best benefit from the livelihood restoration options;
- Vulnerable households are less able to adapt to changes and therefore require targeted support through the planning and implementation of livelihood restoration.
- Transition allowances are necessary, but require clear eligibility and end points.

- Capacity building should be incorporated into livelihood restoration activities to develop PAPs skills, including in financial management. Capacity building acknowledges the different needs of women, men, youth and vulnerable groups with respect to skills development.

1.21.2 Proposed Livelihood Restoration Program

The Livelihood Restoration Programme, LRP, is aligned with existing resources, knowledge, skills and household experiences. Different livelihood restoration programmes are proposed to be implemented by the Client with the assistance of relevant government agencies and the local community leadership. The LRP has various elements:

- Compensation and resettlement;
- Immediate provision of transitional support;
- Agricultural capacity enhancement/ Land based livelihood support;
- Capital support and development of small businesses;
- Financial management training;
- Provision of employment to the local community during construction phase;
- Provision of training and support on HIV/AIDS awareness

The proposed LRPs are elaborated in Section 12.

1.21.3 Livelihood Restoration Programme (LRP) Cost Estimate

The LRP cost estimate for RAP I is Kshs 29.8 million as indicated in the table below for various support activities.

Table 1-10 Livelihood Support Cost Estimate

Activity / Description	Time Period	Budget Estimate (KES)	Remarks
Construction of houses (approximately 2 houses for vulnerable and permanently displaced @ 2.5 million)	6 months	5,000,000.00	Compensation by GoK
Transitional support assistance for 121 vulnerable households@ 100,000	-	12,100,000.00	World Bank
Agricultural Capacity support ¹ (Separate KfW budget)	7 years	0.00	KfW
Financial Management – for all	3- 6 months	5,000,000.00	Funded by World Bank/KfW and managed by PMU
External consultants	Every 6 months for the whole period	5,000,000.00	Funded by World Bank/KfW and managed by PMU
Sub-total		27,100,000.00	
Add 10% Contingencies		2,710,000.00	
Total		29,810,000.00	

¹The Agricultural Capacity Support is financed under the KfW budget and totals to US \$ 5.7 million.

1.22 Summary of RAP Study Outcome

Table 1-11 overleaf provides a summary of the RAP Study outcome.

Table 1-11 Summary Table of Affected Households, PAPs and Property

No.	Items	Number	
A	Affected Population		
	Total No. of Affected Property Holders (Individuals, Households and Institutions)	239	
	PAP Population	Total	943
		Adults	Male 316 Female 217
		Children	Male 153 Female 101
		Not classified (adults or children)	Male 95 Female 61
		Affected households	121
		Elderly / Aged	58
	Vulnerable Group of Persons	Mentally Challenged	22
		Orphans	58
		Physically Challenged	21
		Chronically ill or Sick (Asthmatic, Epileptic, Sickle Cell Anemia, etc)	49
		Sick (HIV Positive)	31
		Widowed	35
	Permanently displaced PAPs		11
B	Affected Land		
	Total Number of Affected Land Parcels	220	
	Land Parcels Belonging to Individual Land Owners	220	
	Schools/College	0	
	County Governments	0	
	Churches	0	
	Community Land	0	
	Total Land Size to be Acquired for LNIDP Phase 2	56.6 ha / 141 acres	
	Total Value of Affected Land	Kshs.34,142,460.00.00	
C	Affected Structures		
	Total No. of Households with Affected Structures	29	
	Total No. of Affected Structures	86	
	Total Value of Affected Structures	Kshs15,164,458.00.00	
D	Affected trees and crops		
	Total No. of Households with Affected Trees	100	
	Trees for wood products (Acacia, Eucalyptus, Pine, Gravellia, Cypress, Ober', 'Ciala, etc) and Fruit trees (Mango, Avocado, , Guava, Paw, etc')	3,839	
	Total No. of Households with Affected Crops	6	
	Total No. of Affected Crops	Various crops	
	Total Value of Affected Trees	Kshs5,640,645.00	
	Total Value of Affected Crops	Kshs 103,000.00	
E	Affected Business		
	Total No. of Households with Affected Business	0	
	Total no. of Affected Businesses	0	
	Total Value of Affected Business	0	
F	Graves		
	Total No. of Households with Affected Graves	1	
	Total No. of Affected Graves	2	
	Total Value of Affected Graves	Kshs 300,000	
H	Total Cost of RAP I Project including 15% Implementation and 10% contingencies	Kshs. 80,521,231.00	

1.23 Monitoring and Evaluation

Monitoring will be carried out on a continuous basis by the Implementing Agency who will collect and record the information of RAP activities and submit the monitoring reports, on timely basis, to the KWSCR/PMU. Overall internal monitoring framework will incorporate continuous information flow from the sub-location level through the LRCCs, SCRCCs to the NIB/LNIP/PIU accompanied by periodic supervision and verification by NIB. The monitoring process will involve both the internal and external monitoring.

2 INTRODUCTION

2.1 Background of the Assignment

This is the first of the three Final Reviewed and Updated RAP reports for Lower Nzoia Irrigation Project Phase 1 (LNIP-I) and Nzoia Flood Protection Structures (NFPS), which are approved investments under the Kenya Water Security and Climate Resilience Project – Phase I (KWSCRPI) and are two components of the Lower Nzoia Project (LNP) located in Siaya and Busia Counties in Western Kenya.

The reports present a review and update of the two previous RAP reports prepared by Panafcon Ltd (Final RAP Report and Census Study for the Proposed Lower Nzoia Irrigation Development Project, December 2015) and Tech Training and Research Ltd (Draft RAP Report on Flood Mitigation Structures along Lower Banks of River Nzoia - Dykes Construction, April 2015). The review and update is also based on the final designs of the LNIP-I and the NFPS prepared by the Implementation Support Consultants (ISC) lead by Lahmeyer International Consultants dated June 2017.

The assignment has been undertaken by Gedo Associates Ltd as per contract agreement signed with the Ministry of Water and Irrigation (MOWI) - Kenya Water Security and Climate Resilience Project- Phase I (KWSCRPI) dated 27 March 2017 for *Consultancy Services for Review and Update of Resettlement Action Plan (RAP) for Lower Nzoia Irrigation Project (LNIP-I) and Nzoia Flood Protection Structures (NFPS) Tender No. MOWI/KWSCRPI/006/2016-2017*.

2.2 Kenya Water Security and Climate Resilience Program

The Kenya Water Security and Climate Resilience Program (KWSCRPI) is a World Bank supported program which aims at building water security and climate resilience for economic growth through investment in priority infrastructure while at the same time aiding the GOK to establish the requisite enabling institutional and legal foundation to improve the performance and sustainability of the water sector. The implementation of the program is by way of a pragmatic approach of phased support through a series of investment operations linked together by an *overarching objective of improving water security and building climate resilience by strengthening water and climate risk investment planning, preparation, and implementation that is supported by an enhanced enabling institutional framework*.

2.3 Kenya Water Security and Climate Resilience Project Phase I

The Kenya Water Security and Climate Resilience Project – Phase I (KWSCRPI) is the first investment operation in the series of investments under the Kenya Water Security and Climate Resilience Program (KWSCRPI).

The development objectives of KWSCRPI are to:

- i. Increase availability and productivity of irrigation water for project beneficiaries; and
- ii. Enhance the institutional framework and strengthen capacity for water security and climate resilience for the country.

The Lower Nzoia Project (LNP) comprising of Lower Nzoia Irrigation Project Phase 1 (LNIP-I) and Nzoia Flood Protection Structures (NFPS) are approved investments under the KWSCRPI as stated in Section 1.1 above. The LNIP-I component is jointly financed by the

World Bank and KfW and Government of Kenya, while the NFPS component is financed by the World Bank and Government of Kenya.

2.4 The Lower Nzoia Project

The two components of the Lower Nzoia Project; the Lower Nzoia Irrigation Project Phase I (LNIP-I) and the Nzoia Flood Protection Structures, NFPS (also referred to as Improvement of Flood Mitigation Structures, IFMS) are located in Siaya and Busia Counties in Western Kenya as shown in Figures 2.1 and 2.2.

The irrigation component is located on the left bank (Southern bank) of the Nzoia River with the intake point some 37km upstream of Lake Victoria, while the flood protection structures (dykes) are located on both the left and right banks of Nzoia River downstream of Ruambwa Bridge and referred to as the Southern and Northern dykes respectively.

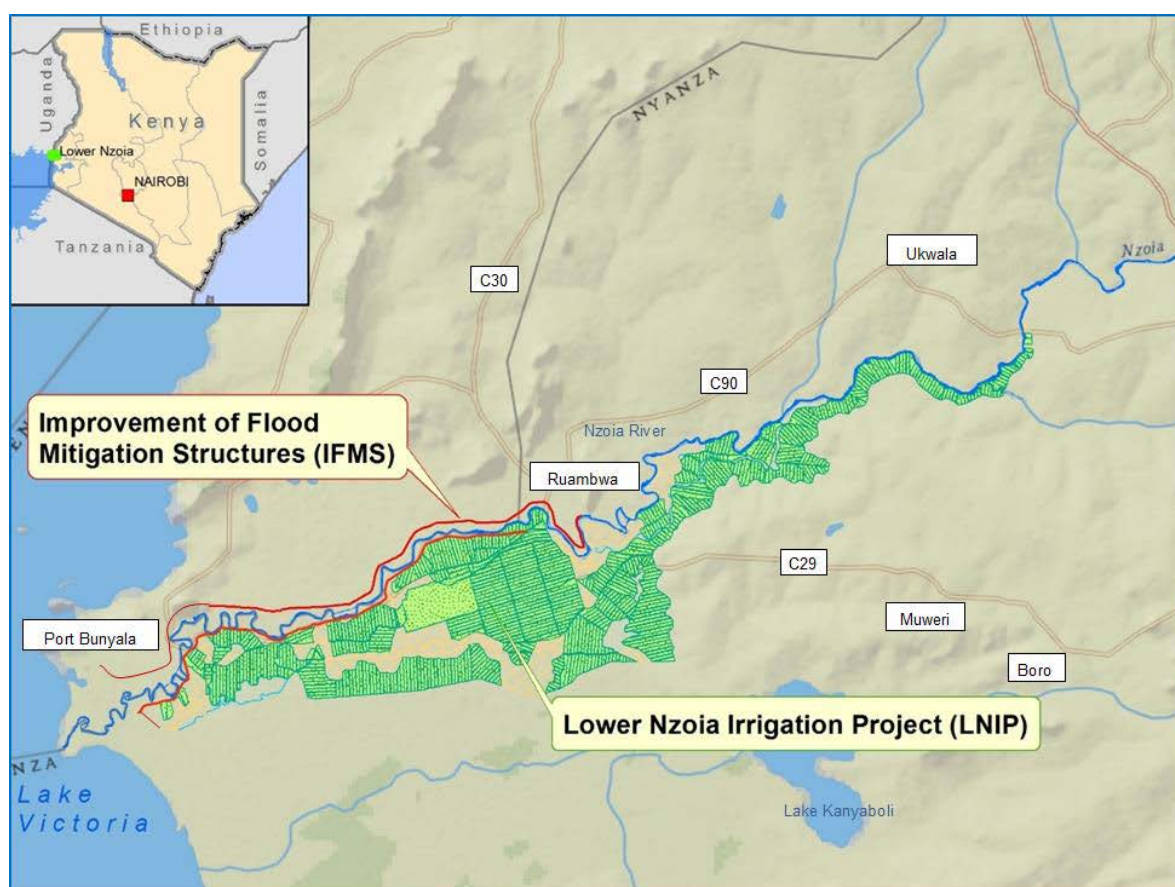
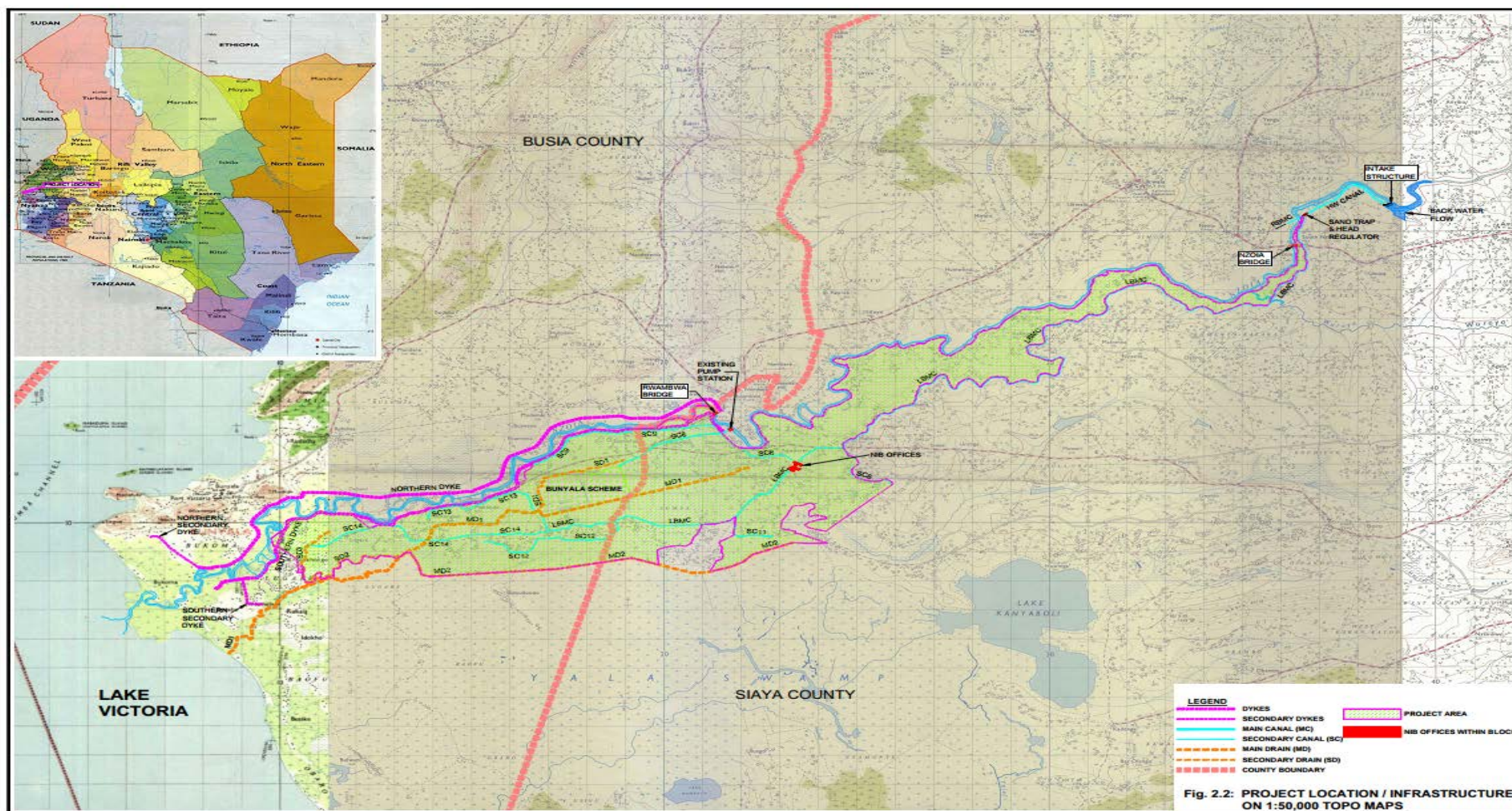


Figure 2-1 General location and development area (adopted from ISC Report of June 2017)

Figure 2-2 Project Location on 1:50,000 Topo Map



2.5 The Lower Nzoia Irrigation Project

The Lower Nzoia Irrigation Project (LNIP) 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 proposed LNIP Phase I (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.

2.6 The Lower Nzoia Irrigation Project Phase I

The Lower Nzoia Irrigation Phase I (LNIP-I) covers a gross area of 5,800 ha and a net irrigation area of 4,075 ha and consists of 14 irrigation blocks as shown in Figure 2.3. The main irrigation infrastructure comprising of main canals and drains is shown in Figure 2.4 (which also shows the location and extent of the flood dykes).

The scope of works / activities under LNIP Phase I include:

- Irrigation and Drainage Infrastructure – **Sub-component 1**;
- Agricultural Support and Value Chain Management – **Sub-component 2**;
- Irrigation Water Use Management – **Sub-component 3**; and
- Project Management – **Sub-component 4**.

The estimated cost of the LNIP Phase I is **USD 54.5 million** (Project Appraisal Document, 22 May 2013).

2.6.1 Sub-component 1: Irrigation and Drainage Infrastructure

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 some 4km upstream of the Nzoia bridge to command the identified potential irrigation areas on the southern and northern banks of the Nzoia River;
- Construction of about **83 km** of conveyance, water distribution and drainage canals for the estimated **4,075 ha** irrigable area as follows:
 - 2.92 km of connecting and head works canal;
 - 32 km of left bank main canal;
 - 30 km of 7 No. secondary canals;
 - 60 km of 73 No. tertiary canals;
 - 31 km of main and secondary drains;
 - 302 km of field canals;
 - 2,060 Nos. irrigation and drainage structures;
- Rehabilitation/modification of the Bunyala Irrigation Scheme (705ha).

Figure 2-3 Layout of Irrigation Blocks

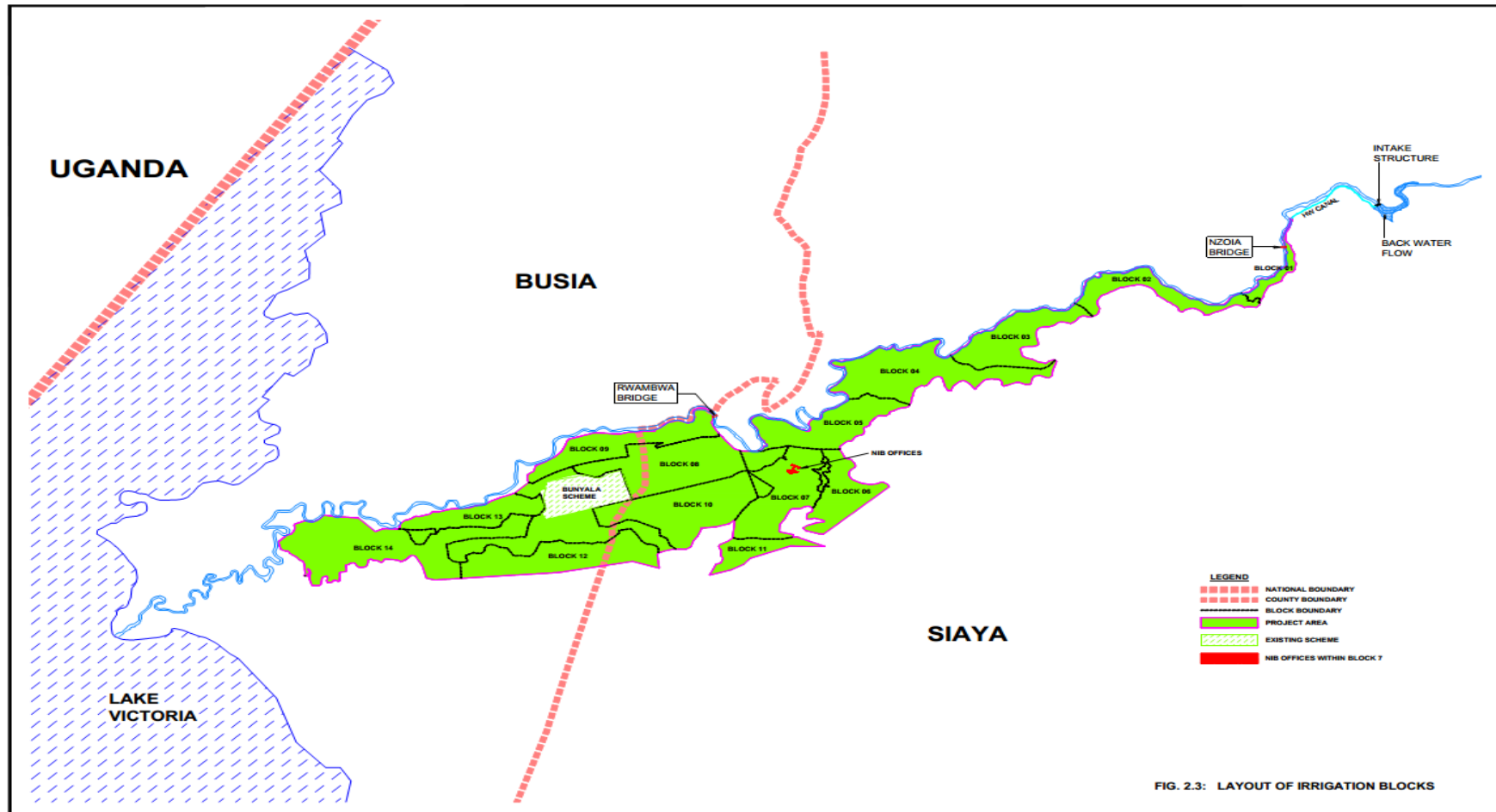
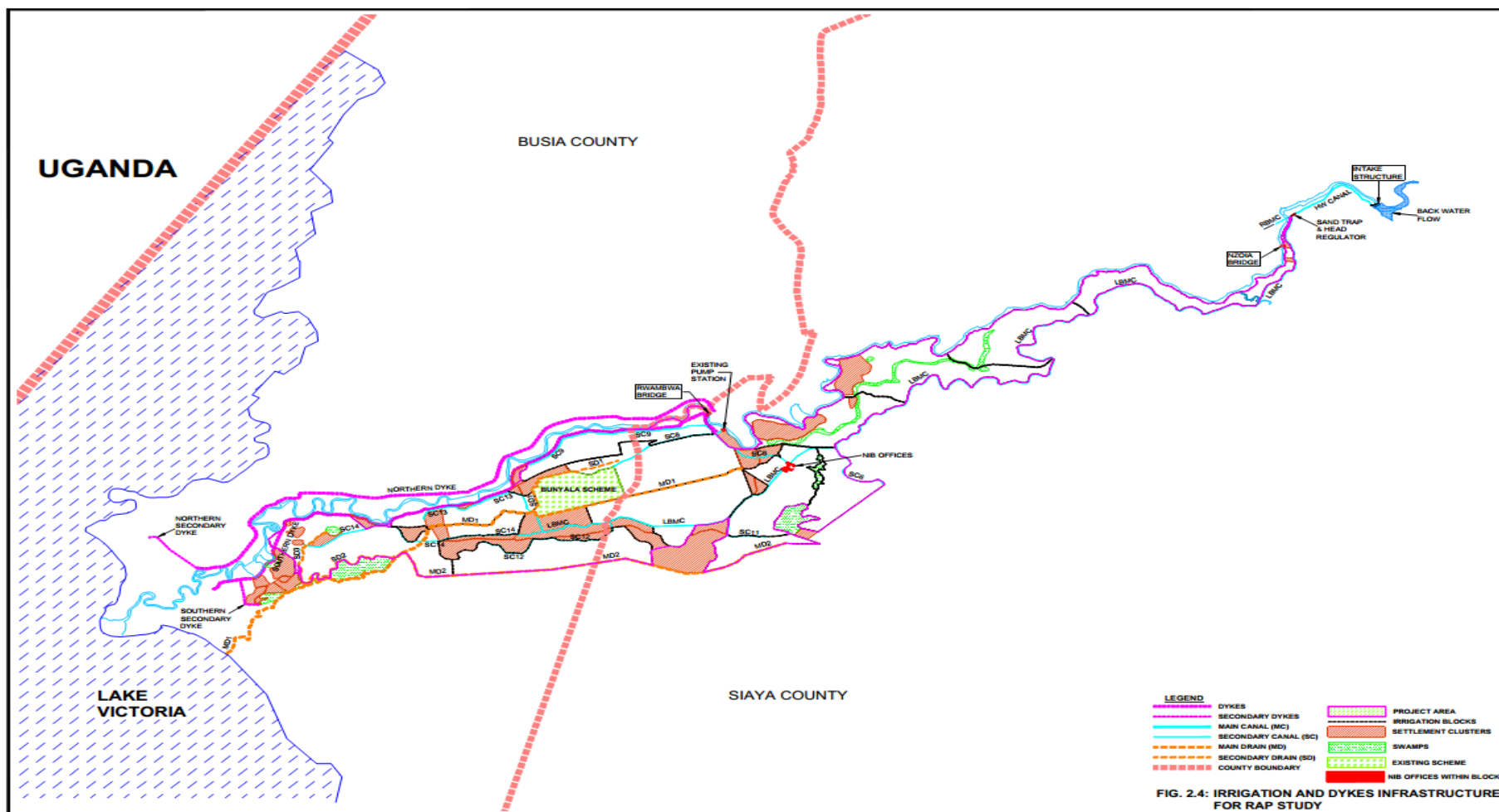


Figure 2-4 Irrigation and Dykes Infrastructure for RAP Study



The irrigation project is expected to have a widespread positive impact on overall socio-economic status and livelihoods of the people of the two counties which currently experience acute food shortages as a result of poor rainfall or erratic rainfall distribution often leading to crop failures. For those living within the project area, there will be positive gains relating to easier access to water for irrigation and other domestic uses.

2.6.2 Sub-component 2: Agricultural Support and Value Chain Sub-Component:

This sub-component includes activities that are geared towards assisting farmers grow and market agricultural products in a productive and sustainable manner.

Under this sub-component support will be provided in following areas:

- Plan, develop and manage demonstration farms in the irrigation area, from beginning of the contract, with emphasis on adoption of Rice Intensification technologies and adaptive research for the Higher Value Crops (HVCs) proposed in the Project Appraisal Document (PAD). This shall be done in partnership with Kenya Agricultural and Livestock Research Organisation (KARLO)
- Establishment of Nurseries for the proposed new crops, that could offer comparative advantages in the project area (passion fruit, banana, papaya, etc.);
- Capacity Building and training on irrigation practices, SRI technologies, HVCs, etc.;
- Support for development of Farmer-Market linkages;
- Establishment of irrigation and management facilities, laboratory, offices, and a Resource Centre, IWUA meeting rooms and facilities for on-site training sessions.
- Post-harvest infrastructure development (cold rooms, storage facilities, rice milling, and extension of Bunyala drying floor);
- Establishment of a Revolving Fund allowing farmers to access inputs and services.

This sub-component is designed in such a manner that, with the assistance of the Implementation Support Consultant, linkages between project beneficiaries and other market participants would be built and capacity building to farmers developed to enable them to do business with the private sector (agribusiness agencies, banks, NGOs, various service providers etc.).

2.6.3 Sub-component 3: Participatory Irrigation Management

The objective of this sub-component is to enhance the efficiency and sustainability of the irrigation infrastructure to be constructed including the enhancement of water use efficiency. This will involve (a) development and strengthening the capacity of water user associations to carry out necessary operations and maintenance (O&M) and cost recovery functions to be transferred to IWUAs from Project Implementation Unit, (b) development, testing and adopting the project monitoring and evaluation tools and processes.

Under this sub-component, the following services will be provided: Technical Assistance for strengthening IWUAs, Office Equipment, Critical O&M equipment, and GIS/MIS for IWUAs and PIU and SPMU staff, capacity building and study tours.

2.6.4 Sub-component 4: Project Management

The objective of the sub-component is to support all project management activities, including planning, reporting, monitoring and evaluation. The cost items are: PIU Operating costs, GIS and MIS systems for the Project, PIU Equipment and Vehicles, PIU & SPMU Capacity Building, cost of the implementation of the Social and Environmental Management Plan.

2.7 The Nzoia Flood Protection Structures

The Nzoia Flood Protection Structures entail improvement and realignment of the existing flood protection structures, which comprises of two dykes - Southern and Northern (each approximately 17km on either side of River Nzoia 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.

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

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

The scope of the works includes:

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

2.8 Project Components Necessitating Land Acquisition and Resettlement

In order to implement LNIP Phase I and Nzoia Flood Protection Structures, land will be required for construction of the irrigation and flood protection infrastructures. Currently, the area to be covered is owned by private individuals under freehold land tenure systems, and includes agricultural land, residential, commercial, and institutional users as well as other types of users that are expected to be discontinued (either through land acquisition, or through injurious action caused by severance of their land) to create way for the planned infrastructures.

2.8.1 Irrigation and Drainage Infrastructure Components Requiring Land Acquisition

The land is to be acquired for the construction of the irrigation and drainage infrastructure (canals, drains and related structures) as shown in Tables 2.1 and 2.2. Total length of canals and drains is about 86 km in Siaya and Busia Counties. The backflow area upstream of the weir extends over a length of 5 km as shown in the table..

Table 2-1 Irrigation and Drainage Components Requiring Land Acquisition

Component	Length (Km)
Intake Weir and Backflow or Reservoir	5
Main and Secondary Canals	
Connecting Canal, CC	0.145
Head works canal, HWC	2.78
Left Bank Main Canal, LBMC	32
Secondary Canal, SC6	2.4
Secondary Canal, SC8	5.4
Secondary Canal, SC9	4.6
Secondary Canal, SC11	1.7
Secondary Canal, SC12	4.5
Secondary Canal, SC13	4.2
Secondary Canal, SC14	6.8
Main Drain 1, MD1	10.1
Main Drain 2, MD2	11
Sub-total (Main and secondary canals)	85.625
Total	90.625

There are 2,060 irrigation and drainage related structures to be constructed as indicated in Table 2.2. There will also be access roads along the canal and drainage network of total length 114 km.

Table 2-2 Irrigation Structures

No	Structure Name	No.
1	Diversion Weir, Flushing Sluice and Intake	1
2	Emergency Wei, Cross Regulator and Cross Drainage	1
3	Sand Trap and Head Regulator	1
4	Aqueduct	1
5	Chute, Oblique weir Cross Regulator and Head Regulator	1
6	Duckbill weirs	42
7	Emergency spillways	6
8	Drop Structures	2
9	Head Regulator	6
10	Baffle Distributors	76
11	Cross Regulators	340
12	Field Canal Turnouts	423
13	Tail Escapes	8
14	Cross Drainage Structures	18
15	Measurement Flumes	9
16	Box Culverts	189
17	Pipe Culverts	500
18	Footbridges	302
19	Flap gated outlets	3
18	Washing Steps	112
20	Rehabilitation of Existing Buildings	19
	Total	2,060

2.8.2 Flood Protection Structures Components Requiring Land Acquisition

For the flood protection dykes, land is to be acquired for improvement and realignment of about 34 km of the Southern and Northern dykes as indicated in Table 2.3. Related flood protection structures are 971 as shown in Table 2.4. There will be 19 km of access roads along the dykes.

Table 2-3 Flood Protection Structures Requiring Land Acquisition

Component	Length (Km)
Northern Dyke (Right bank Dyke)	17.08
Southern Dyke (Left Bank Dyke)	17.09
Total	34.17

Table 2-4 Related Flood Protection Structures

No	Structure Name	No.
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

2.9 Resettlement Action Plans

The reviewed and updated RAP for Lower Nzoia Irrigation Project Phase I and Nzoia Flood Protection Structures is to be implemented in three parts as follows:

- **RAP I Area** Nzoia Intake Weir area to Head Works Canal / Regulator;
- **RAP II Area** Southern and Northern Dykes;
- **RAP III Area** Blocks 1 – 14 (Irrigation areas).

Arising from the above, three separate RAP reports have been prepared covering the above areas.

This report is for area under RAP I and the project components necessitating land acquisition and resettlement are outlined in the section below.

2.10 Resettlement Action Plan for RAP I Area (RAP I)

RAP Area is shown in Figure 2-5 and the components necessitating land acquisition / resettlement covers the backflow area, intake weir and the connecting and head works canals over a stretch of about 8 km as indicated in Table 2.5. The proposed NIB Office site is also part of RAP I Area.

Table 2-5 RAP I Components Necessitating Land Acquisition

Component	Length (Km)
Intake Weir / Reach of the Backflow	5
Connecting Canal, CC	0.145
Head works canal, HWC	2.78
NIB Office Complex	-
Total length (reach and canals)	7.925

The affected areas are in 2 locations, 3 Sub-locations and 9 Villages in Ugunja and Ugenya Sub-counties of Siaya County as shown in Table 2-6 (see administration area map in Figure 2-6).

Table 2-6 RAP I Affected Areas

Block / Dyke	Sub-county	Ward	Location	Sub-locations	Villages
Backflow area, Intake and Connecting and Headworks canals	Ugenya	Ugunja	North East Ugenya	Ligega Ambira	5
	Ugunja	Ugunja	Central Ugenya	Umala	1
				Umala	3
NIB Office Complex					
Total	2	1	2	3	9

Source: Local Administration Officials (Chiefs)

Figure 2-5 Area / Infrastructure under RAP I

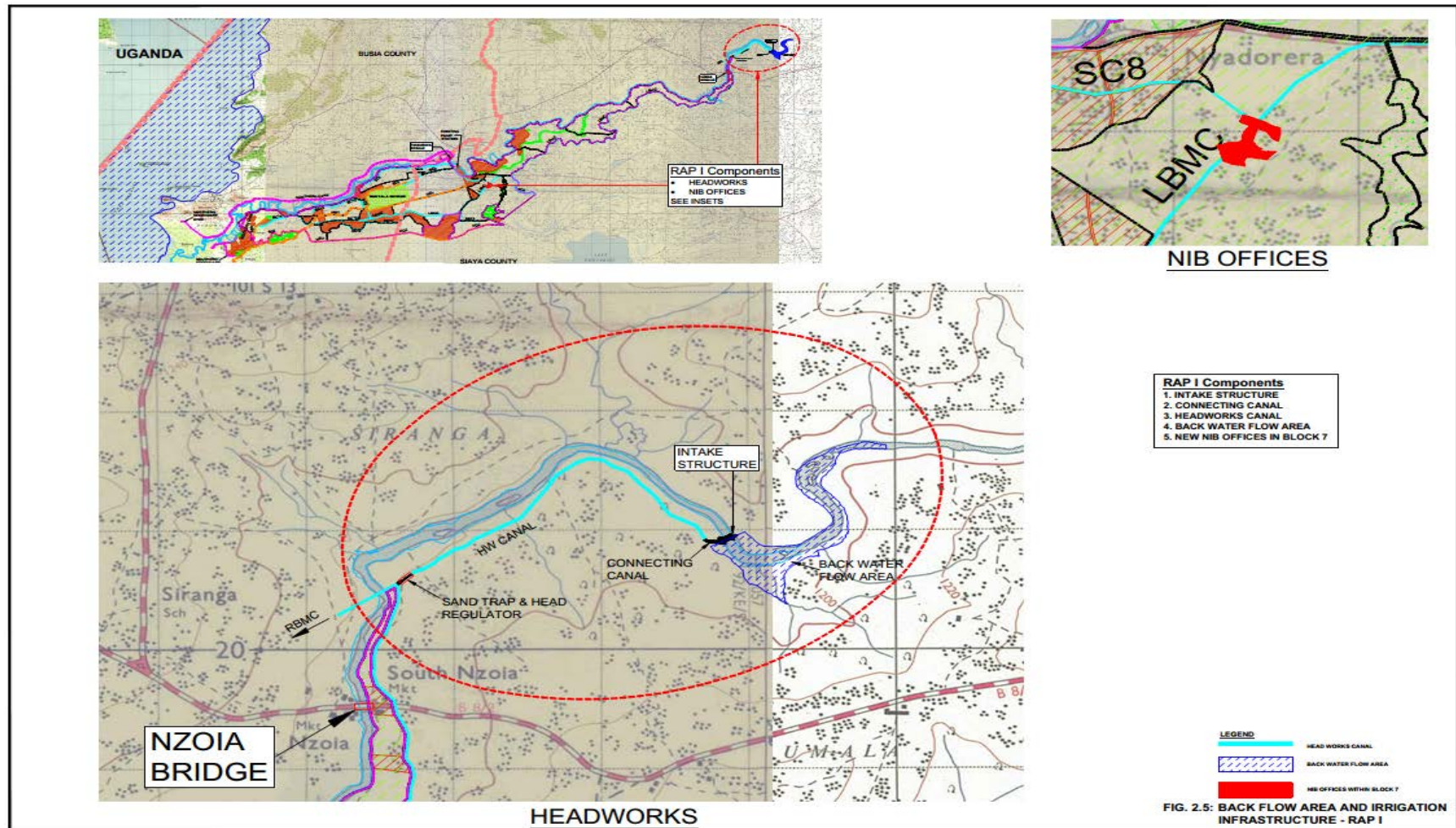
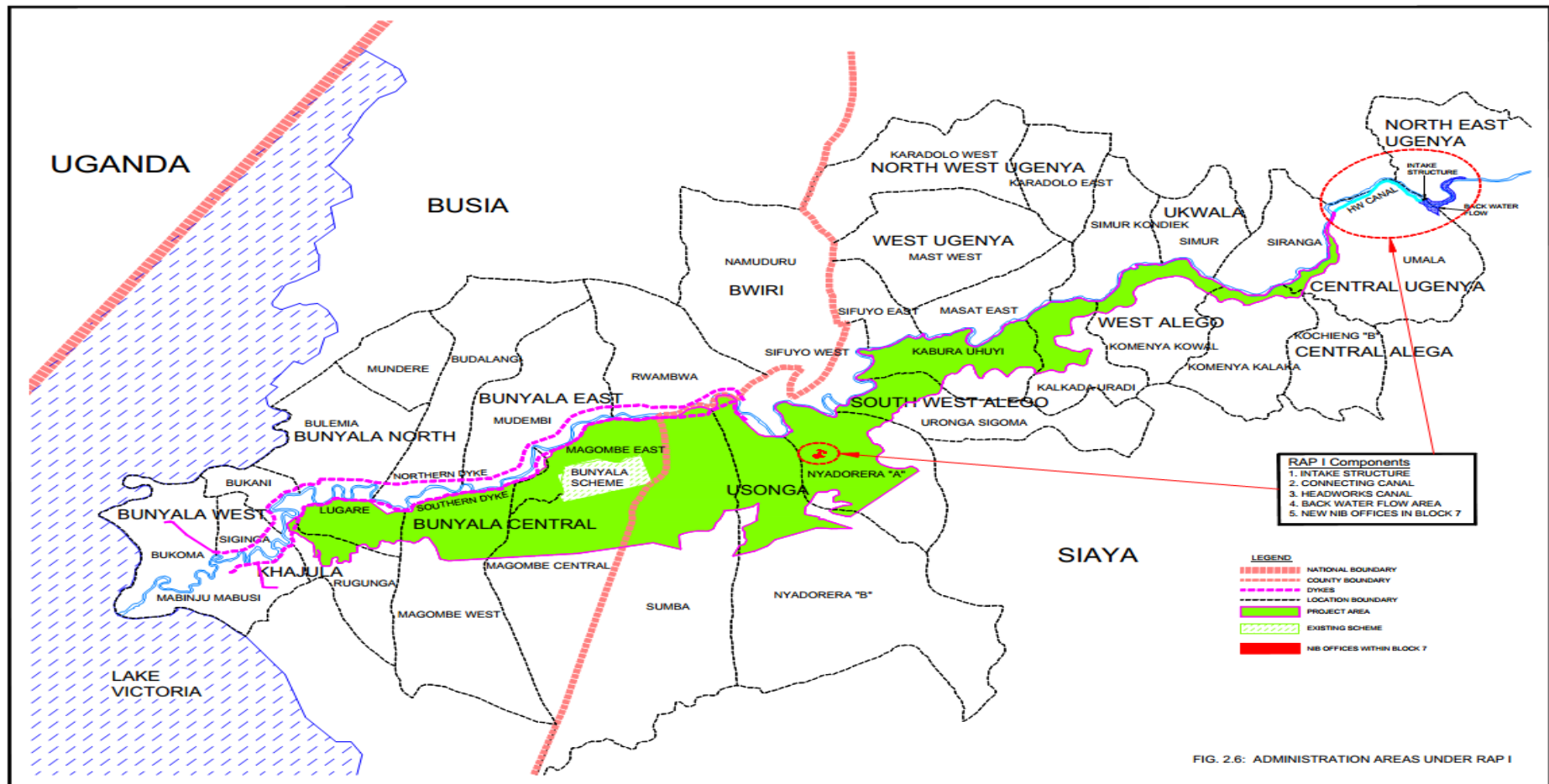


Figure 2-6 Administrative map of the Project Area



3 REVIEW AND UPDATING OF THE RAP

3.1 Justification for Review and Updating of the previous RAP Reports

Prior to the preparation of this RAP Report, there existed two Resettlement Action Plan reports, one for Lower Nzoia Irrigation Project prepared by Panafcon Ltd in 2013 and 2015 and the other for Nzoia Dykes prepared by Tech Training and Research Ltd in 2015. The two reports were based on detailed design documents prepared by different consultants.

The reasons for review and update of the two reports are:

1. Likelihoods that the designs for the projects would change based on the design review action that was to be undertaken by the **Implementation Support Consultant (ISC)** for the LNIP project. The Consultant was expected to conduct a final review of the design and provide recommendations (*reviews completed in June 2017 by ISC Consultant and outputs used in this RAP Study*).
2. The fact that over 3 years had elapsed since the RAP reports were prepared without implementation, in essence meaning that the socio-economic baseline situation, census and assets valued in 2013 would certainly be different (*new census and socio-economic surveys and asset inventory and valuation carried out in this RAP Study*).
3. The initial LNIP RAP report did not include the irrigation drainage canals (*now included*).
4. The need to merge the LNIP with the Nzoia dykes project into a single project and a single RAP due to the envisaged overlap in project implementation area and likelihood of the same PAPs being enumerated in both project sites (*this has been addressed in this report*).

The review and updating of the RAPs entailed verification and updating of the census of the Project Affected Persons (PAPs) identified as per the earlier declared cut-off date, the affected assets, the socio-economic baseline data of the PAPs, the scope and the magnitude of the social impacts borne by the PAPs and design of an appropriate resettlement action plan that will provide social safeguard and compensation measures to effectively remedy the impacts of involuntary resettlement on the livelihoods of the PAPs.

3.2 The Objectives and Scope of the RAP Review and Update

3.2.1 Objectives

The objectives of the RAP review and update are:

- a) To review and update the project's existing RAP, to enhance compliance with the applicable Government of Kenya laws and the relevant World Bank policies, standards and guidelines, with specific reference to the World Bank operation policy 4.12 on Involuntary Resettlement and where the Lender's standards are confirmed to hold a wider scope than the national provisions, the former are expected to take precedence and the RAP is required to provide accordingly;
- b) To verify, review, and, update the census survey undertaken to ensure that all potential PAPs eligible as per the cut-off date and the involuntary resettlement impacts of the

proposed project are identified and appropriate measures to remedy resettlement effects and safeguard livelihoods are recommended;

- c) To undertake socio-economic survey of the PAPs and ensure that baseline data are generated for the purposes of monitoring and evaluation during the project implementation period;
- d) To verify and update the asset inventory survey and ensure that all potential assets that will be affected by the proposed project are enumerated, valued and costed;
- e) To map out the affected properties (structures, crops, trees, fences) using the GPS with an accuracy of 1 metre in UTM Coordinate System;
- f) To verify compliance with the Bank's Involuntary Resettlement Policies and any other laws on relocation and resettlement regulations that govern the infrastructural development sector;
- g) To provide guidelines/strategies to enhance stakeholders and PAPs participation in identification, implementation and monitoring of processes to minimize resettlement impacts of the project. The guidelines will include a stakeholder management framework (stakeholder analysis, stakeholder matrix and communication plan) for the management of stakeholder activities through the project cycle;
- h) To recommend cost effective and sustainable measures to be implemented to restore and enhance the livelihoods of the vulnerable affected people;
- i) To prepare a revised Resettlement Action Plan (RAP) report compliant with Government of Kenya (GoK) regulations and the Bank's policies, standards and guidelines.

3.2.2 Scope of the Review and Update

The scope of the review and update included the following:

- Description of the project;
- Review and update of the legislative and regulatory framework;
- Census and socio-economic survey studies;
- Public participation, consultation and communication;
- Impacts of the project;
- Valuation and compensation for losses;
- Determination of eligibility;
- Proposals for resettlement measures and entitlement matrix;
- Grievance redress procedures;
- Institutional arrangements;
- Measures for monitoring and evaluation;
- Preparation of an implementation schedule;
- Resettlement cost estimate and RAP budget.

The above scope has been executed and this report presents the Resettlement Action Plan for RAP I area.

3.3 Activities Carried Out During RAP Preparation

The RAP preparation was carried out in three stages as follows:

- Inception;
- Full Study and Draft Reporting Stage
- Final Reporting Stage

A summary of activities undertaken in each stage are presented in Table 3-1 below.

Table 3-1 Summary of Activities by stage

No.	Stage	Activity / Tasks
1	Inception	Mobilisation and establishment
		Start-up meetings at headquarters
		Start-up and site handing over Meeting in the field
		Project area reconnaissance
		Collection and review of existing reports
		Preparation of Inception report
2	Full Study and Draft Reporting Stage	Review and update of Legislative framework
		Mapping of Project Area, Settlements and Location of the PAPs
		Definition of Project Affected Persons (PAPs) and eligibility criteria
		Community Participation and Stakeholder Engagement
		Census and Socio economic studies and survey
		Verify and update the asset inventory survey
		Valuation of and compensation for losses
		Compensation and other resettlement measures
		Review of the resettlement alternatives presented and choices made by the displaced persons
		Procedures for redress of grievances
		Development of Organisational Responsibility and implementation schedule
		Development of Monitoring and Evaluation Measures
3	Final Reporting Stage	Draft Final RAP Report
		Final RAP Report (this report)

3.3.1 Stage 1 - Inception Stage Activities

Inception activities involved the following:

- Mobilisation and establishment of the Consultant staff;
- Start-up meetings at headquarters;
- Start-up and site handing over meetings in the field;
- Project area reconnaissance;
- Collection and review of existing reports;
- Preparation of Inception report.

In addition to the above, community sensitization / awareness creation meetings were held to introduce the Consultant Team, inform the community about the assignment and its objectives and justification, the activities to be carried out and related approach and methodology, the work plan, expected participation from the community and finally to get a feedback from the community on the various aspects of the assignment as outlined by the Consultant Team.

(a) Mobilisation of the Consultant

The Consultant team mobilised on 30 March 2017 to plan for the assignment and later contacted the PMU to set up a date for the start-up meeting and preparation of a schedule for the field introductory / start – meetings in the Project area in Siaya and Busia Counties.

Some of the issues discussed during the mobilisation meeting included:

- Objectives and Scope of the assignment;
- Approach and methodology and tools to collect / gather various data / information as well as those for data analysis (e.g. household questionnaires, census data form, checklist for focused group discussions, valuation form, etc);
- General work plan and dates for deliverables;
- Tentative programme for Inception stage for discussion and agreement with PMU;
- Preparations for start-up meeting with PMU within the 2 weeks mobilisation period (from 27/3 – 10 April 2017).
- Experts and allocated tasks;
- Collection of data and information from various sources (PMU, NIB-PIU, other relevant government departments, etc);
- Support staff for data collection and analysis (e.g. supervisors, enumerators and data clerks for baseline and census data collection);
- Participation of local community representatives such as IWUA officials during the course of the assignment;
- Participation of National and County Government officials up to the local level;
- Data compilation and analysis as well as reporting;
- Travel and accommodation arrangements for the inception visit.

(b) Start-up Meeting with Client

A start up meeting was held between the PMU and Consultant Team on 7 April 2017 at the PMU offices at ACK Gardens House, which discussed the Consultants Work Plan and culminated with the preparation of a schedule for introductory / start-up meetings in the field with various stakeholders.

The meetings were held as scheduled and the outcomes presented in the Inception Report of May 2017 and briefly outlined in the section below.

(c) Inception Field Stage Activities

The inception field activities commenced on 25 April 2017 up to and including 5 May 2017 and included, among others:

- Courtesy calls to Siaya and Busia County – County Commissioners and Governors offices;
- Courtesy calls / consultative meetings with various government departments such as the land ministries within Siaya and Busia counties and the sub counties to check on cadastral maps for areas where the proposed networks (canals, drains and dykes) would pass;
- Organizing meetings with the local administrators and farmers / farmers representatives within the project area to brief them on the assignment and the activities to be undertaken;
- Project area (Phase 1) reconnaissance – general;
- Tour of the proposed intake location;
- Identification of the exact location and alignment of the proposed canals within the project area using GPS (connecting Canal, Head works Canal, Main Canals and Secondary Canals). This was done together with Block representatives
- Identification of the exact location and alignment of the proposed Main Drains within the project area using GPS;
- Identification of the exact location and alignment of the proposed right bank and left bank dykes within the project area using GPS;
- Preparation of cadastral maps and data base;
- Running a test RAP procedure along the proposed connecting and head works canal and picking the GPS coordinates of the affected properties within the proposed corridor to be acquired.

The outcome of the inception activities were presented in the Final Inception Report of 18 May 2017.

3.3.2 Stage 2 and 3 Activities – Full Study and Draft and Final Reporting

Some of the Stage 2 activities started during the Inception Stage and continued till 1 August 2017 during which the following key activities were carried out:

- Community sensitization / awareness creation meetings;
- Census survey;
- Asset inventory survey;
- Socio-economic survey;
- Public Stakeholder and Participation meetings;
- Formation of Resettlement and Compensation Committees at Location Level;
- Data entry and analysis;
- Reports preparation.

The outcome of Stage 2 and 3 activities are captured in the following reports submitted between 22 August 2017 and 15 December 2017:

- Census and Socio-economic Report;
- Asset Inventory Report;
- Draft RAP Report (for whole area);
- Draft Final Reviewed and Updated RAP I and II Reports;
- Final Reviewed and Updated RAPs I – III Reports.

This final report has been prepared taking into consideration various comments received from Client and World Bank in the period September 2017 to February 2018.

3.4 Limitations and Solutions

The RAP Study recorded some limitations and these are presented in Table 3.2.

Table 3-2 Limitations and Resolutions

Limitations	Solutions
Issues of ownership of land as a block where one parcel of land is owned by two or more people resulting in conflict over compensation claims	<ul style="list-style-type: none"> • The Consultants informed the farmers' representatives and the PAPs that conflict resolution committees would be formed to handle the disputes. The Consultants however in their valuation listed all the persons involved in the dispute as claimants of the affected property. • Moreover the Consultants advised the PAPs to seek the assistance of a Surveyor to help them settle the boundary disputes.
Some PAPs do not have Title Deeds to their parcels of land and cannot provide exact land boundaries.	The acquired and geo-referenced cadastral maps from the Ministry of Lands were used in such cases.
A significant number of affected households along the wayleave could not provide accurate information on their land sizes	It was noted that the entire land was not being acquired except for those who were permanently displaced. The valuer therefore just measured the exact area for the wayleave acquisition.
Land issues were found to be sensitive	Private discussions were held with individual land

Limitations	Solutions
hence respondents were not very free to engage in discussions.	owners/ families.
Issue of absentee PAPs (working away from the project area);	Close relatives and the Chiefs helped identify absent PAPs and a follow up was made through phone interviews.
Issues of non-registered land subdivisions.	The Consultants adopted the plot boundaries as found in the ground and listed the owners of the sub-divided plots as the PAPs.
A total of 108 individual land owners out of a total of 239 are deceased. From the socio economic survey 57.6% of the affected land parcels require the process of succession	The succession cases will be supported under full replacement cost and have been factored under administration cost.
Non-homogeneity of real estate, the imperfections in market structure, inadequate sales' data and falsified data on the recorded sale transactions are some of the principal factors which limit the application of the structure valuation method.	Use of full replacement cost principal as required by the World Bank OP 4.12 was used.

3.5 RAP Team

The RAP was carried out by two teams of Consultant staff, each team comprising of the following:

- Surveyor;
- Valuer;
- Sociologist;
- Assistant Sociologist;
- Team of enumerators;
- Sub Location Assistant Chief / appointed Village Elder
- IWUA Officials.

Due to the limited time frame, the teams worked round the clock including weekends and extra personnel were engaged for data entry both in the field and the head office in Nairobi.

3.6 Report Format

This RAP Report consists of two parts:

Part 1 Main Report part with 16 sections or chapters;

Part 2 Appendices

4 RAP STUDY METHODOLOGY

4.1 Desk study

An in-depth literature review was carried out before embarking on the field work to aid in the understanding of the exercise and in the development of comprehensive data collection tools. Since literature review is a continuous exercise, more documents were reviewed during reporting stage.

The key relevant documents that were collected and reviewed included:

- 1.) For the socio-economic survey, documents reviewed included County Integrated Development Plans (CIDPs) and Population Census reports as indicated in the reference section;
 - 2.) LNIDP Phase 1 Final RAP Report, Volume A, Panafcon Ltd, 2015;
 - 3.) LNIDP Phase 1 Final RAP Report, Volume B, Panafcon Ltd 2015;
 - 4.) Final Nzoia Dykes RAP Report, Tech Training and Research Ltd, 2015;
 - 5.) Lower Nzoia Phase 1, Irrigation Layout, Lahmeyer and Quadrant Engineering Consultants Ltd, 2017;
 - 6.) Lower Nzoia Phase 1, Dykes Layout, Lahmeyer and Quadrant Engineering Consultants Ltd, 2017
 - 7.) KWSCR, Resettlement Policy Framework (RPF), Revised Draft, L.Kubasu&T.Kodiaga, 2015.
 - 8.) Kenyan land laws including:
 - o Land Act 2012;
 - o Land Registration Act, 2012;
 - o National Lands Commission Act, 2012;
 - o Environment and Land Court Act, 2011;
 - 9.) World Bank operational policies and sourcebooks with focus on:
 - o Involuntary Resettlement Policy (OP 4.12);
 - o Involuntary Resettlement Source Book-Planning and Implementation in Development Projects;
 - o A Guide to Designing and Implementing Grievance Mechanisms for Development Projects.
-

4.2 Field Work Preparation Activities

Prior to commencement of the field work, the study team carried out the following preparation activities:

- Mobilisation of the Consultant team on 30 March 2017 to plan for the assignment and later contacted the PMU to set up a date for the start-up meeting and preparation of a schedule for the field introductory / start – meetings in the Project area in Siaya and Busia Counties;
- Courtesy calls to Siaya and Busia County – County Commissioners and Governors offices;
- Courtesy calls / consultative meetings with various government departments such as the land ministries within Siaya and Busia counties and the sub counties to check on cadastral maps for areas where the proposed networks (canals, drains and dykes) would pass;

- Organizing meetings with the local administrators and farmers / farmer's representatives within the project area to brief them on the assignment and the activities to be undertaken.

An elaboration of the above is presented in Section 2.8 of this report and minutes and attendance list attached in Appendix 2. The same were also contained in the Final Inception Report of 18 May 2017.

4.3 Cadastral Mapping and Geo Information Systems (GIS) Database

The following secondary data to help in preparation of the cadastral map and database were obtained:

- Resettlement Action Plan (RAP) and Census Study for the Proposed Lower Nzoia Irrigation Development Project (LNIDP) - Phase I containing cadastral map in PDF format prepared by PANAFCON (previous RAP consultant) from Client;
- High resolution aerial imagery covering the project area from Implementation Support Consultant (ISC);
- Project Layout map in AutoCAD Format from Implementation Support Consultant (ISC);
- Digitized and Scanned Cadastral Maps in AutoCAD Format per registration section (own sources / initiative).

We checked the acquired secondary data and noted some challenges/ inadequacies and mitigated appropriately as outlined in the table below.

Table 4-1 Observation on secondary data related to cadastral maps

	Acquired Data	Observation/Challenges	Mitigation measure
1	Cadastral Layout Maps in RAP and Census Study for the Proposed Lower Nzoia Irrigation Development Project (LNIDP) - Phase I	<ul style="list-style-type: none"> • The Cadastral layout maps in PDF format attached to the main report are not legible in many sheets due to plotting scale; • Original Cadastral maps in AutoCAD format were not available. 	<ul style="list-style-type: none"> • New cadastral maps prepared from the backflow area to the tail end. • Cadastral maps prepared (pdf format) in varying scales not greater than 1: 500 for legibility and ease of used during fieldwork. • Cadastral maps overlaid on satellite image for correlation with ground landmarks/boundaries.
2	Project Layout map in AutoCAD Format.	<ul style="list-style-type: none"> • The format and content was good and used in overlaying with the cadastral maps with other data sets. 	<ul style="list-style-type: none"> • Conversion into GIS file format for spatial data analysis to aid in the preparation of GIS Database.
3	Digitized and Scanned Cadastral Maps map in PDF and AutoCAD Formats.	<ul style="list-style-type: none"> • The combined cadastral maps in PDF (see item 1 above) were not correctly geo-referenced and therefore could not be used for overlay analysis with the project layout. • The combined cadastral sheets in AutoCAD Format by registration section were not properly joined. • There were missing cadastral sheets for parts of the project area. 	<ul style="list-style-type: none"> • Correctly joined and geo-referenced the existing cadastral maps in AutoCAD and overlaid with project layout to prepare the cadastral maps and database. • Acquired the missing cadastral sheets from the Lands Ministry where available

The joining and preparation of the cadastral layout map for area under RAP 1 was undertaken with an overall 100% coverage as indicated in Table 4-2 (see Cadastral Map and Database in Appendix 5).

Table 4-2 Cadastral Maps Coverage – Area under RAP 1

Item No.	Name of Line	Length (km)	Coverage (%)	Remarks
1	Back water	5	100	Both the Southern and the Northern Back Flow area is 100% covered with Cadastral Maps. Detail information of the plots was collected based on the Cadastral Maps acquired and georeferenced
2	Connecting Canal	0.145	100	The line is 100% covered with Cadastral Maps. Detail information of the plots was collected based on the Cadastral Maps acquired and georeferenced.
3	Headworks Canal	2.78	100	The line is 100% covered with Cadastral Maps. Detail information of the plots was collected based on the Cadastral Maps acquired and georeferenced.

The cadastral database prepared contains the following information.

1) Structure Name (Canal, sites etc.)	2) Parcel Administration details
3) Land registration section	4) Parcel registration number
5) Parcel location GPS Coordinates	6) Parcel ownership details
7) Parcel affected area (acres)	8) Structure on the affected parcel
9) Cost of the valued land	10) Cost of affected property on land
11) Total compensation cost	12) Recommendations.

4.4 Way-leaves Adopted

The way-leaves adopted for the infrastructures were provided by the ISC Consultants, led by Lahmeyer International and is presented in the table below.

Table 4-3 Adopted Way-leaves

Infrastructure	Way Leave (m)
Connecting Canal	15
Head works Canal	40
Main Canal	30
Secondary Canals	20
Main Drains	15
Dykes	15 from the toe of the existing dyke and 80 m in re-aligned sections.

4.5 Community Mobilization and Sensitisation Meetings

A Participatory approach was adopted to mobilize and sensitize the PAPs in the upper area of the LNIP-I upstream of the intake up to the Sand Trap / Head Regulator comprising the backflow area, intake and the connecting and headworks canals corridors. The objectives of the meetings were to:

- Describe the Project foot- print in the two counties;
- Setting and agreeing on the Cut- Off dates for compensation as per World Bank's O P 4.12;
- Information dissemination and sensitisation on the RAP study activities, especially those that would require active PAP participation;
- Discussions and agreement on the schedule and modalities for the household survey (census, enumeration and valuation exercises). This included an explanation of the PAPs' roles in the exercise including the documentation required during the census and the valuation activities;
- Collection and collation of public comments on resettlement.

Participants included affected households drawn from the proposed project area as well as the specific stakeholders at the leadership and departmental level (County Government of Siaya representatives where possible, County Commissioners, Deputy and Assistant Commissioners, area Chiefs, village elders and the study sociologists). With the support of the Sub County Deputy Commissioner's officials, the process of community mobilization and sensitizing communities on the socio-economic household survey started by engaging Location and Sub Location administrative leaders and farmers' representatives in consultations and a community meeting's program was drawn. This program was effectively implemented from 3 –16 May, 2017 with meetings held in all the three Sub Locations of Ambira, Umala and Ligega. The meetings generated dialogue with women, men and youths drawn from the localities within the project region. A project brief was provided to the participants and this covered participation in the census and socioe-conomic baseline surveys.

Outlined below is a list of the sensitization meetings conducted in the RAP I area.

Table 4-4 Schedule of Community Mobilization and Sensitization Meetings

Date	Venue of Meeting	Represented Blocks	Purpose	Attendance	
				Male	Female
5/5/2017	Nzoia Market	Block 1 (Head works canal and Connecting Canal)	Community Introductory and sensitization meeting to rekindle beneficiary confidence after a long wait and enlist active participation in the Resettlement Action Plan Process.	46	30
15/5/2017	Ligega Sub Location Assistant Chief's Office	Right bank of the back flow involving Ligega Sub-Location.	Introducing the irrigation project and inviting those within the back flow area to be part of the project and actively participate in all subsequent project activities.	9	16
16/5/2017	Backflow site in Umala	Left bank of the back flow involving Umala and Ambira Sub-locations		12	24

Attendees were informed of the proposed project and the project footprint earmarked for land take. The sociologist also sensitised the attendees on the project goals and benefits.

After the presentations, the attendees were given the opportunity to give their views, comments and queries. As such, the meetings provided a platform for expression of overall opinions, issues and concerns by community members who live on or conduct economic activities on the targeted right of way for the project.

Issues arising from the meetings are presented in Section 8 (Stakeholder Participation and Consultation), while minutes of meetings are presented in Appendix 3.

4.6 Census Approach and Methodology

4.6.1 Objective of the Census Survey

The PAPs' census was carried out from 6 May 2017 to 1 August 1 2017 and involved field visits and interviews with each homestead and household that was found within the project infrastructure way leaves corridors. The Consultant made use of Maps and GPS equipment to identify the required corridor. Census was done at 100% households affected and required data for each PAP was captured and analysed.

The objectives of the census exercise were:

- To identify the Project Affected Persons (PAPs) living or practising any activity within the wayleave due for acquisition;
- To determine the recipients of the various entitlements arising from loss of productive assets located within the identified wayleave for the project;
- To identify property owned by each PAP;
- To collate information on preferred compensation modes by each PAP Unit.

4.6.2 Approach and Methodology

The process of Census started by organizing and conducting community *Introductory and Sensitization Meetings* which were convened in the project area on 15 and 16 May 2017 as indicated in Table 4.4 above. During the meetings the beneficiary community, local leaders and stakeholders were informed that the census was a key component of the RAP. It was explained in each of the meetings that this was a participatory process and their input was critical. Moreover it was noted that it was necessary to pass this information to the beneficiaries since other previous RAP Studies were carried between 2011 and 2015.

The census process involved acquiring cadastral maps from the land survey office at Siaya and Kakamega (for Busia County). The acquired maps were then georeferenced and database prepared which included plot numbers and sizes of the various plots. This process included matching this list with the previous RAP list. This came with the challenge since quite a large number of PAPs were living on ancestral land whose registrations are in the names of deceased relatives. Furthermore the list was however not up-to-date because some of the changes on the ground such as sub-divisions had not been updated at the land registry. The list was therefore updated on the ground during the census with the assistance of family members, chiefs and block representatives through taking note of any changes that occurred as a result of change of ownership and sub-division.

A semi-structured household questionnaire (census tool) to be used for data collection was designed which was then administered by enumerators supervised by the Sociologist/RAP Expert. The enumerators used for the census were selected from the local communities. It was during the community mobilization meetings/barazas that the local leaders were asked to identify and forward names of local youths who qualified to meet the required education threshold of minimum diploma and degree education level. Involving locals as enumerators was a deliberate decision to ensure local participation and moreover, that those enlisted understood the area, culture, and interacted easily with the local people during data collection. The enumerators came together for a one day's training and on the second day pre-tested the census semi-structured questionnaire. Pre-testing was done at the intake on 6 May 2017. The objective of the training was to provide insight to the team to focus on crucial issues/information; and to pre-test and refine the data collection tools.

The census data collection tool used, minutes of meetings and attendance lists are contained in Appendix 4.1 of this report.

4.7 Socio-economic Baseline Survey Approach and Methodology

4.7.1 Introduction

The socio economic baseline survey examines the social, environmental, and economic conditions to uncover matters pertaining to information of persons affected by the project. For effective implementation of the RAP, the socio-economic baseline survey is viewed as a key component which aims at generating baseline information as a pre-requisite for RAP monitoring and evaluation. Information gathered at this stage is to be used as a benchmark against which achievements and transformation realized from the RAP and project will be measured. These measurable benchmarks can be evaluated using verifiable indicators for outcomes and expected impacts as presented in the RAP and LNIP documents.

The wide range of interrelated and diverse aspects and variables are drawn from categories that include: *demographic, public social amenities, financial, social and economic aspects. Within the social aspects, community life as well as social and cultural attitude and values are considered; the community and individual services address housing, water, sanitation, communication, security, health, as well as education facilities; while demographic characteristics cover population growth structures, distribution and density; and lastly, economic factors include; infrastructure, land, economic activities and accessibility to financial services.*

4.7.2 Objective of the socio-economic survey

The main objective of the Socio-economic Baseline survey information collection is to establish the following details of the PAPs and the project area;

- i) Current occupants of the affected area to establish a basis for the design of the resettlement program if necessary;
- ii) Standard characteristics of affected households, including a description of population, production systems, household organization, baseline information on livelihoods (including, production levels and income derived from both formal and informal economic activities) and standards of living (including education, health nutrition and food security aspects) of the affected population;
- iii) Land tenure systems, including an inventory of any other common property, natural resources from which people derive their livelihoods and sustenance, non-title-based usufruct systems such as quarrying, use of riparian land governed by local recognized land allocation mechanisms, and any issues raised by different tenure systems in the project area;
- iv) The patterns of social interaction in the affected communities, including social networks and social support systems, and how they will be affected by the project;
- v) Public infrastructure and social amenities in the project area; and
- vi) Social and cultural characteristics of communities, including a description of formal and informal institutions (e.g., community organizations, ritual groups, nongovernmental organizations (NGOs)) that may be relevant to the consultation strategy and to designing as well as implementing the resettlement activities.

4.7.3 Expected Outputs

Although the previous RAP Reports carried Socio- economic surveys, the duration of 3 years is expected to have brought about significant changes in the Socio-economic set up of the people living within the project area and there have also been elements of natural growth cases. The expected outputs from the exercise were to provide a report in the following areas:

- (i) Demographic characteristics;
- (ii) Social Amenities and Social capital

- (iii) Poverty index of the RAP 1 project area
- (iv) Housing and Home dwelling
- (v) Household demographic characteristics;
- (vi) Land tenure and land use patterns since land is a major unit of production;
- (vii) Household expenditure and accessibility to financial services;
- (viii) Gender analysis;
- (ix) Willingness and preparedness to participate in the project and participation in the RAP;
- (x) Expected impacts of the project.

4.7.4 Approach and Methodology

The socio-economic survey was conducted from 6 - 19 July 2017. The survey sampled 94 out of a projected population of 239 PAPs within the project corridor, which is about 44 %.

(a) Literature review and secondary data collection

The study began by carrying out a desk study to comprehensively review secondary data gathered from documents and reports on Busia and Siaya Counties, project documents, policy frameworks, related to the RAP. Meetings and consultations were arranged and conducted with relevant offices at the County and Sub County levels. These consultations started during the reconnaissance survey stage and continued throughout the field work period. This led the team to the departments of Water and Irrigation, Agriculture, Environment, Lands, Social Services Public Health and Culture and Tourism at the County and Sub County levels. Community mobilization meetings were also organized with the local administrators in all twenty-two sub locations and ten locations. Meetings were held to discuss with the key stakeholders and get their input on the position of the LNIP/NFPS and RAP. Discussions therefore required explanation and probing and as such qualitative design using the semi structured instrument and observation checklist was developed to gather information at this level. Based on the desk reviews and discussions, it emerged that the people had agreed to support the project and all those interviewed and consulted agreed that it is a viable intervention in the region. Subsequently the team proceeded to conduct the Socio-economic Baseline survey and census data collection.

(b) Fieldwork and Data collection

The enumerators to collect socio-economic baseline survey data were selected from the local communities within the project area. This was arranged during the community mobilization meetings when local leaders were asked to identify and forward names of local youths among them who qualified and met the required education threshold of minimum diploma and degree education level. Involving locals as enumerators was a deliberate decision to ensure local participation and moreover, that those enlisted understood the area, culture, and interacted easily with the local people during data collection.

(c) Training Enumerators and Pretesting the Data Collection Tools

Recruitment of ten enumerators began at leaders' meetings where they identified and forwarded names of qualified local youths (5 male and 5 female) who met the stated educational threshold of degree and diploma level. The enumerators were therefore deployed to conduct the Socioeconomic Baseline survey and worked under the supervision of a Sociologist and Assistant Sociologist. Training was conducted at the beginning of the socioeconomic survey on July 6, 2017. The objective of the training was to provide insight to the team to focus on crucial issues/information; and to pre-test and refine the data collection tools. Data was collected from July 6, 2017 – July 31, 2017. Primary data was collected using both qualitative and quantitative tools designed to capture the socio-economic status of the households. To make sure there was proper coverage, interviews were also conducted with the assistance of respective block farmers' representative.

(d) Sampling design

The purposive sampling was applied to cover 2 sub locations out of the 3 sub locations in project area. The sampled were Umala and Ambira Sub Locations in Ugunja Sub County. Ugenya Sub County which is represented by a small proportion of its population at the Water reservoir demonstrates similar socioeconomic characteristics with those at Umala and Ambira Sub Locations. A list of the 94 PAHs were identified for interview in the RAP 1 project area covering the Back Flow, Head Works Canal and Connecting Canal and this was a household random sample of 44% chosen for in-depth interview. The local administration and farmers' representative involvement was crucial because they guided in locating the sampled PAH according to the infrastructure boundaries. There was a recommended minimum 4 household interval in the random selection of household to be interviewed. In cases of unavailable selected households snowballing sampling was also applied as respondents had to recommend present PAH for interview and this saved on time. Enumerators exercised quality control on the information that was provided as they conducted the interviews. Quality control was measured by making sure there was close supervision of enumerators and that all the enumerators could speak and understand the local language in order translate the questionnaire which was in the English language. The entire questionnaire was read through before the data entry to check completeness, accuracy and consistency.

(e) Data Analysis

The analysis of quantitative data was done using PASW (Predictive Analytics SoftWare), formally known as Statistical Packages for Social Sciences (SPSS). Data was presented in form of prose, tables, matrices, pie charts and graphs.

Data collected from the household survey was triangulated with information from site surveys, observations by the sociologist, focus group discussions and key informant interviews.

4.7.5 Research Instruments

(a) Household Questionnaires

The household questionnaire consisted of questions divided into sections on household characteristic, economic activities, social amenities including infrastructure, education, health characteristics, land ownership and utilization and beneficiary participation.

Appendix 4.2 gives the socio-economic data collection tool.

The targeted group for the survey were the sampled households located on the identified wayleave for the project. The questionnaire was prepared in English but it was administered by the trained enumerators in English, Kiswahili and Luo and Banyala. Enumerators were recruited from within the project area and trained prior to pre-testing of the tool in the field.

For cases where the PAP Unit representative was not available for enumeration, responses were sought from the representatives of the household head or adult persons belonging to the household.

(b) Key Informants

Key informants drawn from departments of Water and Irrigation, Agriculture, Health, and the local County Commissioners' Officials were also interviewed using a key informants' checklist. These included, among others, the following:

- Officials from the Ministry of Interior and Co-ordination led by the Busia and Siaya County Commissioners;
- Heads of County Government Ministries located at Siaya and Busia Counties;
- The project beneficiaries;
- Project design team;

- Client Representatives.

The main objectives of the above exercise were to:

- Introduce the consultancy team and the scope of work;
- Obtain more information about the project area;
- Obtain views of the local area administration on the project;
- Collect baseline information on the project area.
- Obtain lessons learnt from previous resettlement programs in the project in the previous study

(c) Focussed Group Discussions

Focused Group Discussions (FGD) were conducted within the study area to collect in-depth qualitative data with identified groups. A total of eight FGDs were held with selected men, women, youth, people with disability per Block. During the meetings Land tenure and ownership, land use patterns, community resource mapping, social capital and structures coping mechanisms on livelihood restoration, and proposed mechanisms for handling grievances during RAP compensation elements were discussed (See FGD form in Appendix 4.3).

(d) Participatory Observations

Participatory Observations: this included observing the homestead, infrastructure, land use and economic activities.

(e) Transect Walks

Sociologist/RAP expert conducted site walks to provide qualitative data on the project area affected by the land take to support primary and secondary data collected during the study. This included observing the homestead, infrastructure, land use and economic activities.

(f) Secondary Data Collection

Secondary data from KNBS, Busia and Siaya CIDPs were collected where available to serve as a check to all primary data collected.

4.8 References for Baseline Survey

The following references were consulted:

1. *Siaya County Agricultural Sector Development Strategy : 2013 – 2022 by Siaya County Government*
2. *Busia County Integrated Development Plan (2013 – 2017)*
3. *Siaya County Integrated Development Plan (2013 – 2017)*
4. *2009 Kenya Population and Housing census Volume 1 A Population Distribution by Administrative Units; August 2010; by KNBS*
5. *Well – Being In Kenya a Socio- Economic Profile : 2008; by KNBS*

4.9 Valuation Process for Land and Assets

The impacts that will arise from the development of the LNIP and NFPS infrastructures include:

- Loss of land (partial and permanent);
- Loss of crops;
- Loss of trees;
- Loss of structures (residential, institutional & community, business, etc);
- Loss of regular income from businesses;
- Loss of special assets (e.g. sacred places and graves);
- Loss of access to river bed for sand harvesters and fishermen.

This report therefore proposes compensation for loss of all these assets at full replacement cost. Additional assistance has also been proposed for the tenants to include compensation for asset lost and transportation cost to the new area of relocation

Full replacement cost is defined as the rate of compensation for lost assets calculated at the current market value of the assets plus transaction costs. With regard to land and structures, IFC / World Bank defines “replacement costs” as follows:

Agricultural land—the market value of land of equal productive use or potential located near the affected land, plus the cost of preparation to levels similar to or better than those of the affected land, plus the cost of any registration and transfer taxes;

Land in urban areas—the market value of land of equal size and use, with similar or improved public infrastructure facilities and services preferably located in the vicinity of the affected land, plus the cost of any registration and transfer taxes;

Household and public structures—the cost of purchasing or building a new structure, with an area and quality similar to or better than those of the affected structure, or of repairing a partially affected structure, including labor and contractors’ fees and any registration and transfer taxes.

4.9.1 Valuation of land using Comparison Method

Comparable sales method has been adopted for valuing the affected land. This is based on the open market comparison of the land to be valued with what other similar parcels of land are currently selling for in the area but considering the differences between them on **a willing seller willing purchaser basis**. The comparability of the land is based on the use, location, site conditions and income related factors.

The market-comparison method is ideal for establishing values of real estate and other goods in a competitive economy. The most critical aspect of the comparative sales method is what constitutes comparability. This is usually in respect of properties, comparability of transactions and market conditions. Each of these aspects must be thoroughly analysed to obtain an ideal rate. Where part of the property is acquired we have also considered the damage to the remainder of the property. This is in cases where the physical taking of a part of the land might reduce the value of the remainder by making it less convenient for some purpose. This form of loss is called damage by severance. This is because after severance the highest achievable use cannot be realized.

4.9.2 Valuation of Structures using Full Replacement Approach

- The valuation basis adopted for valuing the developments on the land taken for compensation is the **Full Replacement Cost approach** or equivalent reinstatement basis or probable cost of acquiring similar premises for the same purpose. This is the amount it would cost to search for a supplier of the construction material, the cost to purchase, transport and insure the materials to the site, and the costs of erection of the premises, including professional fees, and completed to a standard as existing at the valuation date;
- It should be noted that the structures have not been valued at market value because replacement cost is not synonymous with value. The main purpose of valuing the structures for compensation is to reinstate the owner to build similar structures on another site;
- In obtaining the unit cost for reinstatement we took into consideration the cost of construction rates recommended by Ministry of Public Works.

4.9.3 Valuation of Trees using Guidelines from Kenya Forestry Service

The trees have been valued based on compensation schedules prepared by the **Kenya Forest Service** for various species depending on age and its future potential just and considered open market approach – what the local people sell their tree at (considered as the market value).

4.9.4 Valuation of Perennial Crops using Guidelines from Ministry of Agriculture

The crops which are on the affected land as at the time of our inspections have been valued based on the schedules prepared by the State Department of Agriculture for various types and age but considering the level of management.

4.9.5 Valuation of Special Assets (Sacred Places and Graves)

Specialized assets are those that cannot have values per se but whose values are attached to an individual, community or religions. During our field inspections, we noted that the land affected by the project has graves on which the PAPs attach some sentimental values and cannot be ignored. Consultations were done with the elders, religious leaders, professionals of the community to get their views and believed the graves can be relocated but some rituals have to be performed before reburial of the remains is done. These shall involve the cost of the following:

- Foodstuffs for feeding the mourners (bull, two goats, chicken, rice, etc);
- Exhumation and reburial costs
- Government documentation for exhumation including official certificate
- Transportation
- Bereavement fee
- Hiring of tents, chairs, utensils etc

This was arrived at in consultation with the community. The negotiated rate for relocation of each grave is therefore given in Section 9.4.3.

4.9.6 Valuation for Loss of Regular Income

Regular incomes from businesses get interrupted to the extent that they no longer receive the incomes. As part of income restoration, compensation is to be paid to the business PAPs a total amount that is equivalent to **6 months** income. This will cushion them from the effects of the interruption. It is considered that over this period, the Business PAPs will have identified alternative sites away from the wayleave and re-established their businesses.

Monthly income (profits) accruing from businesses was determined during the detailed census survey. For RAP I area, there are no businesses that have been affected.

The above principles of compensation are contained to a large extent in the Land Act of 2012 where the compensation is based on:

- Market value of the acquired land;
- Any damages sustained or likely to be sustained by reason of severing such land from his other land;
- Any damage from loss of profits over the land;
- Additional 15% market value for disturbance.

4.9.7 Loss of access to river bed

There will be no loss and hence no compensation as crossing points to the river have been provided at various sections of the dykes for the sand harvesters

4.10 Agencies/Individuals Contacted for Assets Survey

Some of agencies contacted during the asset inventory and valuation exercise are listed in the table below:

Table 4-5 List of Agencies / Individuals consulted during Asset Inventory and Valuation Exercise

NAME	DESIGNATION	CONTACT
Josephine A. Omuga	County Commissioner - Siaya	
John K. Chelimo	County Commissioner - Busia	
Hon. BenedetMuyomi	Lands Minister, Busia County	0721746474
Mr. Akide	Chief Lands Officer - Busia	0720308950
Mr. OpiloWekesa	Sub County Agriculture Officer - Busia	0725609681
James Were	Ecosystem Conserveter - Busia County	0729833222
Vincent Okoth	Deputy Director, Agriculture - Siaya County	
Willis Atiang	Crop Officer - Siaya	0722943269
Henry Juma	County Director - Water & Irrigation Department - Siaya	
Mr. Olang	Water Officer - Siaya	
Mr. AgreyOgola	Land Adjudication Officer - Siaya&Busia Counties	0725342589
Solomon Obanda	Land Surveyor - Siaya	0736990746
Mr. Machora	Land Registrar - Siaya	
Frank Owino	Land Registrar's Office - Siaya	0722232360
Mr. Yator	Government Valuer - Kisumu	0722862988
Romanus OduorOdhiambo	Forest Department - Siaya	0708929041
Daniel Luti	Deputy County Commissioner, Ambira	0727017821
Gerald OumaOkoth	Sub-County Land Surveyor - Ugunja	0713687383
VitalisAbwao	Sub-County Deputy Land Surveyor - Ugunja	0711178506
Mr. Dulo	District Land Registrar - Ugenya	0723109028
Mr. BonfaceOngele	Deputy Land Surveyor - Ugenya	0723806203
Mr. Nyatoro	Government Valuer - Ugenya	0722862988

5 POLICY AND LEGAL FRAMEWORK

5.1 Policy Framework

According to the Land Policy, rights of ownership refer to the quantity of rights that different tenure systems confer on individuals or groups of individuals. The principal rights of ownership are the right to use, the right to dispose of, and the right to exclude others from the land owned.

The definition and scope of these rights to land differ from one tenure system to another, depending on policy considerations such as the need to ensure equity in access to land.

According to the Land Policy, the Kenyan cadastre is still very in-optimal. An optimum cadastre system is necessary to ensure an efficient system of land delivery. In practical terms, this would allow not only for preparation and maintenance of cadastral information that indicates who owns what interest in land; but other details such as land capability, uses, size, distribution and topographical characteristics.

The policy also recognises the importance of local grievance resolution mechanisms and sets forward proposals for implementation of the same. For example it calls for encouragement and facilitation of the use of Alternative Disputes Resolution (ADR) mechanisms such as negotiation, mediation and arbitration to reduce the number of cases that end up in the court system and delayed justice.

With regard to land take for public purposes, Section 3.2 of the policy on compulsory acquisition has been overtaken by events since the promulgation of the 2010 Constitution. More up to date items of relevance to this RAP are enshrined in the Kenyan Constitution and the new land laws that came into effect after 2012.

This policy document is important for establishment of the government's tenets on land ownership, security of tenure and registration of land ownership instruments. The document also provides historical facts on challenges to security of tenure and settlement in the country.

The policy recognizes that the land rights of vulnerable individuals and groups are not protected and are subject to bias and discrimination. Further, the vulnerable lack cohesive institutions to represent their interests. Land Rights of vulnerable groups is defined in Section 3.6.5 of the Land Policy and sub-sections 1.9.4 to 1.9.7

Vulnerability is a manifestation of poverty and deprivation. It takes forms such as lack of adequate shelter, illiteracy, exposure to ill treatment, lack of power to influence decisions affecting one's life, and disabilities. *The most vulnerable persons in Kenya include; subsistence farmers, pastoralists, hunters and gatherers, agricultural labourers, unskilled and low-skilled workers, unemployed youth, persons with disabilities, persons living with HIV and AIDS, orphans, slum and street dwellers, and the aged.*

Poor and vulnerable people lack voice, power and representation in society, which limits their opportunities to access, use and own land and land based resources. The land rights of vulnerable individuals and groups are not adequately protected and are subject to bias and are subject to bias and discrimination. Further, the vulnerable lack cohesive institutions to represent their interests.

To secure access to land and land based resources for vulnerable groups, the Government shall:

- Develop mechanisms for identifying, monitoring and assessing the vulnerable groups;
- Establish mechanisms for redistribution of land and resettlement;

- Facilitate their participation in decision making over land and land based resources; and

The policy identifies that while the Law of Succession Act was supposed to harmonize inheritance laws, in practice the transmission of land rights is largely done within customary law, which discriminates against women and children.

To secure access to land and land based resources for vulnerable groups, the Government shall:

- Develop mechanisms for identifying, monitoring and assessing the vulnerable groups;
- Facilitate their participation in decision making over land and land based resources;
- Protect their land rights from unjust and illegal expropriation.

To protect the rights of women, the Government shall:

- Put in place appropriate legislation to ensure effective protection of women's rights to land and related resources;
- Repeal existing laws and outlaw regulations, customs and practices that discriminate against women in relation to land;
- Enforce existing laws and establish a clear legislative framework to protect the rights of women in issues of inheritance to land and land-based resources;
- Make provision for joint spousal registration and documentation of land rights, and for joint spousal consent to land disposals, applicable for all forms of tenure;
- Secure inheritance rights of unmarried daughters in line with the practices of the respective communities;
- Facilitate public awareness campaigns on the need to write wills to protect dependants in the event of death;
- Carry out public education campaigns to encourage the abandonment of cultural practices that bar women from inheriting family land; and
- Ensure proportionate representation of women in institutions dealing with land at all levels.

To secure the rights of spouses to matrimonial property, the Government shall:

- Review succession, matrimonial property and other related laws to ensure that they conform to the principle of equality between women and men;
- Enact specific legislation governing division of matrimonial property to replace the Married Women's Property Act of 1882 of England;
- Protect the rights of widows, widowers and divorcees through the enactment of a law on co-ownership of matrimonial property;
- Put in place appropriate legal measures to ensure that men and women are entitled to equal rights to land and land-based resources during marriage, upon dissolution of marriage and after the death of the spouse; and
- Put in place mechanisms to curb selling and mortgaging of family land without the involvement of the spouses.

5.1.1 World Bank Operational Policy on Involuntary Resettlement-O P 4.12

The policy requires that a Resettlement Action Plan be developed for a project that would require resettlement of people.

Throughout project implementation supervision of the implementation of the resettlement instrument is done to ensure that the requisite social, financial, legal, and technical experts are included in supervision missions. Supervision focuses on compliance with the legal instruments, including the Project Implementation Plan and the resettlement instrument.

The World Bank (WB) OP 4.12 includes safeguards to address and mitigate impoverishment risks arising from involuntary resettlement. For the purposes of this policy, "involuntary" means actions that may be taken without the displaced person's informed consent or power of choice.

The Bank's experience indicates that involuntary resettlement under development projects, if unmitigated, often gives rise to negative socio-cultural and economic impacts on the resettled people. For this reason, the overall objectives on WB's policy on involuntary resettlement are:

- Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs;
- Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs;
- Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

During the ESIA study, the policy recommends the following:

- Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs;
- Borrower needs to inform potentially displaced persons at an early stage about the resettlement aspects of the project and take their views into account in project design;
- Displaced persons and their communities, and any host communities receiving them, should be provided with timely and relevant information, consulted on resettlement options, and offered opportunities to participate in planning, implementing, and monitoring resettlement.

5.1.2 World Bank Policy on Gender and Development - O P 4.20

The objective WB's Gender and Development policy is to assist member countries to reduce poverty and enhance economic growth, human well-being, and development effectiveness by addressing the gender disparities and inequalities that are barriers to development.

Projects are expected to take into consideration the gender dimensions of the proposed intervention. This study considered the gender dimensions of the project by collecting data whilst considering gender segregation.

The enumeration team also had representation from both genders with respect to the fact that some women may be shy to talk to men and vice versa. A special meeting was also organised for women in the project area as part of the study activities for gender analysis in the project area.

5.2 Legal Framework

5.2.1 The Constitution of Kenya

The Constitution of Kenya categorises land as follows:

- Public Land;
- Community Land;
- Private Land.

The Constitution also provides that the National Land Commission shall recommend a National Land Policy to the National Government while Parliament shall revise and enact legislation to ensure implementation of the issues outlined in it.

Section 40 of the Constitution of Kenya recognizes and protects the right to private property including land. However, Section 40(3) (b) provides that the State may take possession of private land if this is necessary for public purpose or in public interests.

The Constitution also requires that compulsory acquisition be preceded by prompt payment in full, of just compensation to the affected person. It also allows any person who has an interest in or right over, that property a right of access to a court of law.

5.2.2 The National Land Commissions Act 2012

This is an Act of Parliament to make further provision as to the functions and powers of the National Land Commission, qualifications, and procedures for appointments to the commission; to give effect to the objects and principles of devolved government in land management and administration, and for connected purposes.

Compulsory Acquisition in Kenya is also to be handled by the National Lands Commission.

Other mandates of the Commission include management of public land on behalf of the national and county governments.

The Act also mandates the Commission to ensure that public land and land under the management of designated state agencies are sustainably managed for their intended purpose and for future generations.

Thirdly, the Act empowers the Commission to administer all unregistered trust land and unregistered community land on behalf of the county government.

5.2.3 The Land Act 2012

This is an Act of Parliament intended to give effect to Article 68 of the Constitution, to revise, consolidate and rationalize land laws; to provide for the sustainable administration and management of land and land based resources, and for connected purposes.

(a) Principles and values to guide Land management and administration

Parts 1 and 2 of section 4 of the Act outline the main guiding principles in land management and administration, binding to all land actors including state officers. These principles are to be applied when enacting, applying or interpreting any provisions of this Act; and when making or implementing public policy decisions. In discharging their functions and exercising of their powers under this Act, the Commission and any State officer or Public officer shall be guided by the following values and principles:

- Equitable access to land;
- Security of land rights;
- Sustainable and productive management of land resources;
- Transparent and cost effective administration of land;
- Conservation and protection of ecologically sensitive areas;
- Elimination of gender discrimination in law, customs and practices related to land and property in land;

- Encouragement of communities to settle land disputes through recognized local community initiatives;
- Participation, accountability and democratic decision making within communities, the public and the Government;
- Technical and financial sustainability;
- Affording equal opportunities to members of all ethnic groups;
- Non-discrimination and protection of the marginalized;
- Democracy, inclusiveness and participation of the people and
- Alternative dispute resolution mechanisms in land dispute handling and management.

(b) Compensation in respect to public right of way

Section 143 of the act empowers the Commission to create public rights of way. A public right of way may be: *(a) a right of way created for the benefit of the national or county government, a local authority, a public authority or any corporate body to enable all such institutions, organisations, authorities and bodies to carry out their functions, referred to in the Act as a wayleave; or (b) a right of way created for the benefit of the public, referred to in section 145 of this Act as a communal right of way.*

A public right of way shall attach to and run with the servient land in respect of which it has been created and shall be binding on all owners from time to time of the servient land, any manner they are occupying the land, whether under a land or a derivative right thereof, or under customary law or as a successor in title to any such owner or as a trespasser.

Section 144 (1) states that an application, for the creation of a wayleave, shall be made by any State department, or the county government, or public authority or corporate body, to the NLC.

In applying for wayleave, section 144(4) requires the applicant to serve a notice on:

- All persons occupying land over which the proposed wayleave is to be created, including persons occupying land in accordance with customary pastoral rights;
- The county government in whose area of jurisdiction land over which the proposed wayleave is to be created is located;
- All persons in actual occupation of land in an urban and per-urban area over which the proposed wayleave is to be created; and
- Any other interested person.

Subsection (5) requires the Commission to publish the application along the route of the proposed wayleave calculated to bring the application clearly and in a comprehensible manner to the notice of all persons using land over which the proposed wayleave is likely to be created.

Section 145 (1) provides that a county government, an association, or any group of persons may make an application to the commission for a communal right of way.

Once an application has been made to the Commission, the determination for creation of a wayleave is conducted as per section 146 of the act and includes:

- The Commission, after at least ninety days from the date of the serving of notices, considering all the information received and all representations and objections made by any person served with a notice and recommending to the Cabinet Secretary whether to:(i) appoint a public inquiry to give further

consideration to the representations and objections; or (ii) refer the application to the County Government for its opinion on whether to approve the application; or (iii) initiate and facilitate negotiations between those persons who have made representations on the application and the applicant with a view to reaching a consensus on that application;

- The Cabinet Secretary determining whether or not to create a public right of way, after taking account, as the case may be, of: (a) the recommendations of the Commission; or (b) the advice of the county government; or (c) the outcome of any negotiations referred to above;
- The Cabinet Secretary creating a public right of way by order in the Gazette. The order comes into force thirty days after its publication in the gazette.

An appeal against an order creating the wayleave is allowed within six weeks after the order has been made. Such appeal is made to the Court on a point of law against an order made by the Cabinet Secretary, but apart from such an appeal, an order of the Cabinet Secretary shall not be questioned by way of judicial review or otherwise in any court.

According to section 148, prompt compensation shall be payable (by the State Department, county government, public authority or corporate body that applied for the public right of way) to any person for the use of land, of which the person is in lawful or actual occupation, as a communal right of way and, with respect to a wayleave, in addition to any compensation for the use of land for any damage suffered in respect of trees crops and buildings as shall, in cases of private land, be based on the value of the land as determined by a qualified valuer.

In case of disagreement or dissatisfaction on amount or method of or time taken to make payment, the affected individual may apply to court for determination and award.

Section 148 (6) stipulates that the Commission shall make regulations prescribing the criteria to be applied in the payment of compensation. However, these regulations are yet to be gazetted.

(c) Acquisition of private land for public use

Section 110 (1) of the Land Act 2012 states that land may be acquired compulsorily under this Part if the Commission certifies, in writing, that the land is required for public purposes or in the public interest as related to and necessary for fulfillment of the stated public purpose.

Under such an acquisition, section 111(1) provides that if land is acquired compulsorily under this Act, just compensation shall be paid promptly in full to all persons whose interests in the land have been determined.

The procedure for land acquisition is laid out in Part VIII of the Act. The procedure can be summarised as outlined in Figure 2-1.

Highlights of requirements under this process are:

- The Act requires that the owners, residents and their spouses should also be notified; as opposed to just the owners;
- The inspector would also have to get the consent of the occupier and give them not less than seven days' notice to enter the premises;

- The Commission shall have the power of a court to summon and examine witnesses and compel the production and delivery to the Commission of documents of title to the land;
- Separate award of compensation to every person. An award is final and conclusive evidence of the size of the land, the value in the opinion of the Commission and the amount of compensation payable, whether or not the person attends the inquiry;
- Regulations and rules pertaining to this process are yet to be gazetted;
- Section 128 of the Land Act states that any dispute arising out of any matter provided for under this Act may be referred to the Land and Environment Court for determination.

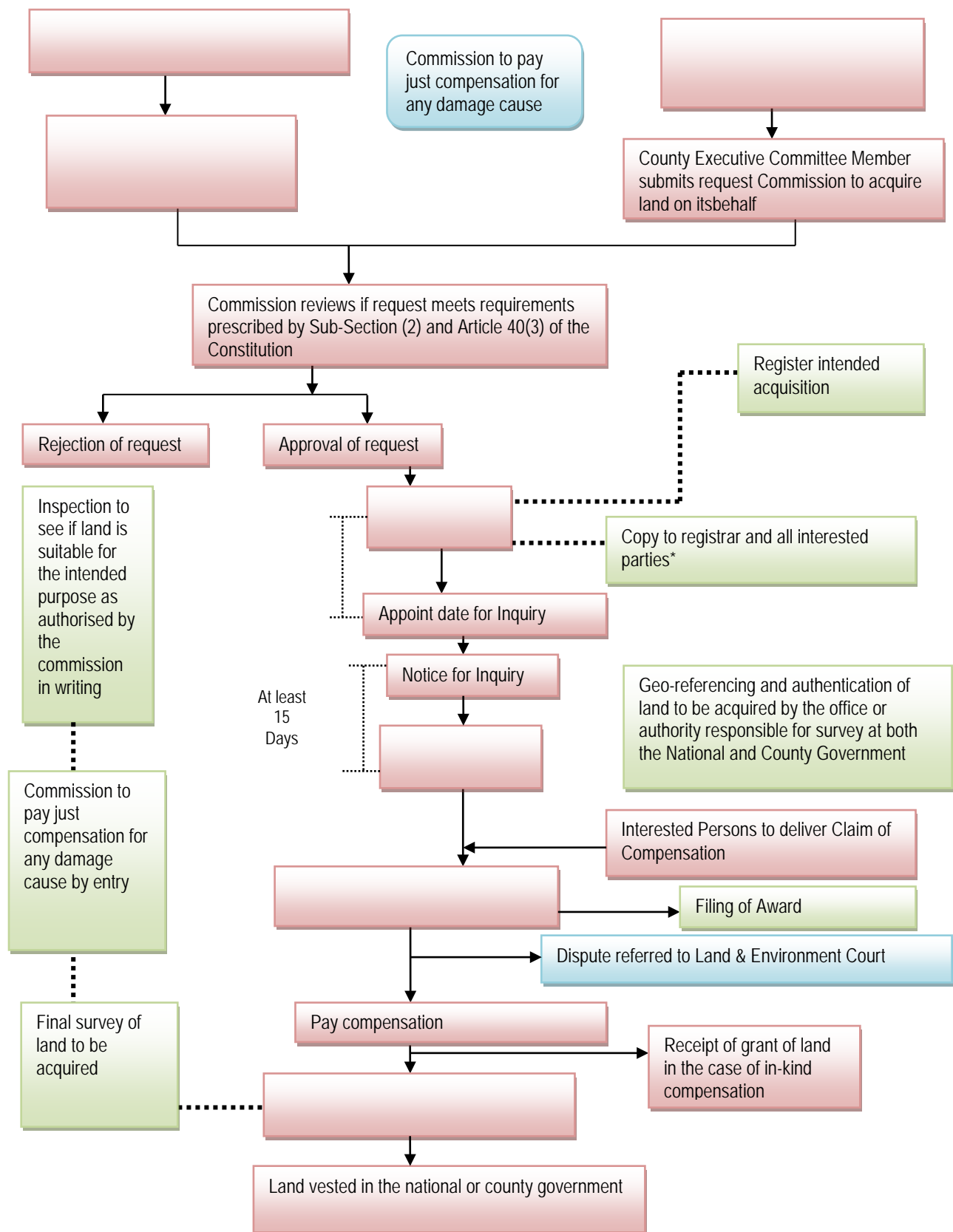


Figure 5-1 Procedure for Land Acquisition

(d) Land transfers

Section 43 defines “transfer” as a conveyance, an assignment, a transfer of land, a transfer of lease or other instrument used in the disposition of an interest in land by way of transfer.

It further provides that a proprietor may transfer land, a lease or a charge to any person (including himself or herself), with or without consideration, by an instrument in the prescribed form and that the transfer shall be completed by the registration of the transferee as proprietor of the land, lease or charge.

From this provision, the transferee of a charge may require the charger to execute the transfer for the purpose of acknowledging the amount due under the charge at the date of execution of the transfer.

(e) Transmission of land ownership upon death

The provisions of this law are relevant to the process of succession for any PAPs who are yet to update land ownership documents due to death of the registered land owner.

Section 49, 50 and 51 provide that if one of two or more joint proprietors of any land, lease or charge dies, the Registrar shall, on proof of the death, delete the name of the deceased from the register by registration of the death certificate.

Also, if a sole proprietor or a proprietor in common dies, the proprietor’s personal representative shall, on application to the Registrar in the prescribed form and on production to the Registrar of the grant, be entitled to be registered by transmission as proprietor in the place of the deceased with the addition after the representative’s name of the words “*as executor of the will of (.....) [deceased]*” or “*as administrator of the estate of (.....) [deceased]*”, as the case may be.

Upon production of a grant for the above, the Registrar may, without requiring the personal representative to be registered, register by transmission;

- a) Any transfer by the personal representative; and
- b) Any surrender of a lease or discharge of a charge by the personal representative.

In this section, “grant” means the grant of probate of the will, the grant of letters of administration of the estate or the grant of summary administration of the estate in favour of or issued by the Public Trustee, as the case may be, of the deceased proprietor.

Subject to any restriction on a person’s power of disposing of any land, lease or charge contained in an appointment, the personal representative or the person beneficially entitled on the death of the deceased proprietor, as the case may be, shall hold the land, lease or charge subject to any liabilities, rights or interests that are unregistered but are nevertheless enforceable and subject to which the deceased proprietor held the same, but for the purpose of any dealing the person shall be deemed to have been registered as proprietor thereof with all the rights conferred by this Act on a proprietor who has acquired land, a lease or a charge, as the case may be, for valuable consideration.

The registration of any person as aforesaid shall relate back to and take effect from the date of the death of the proprietor.

5.2.4 The Valuers Act, Cap 532

The Act establishes a board (Valuers Registration Board-VRB) with the responsibility of registering the valuers and regulating their activities according to the provision of the Act.

In this project, the Act is triggered since a registered valuer is required to carry out valuation estimates for the project according to the regulations in the Act. The Valuer who is carrying out the valuation of the affected assets on behalf of the proponent is registered in accordance to the Act. Such Valuers must be full members of the Institute of Surveyors of Kenya (ISK) and in executing their mandate also observe other statutes that govern valuation such as the Land Registration Act, 2012 that regulates the valuation for land and the Rating Act Cap 267 that governs valuation for rating.

5.2.5 Land Adjudication Act, Cap. 284

An Act of Parliament to provide for the ascertainment and recording of rights and interests in Trust land, and for purposes connected therewith and purposes incidental thereto

Section 13. (1) Every person who considers that he has an interest in land within an adjudication section shall make a claim to the recording officer, and point out his boundaries to the demarcation officer in the manner required and within the period fixed by the notice published under section 5 of this Act.

(2) Every person whose presence is required by the adjudication officer, demarcation officer, recording officer, committee or board shall attend in person or by a duly authorized agent at the time and place ordered.

(3) If any person who is ordered to attend fails to attend in person or by a duly authorized agent, the demarcation, recording, adjudication or arbitration, as the case may be, may proceed in his absence.

(4) If the demarcation officer or the recording officer considers that a person who has not made a claim has an interest in land within the adjudication section, he may but is not bound to, proceed as if that person had made a claim.

Most of the land in the project area is leasehold land held in Trust by the County authorities and the occupants either have allocation letters or titles for the land. The proponent shall comply with the provisions of the Act in demarcating and ascertaining the ownership of the project affected Land that has been allocated to people.

Land tenure refers to the terms and conditions under which rights to land and land-based resources are acquired, retained, used, disposed of, or transmitted. Rules of tenure define how property rights to land are to be allocated within societies. They define how access is granted to rights to use, control, and transfer land, as well as associated responsibilities and restraints. In simple terms, land tenure systems determine who can use what resources, for how long, and under what conditions. Land tenure relationships may be well-defined and enforceable in a formal court of law or through customary structures in a community. Alternatively, they may be relatively poorly defined with ambiguities open to exploitation. In broad terms, land tenure rights are often classified according to whether they are formal/statutory or informal/customary.

- Public Land;
- Formal property rights may be regarded as those that are explicitly acknowledged by the state and which may be protected using legal means. Statutory land tenure system is governed by modern law and supported by documentary evidence, such as a title deed or lease certificate, and administered by the government.

- Land ownership under the statutory tenure system is often built on freehold or leasehold entitlements to the land and offers exclusive rights to the owner, which guarantee land tenure security.
- Informal property rights are those that lack official recognition and protection. Customary land tenure system is governed by unwritten traditional rules and administered by traditional leaders. Active occupation or usage of a piece of land is the main evidence of ownership or an existing interest on the land. In customary tenure, access to land is contingent upon tribal or community membership controlled by the chief. Households have strong, exclusive residential rights, seasonally exclusive rights to arable land, and shared rights to grazing land and natural resources. Land is not alienable from the community trust, so it cannot be used as collateral for loans. Land tenure is often categorized as:

(a) Public Land

This is land owned by the Government for own purpose and which includes unutilised or delineated government land reserved for future use by the Government itself or may be available to the general public for various uses. The land is administered under The Land Registration Act, 2012.

(b) Community/Trust Land

Community land refers to land lawfully held, managed and used by a specific community. It is a right of commons that exists within a community where each member has a right to use independently the holdings of the community. For example, members of a community may have the right to graze cattle on a common pasture. This creates a powerful system of land allocation regimes and a tenure system designed to preserve the asset base for current and future generations. Communities traditionally see land and kinship in a genealogical map through which access to land is attained. Families and individuals are allocated rights to use the land in perpetuity, subject only to effective utilization. The ultimate ownership (radical title) vests in the community.

(c) Private Land

Private land refers to land held by an individual or other entity under freehold or leasehold tenure. It is the assignment of rights to a private party who may be an individual, a married couple, a group of people, or a corporate body such as a commercial entity or non-profit organization. For example, within a community, individual families may have exclusive rights to residential parcels, agricultural parcels and certain trees. Other members of the community can be excluded from using these resources without the consent of those who hold the rights. Alienation of private rights to land should take into account all other legitimate rights or interests (spouses and children rights or interests) held or claimed by other persons over the affected land.

Private land may be held under either of the following tenures;

(d) Freehold Tenure

This tenure confers the greatest interest in land called absolute right of ownership or possession of land for an indefinite period of time, or in perpetuity. The Land Registration Act, 2012 of the Laws of Kenya governs freehold land. Freehold connotes the largest quantum of land rights, which the sovereign can grant to an individual. The absolute proprietorship was introduced with the intention of extinguishing customary tenure and replacing it with rights that would be individually and exclusively held.

(e) Leasehold Tenure

Leasehold is an interest in land for a definite term of years and may be granted by a freeholder, usually subject to the payment of a fee or rent and is subject to certain conditions, which must be observed. e.g. relating to developments and usage.

Leasehold involves the derivation of rights from a superior title for a period of time, certain or capable of being ascertained and the enjoyment of such rights in exchange for specific conditions including, but not limited to, the payment of rent. Leasehold tenure provides a flexible mechanism for transacting rights in land and for land use control. It is a private contractual right subject to the conditions imposed by the owner and grants exclusive rights to the leaseholder. Other tenure types include

5.2.6 Land Related Legal Issues

Broadly, interests in land can be grouped into two.

- The rights that are held through traditional African systems and
- Rights that derive from the English system introduced and maintained through laws enacted first by colonialists and later by the Independent Kenya governments.

The former is loosely known as customary tenure bound through traditional rules (customary law). The latter body of law is referred to as statutory tenure, secured and expressed through national law, in various Acts of Parliament.

5.2.7 Other Interests include:

- Reservations of other government or trust land to government ministries, departments or Parastatals for their use.
- Non-formalised defacto tenure by which people, individually or in groups invade and occupy other peoples government land particularly in the major urban centres.
- Minor interest such as easements, way-leaves and temporary occupation licences.

5.2.8 Land Acts Repealed by the Land Act 2012

The following Acts were repealed through the Land Act 2012:

- The Wayleave Act, Cap 292;
- The Land Acquisition Act, Cap 295.

5.2.9 The Land Registration Act 2012

This is an Act of Parliament intended to revise, consolidate and rationalize the registration of titles to land, to give effect to the principles and objects of devolved government in land registration, and for connected purposes.

Section 7(1) of the Act provides for establishment of a land registry in each registration unit which shall keep registers of the following regarding land:

- A land register, in the form to be determined by the Commission;
- The cadastral map;
- Parcel files containing the instruments and documents that support subsisting entries in the land register.
- Any plans which shall, after a date appointed by the Commission, be geo-referenced;

- The presentation book, in which shall be kept a record of all applications numbered consecutively in the order in which they are presented to the registry;
- An index, in alphabetical order, of the names of the proprietors; and
- A register and a file of powers of attorney.

Further, section 9 (1) provides that the Registrar shall maintain the register and any document required to be kept under this Act in a secure, accessible and reliable format. These documents include:

- Publications, or any matter written, expressed, or inscribed on any substance by means of letters, figures or marks, or by more than one of those means, that may be used for the purpose of recording that matter;
- Electronic files; and
- An integrated land resource register.

The register, as provided for in part 2 of section 9, shall contain the following particulars;

- Name, personal identification number, national identity card number, and address of the proprietor;
- In the case of a body corporate, name, postal and physical address, certified copy of certificate of incorporation, personal identification numbers and passport size photographs of persons authorized and where necessary attesting the affixing of the common seal;
- Names and addresses of the previous proprietors;
- Size, location, user and reference number of the parcel; and
- Any other particulars as the Registrar may, from time to time, determine.

These provisions are essential throughout the RAP process including the verification of land ownership and update of land ownership documentation arising from acquisition of the wayleave and land for intake and water storage facilities.

5.2.10 Land Acts Repealed by the Land Registration Act 2012

The following Acts have since been repealed through the Land Registration Act 2012 and other related new legislations to give effect to the new constitution:

- The Indian Transfer of Property Act, 1882;
- The Government Land Act, Cap. 280;
- The Registration of Titles Act, Cap. 281;
- The Land Titles Act, Cap. 282;
- Registered Land Act, Cap. 300.

5.2.11 Community Land Act 2016

PART V on conversion of land, Section 39 (3), requires that before conversion of community land into any other category of land a general meeting of the community must grant approval for such conversion.

Section 40 (2) (3) state that Community land shall be compulsorily acquired only if it is for a public purpose or public interest subject to prompt payment in full of just compensation to the community and that transfer of community land shall, subject to the approval of the members of the community in a general meeting, be done in accordance with the Land Act.

Section 41(2) requires that Conversion of land requires approval of members of the community in a general meeting in the case of land managed and administered by a Committee. Section 44

requires that adequate compensation shall be made to the affected community where land is set aside for public purposes.

5.2.12 The Land Laws (Amendment) Act, 2016

This is an Act of Parliament to make further provision as to the functions and powers of the National Land Commission, qualifications, and procedures for appointments to the commission; to give effect to the objects and principles of devolved government in land management and administration, and for connected purposes.

Section 8 of the Land Act is amended to include a new provision requiring NLC to keep a register of all private and community land converted into public land through compulsory acquisition. For private land, it also requires that the NLC keep a record of the names and addresses of all persons whose land was compulsorily acquired.

Section 77 also revises the procedures through which NLC can acquire land on behalf of the national and county government to cover all land not just public land. It also includes additional clauses for applications that would be rejected by substituting with the following:

(4) In the event that the Commission has not undertaken the acquisition in accordance with subsection (3) for the reasons stated in subsection (3) within thirty days, it shall give to the acquiring authority the reasons for the decline and the conditions that must be met.

5.2.13 The Land and Environment Court Act 2011

This is an Act of Parliament to give effect to Article 162 (2) (b) of the Constitution; to establish a superior court to hear and determine disputes relating to the environment and the use and occupation of, and title to, land, and to make provision for its jurisdiction functions and powers, and for connected purposes.

The principal objective of this Act is to enable the Court to facilitate the just, expeditious, proportionate and accessible resolution of disputes governed by this Act.

Section 13 (2) (b) of the Act outlines that in exercise of its jurisdiction under Article 162 (2) (b) of the Constitution, the Court shall have power to hear and determine disputes relating to environment and land, including disputes:

- Relating to environmental planning and protection, trade, climate issues, land use planning, title, tenure, boundaries, rates, rents, valuations, mining, minerals and other natural resources;
- Relating to compulsory acquisition of land;
- Relating to land administration and management;
- Relating to public, private and community land and contracts, chooses in action or other instruments granting any enforceable interests in land; and
- Any other dispute relating to environment and land.

Section 24 (2) also states that the Chief Justice shall make rules to regulate the practice and procedure, in tribunals and subordinate courts, for matters relating to land and environment.

5.2.14 The Prevention, Protection and Assistance to Internally Displaced Persons and Affected Communities Act, 2012

An Act of Parliament to make provision for the prevention, protection and provision of assistance to internally displaced persons and affected communities and give effect to the Great Lakes Protocol on the Protection and Assistance to Internally Displaced Persons, and the United Nations Guiding Principles on Internal Displacement and for connected purpose.

Section 3 of the Act state that 'displacement and relocation due to development projects shall only be lawful if justified by compelling and overriding public interests and in accordance with the conditions and procedures in Article 5 of the Protocol, Principles 7-9 of the Guiding Principles and as specified in sections 21-22 of this Act.

Displacement and relocation which come about due to development projects or projects to preserve the environment should be:

- Authorized and carried out in accordance with the applicable law;
- Justified by compelling and overriding public interests in the particular case; and
- Conducted when no feasible alternatives exist.

5.2.15 The Matrimonial Property Act 2013

The Matrimonial Property Act 2013 sets out the law and procedures for creation and division of a marital estate. It also stipulates how and by whom matrimonial property should be managed as well as how it should be divided at the end of a marriage.

Under section 6 of the Act, Matrimonial Property is described as the matrimonial home, household goods and effects in the matrimonial home, immovable property owned by either spouse, which provides basic sustenance for the family and any other property acquired during the subsistence of the marriage which the spouses expressly or impliedly agree to be matrimonial property.

Under section 3 (2) of the act, the parties to a marriage have equal rights and obligations at the time of the marriage and at the dissolution of it. Matrimonial property shall be deemed to vest in the spouses in equal shares regardless of the contribution of either of them towards the acquisition thereof.

Section 12(1) provides that no estate or interest in any matrimonial property shall be alienated in any manner without the prior consent of both spouses and that neither spouse shall be liable to be evicted from the matrimonial homes except in accordance with a court order.

The provisions of this Act are relevant to the recognition of the role of both spouses in the decisions connected to matrimonial property to be affected by the project, and especially compensation payment on the same.

5.2.16 The Children Act, 2001 (Revised 2010 and 2012)

This is an Act of Parliament to:

- Make provision for parental responsibility, fostering, adoption, custody, maintenance, guardianship, care and protection of children;
- Make provision for the administration of Children's institutions;
- Give effect to the principles of the convention on the Rights of the Child and the emphasis on the African Charter on the Rights and Welfare of the Child and for connected purposes.

Part 2 of the Act puts special attention to the safeguards for the Rights and Welfare of the Child with special emphasis on the Right to:

- Education, health care and religious education;
- Protection from child labor, drugs, sexual exploitation and other forms of abuse;

- Protection from harmful cultural rites such as early marriage or other cultural rites, customs or traditional practices that are likely to negatively affect the child's life, health, social welfare, dignity or physical or psychological development.

The RAP will undertake to observe the Children's Act so that the child enjoys the full Rights under this project.

5.3 Formal Processes Involved with Compulsory Acquisition

5.3.1 The Need to Acquire Land for the Project

KWSCRPMU / National Irrigation Board (NIB) - PIU through the Ministry of Water and Irrigation (MOWI) intend to provide irrigation water to farmers where they currently reside in the project area.

Majority of the land parcels (99.5% or 4,075 ha) that can be used to develop the irrigation infrastructure belongs to private individuals. The rest of the 0.5% or 22 belong to Churches, Community, County Government, Nursery, Primary and Secondary Schools. To be able to fulfil the mandate of providing irrigation water to farmers, Land has to be acquired for the construction of the intake infrastructure, canals, drains, dykes and offices.

Although the route of the proposed Project minimizes disruption to settlements and natural resources, it is unavoidable that a significant amount of land along the right of way that is currently owned, occupied or being used by different stakeholders for residential and agricultural purposes is going to be affected. This RAP report therefore outlines the PAPs and how they are going to be compensated following the relevant provisions of the Laws of Kenya and World Bank OP 4.12.

5.3.2 Process Involved with Land Acquisition

The Constitution of Kenya 2010 under Article 67 and the Land Act 2012 under Article 107, the National Land Commission is given the sole authority to carry out Compulsory Acquisition of Land on behalf the National and County Governments. The Process of land acquisition is explicitly outlined in the Land Act, 2012 and the National Land Commission Act 2012 as described below:

Step 1: Acquiring Agency to evaluate and consider that it is necessary to acquire land for public purpose.

Step 2: Formal request will be made by Acquiring Agency, in this case MOWI / KWSCRPMU & NIB-PIU, to the National Land Commission indicating the purpose of the land to be acquired. The request will seek to prove that the land is needed for public purpose in this case Lower Nzoia Irrigation Project and Nzoia Flood Protection Structures.

Step 3: The Commission will consider the request in view of the guidelines. If the Commission is convinced that the land is required for public purpose, the Commission will write to the Acquiring Agency (MOWI / KWSCRPMU & NIB-PIU) to that effect, and direct them to acquire the land.

Step 4: The Commission will then give "Notice of Intention" to acquire the land through the "Kenya or County Gazette". The public announcements will be made widely in standard mass communication avenues such as newspapers and on the radio. The "Notice of Intention" must mention the public body (MOWI / KWSCRPMU & NIB-PIU) and the public purpose (Irrigation) for which the land is to be acquired. The "Notice of Inquiry" must mention places and fixed dates when persons interested in the subject land (PAPs) are to submit their claims to the NLC. After 30

days of release of notice of inquiry, NLC will release a Notice of Inquiry for a consultative public meeting. The notice will mention the date and the venue of the meeting. During the meeting the land owners will be explained to the intention to acquire land by MOWI / KWSCRPMU & NIB-PIU and purposes of acquisition of such land. They will also be informed of the compensation award.

The compensation award is determined considering the following:

- Market value of the land taken;
- Any damage sustained or likely to be sustained by reason of severing such land from his other land;
- Any damage from loss of profits over the land; and,
- Additional 15 per cent of market value of land for disturbance.

Generally the principle on which compensation is based is that the value to the owner of land taken would be greater than its market value. There are questions of severance, injurious affection, and disturbance.

The only reasonable compensation to a dispossessed owner would be to put him into a position to reinstate him somewhere else so as to be able to carry on his activities substantially unaltered and undiminished.

Step 5: MOWI / KWSCRPMU & NIB-PIU will present the actual entitlement or agreed compensation award as in the RAP for compensation purposes by NLC. NLC will make the award on behalf of Government of Kenya.

Step 6: The award will be issued in the prescribed form indicating the amount of compensation awarded by NLC while the statement form gives the landowners option of acceptance or rejection of the award. If the landowner accepts the award, the NLC will issue a cheque in settlement together with a formal letter.

Step 7: Once NLC has made payment of full amount, it will issue a "Notice of Taking Possession and Vesting" to the Landowner. The notice instructs the landowner to take his/her title for amendment or cancellation. It is copied to the Government Land Registrar to make necessary changes to the affected deed. On the other hand, if the owner rejects the award, NLC deposits the money in special account pending the former's appeal. Compensation is based on 'just and fair compensation'.

Section 117 of the Land Act 2012 allows for in-kind compensation as follows:- Notwithstanding anything contained in the Lands Act, where the land is acquired for the Government, NLC may agree with the person whom it has determined to be the proprietor of the land that person, instead of receiving an award, shall receive a grant of land, not exceeding in value the amount of compensation which it considers would have been awarded, and upon the conclusion of the agreement that person shall, be deemed conclusively to have been awarded and to have received all the compensation to which he is entitled in respect of his interest. An agreement under subsection (1) shall be recorded in the award. Such a grant can be another land or anything equivalent to the value of the land.

5.4 Comparison of GOK Constitution and World Bank OP 4.12

As shown in the description of the Kenyan Constitution and in the legislation and laws, generally, there has been a focus on the provision of privately defined land titles. In Kenya, only 15 percent of the national lands are titled. There are many other forms of landownership, lease, or use. The consistency of provisions in the draft Guidelines on Resettlement and Evictions (May 2010) with those of the World Bank's Operational Policy 4.12 on Involuntary Resettlement (OP4.12) shows that land and assets are defined in Kenya differently in terms of occupancy rights, anti-eviction rights, adverse possession, unregistered leases and rentals.

OP 4.12 requires that affected communities be consulted regarding project implementation and resettlement. Affected communities should also receive the opportunity to participate, implement, and monitor resettlement. In Kenya, conventional land registration (or titling) systems tend to be highly centralized and rely heavily on professionals, who are mostly based in the country's capital city. Poorer and illegal occupants of lands do not have access to these professionals and are often left without title. The differences in approach vary largely in the application of the land tax and land registration (cadastral). Since majority of land occupants are non-titled within a county or municipality, the land tax system does not work in terms of tax parcels, tax records, and tax procedures which often make the census-taking of project affected persons (PAPs) as defined in the Bank's OP4.12 more orderly. This becomes problematic in squatter settlements or in protected forests where some evictions of vulnerable (indigenous) groups have allegedly taken place.

Finally, there is also no provision in the laws of Kenya that the state should attempt to minimize involuntary resettlement. However in this circumstance the World Bank guidelines on involuntary resettlement will supersede and hence apply in its entirety. Refer to Table 5-1

Table 5-1 Comparison of Kenyan and WB Policies

Types of Affected Persons/ Lost Assets	Kenyan Law	World Bank OP 4.12	Comparison gaps	Gap Filling Measures
Section 1: Property land rights				
Land Owners	There are two systems of substantive land law, three systems of conveyances, and five systems of registration. The two systems of substantive law are under: (i) the <i>Indian Transfer of Property Act 1882 as amended by 1959 Amendment Act</i> ; and (ii) <i>The Land Registration Act, 2012. part X Lawsof Kenya; and Registration of Documents ActChapter 285 Laws of Kenya</i> ;	Through census and socio-economic surveys of the affected population, identify, assess, and address the potential economic and social impacts of the project that are caused by involuntary taking of land (e.g., relocation or loss of shelter, loss of assets or access to assets, loss of income sources or means of livelihood, whether the affected person must move to another location) or involuntary restriction of access to legally designated parks and protected areas Land-for-land exchange is the preferred option; compensation is to be based on replacement cost.	Kenya has no specific legislation that explicitly addresses the issues of involuntary resettlement or forced evictions. There are laws and legislations that have provisions referring to resettlement but they vary in substance and process.	This RAP follows OP 4.12 and therefore implementation will be based on it.
Land Tenants/Squatters	Rentals and leases are valued separately. Landlord and Tenant (shops, hotels, catering, small businesses) Cap 301 Section 4 of the Act provides that: (i) notwithstanding the provisions of any other written law or anything contained in the terms and conditions of a controlled tenancy, no such	For those without formal legal rights to lands or claims to such land that could be recognized under the laws of the country, the government should provide resettlement assistance in lieu of compensation for land, to help improve or at least restore those affected persons' livelihoods	Those without formal legal rights or claims to such lands are not entitled to be resettled or compensated.	The RAP has followed World Bank OP 4.12 Recommendation

Types of Affected Persons/ Lost Assets	Kenyan Law	World Bank OP 4.12	Comparison gaps	Gap Filling Measures
	tenancy shall terminate or be terminated, and no term or condition in, or right or service enjoyed by the tenant of, any such tenancy shall be altered, otherwise than in accordance with the following provisions of this Act; (ii) a landlord who wishes to terminate a controlled tenancy, or to alter, to the detriment of the tenant, any term or condition in, or right or service enjoyed by the tenant under, such a tenancy, shall give notice in that behalf to the tenant in the prescribed form;			
Section II: Resettlement and compensation process				
Timing of compensation payments	"Provision is made by a law applicable to taking of possession or acquisition for the prompt payment of full compensation"	Implement all relevant resettlement plans before project completion and provide resettlement entitlements before displacement or restriction of access. For projects involving restrictions of access, impose the restrictions in accordance with the timetable in the plan of actions.	There is no equivalence on implementing all relevant resettlement plans before project completion or on providing resettlement entitlements before displacement or restriction of access.	The provision has been in this RAP that all compensation and resettlement issues has to be done prior to land acquisition by the project proponent.
Calculation of compensation and valuation	According, to the <i>Land Act 2012</i> the licensed valuer inspects the affected land and values it for compensation. The award	Bank policy requires: (a) prompt compensation at full replacement cost for loss of assets attributable to the project; (b) if there is relocation,	There are no equivalent provisions on relocation assistance, transitional support, or the provision of civic infrastructure.	The RAP document has provided for relocation assistance, transitional support, or the provision of

Types of Affected Persons/ Lost Assets	Kenyan Law	World Bank OP 4.12	Comparison gaps	Gap Filling Measures
	is issued in a prescribed form, together with a statement form. The prescribed form indicates the amount of compensation awarded, while the statement gives the landowners the option of acceptance or rejection of the award. If the land owner accepts the award, the collector will issue a cheque in settlement together with a formal "Notice of Taking Possession and Vesting" Compensation is based on the market value for private land (<i>Part V</i>)	assistance during relocation, and residential housing, or housing sites, or agricultural sites of equivalent productive potential, as required; (c) transitional support and development assistance, such as land preparation, credit facilities, training or job opportunities as required, in addition to compensation measures; (d) cash compensation for land when the impact of land acquisition on livelihoods is minor; and (e) provision of civic infrastructure and community services as required.		civic infrastructure to ensure compliance with OP 4.12.
Relocation and resettlement	The <i>Land Registration Act, 2012</i> provides for the absolute proprietorship over (exclusive rights) by the state, and such land can be acquired by the land under the <i>Land Act 2012</i> in the project area. Furthermore, the <i>Land Adjudication Act Chapter 95</i> provides for ascertainment of interests prior to land registrations under the <i>Registered Lands Act</i> .	To avoid or minimize involuntary resettlement and, where this is not feasible, to assist displaced persons in improving or at least restoring their livelihoods and standards of living in real terms relative to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher	Kenyan laws do not appear to make provisions for avoidance or minimizing of involuntary resettlement	This study has tried all ways to minimise resettlement and where this was not possible this report provides for assistance of displaced persons in improving or at least restoring their livelihoods and standards of living in real terms relative to pre-displacement levels or to levels prevailing prior to the beginning of project implementation,
Completion of resettlement	According to the new Constitution, "every person	Implement all relevant resettlement plans before	There is no equivalence between Kenyan law and	This Report proposes for full compliance of OP 4.12

Types of Affected Persons/ Lost Assets	Kenyan Law	World Bank OP 4.12	Comparison gaps	Gap Filling Measures
and compensation	having an interest or right in or over property which is compulsorily taken possession of or whose interest in or right over any property is compulsorily acquired shall have a right of direct access to the High Court for the determination of his interest or right, the legality of the taking of possession or acquisition of the property, interest or right, and the amount of any compensation to which he is entitled;	project completion and provide resettlement entitlements before displacement or restriction of access. For projects involving restrictions of access, impose the restrictions in accordance with the timetable in the plan of actions.	World Bank policies on implementing relevant resettlement plans before project completion or on providing resettlement entitlements before displacement or restriction of access.	provisions.
Livelihood restoration and assistance	There are no specific provisions for livelihood restoration, but references are made to some form of assistance.	Livelihoods and living standards are to be restored in real terms to pre-displacement levels or better	There are no equivalent provisions on relocation assistance, transitional support, or the provision of civic infrastructure	This Report in chapter 12 provides for Livelihood restoration and assistance
Consultation and disclosure	The Kenyan Constitution provides for public participation at all levels, this is also further defined in Public Participation Act and Environmental Management and Coordination Act.	Consult project-affected persons, host communities and local NGOs, as appropriate. Provide them opportunities to participate in the planning, implementation, and monitoring of the resettlement program, especially in the process of developing and implementing the procedures for determining eligibility for compensation benefits and development assistance (as documented in a resettlement plan), and for	Even though notices are made in the Gazette, the practice has been that where a mitigation plan affects local communities, proceedings are conducted in the local language. This is significant considering the composition of those most likely to be affected (e.g. squatters).	Adequate consultations have been conducted during initial studies and the current studies to ensure that the implementation of this project compliance with the requirements of OP 4.12

Types of Affected Persons/ Lost Assets	Kenyan Law	World Bank OP 4.12	Comparison gaps	Gap Filling Measures
		establishing appropriate and accessible grievance mechanisms.		
Section III: Dispute Resolution				
Grievance mechanism and dispute resolution	The Land Act 2012 recognizes the right of the affected persons to refer their disputes to the Land and Environment Court, while the Land Policy advocates for negotiation, mediation and arbitration to reduce the number of cases that end up in the court system and delayed justice. Similarly,	the World Bank guidelines and policies call for appropriate and accessible grievance handling mechanisms for both displaced persons and host communities	There seem to be no gap in this area.	
Monitoring and evaluation	The laws of Kenya are not explicit on monitoring of the efficacy of compensation modalities to ensure livelihood restoration of displaced persons.	The World Bank policy however requires collection of baseline socio-economic data as a basis for monitoring the efficacy of livelihood restoration measures proposed in resettlement instruments. It also outlines the responsibilities of the borrower and the Bank in monitoring and evaluation of the borrower's compliance with the resettlement instrument. Upon completion of the project, the borrower is required to undertake an assessment to determine whether the objectives of the resettlement instrument have been achieved. If the assessment reveals that these objectives may not be	Kenyan laws do not appear to make any provision for monitoring.	The Consultant has provided for monitoring and evaluation procedures for this project.

Types of Affected Persons/ Lost Assets	Kenyan Law	World Bank OP 4.12	Comparison gaps	Gap Filling Measures
		realized, the borrower proposes follow-up measures that may serve as the basis for continued Bank supervision, as the Bank deems appropriate”.		

6 CENSUS FINDINGS

6.1 Census Coverage

The RAP study has identified those property holders and properties that as a result of the impending implementation of the infrastructure under RAP I study area will lose the right to own, use or otherwise benefit from a built structure, land (residential, agricultural, or pasture), annual or perennial crops and trees or any other fixed or moveable asset, either in full or in part, permanent or temporarily.

The census for RAP I area was carried out in North East and Central Ugenya locations in 3 Sub Locations and 9 villages indicated in See Table 2-6, Section 2.10.

6.2 Census Exercise Activities

6.2.1 Cut-off dates for Eligibility for Compensation

The entitlement cut-off date was set as 3 May 2017 and was communicated to the PAPs during the consultative forums and the date was formally adopted by all the PAPs. The date established a deadline for entitlement to compensation for those eligible and listed because the LNIP-1 and NFPS is to acquire land, assets, trees, crops and structures within the infrastructure area. Any new development or structures put up by the PAPs on the surveyed project infrastructure corridor after the entitlement cut-off date are not eligible for resettlement assistance and compensation. This was because this exercise was an update of the RAPs that were undertaken in 2013 and 2015 and that is why it was undertaken at the beginning of census.

6.2.2 Census activities

The census involved field visits and interviews at each homestead and household that was found within the project infrastructure way leaves corridors. The following activities were conducted:

- Identification of all PAPs through a pre-set questionnaire and interview guides as follows:
 - Separate questionnaires for households and business entities;
 - Institutions managing public and community assets were identified through key informant interviews using interview guides;
- Recruitment of enumerators from among the communities;
- Training of the enumerators and briefing on the objectives and project timelines as well as what is planned in terms of physical relocation, compensation for lost assets, and restoration of livelihood;
- Ground verification of the coordinates of the land parcels by the RAP Survey team through use of GPS and identification of the land owners who were either Household Heads or family administrators along the way-leaves of the canals / back flow area. The surveyor marked the center point and indicated the way leave corridor. The Valuer collected information on the affected assets by taking the sizes and counting of property as well as informing the PAP;
- During PAP census, the enumerators were issued with the semi-structured questionnaire and cadastral maps. Alongside Surveyors, Sociologists, Valuers, Elders and IWUA Block representatives, they visited each affected parcel of land and collected data pertaining to *land ownership details including verification of ownership documents, demographic data of households, affected assets and other structures, compensation preferences, vulnerable groups e.g. the disabled, widows, and aged,*

Orphan and Vulnerable Children (OVCs), female headed households and cultural aspects, among other details using the census tool. On completion of the interview, each claimant was required to append their signature on the last page of the questionnaire. In addition, identification and enumeration of community and institutional assets and infrastructures, both private and public, were recorded for purposes of compensation, and / or relocation.

- Photograph taking of PAP unit representatives;
- Registration of all affected properties and this included entering GPS coordinates, household head/administrator name, contacts, code number given and finally this information formed the PAP register roll.

Data collected from the field was analyzed and the following have been established:

- Persons affected by the project (PAPs);
- Total Land affected;
- Parcel numbers affected;
- Natural resources affected;
- Identification of Vulnerable PAPs e.g. the disabled, widows, aged, Orphan and Vulnerable Children (OVCs) among others.
- Details of affected structures and other assets;
- Compensation preferences;

The census data collection tool used, minutes of meetings and attendance lists are contained in Appendix 4.1 of this report.

6.3 Census Findings

6.3.1 Population of Project Affected Persons (PAPs)

The LNIP RAP I coverage is mainly in farmlands and areas of residential settlement. The affected property belongs to **239 property holders(all being PAHs)**. The total number of PAPs (affected population) is **943** persons as indicated in Table 6.1 (Male– 564, Female- 379).

Table 6-1 Total Number of Property Holders and PAPs Population

No.	Project Component	No. of Property Holders	Age category						Total
			Children		Adults		Not classified		
			Male	Female	Male	Female	Male	Female	
1	Southern Backflow, SBF	64	47	17	110	52	13	7	246
2	Northern Backflow, NBF	61	39	27	67	57	23	11	224
3	Connecting canal and Headworks Canal	87	49	42	94	88	59	43	375
4	New NIB office area in Block 7	27	18	15	45	20	-	-	98
									943

Affected children are those living in the households and are below 18 years. Among these affected households there are more adults than children and these include parents, adult children and in some cases relatives. When children are affected and may transfer schools they will need support in identifying a school and ensuring good performance is maintained. Details of the PAPs are presented in the Census Roll in Appendix 6.

6.3.2 Property Holders Losing Land

There are 220 property holders (households) losing land (mainly partially). The corresponding number of affected land parcels is 220.

6.3.3 Property Holders Losing Structures

There are 29 property holders (households / individuals) losing structures including, residential structures, fences, pit latrines, kitchen etc.

6.3.4 Property Holders losing both Land and Structures

There are 29 property holders (households) losing land and structures.

6.3.5 Property Holders Losing Businesses

There are no affected businesses.

6.3.6 Loss of Special Assets (Graves)

There is one grave within a household affected by the infrastructure.

6.3.7 Property Holders losing Trees and Crops.

There are a total of 87 property holders (households / individuals) losing trees and crops as a result of the irrigation infrastructure. Some of the trees / crops affected include trees for timber (Eucalyptus, Pine, Cypress, Euphorbia, Jacaranda, Graviella, "Ciala", "Ober", "Ng'owo", "Murende", Grevillea) and fruit trees (mangoes, guava & avocados). Also, 6 PAHs are losing various crops including cassava, sugarcane, pineapple heads and sweet potatoes.

6.3.8 Public / Community Structures

There were no affected land, structures and assets that fall under this category.

6.3.9 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 6.2.

Table 6-2 Affected Land Area

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 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

6.3.10 Vulnerable PAPs

The vulnerable persons affected by the Project are people who by virtue of gender, cultural practices, age, physical or mental disability, economic disadvantage or social status may be more adversely affected by resettlement than others and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits. It is necessary to have their numbers in order to make sure that during compensation they are represented and their plight is not neglected. The grievances address committee will deliberately have their issues represented adequately during compensation.

The vulnerable groups of persons affected by the project are found in **121 households** as indicated in Table 6.3. Those identified included elderly, physically challenged; mentally sick, those suffering from chronic illnesses, HIV/AIDS; orphans and widows/widowers.

Table 6-3 Vulnerable PAPs Categories

No.	Vulnerable PAPs Categories	Nos.
1	Number of Households with vulnerable persons	121
2	Total number vulnerable persons	292
3	Mentally ill	23
4	Physically Challenged Persons	25
5	People living with HIV/AIDS	36
6	Elderly / aged	63
7	Chronically ill	52
8	Orphans	58
9	Widows	35

Source; PAP census survey

The Vulnerable households are eligible for transitional assistance of **Kshs. 100,000/-** per household under the RAP because they have special needs and this is included in the amount in the Valuation Roll in Appendix 9. The amount takes care of land preparation, training and credit, counselling, social care and building social networks for the vulnerables as presented in Table 6-4. In addition, the widows will need extra support in terms of land succession making sure they are not disinherited.

Table 6-4 Special Assistance for Vulnerables

No.	Item	Amount (Kshs)
1	Land preparation	10,000
2	Training and credit	50,000
3	Counselling	10,000
4	Social care	20,000
5	Building new social networks	10,000
	Total	100,000

In order to facilitate relocation for the vulnerable the following livelihood restoration interventions will be undertaken by the Implementing agency, the Social Development Specialist and LRCC:

- Psycho-social support to be provided in conjunction with the Sub County Social Development Officers (SCSDO) and other relevant stakeholders of the county. This will be through counselling and liaison with the existing welfare support programs;
- Assistance with transport for their property and salvaged properties during resettlement, for those being resettled.
- The livelihood restoration programs will be instituted as follows;
 - To follow up on orphans and make sure they identify and register in school upon relocation.
 - Ensure Persons With Disability (PWDs) and those HIV affected gain access to support services in areas of new settlement and
 - Improve standard of living for caregivers to orphans, mentally sick, elderly and chronically ill by engaging them in social and economic empowerment projects
 - This to be supervised and monitored by the Social Development Specialist and LRCC.
- Widows, orphans and affected Vulnerable persons to be assisted through local administration and family for issuance of land registration documents;
- Relocation of the widows, orphans and vulnerable persons to be facilitated and
- Assist and monitor orphans to make sure that these children get back to school in case of relocation and ensure they are compensated
- Assist the mentally sick, people with disabilities, elderly /aged, chronically ill to access information and opportunities available to them from government or civil society in their areas of settlement;

- Monitor the resettlement of the vulnerable e.g. orphans to make sure they gain school transfers, the HIV affected and chronically ill have access to medication and the persons' with disability are locally registered with APDK office.

Once a vulnerable is identified during compensation, the Implementation committee takes interest to ensure that he/she gets his/her full compensation under the care system they will establish and the office of the Chief and NLC will approve before release of compensation package.

6.3.11 Permanently Displaced Project Affected Households(PAHs)

There are 11 Project Affected Households (PAHs) that will be permanently displaced as shown in Table 6-5, out of which there are 2 (two) Vulnerable Households.

Table 6-5 Property Holders Permanently Displaced

No.	Block/Section	No. of Permanently Displaced PAHs	No. of Permanently Displaced Vulnerable PAHs
1	Southern Backflow (SBF)	8	1
2	Northern Backflow (NBF)	1	0
3	Connecting canal (CC)	0	0
4	Head works Canal (HWC)	0	0
5	New NIB Office area	2	1
Total		11	2

From Focus Group Discussions (FGDs), those permanently or internally relocating structures preferred cash compensation for loss of land and structure and this will be done at full replacement cost. In addition, it was indicated that land is available on a willing buyer, willing seller basis and the only concern that emerged was the expected rise in cost of land once the compensation is implemented.

Though the 11 PAHs prefer cash compensation, this puts their whole household entitlement at risk of being misappropriated and further has the risk of delaying the project as they need to move out of the intake area before construction begins, especially the 3 households living at the intake area.

Consequently, the 11 PAHs will be assisted and facilitated by the project in securing new land and paying for it, upon which the balance of their entitlement will be given to them in cash as preferred by them.

The 2 (two) Vulnerable households will receive additional support / assistance as outlined in Sections 6.3.10 and 12.2.9. The nature of vulnerability in one household is chronic illness and the other HIV/AIDS.

Further assistance includes construction of new houses as outlined in the Livelihood Restoration Program (See section 12.2.9).

6.3.12 Preferred Mode of Compensation

From the responses, it was found that 99.5% of the PAPs would prefer cash compensation for all the losses while 0.5% of them preferred in-kind compensation for loss of land. Follow up should be done with this group and the relevant County and the County Commissioner's office during the disclosure period to determine the availability of resettlement land and the feasibility of acquiring such land closer to where the PAPs currently live. From review of the land tenure system in the area and discussions with key informants, it will be easier to buy land from the immediate owners.

6.3.13 Summary of Affected Property Holders and Property

A summary of the affected property holders and property as identified during the census is presented in Table 6.6.

Table 6-6 Summary Table of Affected Property Holders and Property

No.	Items	Number		
A	Affected Population			
	Total No. of Affected Property Holders (Individuals, Households and Institutions)	239		
	PAP Population	Total		943
		Adults	Male	316
			Female	217
		Children	Male	153
			Female	101
		Not classified (adults or children)	Male	95
			Female	61
	Vulnerable Group of Persons	Affected households		121
		Elderly / Aged		58
		Mentally Challenged		22
		Orphans		58
		Physically Challenged		21
		Chronically ill or Sick (Asthmatic, Epileptic, Sickle Cell Anemia, etc)		49
		Sick (HIV Positive)		31
		Widowed		35
	Permanently displaced PAPs			11
B	Affected Land			
	Total Number of Affected Land Parcels	220		
	Land Parcels Belonging to Individual Land Owners	220		
	Schools/College	0		
	County Governments	0		
	Churches	0		
	Community Land	0		
	Total Land Size to be Acquired for LNIDP Phase 2	56.6 ha / 141 acres		
C	Affected Structures			
	Total No. of Households with Affected Structures	29		
	Total No. of Affected Structures	86		
D	Affected trees and crops			
	Total No. of Households with Affected Trees	100		
	Trees for wood products (Acacia, Eucalyptus, Pine, Gravellia, Cypress, Ober', 'Ciala, etc) and Fruit trees (Mango, Avocado, , Guava, Paw, etc')	3,839		
	Total No. of Households with Affected Crops	6		
	Total No. of Affected Crops	Various crops		
E	Affected Business			
	Total No. of Households with Affected Business	0		
	Total no. of Affected Businesses	0		
	Total Value of Affected Business	0		
F	Graves			
	Total No. of Households with Affected Graves	1		
	Total No. of Affected Graves	2		

7 SOCIO-ECONOMIC SURVEY FINDINGS

7.1 Socio-Economic Baseline Survey Activities

The socio-economic survey began with desk study review of relevant documents such as 2009 Population and Housing Census Report, Siaya County Integrated Development Plan 2013 - 2017. Demographic information gathered during literature review was updated with the assistance of officers from the County Commissions Office (former Provincial Administration) during the field visits. The survey primary data collection was conducted between 6th and 7th July 2017. The enumerators from the respective sites were selected and trained in readiness for the exercise. The socio-economic survey sampled at 44 % of the total population of PAHs drawn from the sampled Ambira and Umala sub locations for the HWC, CC and Backflow area. The consultant with the help of elders and farmers' representatives selected and prepared the list of affected households.

Activities of the survey included the following:

- Consultation with officials of sub county government, community leaders, and other representatives of the affected population;
 - Secondary data collection and Literature review from documents and reports on Busia and Siaya Counties;
 - Consultations and meetings were conducted with the relevant County and Sub County Officials in Busia and Siaya;
 - Field work and primary data collection by the socioeconomic survey team began with the recruitment of the enumerators from the project area, training enumerators and pretesting the data collection tools which included the Household Questionnaire and checklists used for Focused Group Discussion, Key informants and observation;
 - Primary data collection included sampling, household interviews, key informants' interviews, FGDs meetings, observation and transect walk.
-

7.2 Socio-Economic Baseline Survey Findings

7.2.1 Project Beneficiary Population

The project beneficiaries in RAP I on Head Works Canal, Connection Canal and Back Flow areas are settled in Siaya County which has a land surface area of 2,530km² and water surface area is 1,005 km². With a total population estimated to be 885,762 persons (KNBS 2012 Population projections) comprising of 419,227 males and 466,535 female. The population in the phase 1 project area are drawn from Ligega, Ambira and Umala Sub Locations with an estimated total population of 17,859 (male 8,361 and female 9,498) and 4,118 households as per 2012 population projections from the 2009 census. The project area coverage is 38.2 km² with population density of 463/km² and these form part of the 20,000 persons (2,100 households) who are LNIP direct beneficiaries.

7.2.2 Demographic Characteristics and Administrative Settings

(a) Administrative Settings and Leadership Line Up

Administratively, there is a County Commissioners in charge of Siaya County and similarly there are 2 Deputy County Commissioners in charge of Ugenya and Ugunja Sub Counties assisted by Assistant County Commissioners and followed by chief and assistant chiefs at location and Sub-locations levels respectively. Every village is led by an elder appointed by the Chief or Assistant Chief to assist in matters that are important in public administration,

such as maintaining public order, implementation of government policies, dispute resolution and providing overall leadership to the communities in the area of jurisdiction. Most recently under the NyumbaKumi initiative, a peace committees and Huduma Committees have been set up and each of these are led by a Chairman who also reports directly to the Assistant Chief on peace and development matters respectively. The Chief, Assistant Chiefs and those working under him/her act as the bridge between the government and the people. Chiefs are generally respected by the community members. This hierarchy of leadership forms part of the Institutional Framework for the RAP implementation. This administration plays a significant role in dispute resolution, issuance of letters of confirming property ownership and therefore they chair in the RAP implementation committees at Location and Sub Location level.

The Sub Location has also been selected as the lowest administrative unit in this study. There are 3 Sub Locations that have been wholly or partly affected by the project RAP 1 irrigation infrastructure.

(b) Population Distribution at Sub-Locational Level in Project Area

The total population for the HWC, CC and Backflow area is estimated at 17,859 (male 8,361 and female 9,498) as of 2012 projections and (4,118 Households). The distribution is as in the Table 7-1

Table 7-1 Population Distribution at Sub-Locational Level

Sub County	Sub Locations	Population		Total population	Nos. of Households	Area in SQ KM	Population Density
		Male	Female				
Ugunja	Umala	3,037	3,533	6570	1,607	16.6	377
	Ambira	2,981	3,139	6120	1,352	9.6	607
	Ligega	2,343	2,826	5169	1,159	12.0	410
	Total	8,361	9,498	17,859	4,118	38.2	465

Source KNBS Kenya census 2009 (2012 projections)

The population density is 465/Km² which is high when it is compared to the Siaya County population density of 350 per km². Most of the population is settled in the small holder farming areas, where subsistence farmers eke a living mainly from agriculture, agribusinesses, small businesses and salaries.

(c) Population Settlement patterns

In Siaya County the predominant community are the Luo people and decision making is a collective process which is conducted through Barazas and specific community committees such as school management committees, community health committees etc. In addition the local leadership structure is significant and includes farmers' representatives, village elders, clan elders, religious leaders, retirees, teachers, chiefs and the County Commissioner's office. In addition they also have a clan leadership structure which is led by a Clan leader. This institution does not engage in any administrative matters and is restricted to providing leadership at the clan level. These may be consulted during the RAP mainly on matters of cultural values and land inheritance at family level.

Of relevance in the project context is that this is a patriarchal community where the man is the head of the household, men own the family Land; provide security and exercises overall decision making and leadership roles within the family unit. Women play domestic reproductive roles such as household chores, farm-work, and taking care of the family welfare.

7.2.3 Social Amenities

This section outlines the social amenities that are essential for development and improvement of livelihoods in the 3 sub locations. Among those social amenities and infrastructure that are likely to be beneficial and contribute towards livelihood improvements are roads infrastructure,

security, communication, energy, market centres, social capital etc. these are analysed as outlined below.

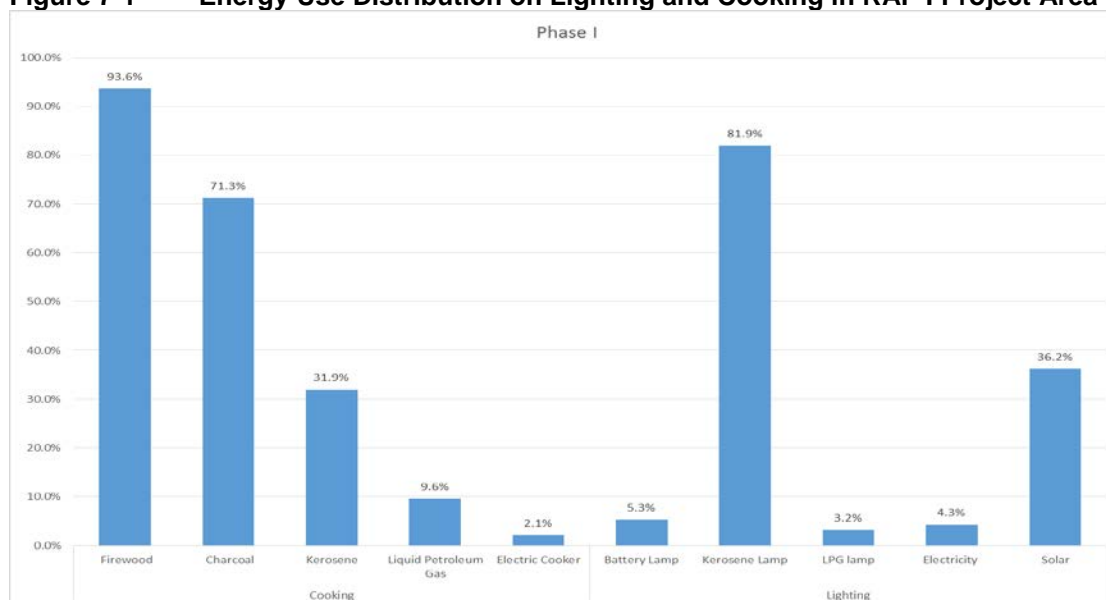
Roads infrastructure, Energy Sources/Electricity, Communication, Security and Social Capital/ and Cultural sites

(a) Energy and Electricity Connections

The major energy sources for lighting and cooking within Siaya Sub County with respect to level of use are fuel wood, kerosene, charcoal, solar, cooking gas and electricity. In the project areas electricity has been distributed under the on-going rural electrification program. The process of electricity distribution is on-going in all the market centres schools, health facilities and some households. Although households still find it expensive to afford the electricity connection to the homes. Only 4.3% of respondents use electricity for lighting and 36.2% using solar. Kerosene is more popular with 81.9% using kerosene for lighting.

Firewood is a major source (93.6%) of energy used for cooking with the other key source being charcoal. This is explained in the Figure 7-1 below;

Figure 7-1 Energy Use Distribution on Lighting and Cooking in RAP I Project Area



Source Household Survey

(b) Communication

For communication most people use the mobile telephone which serves for telephone, sending short messages and money transfer and mobile phone banking.

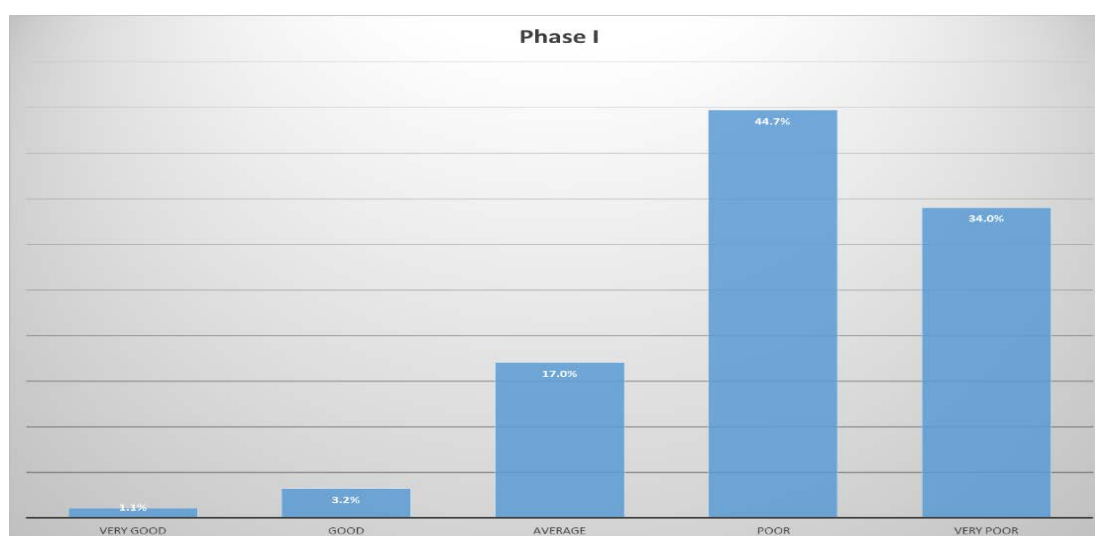
(c) Road Infrastructure

The only tarmac road is from Ugunja town to Ligegacenter along the Busia road. The other roads are all weather murram roads network such as the one from Ugunja to the intake/ Nzoia Market. The latter is major road and works are underway to upgrade it to a tarmac road. However most of the earth roads connecting the farms to the market centres are impassable during and after the rainy season and this includes the road to the HWC, CC and Back Flow which is impassable and non-existent to a large extent. These are maintained by the County government and also through the CDF budget. The bitumen roads need frequent maintenance to make them motor-able especially when it rains.

The poor state of roads is a cause for high prices on farm produce and also a hindrance to marketing of the same. Farmers normally transport their produce on motor cycles (BodaBoda)

which are a very common means of transport. Below is a chart indicating the conditions of the roads as given by respondents;

Figure 7-2 Road conditions in Phase I Area



(d) Market Centers in RAP I Project Area

There exists 8 market centres in the RAP I Area namely: Uranga, Nyadorera, Nzoia, Kayombi, Ugunja, Sango, Umina and Nthoya.

The markets are within good proximity of not more than 5 Kilometres for the local people and some are market centers and trading centres. The market centres have scheduled market days where farmers' sell and buy household wares, farm produce and livestock. All the centres' are connected to electricity and offer various services such as eateries, grocery shops, carpentry/construction works cereals' milling etc. to the local communities.

(e) Security – Police posts

For security reasons there are Administrative police posts in each administrative Location. These are mainly manned by minimum 2 administrative police officers (APs).

Conflict Resolution is also addressed under security as conflict may be a source of insecurity. In the project area this is handled by the Local Chief, Assistant Chief and village elders. Security meetings are held by the local administration on a weekly basis at the Sub County Deputy Commissioner's Office.

(f) Social Capital in RAP I Project Area

Social capital has a crucial role to play in improving rural livelihoods as it gives capacity to people's self-organization, social grouping and solidarity. Among the communities in Siaya County and more specifically in the RAP I area, they have community based groupings and civic organizations which the people are affiliated to and these were outlined during the FGD and also by key informant interviews;

Table 7-2 Community Organizations Working in the RAP I Project Affected Area

Name of Organization	Activities of the Organization
One Acre Fund	Promote agriculture through local community based groups/self-help groups
Kenya Women Finance Trust (KWFT)	Table banking and group guaranteeing in credit.
Ambira KE821- sponsored by ACK church	Provide assistance to orphans, and

	vulnerable children
Ambira Compassion Child Development project	Provide support to orphans
IMPACT research project	Assisting teenage girls who have dropped out of school
AMREF	Community Health Volunteers program Capacity Building community health committees (CHCs)
REAL –IPA (USAID project)	Supplying chlorine and chlorine dispensers at water sources
Ligega Elders' self-help group	Ligega livestock marketing
Odueng self-help group	

Source: Key Informants and FGD

These organizations are mostly formed as Cooperatives, SACCOs, Table Banking groups and Community Based Organizations or Self Help groups. The Non-Governmental Organizations (NGOs) in the area also work through these locally registered organizations. Such networks are important operatives and it can be argued that they are a strong ingredient for socioeconomic growth in communities where they operate and mostly act as social safety net for the community members particularly so in times of need such as the disruption / resettlement expected from the RAP.

(g) Cultural Sites in RAP I Area

Across the proposed area there are sacred sites and places of cultural value to the local communities. The loss of sacred sites is at two levels namely the household and at the community level. At the household level there are graveyards which are revered sites that do not get disturbed. Graves are viewed as connection routes between the living and the dead explaining the reluctance to let them go. Grave area is usually set aside from any future use almost permanently. There are 2 graves in one homestead that are affected by the project infrastructure. These will be compensated to facilitate the PAP to exhume and rebury to a new site. There are however no cultural sites or churches that will be affected in the project area.

7.2.4 Poverty Index in RAP 1 Project Area

The poor are described as those persons/households that do not have ability to meet the basic needs such as food, shelter, clothing, health, water and education. In Siaya County the poverty level is reported at 47.56 per cent (County Integrated Development Plan 2013 - 2017) compared to a national level of 34 per cent. The causes of poverty in these areas are diverse and include poor soil fertility leading to low farm yields, low income among households to afford farm inputs, over-reliance on traditional methods of farming and lack of alternative sources of income. These poverty levels are high compared to Kenya's poverty rate which is projected to be in the range of 34 and 42 per cent (Kenya Economic Update 2013; World Bank).

(a) Poverty at Household Level

At the household level the indicators of poverty include the following:

- i) Incomes: there is inability to meet basic needs since family incomes are mainly drawn from subsistence farming at 87.1%. There is limited extension services as reported that the nearest level for extension service providers is at Ward level and this is not adequate for agricultural practices unless the project introduces a paradigm shift;
- ii) Housing/Home Dwellings: Most houses in the project area are semi-permanent made of mud walls and mud floors and used corrugated iron sheets for roofing which are used by the not so rich people. Mud walled houses form 69.1% and grass thatched roofs 6.4% and these undergo annual refurbishment, therefore causing an economic pressure on household resources. It can be assumed that PAPs in grass thatched and semi-permanent houses once compensated they will construct permanent houses;

- iii) **Information Sources:** They have inadequate channels to information with the main channels being radio and mobile phones. Access to information will be critical in RAP implementation as they will need to be informed about the RAP schedules, process and project. The vulnerable such as mentally sick, people with disabilities, aged, chronically ill are likely to be closed from information and this must be addressed during RAP implementation.
- iv) **Gender Inequality:** the vulnerable groups are most affected by poverty. These include the widows and orphans since they may be disinherited due to cultural practices that do not recognize women in land ownership. During compensation it is critical that widows and orphans' interests are addressed, similarly the chronically ill, HIV affected persons, persons with disabilities will need special consideration to ensure they are settled after the RAP impacts;
- v) **Small and uneconomical land sizes,** poor crop and animal husbandry are another cause of poverty as this affects agricultural production. During RAP affected land owners should be compensated to facilitate replacement, relocation and resettlement.

(b) Poverty and Vulnerability

The survey revealed that some households had more than one vulnerable person and each identified vulnerability is represented singularly. The following percentages represent persons reported to be vulnerable in the RAP I project area community.

Table 7-3 Nature of Vulnerability

Type of Challenge	Percentage
i. Mentally Sick	12.8%
ii. Physically disabled	11.7%
iii. HIV/AIDS	20.2%
iv. Aged (Old)	38.3%
v. Chronically ill	14.9%
vi. Orphans	44.7%
vi. Others	7.4%

Source: Household interview

The Elderly: Slightly over 38.3% of the PAP households interviewed had over 65 years of age members in the households. Resettlement experience shows that the elderly often fail to adapt following displacement. This group of persons has an attachment to a place they call home, take long to identify new economic opportunity or /and lack capacity to obtain new sources of income, and lose social support systems as a result of community dispersion or social change. Like young children, the elderly are disproportionately vulnerable to disease in resettlement operations, and therefore this project will have to take into consideration their special needs.

People with physical or mental disabilities: From the household survey, 11.7% were reported as persons with physical disabilities in the family and 12.8% as mentally ill. Generally, the availability of special services for the persons with these disabilities in the project area is limited; support in majority of the cases is given by family members and the larger community as a coping strategy. These will need additional assistance in case of resettlement in order to understand the need to give up their current homes, orient themselves to new areas, and meet a whole set of other specific needs.

The Orphans; Among the PAPs there are orphaned children from among 44.7% of those interviewed which indicated they were taking care of orphaned children or orphans taking care of siblings. Children usually lack the legal, political, and economic capacity to protect their own standards of living. This should be considered for additional assistance to make sure that these children get back to school in case of relocation and they should not lose their inheritance during compensation.

Health/HIV Affected: Chronic diseases were reported by 14.9% and HIV AIDS by 20.2% and they are common. The HIV/ prevalence is high as provided by respondents and affects most households leading to high expenditure on medical expenses with more time and resources being spent on care giving. This challenge intensifies poverty and additional assistance is needed during the compensation in order to enable PAPs with such conditions to resettle or cope with any disruptions.

7.2.5 Housing and Home Dwelling

To assess housing and home dwelling roofing, walling and flooring materials were observed and most houses are indicated as semi-permanent and consequently require frequent refurbishment. Grass thatching has been practiced for a long time and this is fading as people adopt the maintenance free corrugated iron sheets. Grass is no longer easily available and therefore most people have abandoned grass thatched roofs. Corrugated roofing is common and majority of the households (93.6%) have used this type of roofing, compared to 6.4% with grass thatched roofs. Survey results also showed that 69.1% of the households used mud on the walls of their houses, 29.8% used cement, and 1.1% used stones. Furthermore floors for majority of the respondents (56.4%) were made from soil/mud compared to 42.6% cemented floors.

This is as indicated in the Table 7-4 below.

Table 7-4 Housing and Home Dwelling Roofing, Walling and Flooring Materials

		Frequency	Percentage
Roofing	Grass thatched	6	6.4%
	Corrugated Iron Sheet	88	93.6%
	Tiles	0	0.0%
Total		94	100.0%
Walls	Soil mud	65	69.1%
	Cemented	28	29.8%
	Stones	1	1.1%
	Other	0	0.0%
Total		94	100.0%
Floor:	Soil mud	53	56.4%
	Cemented	40	42.6%
	Other	0	0.0%
	Tiles/Timber	1	1.1%
Total		94	100.0%

Most homes have basic infrastructure of main house, kitchen, bathroom and toilet. This is explained in the table below.

Table 7-5 Homestead Composition in RAP I Project Area

Infrastructure	Percentages
Main House	100.0%
Kitchen	68.5%
Bathroom	33.7%
Toilet	60.9%
Cattle shed	41.3%
Small Stock Sty	6.5%
Water tank	9.8%
Grain Storage	9.8%

Source: Household Interview

Although majority (over 90%) are farmers and mainly produce cereals, only 9.8% have a granary for food storage. This confirms that most farmers buy food before the next harvest due to food insecurity.

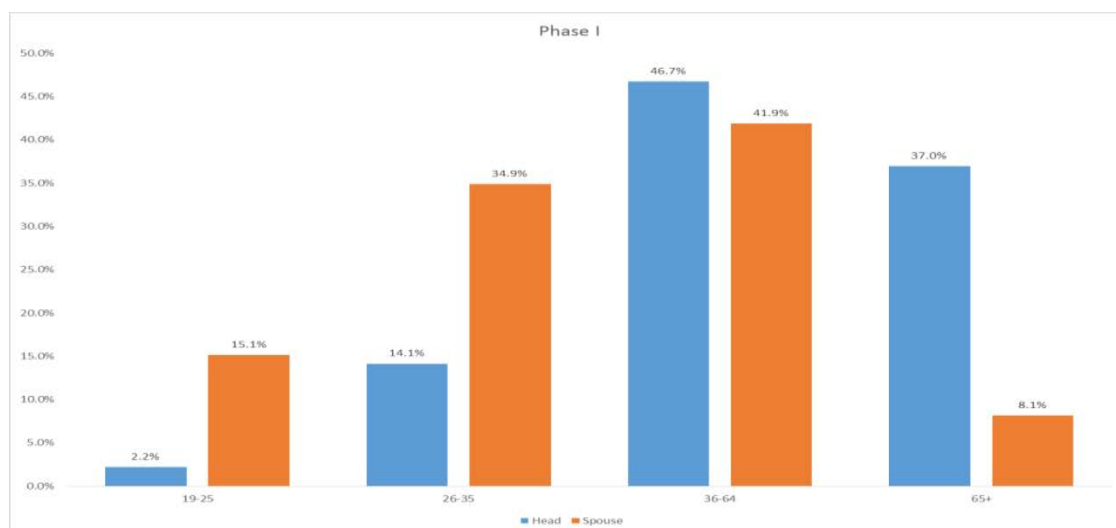
In case any of the structures is affected by the project infrastructure then it has been listed and a value attached for compensation.

7.2.6 Household Demographic characteristics

(a) Household Heads Age distribution

From the survey 37% of household head are over the age of 65 years while majority 46.7% households are headed by individuals aged 36 - 65 years which is an active work force below the government retirement age and would actively participate in the project. However those over 65 years may from cultural dimension reject relocation or require an additional cost in compensation particularly among the Luo community because culturally women in this age group are not expected to move from an existing house to start a home in a new house. During the RAP in such cases compensation will include extra costs for the respective cultural rituals to be performed.

Figure 7-3 Age distribution of household heads

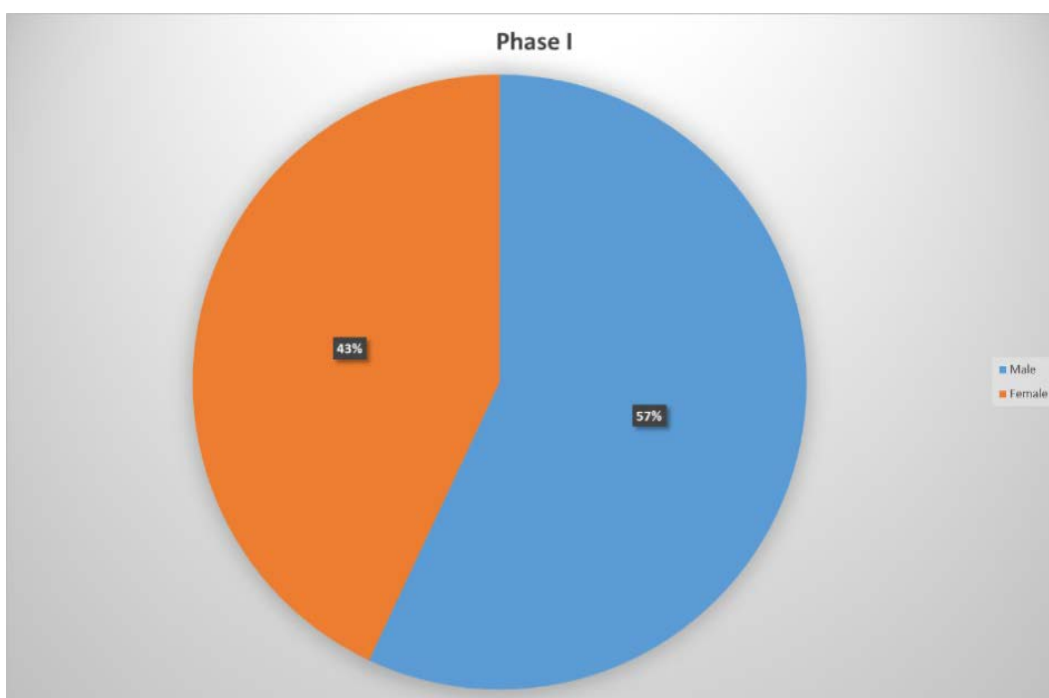


Source: Household interview

(b) Gender Distribution of Household Heads among the PAPs in RAP I Area

It was noted that affected households include female household heads which make up 43% of those interviewed. These include widows who form the larger group in this category of female household heads while the others are separated or single women. In the RAP widows fall under the category of special groups so that they are not disinherited during compensation. During discussions with opinion leaders and FGDs in the project area the fate of widows in the compensation and resettlement was featured prominently. This is because widows often lose land to the late husband's extended family who claim land and other assets. The community members felt that special consideration be given to female household heads during land adjudication and compensation. As an affirmative action these groups should first be assisted by the local administration and family to obtain title deeds as proof of ownership of the current land that they occupy. In addition to observe the Kenya constitution 2010 and the Matrimonial Property Act 2013 dispensation women can now inherit land and all movable or immovable properties. During the RAP implementation the Implementing committees are to be guided by the Kenyan laws.

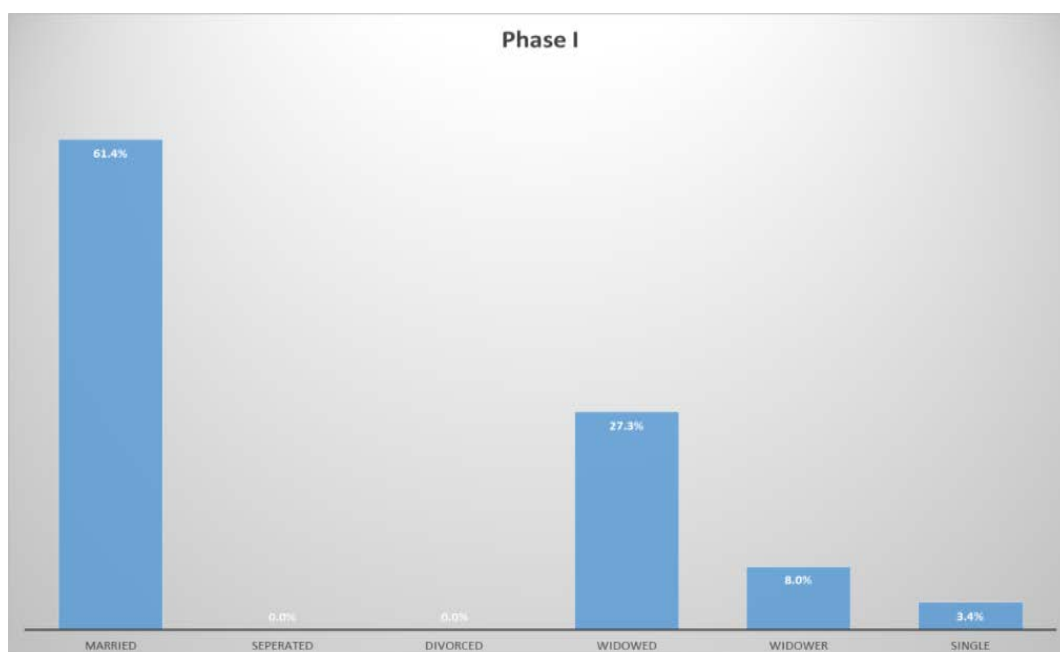
Figure 7-4 Gender distribution of household heads



Source: Household interview

Figure 7-5 is a demonstration of the marital status where the married 61.4% and household with one gender headed households for the 38.6% these include widows, widowers, never married/single separated and divorced as demonstrated in Figure 7-5 below;

Figure 7-5 Marital Status of Household Heads



Source: Household Survey

(c) Education

Education Institutions in the RAP I Project Area

There are a total of 3 public primary schools and no secondary schools in the RAP I area. Each of the schools run a school feeding program after realizing that children go to school hungry and according to the head teachers most parents unfortunately cannot afford to pay for this program. They fully support the project because it will improve food production and food supply to the schools. Moreover schools within the command areas have limited access to water sources and they are hopeful that they will access water for domestic use and farming under irrigation.

Table 7-6 Number of Schools in RAP 1 Project Affected Area

Sub location	Primary Schools – Day	Secondary schools – day
Ligega	1) Siror primary school	None in project area
Umala and Ambira	1) Ulawe primary school 2) Sango primary school 3) Nzoia Market primary school	None in project area

Source: Household Interview

Out of this list of schools that will benefit from the project none of the schools falls under the category of those affected by the project infrastructure;

(d) Capacities and Capabilities of PAPs in RAP Area

Educational Level

Education is essential in empowering people to take advantage of opportunities and as indicated average populations are educated as reported by PAPs who were interviewed. So that 62.3% men and only 35.3% women have received basic education with certificate in primary education and above. During the community introductory meetings what came out clearly is that they have capacity to interrogate information given and even how it affects and serves the people and this can be attributed to the fact that they are educated as indicated in the table below;

Table 7-7 Education levels of house hold head, education level by gender in RAP 1 Project Affected Area

RAP Project No.			Education level					Total
			None	Primary	Secondary	Tertiary	University	
I	Gender	Male	37.7%	41.5%	15.1%	1.9%	3.8%	100.0%
		Female	64.7%	32.4%	0.0%	2.9%	0.0%	100.0%

It is assumed that the educated can effectively articulate their issues and understand information passed on to them, they can participate in socio economic development initiatives and they can be trained as trainers on new farming technologies and agribusiness. During the RAP there are widows / household heads wherever listed as PAPs and a percentage of these may also form part of the 64.7% that are illiterate in this survey. The RAP implementation committee will need to pay special attention to this group in order to make sure that their interests are well articulated during compensation. Furthermore for them to discontinue with subsistence farming applying rudimentary farming methods, more emphasis should be laid on provision of education while also making sure that education is applied to achieve opportunities in irrigated agriculture.

(e) Health and Nutrition Status

In each of the Sub Locations in the project area they have access to a health facility within reasonable proximity where they travel less than 5 Km to access health facilities. There are three health facilities distributed in the RAP 1 project area and include Ugunja Sub County Level Four referral hospital. The facilities are as outlined below in Table 7-8.

Table 7-8 Health Institutions in the RAP I Project Area

Sub locations	Hospital	Health center	Dispensary	Health programs
Ligega		Ligega health center		<ul style="list-style-type: none">Community Health Workers who work in collaboration with community Health Committee (CHC) and AMREFHealth programs include:<ul style="list-style-type: none">Malaria researchCommunity Health Volunteers -serves to test treat and referIMPACT Research on HIV testing
Umala and Ambira	Ugunja Hospital		St Raphael Okoth	

Source: Household Interview

Most (92.6 %) of the respondents pointed out that malaria is the most prevalent illness which indicated that this is a highly malaria prone area. For coping mechanisms there are Community Health Workers who work in collaboration with community Health Committee (CHC) on malaria research and monitoring health status in the community. They liaise with the health facilities for technical and health supplies. In addition to these reports when PAPs were asked on the project negative impacts 15.5% considered an increase in mosquitos and subsequent increase in malaria.

Another challenge is the HIV/AIDS pandemic which poses tremendous strain to the health system in Kenya. As indicated by the data collected from the PAPs 20% have household members living with the HIV virus. This prevalence is high compared to a national prevalence of 6.2% however in Siaya County prevalence rate is at 17.8%. HIV/AIDS pandemic over burdens the household economy and the health services providers. In Ambira they have a Community based organization that provides care and support orphans and vulnerable children (OVCs) as a result of HIV prevalence. In the RAP process those affected will need extra assistance especially if they relocate to make sure that they continue to access care and treatment therapy.

Table 7-9 Disease prevalence - Common illnesses in RAP I Project Area

Type of disease	Frequency	Percentages
Malaria	87	92.6%
Diarrhoea	36	38.3%
Respiratory disease	10	10.6%
Typhoid	33	35.1%
Skin disease	13	13.8%
Cholera	20	21.3%
Amoeba	29	30.9%
Others	3	3.2%
	94	

Source: Household Interview

Other water related diseases are Diarrhoea, Typhoid, Cholera and Amoeba and this was reported by mean of 31.4% of the respondents for each of the diseases. Furthermore in order

to reduce water borne diseases then water treatment is recommended and must be combined with sanitation improvements.

Nutrition

Nearly 30% of Kenya's children are classified as undernourished and micro-nutrient deficiencies are widespread. According to the latest KDHS report (2008-09), 34% of children below 5 years of age in western region, including Siaya 34% of the population are food poor. According to the Health Officer report this is a challenge due to poverty and inadequate food particularly for children. In response to this they have started a nutrition supplement program. Malnutrition can be attributed to the high poverty levels; vulnerability of children and particularly orphaned children is high in this region due to high HIV prevalence. There are outreach program by the Community Health Volunteers/Health Committees in collaboration with AMREF which provides food/nutrition supplements to affected children.

(f) Water and sanitation

Access to water and clean quality water for domestic use has tremendous effects on human health both in the short term and in the long term. To get the baseline water availability situation the survey sought to establish the local water sources. In the study it was revealed that those with access to clean water draw it from borehole, tap and water tank, these form 38.3% (wet season) and 24.4% (dry season). Therefore all other (61.7%- wet seasons and 75.4%- dry seasons) users must either treat or boil water before drinking. The rest use surface water which is not safe for domestic use and this may be a cause for the already common water related diseases.

Table 7-10 Water Sources in RAP I Area

	Frequency	Percentages
Wet/Rainy Season		
Shallow Well	14	14.9%
Borehole	17	18.1%
River	43	45.7%
Tap Water	1	1.1%
Purchased water	1	1.1%
Water tank	18	19.1%
Total	94	100.0%
Dry Season		
Shallow Well	13	13.8%
Borehole	18	19.1%
River	58	61.7%
Tap Water	3	3.2%
Purchased water	0	0.0%
Water tank	2	2.1%
Total	94	100.0%

Source: Household Interview

Indicatively majority 61.7% (dry season) and 45.7% (wet season) of PAPs draw water directly from the river Nzoia and this can be attributed to close proximity. However this water is not suitable for domestic use and should be treated before use for health reasons.

As inferred during the FGDs Livestock watering depends on the surface water sources which include river Nzoia.

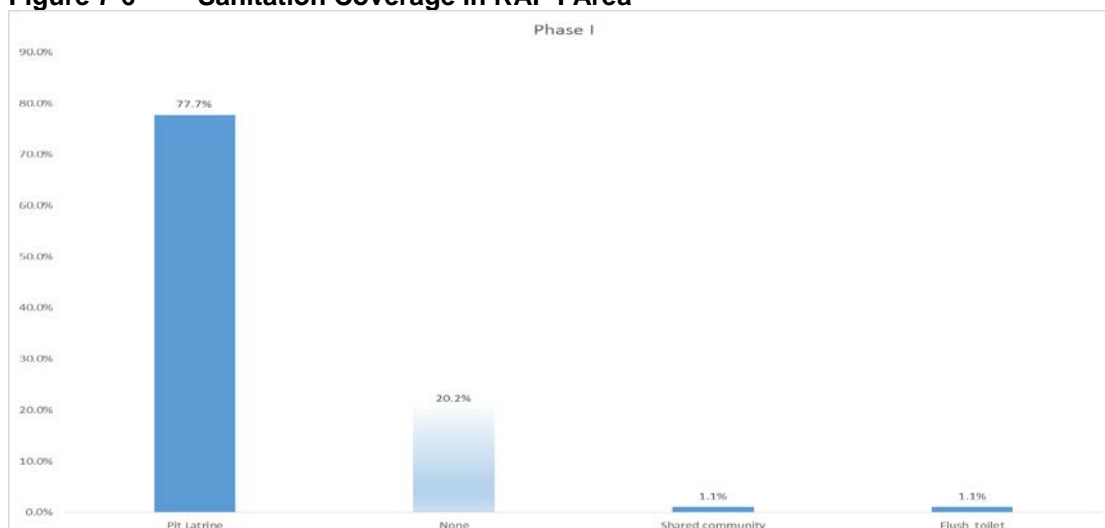
Sanitation Status

In this instance sanitation means access to safe human waste disposal facilities and lack of it leads to higher costs to the community through pollution of rivers, ground water and high incidence of air and water borne diseases. Frequent diseases is a threat to human survival as well as a cause for high spending by families on treatment which contributes to overspending and poverty at household level. In the affected project area, sanitation coverage is at 79.9% as compared to 75.3% in Siaya County. The County coverage in Siaya County falls below the National coverage of 87.8%. Considerable numbers of households (20.2%) do not have access to sanitation facilities. Coverage is still low in project area at 79.9% because resultantly there is open defecation and this poses a health risk that affects all in the community. The main types of sanitation facilities at the household level are provided in the Table 7-11 below;

Table 7-11 Sanitation Coverage in RAP I Area

	Frequency	Percentages
Pit Latrine	73	77.7%
None	19	20.2%
Shared community	1	1.1%
Flush toilet	1	1.1%
	94	100.0%

Figure 7-6 Sanitation Coverage in RAP I Area



Source: Household Interview

7.2.7 Land Tenure and Land as a Means of Production

(a) Land Tenure System and Land Ownership

Land Tenure, including land holding and land ownership patterns; In Kenya there are three systems of land tenure, namely: (i) public land (ii) individual (freehold) and (iii) Communal (customary). Individual title confers the security of tenure by registering absolute rights of ownership to land holders after adjudication. This has the following advantages:

- Encourages investment on the land;
- Makes the farmer credit worthy;
- Supports land market;
- Minimizes land disputes and;
- Leads to intensification of agriculture.

The public land is owned by the government or associated statutory bodies. Under this tenure system, the right to control, apportion and use of such land is vested with the state, who may confer right of occupation and use for a given period, usually 99 years, and is generally subject to conditions of use and of payment of rent.

Communal/Customary land is held in trust by the respective county government for different community/groups. Trust lands are governed by customary law, which does not provide for subdivision of land among individuals of the user communities or alienation and transfer for individualized use. According to the new Kenyan constitution, land which was previously referred as public land now falls under community land and will be held in trust by the respective county governments.

According to the FGD and key informant responses in RAP I area all land is individually owned. Land in the entire phase 1 project region is adjudicated since the 1970s. However although land is adjudicated a great number of people have not registered for title deeds because when land is inherited survey is not conducted and in some cases titles are not claimed from the land office. 98.9% of land is inherited and quite a number of title deeds remain in the deceased's name as discussed during the FGDs. This is because succession has not been done and most (88.9%) people have not taken the initiative to register their land and claimed that registration is expensive. Table 7-12 illustrates the individual land registration status in the project area;

Table 7-12 Land Registration Status in Project Affected Area

	Items	Percentages
How the Land Ownership was Obtained	Inherited	98.9%
	Purchased	1.1%
	Inherited some and purchased some	0.0%
	Allotment by government	0.0%
	Total	100.0%
Proportion completed the official succession process	Yes	42.4%
	No	57.6%
	Total	100.0%
Proportion with any documentation for ownerships	Yes	57.4%
	No	42.6%
	Total	100.0%
Proportion with title-deed	Yes	11.1%
	No	88.9%
	Total	100.0%

During the RAP implementation the local administration will play a key role in confirming land ownership for succession to be done before compensation. Those laying claim to the land will provide death certificate of the deceased, letters of administration and verbal confirmation from family members. An affirmative action on land registration is recommended as way leave acquisition may be impossible since a large number do not have title deeds. Large number of respondents (88%) reported that they are living on ancestral land whose registrations are in the names of deceased relatives. With the assistance of the LRCC, NLC, LNIP Social Development Specialist and a selected conveyance lawyer appointed by the NIB legally acceptable land title administrators per specified PAH are to be appointed by the family to facilitate compensation process by NLC. In addition family members' are expected to open joint bank accounts for compensation if sub divisions have not been registered.

(b) Land Ownership

The Communities in the project region are primarily patrilineal and therefore the men own land and inheritance of any form of property is clearly defined along male lines of descendants. The man is the households' head and owns the land. From a cultural stand point a woman does not own land and may not inherit land even when the husband is deceased. There are 35 project affected widows who may be disenfranchised during this RAP as underscored during FGD. In mitigation these will be given special consideration during land adjudication and compensation processes. The administrators conceded that these groups should first be assisted to obtain title deeds. This is guided by the Kenya constitution 2010 and the Matrimonial Property Act 2013 dispensation of which by law women can now inherit land and all movable or immovable properties. During the RAP implementation the Implementing committees are to be guided by the Kenyan laws.

(c) Land Use Patterns

Current average land holding size in the project area is average 1 - 2 acres which is as a result of sub division due to population increase and land inheritance. The sizes reduce even further when it is a polygamous family and each wife is allocated an average size of 0.25 – 0.5 acre (source: FGD). These sub divisions are not always registered and was a reason for disputes during PAP census. In most cases land is used for settlement, crop and livestock farming. Since the land portions are small when it comes to crop production 26.6% said they leased land. Land leasing will have to be carefully verified during the RAP implementation since it can be a source of disputes where those who lease would want to be compensated.

Land use was confirmed during the focused group discussions as they listed agriculture as the main source of livelihood and the main crops in order of priority are as follows:

- Cash and food crops Maize, sorghum, millet, beans, green grams, ground nuts, sweet potatoes, cassava, arrow roots;
- Horticultural crops such as indigenous vegetables, tomatoes, kales and fruits mangoes;
- Livestock farming involves local breed cattle, goat and pig and local chicken farming;
- Indigenous trees, grevillea and eucalyptus trees.

The food crops, Livestock and the trees are also used for cash. From the FGDs at household level the size of area cultivated and used for crop farming is mostly 0.25 – 0.5 acres. The land portions are small and mainly used for settlement usually by and crop farming

7.2.8 Household Economy

(a) Sources of Income at household level

The main sources of income for most 87.1% household is majorly crop farming. However these are subsistence farmers' using rudimentary methods of farming only to face various challenges in crop production even as they rely on low and unreliable rainfall, and as inferred in the FGDS certified seeds, fertilizer and farm inputs are hardly used. From key informant interviews rainfall is inadequate at below 500 mm/year and also unreliable especially for maize farming in project areas. Crop production will improve with the introduction of irrigation and new farming technologies. In order to address the challenges in crop production there are programs by (i) GIZ development agency in capacitation of farmers and soil improvement and (ii) Agriculture Sector Development Support Program (ASDSP) involved in fruit farming.

Other income sources include livestock, fishing, formal and informal employment, business, remittances, pensions, etc. as illustrated in Table 7-13;

Table 7-13 Sources of Income at Household Level

Economic Activities	Percentages
Crop Farming	87.1%
Fishing	1.1%
Large stock Livestock farming	1.1%
Small stock (chicken, rabbits)	1.1%
Tree farming	0.0%
Salary	0.0%
Pension	1.1%
Remittances	5.4%
Trader	1.1%
Wages from casual labor	2.2%
Stocks/shares	0.0%
Other /specify	0.0%
Total	100.0%

Source:Household Interview

Household income for those in this RAP 1 project area was given at an average of KSH 14,592.16 per month. This is drawn mainly by those in formal employment, business and casual labour. With business yielding the highest incomes of KSH 24,053 another source is from the(87.7%) who depends on farming and these could not monetize their incomes from crop farming since it is not a routine business and only sell when they need cash. In addition only 19.1% of the respondents have opened bank accounts and it is therefore difficult to calculate how much income they make from such sales. The annual household income as given to be drawn from formal employment, business and casual labour is provided in the Table 7-14;

Table 7-14 Annual household Income

Income Sources	Income Amounts
Formal Employment	19,050.00
Business	24,053.85
Casual Labour	6,361.11
Average income	20,925.64
Average month Income	14,592.16
Average Yearly Income	140,746.55

(b) Average Household Expenditure

The following overall expenditure figures are estimates at an average of KSH 658 per day. This adds up to slightly higher than the monthly income but some of the foods such as vegetables, roots crop, cereals are harvested from the farms. Consumption of Cereals- (Sorghum, Millet, Wheat, Maize,) is highest among other foods. Cereals form the staple food in the area and lack of it in the market leads to food insufficiency as was indicated during the discussions. Irrigation agriculture is planned to increase food production such as cereals, pulses, vegetables and root crops for food security and business. The PAPs are therefore supportive of the project and even if they are displaced due to way leave acquisition they will buy land locally.

Table 7-15 Average Daily Expenditure

Food Items	Percentages
Cereals: (Sorghum, Millet, Wheat, Maize, etc)	157.05
Pulses: (beans, cowpeas, pigeon peas, etc)	63.65
Vegetables	59.75
Roots /Tubers (potatoes, cassava, sweet potatoes, arrow roots	40.28
Fish /Meat	109.25
Cooking Fat	31.36
Milk	52.25
Sugar	105.50
Others	36.09

Source: Household Interview

(c) Household Use for Credit

For the family to meet their basic needs at household level they also borrow credit from banks, table banking groups and micro financial institutions. 14% take loans from the financial institutions. Borrowing is used as an appropriate strategy in the face of temporary shocks such as food shortages, farm inputs, education, illnesses or construction. Most households (31.8%), accrue credit, which is mainly expended on education. Another 27.3% of household spend credit on business/investment and 22.7% also invest in agriculture. Credit is used prudently as it is mainly spent in a way that they can repay from the proceeds of business and agriculture. However a small percentage 9.1% spends credit on household consumption which can advance poverty. This is explained in Table 7-16.

Table 7-16 Household Use for Credit

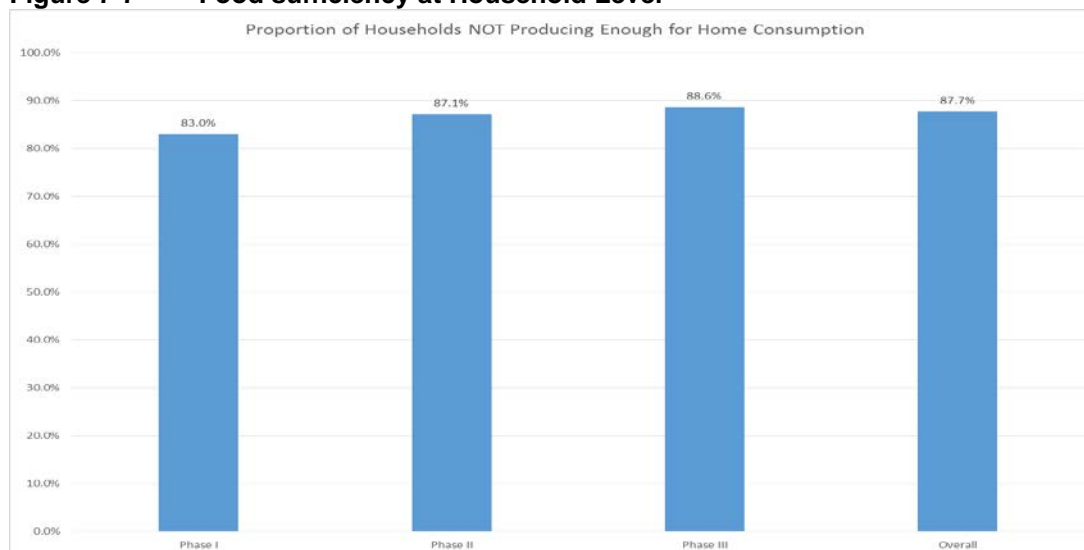
Use of credit	Percentages
Investment/business	27.3%
House construction/ construction/repair	0.0%
Educational expenses	31.8%
Repayment of debt	9.1%
Marriage & other ceremonial expenses	0.0%
Household Consumption	9.1%
Medical expenses	0.0%
Investment in agriculture	22.7%

Source: Household Interview

7.2.9 Food Security at the Household Level

In Siaya County agriculture is mainly rain fed and this exposes farmers to food insecurity because of unpredictable weather patterns. From the interviews most household expenses are high on food. The cereals and pulses take the highest cost at over Kshs157.00 of the daily food budget. This means that harvest is not adequate to meet household food security needs. Consequently the household buys food before the next harvest. To confirm this it was noted that 83% proportion of households respondent do not produce enough for domestic consumption. In the Siaya County the food poor are estimated to be around 30 - 34% and in an effort to increase food security, the County Government recommends that they should plan to increase agriculture productivity. Successful irrigated farming will increase food production.

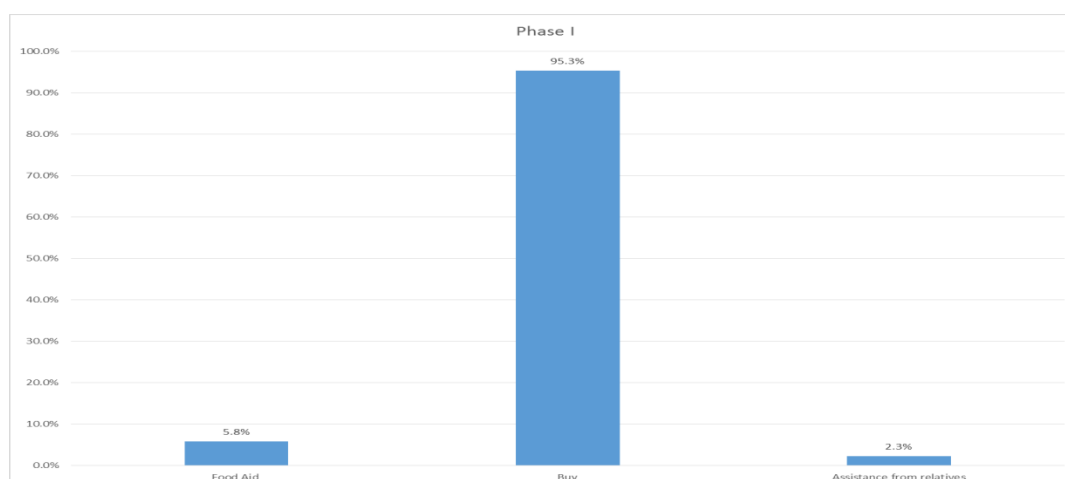
Figure 7-7 Food sufficiency at Household Level



Source: Household Interview

This food inadequacy status was also confirmed during the FGDs where participants concurred that there is a need for agricultural production improvement in order to be food secure as well as sell excess produce in order to meet domestic financial needs. Since food produced is not enough, 5.8% households reported receiving food aid and 2.3% get assistance from relatives and well-wishers while 95.3 % reported they bought food after exhausting their stores. Discussions with key informants also revealed the same and reported that it is normal practice in the area for food to be bought from neighbouring Uganda through the Busia Border and from other parts of the country including Chwele market in Bungoma. This is explained in the Figure 7-8;

Figure 7-8 Alternative Food Sources for Households



Source: Household Interview

During the FGD most reported that the LNIP is expected to improve food production and make sure that production will be all year round.

7.2.10 Access to Financial Services

The main financial institutions were said to be: banks such as Cooperative Agents, Equity Agents and Kenya Commercial Bank is located in Ugunja Town. Other services are in Ukwala Town (Equity Bank Agent Agent). These financial institutions will be useful during compensation since the PAPs will have easy access. However it is only a small number of 19.1% that said they had opened formal bank accounts. They have been informed that they

should open bank accounts since cash compensation transactions will be conducted through the banks. In addition financial services accessibility is necessary for LNIP beneficiaries who will engage in agribusiness.

The table below explains the level of accessibility to financial services;

Table 7-17 Accessibility to financial services

		Percentages
Do you have a bank account	Yes	19.1%
	No	80.9%
Total		100.0%
Do you borrow loan /take credit?	Yes	14.0%
	No	86.0%
Total		100.0%

Source: Household Interview

Other alternative financial services as reported are provided through local arrangements which are revolving funds/table banking groups. Members of these groups practice savings and access credit from such establishments.

7.2.11 Gender Analysis

Gender analysis is significant in project efficiency, sustainability and equity in irrigation development interventions and more importantly in the RAP process. Regarding gender analysis consideration is directed to gender inequalities and identification of interests of disadvantaged groups. Such are the vulnerable people (youth, women, widows, widowers, orphans, aged persons, sick persons and persons with disabilities) in the community around the proposed HWC, CC and Back Flow project. The main economic and social activities carried out by these groups are as follows:

- Farming small businesses, table banking, monthly contributions for savings (women groups), livestock sales,
- In addition youths engage in BodaBoda transport, business, farming and casual labor;
- The persons with disabilities engage in small businesses for those who are registered with Kenya Society for the disabled while others are at home with very little ability to get out;.

The participation of all these category of people is critical during the RAP and economic growth through commercial agriculture upon project implementation. In order to understand gender parity in the project it was necessary to understand how resources are managed and controlled at the household level. This included looking at the household resource ownership, management and control by gender as follows;

Table 7-18 Resource Ownership at Household Level

Resources	Who buys	Who owns	Who controls	Who uses
Land	Male/Female	Male	Male	Male/Female
Trees and Forest	Male	Male	Male	Male/Female
Livestock/Fishing	Male/Female	Male	Male	Male/Female
Crops	Male/Female	Male/Female	Male	Male/Female
Household property	Male/Female	Male/Female	Male/Female	Male/Female
Cars motorcycles and bicycles	Male	Male	Male	Male/Female

Source: Focused Group Discussion

Women have access to family property and perform management roles with no control of the proceeds and men have decision making power and own as well as control land which is a

main resource under this project and is also critical under the RAP process. Culturally women do not own land but access to it for food production. Women do not claim ownership to land within the family and the male youths can only own land when they have started their own family. During the RAP implementation it will be paramount for families to consult and agree on the compensation matters to make sure that men remain accountable and prudent in management of the compensation money. In addition, PAPs who are widows and orphans may face challenges during compensation. Male children and relatives may forcefully sideline the widows and female orphans. This matter should be taken seriously at the Locational and Resettlement Compensation Committee Level.

Gender roles: By understanding the gender roles there is clarity on availability of target community for project activities as it is particularly important for project planning.

Table 7-19 Gender Roles

Activity	Men	Women	Boy	Girls
Digging	✓	✓	✓	✓
Cooking		✓		✓
Food collection		✓		✓
Vegetable collection		✓		✓
Fetching water		✓		✓
Washing utensils		✓		✓
Collecting firewood		✓	✓	✓
Looking after animals	✓	✓	✓	
Washing clothes		✓		✓
Total task	2	9	3	8

Source: FGD

The society is the one that dictates roles and responsibilities of either gender. Traditional practices are developed by the society and these are the ones which determine for example who owns land, household property etc. In this region men and boys have fewer roles at household level although they are the main decision makers. Gender inclusiveness is critical for project success therefore women and youths must be an integral part of the project because they manage the farm production and provide labour on the farms. Women particularly have indigenous knowledge yet they have limited access to resources and opportunities and their productivity remains relatively low compared to their potential especially in decision making on farm matters.

On domestic violence, no gender based violence issue were identified in the project area. Labour impacts are expected however responses have been identified in the approved ESIA report.

The main objective of the gender analysis in the RAP process is to:

- i) To improve gender inclusiveness for better overall project and RAP performance(See Section 7.2.14),
- ii) To identify gaps and develop gender inclusiveness and overcome any barriers against widows and orphans in RAP process,
- iii) Increase the participation of both men, women and youth (vulnerable) in project and RAP activities and benefits,
- iv) Ensure gender equality in resettlement, compensation and investment opportunities and
- v) Promote women, men and youth participation and decision making at the community level for socioeconomic growth under the project.

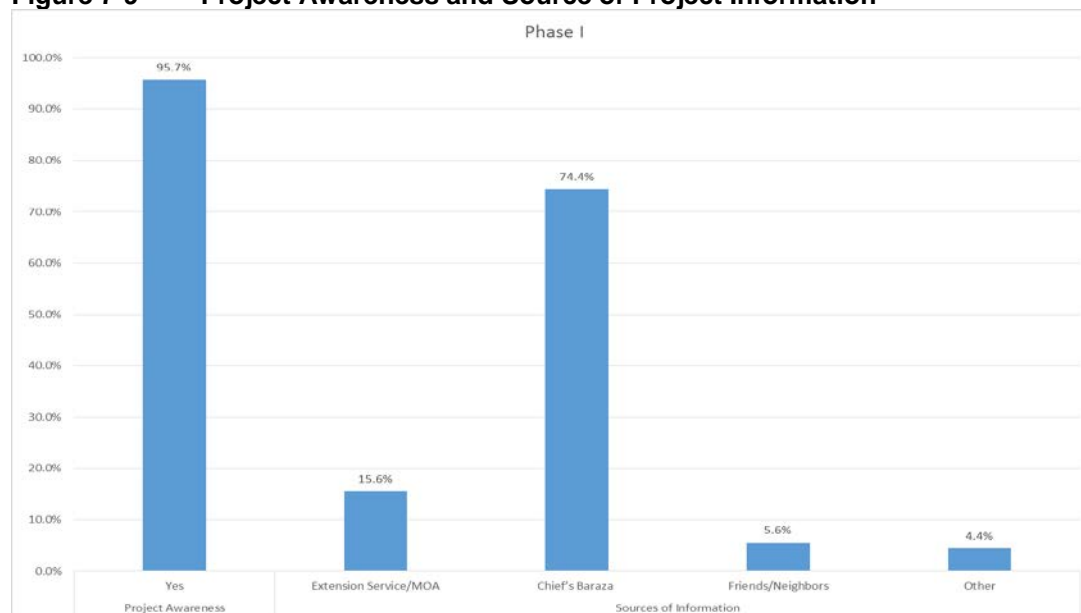
Raising gender issues at this stage will ensure that gender parity is fully considered during the RAP implementation process and that the actual (as opposed to expected or desired) effects of the RAP can be monitored and evaluated.

7.2.12 Participation in the Project

(a) Project Awareness Levels at Household Level

The exercise was used as an information gathering exercise as well as information dissemination process. Besides administering the questionnaires, the team sought to inform the PAPs about the proposed project, purpose and the activities involved. It also emerged that 95.7% of respondents were aware of the proposed LNIP project and over 90.8% support it. Sources of information about the project include chiefs' Barazas/community sensitization meetings, extension service providers and through local interactions as outlined in the Figure 7-9 below;

Figure 7-9 Project Awareness and Source of Project Information



Source Household Interview

As discussed in the FGD information about the project has been in the community only recently during this exercise for those in Ligega and Ambira because the people affected had not been mobilized or organized under LNIP. They are not aware of the previous RAP processes of 2015. During the sensitization meetings they were apprehensive about the project and could not comprehend how the project was going to benefit them but after sensitization and repeat meetings by the RAP team they were in agreement and supported the project.

(b) Positive Effects of the Project

Those who support the project gave the following reasons;

Table 7-20 Project Positive Effects

Positive effects	RAP I
Access to water for irrigation and domestic use	21.4%
Improved methods of farming/Increased food production/Expansion of agriculture	42.9%
Employment opportunities	15.7%
Reduction of fallow land	10.0%
Infrastructure development	5.7%
The environment will be cleaner/greener	8.6%
Flood reduction	5.7%

Positive effects	RAP I
Afforestation/Agroforestry	5.7%
Reduction of disease causing insects	1.4%
Reduction in poverty/Improved standards of living	4.3%
Reduction of bushes	2.9%
Reduction in the number of wild animals	1.4%

Source: Household interview

Over 74% indicated that the project will provide water for irrigation and domestic use, improved agriculture, food security, and maximum land utilization which is desirable. The listed impacts will be experienced because the project will introduce new farming techniques, crop varieties will increase and extension services officers will bring farm inputs e.g. manure, fertilizer etc. they also expect high yields and productivity from the farms and these will generate capital to do Business.

(c) Magnitude of the expected loss in total or partial of assets, and the extent of displacement, physical or economic

There are 23 PAH to be partially displaced and 11 PAH are permanently displaced and losing land. These will experience socioeconomic negative impacts. With compensation then the negative impacts can be mitigated. The following in Table 7-21 is a list of the partially and entirely affected arranged according to affected area.

Table 7-21 PAPs to be displaced per block/section

Block/Section	No. of Entirely Displaced PAPs	No. of Partially Displaced PAPs
SBF	8	0
NBF	1	4
CC	0	0
HWC	0	19
NIB Offices	2	
Total	11	23

(d) Project Negative Effects

The respondents were asked whether they anticipated any negative impacts brought about by the project. In response they expressed that the project will have some negative effects as outlined in the table below.

Table 7-22 Expected Negative Effects

Type of negative effects	Percentages
Division/Loss of land and/or property	23.9%
Relocation/Loss of homes	29.6%
Deforestation	23.9%
Interference with the ecosystem e.g wildlife	12.7%
It will expose people to danger/diseases such as sexually transmitted diseases, HIV, Bilhaziar and malaria.	15.5%
Noise pollution	15.5%
Soil pollution	18.3%
Air pollution	9.9%
Water pollution	7.0%
Loss of traditional ceremonial sites/cultures	1.4%
Dropping out of school by children to work	1.4%
Immorality- (due to easy money, sex workers may crop up, addition of other wives may also come in leading to family breakup).	2.8%

Source: Household interview

8 STAKEHOLDER PARTICIPATION AND CONSULTATION

8.1 Introduction

Effective resettlement action planning requires regular and thorough consultation with a wide range of project stakeholders drawn from the affected area. This wide consultation is intended to include individuals and groups who will be positively or adversely affected by the project. The stakeholders' consultations are extremely important for successful implementation of the RAP.

8.2 Public Consultation and Disclosure

Key stakeholders' Consultations were significant aspects in the RAP study. To achieve this, public participation forums were organized at strategic locations targeting stakeholders. The stakeholders included the following categories of project affected groups and those that act as partners in the RAP process:

- i) The landowners, community groups, farmers, water users, institutions, and traders as well as the key informants. Comprehensive consultations have been held with various stakeholders at the reconnaissance stage through meetings
- ii) Key Informants at the county level in Siaya County- meetings / discussions were held with relevant government officials particularly in the County Administration, Agriculture, Water and Irrigation, Culture and Social Services, and Land sectors.
- iii) Locational Chiefs - further consultations were conducted with Locational Chiefs as a major player in the RAP process and also provided baseline information.

In addition these consultations dealt effectively on socio-economic aspect of the community and issues of the project affected persons as a result of the project were highlighted and participants appraised on the mitigation measures available through the project.

8.3 Consultations with Key Informants and Government Officials

Consultations with government officials from relevant government ministries namely department of internal security, lands, water, environment, health, education, planning and agriculture included the following:

- i. Consultation meetings with selected Government Officials such as departmental heads, political and local leaders;
- ii. Rapid interviews along the project corridor.

Table 8-1 lists the Key Informants contacted.

Table 8-1 Key Informants

Nos.	County	Title of informant /stakeholders	Activity
1.	Siaya County	County Commissioner	Introduction to the Local administration at the location and sub location level; Participate in the RAP Implementation Committee;
2.		Deputy County Commissioner North East Ugenya Sub County Ugunja Sub County	Participate in the implementation committee Chairperson Sub County RAP Implementation committee
3.		Chief – Central UgenyaLocation	Mobilization and Chairperson Locational RAP Implementation committee
4.		Assistant Chief Ligega	Mobilization and Chairperson Locational RAP Implementation committee
5.		County Director of Agriculture Technical Assistance to County Executive Committee (CEC) Agriculture	Provide agriculture extension services
6.		County Acting Director of Water and Irrigation Water and Irrigation Officer Siaya	Licensing and extension services

8.3.1 Stakeholders' Meeting with local administration and opinion leaders

An initial key stakeholders' meeting was convened on 27 April 2017 at Urunga Good Samaritan center with the local administration (Assistant County Commissioner, Chiefs and assistant Chiefs) and Block farmers' representatives. This meeting was crucial for the Client, represented by Ms Nyawira of NIB, to introduce the Consultant's Team. Leaders agreed and committed to participate in the RAP process and a community sensitization meeting's program was drawn. The leaders conducted the mobilization and sensitization meetings as per the program.

Further meetings were arranged with the Location Chiefs and these were consultation on the progress of the assignment and engage in deeper discussion on economic, social and cultural issues of respective community.

Table 8-2 Meetings with Locational Chiefs

Date	Venue	Location and Block
6/7/2017	Chiefs Office - Ligega	Right Bank at Back flow (reservoir) and Intake area
6/7/2017	Chief' Office - Central Ugenya	Left Bank at Back flow (reservoir) and Intake area

8.4 Community Consultations

Community Introductory and Sensitization meetings were held at the intake and reservoir areas of both the right and left river banks. During the introductory meetings, the RAP Consultant Team was introduced by the host local administration after which the Consultant

gave a brief background of the Project and informed the participants that GEDO Associates Ltd had been contracted by Ministry of Water and Irrigation to carry out a Review and Update of the previous Resettlement Action Plans prepared between 2013– 2015. The Consultant outlined the activities that would be undertaken during the field work at this stage as follows:

- Acquisition of the intake, backflow area and canal corridor up to the end of the head works canal at the Sand Trap / Head Regulator;
- Survey and marking of the area to be acquired for the infrastructure;
- Census and Socio-economic baseline survey of PAPs;
- Valuation of affected assets;
- PAPs sensitization meetings;
- Formation of Grievances and Dispute resolution Committees.

The Consultant underscored the need for the community to cooperate with the Consultants' team, locally recruited enumerators, village elders and IWUA /farmers' representatives during the field work and data collection. In addition, the community was informed about the RAP coverage and it was explained that this would include the backflow area, intake, connecting and headworks canals up to the Sand Trap / Head Regulator. Assessment of the infrastructure would be carried out one at a time in order to make sure the serial numbers followed a usable form.

8.4.1 Initial community Introductory and Sensitization meetings

Table 8-3 Schedule of Community Introductory and Sensitization Meetings

Date	Venue of Meeting	Represented Blocks	Purpose	Attendance	
				Male	Female
5/5/2017	Nzoia Market	Block 1 (Head works canal and Connecting Canal)	Community Introductory and sensitization meeting to rekindle beneficiary confidence after a long wait and enlist active participation in the Resettlement Action Plan Process.	46	30
15/5/2017	Ligega Sub Location Assistant Chief's Office	Right bank of the back flow involving Ligega Sub-Location.	Introducing the irrigation project and inviting those within the back flow area to be part of the project and actively participate in all subsequent project activities.	9	16
16/5/2017	Backflow site in Umala	Left bank of the back flow involving Umala and Ambira Sub-locations		12	24

A caption of the meetings are presented in Photo Plates Nos 1 to 3.

(i) Plate No 1 - Meeting at Nzoia Market - Block 1



(ii) Plate No 2 - Meeting at Ligea Back Flow Site



(iii) Plate No 3 - Meeting at Umala Backflow Site



8.4.2 Observations made during the meetings include:

- i) Majority of the project area community members are aware of the Lower Nzoia Irrigation Project (LNIP);
- ii) Most of the community members referred to the projects as government projects of LNIP as well as the RAP and not a community project although they were stakeholders and beneficiaries;
- iii) Community felt that the project had taken long to implement and they had honored the previous cut-off date yet the government failed to fulfill their mandate in this respect;
- iv) They were in agreement with the way leave acquisition and only raised questions on the process of acquisition and compensation on how the valuations will be done, when they would receive their compensation, what assets are considered for compensation, notice to relocate etc.;
- v) The community and the farmers' representatives did request for the layout maps of the project to enable the block members understand the block boundaries. They recommended that the maps should be given to the chiefs.

A summary of the comments/questions and responses from the meetings are given in Table 8-4.

Table 8-4 Summary of Questions and Responses from Community Introductory and Sensitization Meetings

Questions / comments / Issue	Responses
16th May 2017 (Umala and Ambiraat the Backflow site)	
<ul style="list-style-type: none"> Will you construct a barrier or fence around the back flow area? 	<ul style="list-style-type: none"> There is a project Environment Management Plan in place to address safety matters of the project.
<ul style="list-style-type: none"> We suggest that employment is provided for the local youth during project implementation. 	<ul style="list-style-type: none"> This will be put into consideration.
<ul style="list-style-type: none"> Will you compensate the graves yet removing them is a process? 	<ul style="list-style-type: none"> This is an issue that has come up throughout the project area. They will be compensated, and all the steps of removing graves will be compensated.
<ul style="list-style-type: none"> Will you provide a foot bridge to cross the canal? 	<ul style="list-style-type: none"> The foot bridges will be provided at various points.
<ul style="list-style-type: none"> Does it mean that the back flow water will not be used for irrigation? 	<ul style="list-style-type: none"> The project is designed as a gravity system and since the backflow area is above the canal then water would not flow to their farms for irrigation. Those affected by the backflow would use the water for other purposes such as fishing.
24th May 2017 (Ligega Sub-Location at Assistant Chief's office)	
<ul style="list-style-type: none"> Will this project alleviate the problem of flooding? 	<ul style="list-style-type: none"> The project is going to enhance and improve the dykes on both sides of the river There are two main drainage canals as part of the flood mitigation measures.
<ul style="list-style-type: none"> Underscored that they are development conscious people and aware of the rights based approach to development they would like the people to discuss the negative impacts of the project to make sure the people are empowered People should not be exposed to vulnerability 	<ul style="list-style-type: none"> This approach is important and also critical for the success of this project. Community is to be engaged in such forums as this one and provided with all information. To make sure there is community participation IWUA is formed because this is the peoples' project to empower them socially and economically. To mitigate land acquisition then there is adequate compensation and any other additional assistance for vulnerable groups.
<ul style="list-style-type: none"> Title Deeds issues since land is adjudicated but it has not been transferred to names of those who inherit. This is due to government failure to issue titles 	<ul style="list-style-type: none"> The NLC will engage with the local Lands office and local administration to make sure that those being compensated get their titles fast enough.

Questions / comments / Issue	Responses
<ul style="list-style-type: none"> Vulnerable children (orphans) to be compensated The cut-off date should come after the compensation. 	<ul style="list-style-type: none"> The vulnerable will be identified and compensated accordingly. Cutoff date for this project is 3 May 2017 and off course it applies immediately after identification of PAP, land and asset valuation.
<ul style="list-style-type: none"> Notice is too short and most of these people depend on land so this may block them from using their land 	<ul style="list-style-type: none"> There will be ample time before the contractor comes on site and they will have harvested. Sufficient notice will be given to make sure that they do not lose their livelihood.
<ul style="list-style-type: none"> What happens in cases where the household head is deceased 	<ul style="list-style-type: none"> The wife and / or the sons will be compensated and this will be determined by the family, in some cases with the assistance of the local administration.

The issues discussed above were raised by 3 women and 8 men, with the comments from women focusing on compensation for graves and cases on who receives compensation for the deceased household heads.

8.4.3 Key Stakeholders Consultative Meeting – Good Samaritan

A second key stakeholders meeting was held on 15 May 2017 to review the progress the team had made in conducting the community introductory meetings. The consultants shared with the stakeholders on most of the issues that emerged during the community sensitization meetings. These featured the issue of compensating graves, land tenure system, land ownership rights, vulnerable persons and their position at the household level in terms of compensation with a specific focus on widows, orphans and persons with disability (PWDs). Finally they were informed that the RAP will engage the local administrators in the RAP implementation process. The leaders acknowledged their involvement and explained that they were in a position to arbitrate some of the disputes and the community trusted them.

Later a program for conducting FGDS was then developed. This was scheduled to run from May 19, 2017 to May 30, 2017. It was agreed that the participants be selected from the respective blocks and should be well conversant with the socio-economic conditions of the area they represent. The group of 12 – 15 persons was to include women (young and old) men, youth, and persons with disability (see minutes and attendance list in Appendix 3).

8.5 PAP Consultation Formal Meetings and Formation of Resettlement and Compensation Committees at Locational and Sub-Locational Levels

Two PAPs meetings were held at the location level as shown in Table 8-5 so as to sensitize the PAPs role on the RAP for Project Infrastructure and be given a brief explanation on the project progress and the way forward.

Table 8-5 Schedule of Meetings with the Local Leadership

Date	Administrative location	Venue	Attendance	
			Male	Female
July 21, 2017	West Alego Umala&Ambira	Rabar dispensary grounds Nzoia Market	24	11
July 22, 2017	Ligega	Reservoir Site	22	18

Attendance for the meetings included representatives indicated below:

- Chief – Location;
- Assistant Chief – Sub Location;
- Block Farmers' Representatives;
- PAPs affected by LNIP infrastructure and the FMP;
- Kenya Water Security and Climate Change Resilience program;
- GEDO Team (Consultant).

The PAPs were appreciated for their hospitality and responses during PAP census data collection exercise. In addition, the PAPs were briefed on the compensation processes where they were informed about the National Land Commission (NLC) and that compensation would be done by the National Land Commission. They were also informed that the National Land Commission is a government organization which in the RAP is responsible for the individual's affected property verification, final valuation and compensation.

The Consultant explained to the PAPs that they were to form a Locational Resettlement and Compensation Committee which would be necessary to address all grievances and disputes and this will be chaired by the local Chief. They were asked to elect leaders of the committee from among the PAPs. Committees were first formed at Sub-Location level who then selected delegates to the Location Level Grievance Committees (See Minutes and List of Attendance in Appendix 2).

(i) PAP and Stakeholders Meeting at Nzoia Market

The PAPs were sensitized about the RAP process and the achievements that had been accomplished so far. The meeting was also informed about the upcoming compensation by the NLC. PAPs were given a chance to ask questions and comment on the process. The emerging concerns touched on land ownership disputes among family members, lack of land registration, absent land owners, disinheriting widows, and therefore they realized this necessitated formation of a committee that would be useful in addressing these gaps and grievances. They agreed that this committee would listen to the grievances and disputes and resolve them before the compensation stage and during compensation.

The following is the Umala Location Resettlement and Compensation Committee.

Table 8-6 UmalaSub- location Resettlement and Compensation Committee

Name	Position	Telephone	ID number
Eunice OkechMeso	Treasurer	0710907571	347732
Charles OmondiOtweyo	Member	0723922974	8914308
Joseph OkelloOkono	Member	0714284446	0445106
Andrew OkullaAmeda	Member		
PaskalOmondiOmija	Member		
Alexander OleleOdero	Member	0710266076	5663477
Evans Onyango Otieno	Member		
Dan Aloo Hagri	Secretary	0720646566	23202771
John OderoNgonga	Member	0708195154	3429521
Celestine JumaOloo	Member	0728441591	11301407
Grace AnyangoOloo	Member	0707256558	4075576

James Orucha Mumbo	Chairman	0727166148	4343469
Peter Onyango Owino	Member	0727034835	11589000

The meeting was attended by 35 participants (24 men and 11 women, See photo of the committee in Plate No 1)

Photo Plate No 1



(ii) PAP and Stakeholders Meeting at Ligega

In Ligega they were briefed about the RAP progress and also it was suggested that they form a committee to represent the PAPs since this would also go further to work for the group even after the compensation. The same may be useful in the management of the reservoir in future to the benefit of the surrounding community.

The following committee was formed at the Sub Location Level;

Table 8-7 LigegaSub- location Resettlement and Compensation Committee

Name	Position	Telephone	ID number
Eunice A. Ochieng	Secretary	0718860810	33703012
ChriceBudo		0722774880	13679644
James JumaKeya	Member	0714937230	2582455
Maurice Nyawal	Member	0711609008	1138964
Nicolas OkechOuma	Member	0717366194	4080662
Juliana Atemo	Member	0724 885188	1840172
Joyce A. Owino	Member	0711751883	20418200
Christine Achieng	Member	0712216788	20418200
Raphael O. Omondi	Secretary	0721551921	1014647
Peres Hilda A. Opiyo	Member	0717043529	11507178
JoanessOdundo	Assistant Chief	0702171548	
John OkelloMboto	Chief	0710321196	

The meeting was attended by 40 participants (18 Men and 22 women, See photo of the committee in Plate No 2)

Photo Plate No 2



A summary of the comments/questions and responses from the two meetings are given in Table 8-8.

Table 8-8 Summary of Questions and Responses during the Formation of Compensation and Resettlement Committees.

PAPs Concerns	Responses
What are the terms of payment of compensation	<ul style="list-style-type: none"> • Payments will be done by the NLC and all payments on compensation will be done by cheque and not cash so payment will be through the bank and they can use the local bank at Ugunja; • The affected household should carefully select the account holder to ensure accountability and consensus on utilizing the money appropriately
There is lack of experience in buying and selling of land and is a concern for the PAPs and they need guidance on the matter.	National Land Commission will implement the compensation and therefore will provide the value for land in this region.
The community wanted to know how they will benefit from the back flow water.	The LNIP project implementing team to take up this matter and engage the people around the back flow area in activities that can benefit them,
Asked for mitigation measures to prevent bilharzia and malaria	It has been recommended that the implementing team start parallel programs that will intervene by controlling larvae breeding for malaria control, promote safe drinking/domestic water, promote

PAPs Concerns	Responses
	hygiene and environment conservation. This is to be done in liaison with the local health facilities and the already existing Community Health Volunteers program
In Ligege they reported having an existing committee that would solve disputes. Hence the consultants should communicate directly to this committee.	The existing committee was adopted as the LRCC. The local administration i.e. the chief and his assistants were included so as to form a LRCC
Possible causes of conflict during compensation were raised as follows; <ul style="list-style-type: none"> Dispute may arise when a trustee refuses to share the money equally They suggested that when the money has been paid, then the PAP should agree on how to share the money equally. Requested for assistance to be provided during compensation because the individuals would not agree to share the money in peace. Suggested that PAPs should have a plan on how to use money profitably. 	PAPs upon compensation are expected to spend the money on what is being compensated and avoid diverting the money to other uses; Opening a bank account is important because it will enable the PAPs to control use of the money; <p>Other household members should be engaged while utilizing this money to avoid conflict</p>
There was concern about the processing of title deed since the process is costly and takes a long time.	The Land's office will collaborate through the resettlement and compensation committees to expedite the process because it is a requirement for compensation to be done by the NLC
They were concerned about how to solve the following issues - land ownership disputes among family members, lack of land registration, absent land owners, disinheriting widows	The compensation process will engage with the LRCC, community Liaison officer to listen and resolve the disputes; Expedite land registration; LRCC to address the issues of disinheriting widows.
OkelloOkong'o said that his brother is mentally derailed and he is the one taking care of him hence wanted to know whether he can be compensated for his brother's land. The chief said he will be one to be paid.	In such a case since he is the care giver and due process will be followed to make sure that the brother is compensated. He will prove to the LRCC that this is the true position, that the brother benefits thereafter.

8.6 Direct Interviews

Further consultations were held during the PAP identification and census survey which was conducted for the connecting and headworks canal from 8 - 14 May 2017, and the Backflow Area from 26 - 27 June 2017 and baseline socio-economic household survey conducted from 5 – 19 July 2017. The surveys were conducted as outlined in sections below.

8.6.1 Questionnaire Administration

Questionnaire administration was done by enumerators on two occasions, during PAP census and the Socio-economic Baseline Survey. The enumerators were recruited through the local leadership and came from RAP I study area in Ugunja Ward. They were trained on how to identify the PAPs, conduct individual interviews, and inform the PAPs by giving a project brief.

8.6.2 Focused Group Discussions

Focussed Group Discussion was held at Nzoia Market on 19 May 2017 for affected persons in RAP I study area. These discussions were guided by an interview checklist which led to discussions based on the area and provided more information to those affected.

8.6.3 Meeting with Local Administration Officials

Meetings were arranged with the Location Chiefs and these were consultations on the progress of the assignment and also to engage in deeper discussion on economic, social and cultural issues of respective community. Two of these meetings were held in RAP I area as indicated in Table 8-9 below.

Table 8-9 Meetings with Locational Chiefs

No.	Date	Venue	Location and Block
1	6/7/2017	Chiefs Office Ligega	Right Bank at Back flow (reservoir) and Intake area
2	6/7/2017	Chief' Office Central Ugenya	Left Bank at Back flow (reservoir) and Intake area

8.6.4 Summary of Comments from Public Consultations

(a) Acceptance of the Project

96% of the people interviewed during the survey did not have any objection to the proposed project. Some of the reasons why the 4% of those interviewed objected to the project included succession issues, land disputes and fatigue since the project has taken long time to be implemented, among other reasons.

However the acceptance was with two riders in form of a condition that the project affected persons are adequately compensated and that the project be implemented this time as they have waited since 2010. The results of the survey show that majority of the PAPs would prefer compensation in form of cash and only a few would prefer land for land compensation.

(b) Resettlement

They proposed that in case they are faced with full (100%) displacement, they would prefer that they are paid off and only leave their current residential areas after building the new ones and are ready for resettlement. This is to allow them to adjust themselves psychologically and get ready in the new environment and social dynamics. Their preferred locations for resettlement would be not far from their ancestral lands if land could be available and affordable.

(c) Infrastructure

As a result of the construction of the proposed irrigation infrastructure, some areas will be cut off as the footpaths and foot bridges will be affected by the irrigation canals works. The proposed project should consider alternative routes to link the different areas that will be affected and construct roads preferably tarmac and associated infrastructure such as bridges.

(d) County Resources vis a vis the Proposed Project

The leaders were particularly concerned with commercializing agriculture and suggested that the County Governments should come up with food processing industries which would then stimulate demand for raw materials and thus attracting more people to engage in irrigated – commercial farming. They identified water resources as “God-Given” resources that they have not tapped and benefitted from for a long time. They called for initiatives to have platforms where irrigated-commercial farming will be discussed, promoted and funded so that farmers are trained in modern farming skills and techniques as well as use of high-yielding farm inputs.

(e) Employment

The proposed project will present many employment opportunities both during construction and operation phases. The community members proposed that people from the households within the affected area should be given priority during recruitment.

(f) Environmental Impacts

Residents within the back flow expressed fear that a dam-like body of water was being introduced in the area and since the water would be stagnant then it would be a permanent breeding home for mosquitoes and the area would thus be prone to malaria. Similar sentiments were also echoed in areas of main and secondary canals. But the benefits of the irrigation project outweigh the challenge of malaria which can be handled through Malaria programs. They have plans of using the reservoir for fish farming.

(g) Institutional Concerns

Lower Nzoia RAP I will not affect any institutions thereby raising no concerns in the project area.

8.7 Disclosure of the RAP Report

The Disclosure process should be undertaken in a manner that is inclusive, culturally appropriate and ensures the participation of vulnerable groups.

8.7.1 Background

Section 34 of the World Bank Policy on Disclosure of Information states that *whenever the Bank requires a Resettlement Instrument (RI) or Indigenous Peoples' Development Plan (IPDP) for an operation; the proposed borrower prepares an RI or IPDP as a separate, free-standing document. As a condition of appraisal of the operation, the borrower provides the draft RI or IPDP, which conforms to the relevant policy and makes it available at a place accessible to, and in a form, manner and language understandable to the displaced or affected people and local NGOs.*

To facilitate this, this RAP report proposes modalities for public disclosure of the study findings as outlined in Section 8.7.2.

8.7.2 Disclosure of the RAP Report by Ministry of Water and Irrigation (MOWI)- Kenya Water Security and Climate Resilience Project- Phase I (KWSCR-P-I)

The RAP will be cleared by the government and the World Bank and disclosed in the Bank's Website as well as locally in the project to all stakeholders in a language and manner understood by them.

The electronic copies will be made available at the following websites:

- World Bank;
- KWSCR-P-MU;
- Ministry of Water and Irrigation (MOWI);
- National Irrigation Board (NIB).

The physical copies of the reports will be made available at the following offices:

- World Bank;
- KWSCR –PMU;
- Ministry of Water and Irrigation (MOWI);
- National Irrigation Board (NIB) – Head office and at Bunyala Irrigation Scheme;
- County offices – Siaya and Busia;
- Sub-County offices in the two counties.

The study documents are to be disclosed at two levels i.e. public level and household level. For purposes of this section, public level disclosure means that any member of the public can review the documents provided. Household level disclosure means that only the household head and his spouse(s) can review the documents provided. The documents to be viewed at both levels are as follows:

- Public level:
 - Volume I of the RAP Report (This Report);
 - Land Acquisition Map;
- Household Level:
 - Land search findings;
 - Inventory of assets;
 - Proposed compensation figures;
 - Baseline socio economic data at household level.

There will be an executive summary of the report that translates the project to the local languages (Luo and Luhya).

9 POTENTIAL PROJECT IMPACTS AND MITIGATION MEASURES

Construction of the Lower Nzoia Irrigation Project (LNIP) and the Nzoia Flood Protection Structures are expected to impact on the community in several ways. This chapter addresses impacts resulting from acquisition of land for the project.

9.1 Affected Areas

The RAP I study area consists of the backwater flow area (small reservoir or inundated area due to the weir), the diversion weir/intake, the connecting and headworks canals and associated structures (see Figure 2-5, Section 2.10). The acquisition of the reservoir area and the areas around the intake and canal wayleave will affect various property holders and properties such as land, structures, trees and crops.

The impact of the proposed works is mainly in Ugunja Sub-county (on the left bank) and to a smaller extent in Ugenya Sub-county (on the right bank), all in Siaya County. The sub-locations, locations and wards affected are indicated in Table 9-1.

Table 9-1 Project Affected Areas in Ugunja and Ugenya Sub-counties

Block	Sub-county	Ward	Location	Sub-locations
Northern backflow area	Ugenya	Ugunja	North East Ugenya	Ligega
Southern Backflow area	Ugunja	Ugunja	CentralUgenya	Umala Ambira
Connecting and Headworks Canal	Ugunja	Ugunja	CentralUgenya	Umala
Total	2	1	2	3

Source: Local Administration Officials (Chiefs)

9.2 Project Affected Persons

9.2.1 Affected Individual

An individual or person who will lose land, property and access to their livelihood as a result of the Project is considered an Affected Individual. There are 943 Project Affected Persons (PAPs) in RAP I area (Male– 564, Female- 379).

9.2.2 Affected Households

Households where one or more of its members loses land, property and accesses to their livelihood as a result of the Project are considered Project Affected Households (PAH). A household is made up of members who maybe related or not but operating as a single household unit.

There are **239** Affected Households, PAHs / Property Holders.

9.2.3 Vulnerable Groups and Households

The World Bank defines vulnerable groups '*...as the poor, women, and indigenous peoples; those less able to care for themselves (children, the elderly, and the disabled); and other groups not protected by national land compensation law (those without land or use rights; host communities; and community members remaining in the original area after resettlement).*' Source: *World Bank Involuntary Resettlement Sourcebook* p. 71.

The vulnerable groups of persons affected by the project are within **121** affected households. Those identified included elderly (persons aged over 65 years and above), physically challenged; mentally sick, those suffering from chronic illness, HIV/AIDS; orphans and widows/widowers (see breakdown in Section 9.4.5).

9.3 Potential Positive Impacts

9.3.1 Impact on Poverty Reduction

In Siaya County, poverty level is approximately 47.56% compared to a national level of 45.9%. This has been attributed to gender inequalities, poor agricultural practices, lack of incomes and poor infrastructure. The described causes of poverty in LNIP area are agricultural productivity related. These are poor soil fertility leading to low yields, low income among households to even afford farm inputs, over-reliance on traditional methods of farming and lack of alternative sources of income. Another significant cause in mainly Usonga area is the frequent flooding which contributes to loss of homes, property, businesses and crops. These are to be mitigated by the proposed project which has a net irrigable total area of 4,075 hectares for agricultural production with the aim of increasing incomes by diversifying farming to adopt new farming technologies such as high value crops e.g. vegetables and fruits grown under irrigation, improvement on post-harvest handling, agro processing and farm machineries.

9.3.2 The Impacts on Gender and Inequality

Improving equity and equality in gender issues and reducing gender disparities will benefit the project and thus contribute to sustainable economic growth, reduce poverty and social inequalities. During the FGD gender inequality and women exclusivity in decision making and control of land as a resource of production was noted. In the project area 43% affected households are female headed households and these include 35 widows. Those that are vulnerable and widowed are to be considered for additional assistance as support for resettlement.

RAP and project implementation is expected to promote women inclusiveness to address the gender gap as follows:

- The disparity has been addressed by making sure that women are included in the Location Resettlement and Compensation Committees and issues affecting widows, female headed households widowers are all considered as standalone and not as cross cutting issues.
- In terms of employment in the project construction works both male and female workers to access these jobs without discrimination as cited in the LNIP Environment Social Management Framework.
- The project will undertake Intervention aimed at mitigation against challenges and negative effects such as increased school dropout rates, early /teenage pregnancies and early marriages, HIV prevalence, etc. brought about by the influx of people to the region.
- A livelihood restoration program for the vulnerable groups has been included under the compensation package and to be managed by the RAP Implementation Unit;

- Gender based violence was not raised in the discussion and the anticipated gender inequalities due to exclusivity in land and resources control will be handled at the LRCCs and the SCRCCs.

9.3.3 Impact on road infrastructure

There will be no new roads. The existing roads will be improved to improve access, movement and communication within the area. The improved roads will improve access and communication within the project area as well as to the intake and reservoir. This is expected to have a positive impact on the socio-economic activities within the project area. The access roads have been proposed along the project component for operation and maintenance purpose and to improve accessibility within the area

9.3.4 Impact on Livelihoods and Food Production

The HWC, CC and Back flow project area comprises of communities engaged in various livelihood activities which include the following.

- Small scale farmers with small land parcels (0.25 – 2 acres);
- Owners of small businesses;
- Livestock farming

With these economic activities the project will seek to increase land under crop production, increase yields by introducing extension services, better farming technologies and this will lead to food security. In all the proposed construction areas of the irrigation and reservoir infrastructure, sources of livelihood that are directly affected include mainly subsistence farmers with highly fragmented small land parcels.

According to the socio-economic baseline survey in Section 7, some 87.1% of the PAPs use land for farming. With the implementation of this project the productivity of the land used through farming by the PAPs would increase due to availability of water all year round and provision of extension services.

Improvement in provision of extension service has been planned because information gathered from the department of agriculture Siaya County indicated inadequate staffing leading to low coverage. Farmers' lack extension services and since the displaced PAPs will relocate within the area this challenge will be addressed under the LRP on agricultural capacity enhancement for PAP farmers.

For soils improvement testing will be enhanced and under the agricultural capacity enhancement in the LRP and eventually the LNIP since PAP farmers will be trained on management of soil pollution, soil fertility and conservation.

Livestock farming though practiced at a very small scale (2.2%) may improve with the introduction of zero grazing farming practices to replace the free range 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.

Fish farming will be introduced at the reservoir to be managed by the water users association and this will be for consumption and sale.

9.3.5 Employment Opportunities

There are high levels of unemployment in the region with approximately 40 per cent of the labour force in Siaya County being unemployed. These are high levels of unemployment and similarly in the project area only 0.6% of the PAPs interviewed are on salary and 6.8% are casual labourers. It is planned that the project will create employment and therefore has a positive impact. Employment will come in form of agribusiness practices. With the HWC, CC and Back flow project implementation there will be employment creation as follows:

- Employment will be generated in the agricultural value chain at crop production level, value addition and marketing;
- During project construction semi-skilled jobs and casual labour jobs will be available for the local people and to make sure the jobs are absorbed locally the Project will work with community leaders to establish a population-based quota system consisting of an agreed percentage of unskilled jobs to be allocated locally;
- Small businesses such as eateries, groceries, hardware stores etc. will increase during the implementation stage to cater for the construction work teams.

9.4 Potential Negative Impacts and Mitigation Measures

9.4.1 Land Loss

Land loss resulting from the proposed project will be necessitated by involuntary land take for the purposes of construction of the Lower Nzoia Irrigation Project. The affected land under the RAP I study area is 57 ha (142 acres). There are 220 land parcels belonging to 220 individuals that will be affected in the area

The land tenure within the project area is private ownership (freehold tenure). It should be noted that the major land use within the projects target area is small scale agricultural production.

Actions to be implemented

- Cash compensation at full replacement cost or in-kind compensation. The land should be in the same locality with same level of productivity;
- Payment of a disturbance allowance amounting to 15% of the value of land;
- PAPs should be sensitised at the on-set to update their land ownership documentation. There are cases of sub-divisions and succession that should be sorted to ensure that there is no question on the eligibility of the land owner identified under this RAP;
- Where land parcels are small resulting in losses of up to 80% of land it is proposed that the entire land parcel be acquired;
- Project to make sure that the PAPs can access river crossing points by facilitating access roads always(SeeAppendix 10).

9.4.2 Loss of Structures

Affected structures include residential structures, majority of which are constructed using mud (walls and floors) and corrugated iron sheets (roofs). Only 1.1% of the houses are constructed using stone masonry and bricks. The total number of households losing structures is 29 while the total number of structures affected is 86.

Affected small scale business structures should also be re-established to ensure that there is minimal impact on trading activities and no losses on incomes during the transition stage to the new structures.

Actions to be implemented

It is proposed that the PAPs be allowed to construct their structures and relocate prior to commencement of construction activities. The following additional recommendations are given.

Loss of residential structures:

- Cash compensation at full replacement cost;
- Payment of a disturbance allowance amounting to 15% of the value of the structure;

- Upon payment of compensation PAPs should be given at least three months to relocate from the project site;
- Provision of opportunity to salvage the remains from demolition of the PAPs structures.

Loss of business structures (if any):

- Cash compensation at full replacement cost;
- Payment of a disturbance allowance amounting to 15% of the value of the structure;
- Upon payment of compensation PAPs should be given at least three (3) months to relocate from the project site and re-establishment of the business in the same locality;
- Provision of opportunity to salvage the remains from demolition of the PAPs structures.

Tenants

- Transitional support equivalent to 6 months rent to cater for moving out and establishment somewhere else (mainly for those renting premises or with structures within the wayleave);
- Three (3) months notice to vacate the premises.

The above does not however apply to RAP I.

Loss of Income from business / services

- Cash compensation of monthly income for a period of Six (6) months to cushion them from the effects of the interruption and enable them re-establish their businesses elsewhere away from the wayleave.
- Three (3) months' notice to vacate the premises.

The above does not however apply to RAP I.

9.4.3 Impact on Graves

During the study, only one (1) household losing two (2) graves was identified to be affected by the project. Considering the comments that arose during consultations on graves, the following are the actions to be implemented:

- Family members should be informed and give consent;
- Budgets prepared should cover for all funeral rites;
- Graves will be exhumed;
- Courts are to give approval through court order for exhumation;
- Elders will be consulted for advice on the cultural process for relocating graves;
- Ceremonies and reburial;

Compensation amounting to Kshs.150,000/- per grave to be provided since graves are viewed as connection routes between the living and the dead explaining the reluctance to let them go. The breakdown of the compensation for the grave is given in Table 9-2. The compensation cost is part of the overall compensation cost per affected household in the Valuation Roll in Appendix 9.

Table 9-2 Compensation cost of relocating graves

No.	Item	Amount (Kshs)
1	Food stuffs(bull, two goats, chicken, rice)	60,000
2	Exhumation and reburial costs	30,000
3	Government documentation for exhumation including official certificate.	10,000

4	Transportation	10,000
5	Bereavement fee	30,000
6	Hiring of tents, chairs, utensils etc	10,000
	Total	150,000

9.4.4 Loss of Crops and Trees

In the study area, there are 87 households losing 3,839 trees and 6 households losing crops. Affected crops include maize, beans and other season crops and trees include timber (Eucalyptus, Pine, Cypress, Euphorbia, Jacaranda, Graviella, "Ciala", "Ober", "Ng'owo", "Murende", Grevillea etc) and fruit trees (Avocado, Mango, Guava, etc).

Actions to be implemented

- Cash compensation for trees will be based on current rates as guided by Kenya Forestry Service² (KFS) as well as prevailing market value of the trees at local level;
- Cash compensation for crops will be based on current rates as guided by Ministry of Agriculture;
- Provision of opportunity to harvest and salvage fodder, fruits and timber.
- Introduce new farming technologies to encourage and promote commercial agriculture and agribusiness value chain;
- Soil testing, improvement and conservation;
- Provide extension services to train farmers on new farming technologies;
- Introduce new farming technologies in crop production, marketing and post-harvest handling (drying and storage);
- Train in marketing, value addition and understand the whole agriculture value chain;
- County will generate revenue collected from the market centers to improve local services and infrastructure.

9.4.5 Impacts on Vulnerable Groups Livelihoods

The vulnerable groups of persons affected by the project are within **121** affected households and the numbers by category are given in Table 9-3.

Table 9-3 Vulnerable PAPs Categories

Vulnerable PAPs Categories	Nos.
Number of Households with vulnerable persons	121
Total number vulnerable persons	274
Mentally ill	22
Physically Challenged Persons	21
People living with HIV/AIDS	31
Elderly / aged	58
Chronically ill	49
Orphans	58
Widows	35

The impact on vulnerable group will be heavier than on the non-vulnerable groups of persons in the following way:

- *Elderly* - Emotional attachment of the elderly to their current area of residence, business or other economic activity is higher than that of younger generations. Therefore, if they will be required to be relocated emotional loss could lead to stress that will require proper management strategies. Secondly, in case loss of livelihoods

²<http://www.kenyaforestservice.org/documents/Legal%20Notice%20No%20%2021%20-%20Forest%20Fees%20and%20Charges.pdf>

by this category of persons, re-establishment by this households could prove to be a challenge due to low physical strength to search for new sources of income;

- *Female headed households* - The process by which women become household head generally features help from the community, including close relatives, neighbours and distant relatives. Therefore the social capital that female headed households have accumulated at the current establishments can be lost as a result of relocation thus rendering them susceptible to life shocks due to loss of support societal structures;
- *Mentally ill and physically challenged* – those falling under this category are mainly incapacitated by virtue of their disabilities and have to depend on relatives, caregivers and community for their existence. The caregivers will be faced with the challenge of relocating and also taking care of a relocating mentally ill or physically challenged person. In this case therefore the specific care giver will be identified registered to manage the special assistance provided to the affected vulnerable person.

Actions to be implemented

Additional assistance over and above compensation for affected properties should include but not limited to:

- Psycho-social support to be provided in conjunction with the Sub County Social Development Officers (SCSDO) and other relevant stakeholders of the county. This will be through counselling and liaison with the existing welfare support programs;
- Assistance with transport for their property and salvaged properties during resettlement, for those being resettled.
- The livelihood restoration programs will be instituted as follows;
 - To follow up on orphans and make sure they identify and register in school upon relocation.
 - Ensure Persons With Disability(PWDs) and those HIV affected gain access to support services in areas of new settlement and
 - Improve standard of living for caregivers to orphans, mentally sick, elderly and chronically ill by engaging them in social and economic empowerment projects
 - This to be supervised and monitored by the Social Development Specialist and LRCC.
- Widows, orphans and affected Vulnerable persons to be assisted through local administration and family for issuance of land registration documents;
- Relocation of the widows, orphans and vulnerable persons to be facilitated and
- Assist and monitor orphans to make sure that these children get back to school in case of relocation and ensure they are compensated
- Assist the mentally sick, people with disabilities, elderly /aged, chronically ill to access information and opportunities available to them from government or civil society in their areas of settlement;
- Monitor the resettlement of the vulnerable e.g. orphans to make sure they gain school transfers, the HIV affected and chronically ill have access to medication and the persons' with disability are locally registered with APDK office.

9.4.6 Impacts on Community Assets and Access to Water Sources

Due to the Back Flow there will be loss of water springs that are used as water sources for the Umina A village in Umala Sub Location. This is the only source for clean drinking/domestic water in the village. It can be assumed that they will use the Nzoia River but this is not clean safe water for domestic use.

Actions to be implemented

Sensitize the people on the need to use the reservoir as an alternative water source and users to ensure the water is safe for domestic use.

Construct a watering point where they can draw water and water their livestock along the river and have the water treated by installing locally managed chlorination dispensers at water source. It is proposed that the Project Implementing Team takes charge.

9.4.7 Impacts on Food Security and Subsistence

The affected persons living along the proposed Head works canal (HWC), Connecting canal (CC) and Back flow area will have a negative impact to their lives in terms of loss of assets, source of livelihoods/ revenue and disruption of services in the project area. The details of loss are:

- Loss of farmlands and crops;
- Loss of crop farming season due to cropping system disruptions;
- Loss of income generating fruit/timber/fuel-wood trees;
- Loss of grazing land.

Actions to be implemented

- There are 220 parcels of land that are affected and these will be compensated to recover their loss of land, assets, and crops as well as livelihood sources;
- It is also recommended that they be given ample notice to allow them to harvest any crop that will be in the field during compensation. This can be followed up through the LRCC.
- Provide a transitional food ration support kitty of cereals, pulses and cooking oil to last one cropping season as compensation for lost crop season.
- Sensitize and facilitate the totally displaced to initiate agricultural practices in the new settlement under the LRP agricultural capacity enhancement program.

9.4.8 Limitation to movement and accessibility

The proposed Head works canal (HWC), Connecting canal (CC) and Back flow area is a new resource in the area and the beneficiaries will have to sensitize the people particularly children on how to use the reservoir and canals. This may also pose a challenge when watering livestock.

Actions to be implemented

Canals will be a new infrastructure which may separate people and they will need crossing points and bridges. These will be constructed in consultation with the local people in order to consider their local movement needs and transport.

9.4.9 Flooding at the Water Reservoir/Back Flow area

At the Back Flow area water may increase to higher levels particularly during the rainy season, above design levels. This may lead to inundation of farms in the surrounding areas and destroy crops, soils etc.

Actions to be implemented

- Farmers will be sensitized on how to conduct farming along the shores of the reservoir (they should be discouraged from farming up to the edge of the reservoir – should leave some buffer zone, preferably planted with grass/suitable fodder or trees);
- Extension officers to advise farmers on the extent of the buffer zone to avoid their crops being inundated during periods of high water levels above the design.;
- Similarly the eco system in this area will change from the current state and the locals will need to be sensitized to expect these changes.

9.5 Impact on Educational Facilities

During the study in RAP I area no educational facility was identified that would be affected by the implementation of the project.

9.6 Impact on religious institutions

There are no religious institutions that will be affected by the project in RAP I study area.

9.7 Impact on Public Infrastructure

There are no public infrastructures / institutions that will be affected by the project in RAP I study area.

9.8 Management of the Wayleave after Compensation

It is recommended that the project establishes a program to facilitate the following:

- Intake and outfall structures should be fenced after requisite surveys and development of new titles / records of ownership. These records should also reflect on the documents of the displaced PAPs who will remain adjacent to the sites;
- After implementation of the compensation payment program and resettlement of PAPs, NIB should co-ordinate with the Surveys of Kenya and a Licensed Surveyor to conduct a survey and establish fixed boundaries for the infrastructure alignments;
- These permanent wayleave co-ordinates should then be used to update all the cadastral maps within which the tunnel alignment crosses;
- Permanent beacons should then be set along this corridor. These beacons can be concrete pillars of an appropriate height and width, set at appropriate distances along the alignment;
- It is proposed that the nature of these beacons should be such that they do not attract vandals in the form of scrap metal dealers and that they do not form a physical barrier for land users on opposite sides of the corridor;
- During the operation phase of the project, maintenance of the physical beacons should be reviewed at least every ten years and re-established where necessary.

Table 9-4 Summary of impacts and mitigation measures

#	Affected Population	Affected Property	Impacts	Mitigation
1.	Individuals resident within the project corridor	Residential Houses, Sanitary facilities and other structures	<ul style="list-style-type: none"> • 1005 (adults 630, Children 262 and 113 not classified as adults or children) displaced by the project • Loss of 86 structures including pit latrines and fences. 	<ul style="list-style-type: none"> • Sensitisation • Compensation and resettlement
2.	Individuals with land along canal wayleave,	Land only	<ul style="list-style-type: none"> • Acquisition of 220 parcels of land 	<ul style="list-style-type: none"> • Sensitisation • Compensation and resettlement at full replacement cost
4.	Individuals	Trees for timber (Eucalyptus, Pine, Cypress, Euphorbia, Avocado, , Jacaranda, Graviella, "Ciala", "Ober", "Ng'owo", "Murende", Grevillea etc) Fruit trees (Mango, Guava, avacado,bananas).	<ul style="list-style-type: none"> • Loss of Trees. • 3,839 Trees Affected 	<ul style="list-style-type: none"> • Sensitisation and encouragement to replace the lost trees • Compensation • Support re-afforestation of farm forestry initiatives
5.	Individual farmers	Subsistence farms with crops and livestock	<ul style="list-style-type: none"> • Disruption of regular subsistence farming and keeping of livestock 	<ul style="list-style-type: none"> • Compensation and resettlement • Education on good farming techniques • Sensitisation on Zero Grazing and keeping of productive livestock
6	Individual Subsistence farmers	Perennial crops	<ul style="list-style-type: none"> • Loss of crops • Various crops are affected including(cassava,sweet potatoes,maize, pineapple heads) 	<ul style="list-style-type: none"> • Compensation for perennial crops • Ample notice to allow for harvest of any seasonal crop in the field during compensation.
6.	Individuals at household level	Graves	<ul style="list-style-type: none"> • 2 graves 	<ul style="list-style-type: none"> • Compensation and relocation of the graves
7.	Vulnerable groups (Widows,, Mentally Challenged, Elderly, Sick & Bedridden and Orphaned	Land, structures, Trees, Crops and Livelihoods	<ul style="list-style-type: none"> • 121 vulnerable Households are affected • 292 vulnerable affected • Challenges with adjusting to changes and new environment • Exposure to unfair treatment by other community members • Limited ability to fend for themselves 	<ul style="list-style-type: none"> • Livelihood restoration options(transitional support, agricultural capacity enhancement, employment). Refer to Section 12.

10 INSTITUTIONAL FRAMEWORK FOR RAP IMPLEMENTATION

10.1 Existing Institutions of Relevance to this RAP

The implementation of the RAP requires collaboration from all the stakeholders. This would require a properly constituted structure for the administration of the same. The proposed project involves land acquisition, resettlement and compensation of project affected people for the loss of their land, structures, business disruption and trees/crops. The Institutional Framework clarifies the role of various stakeholders in the implementation and administration of the RAP. It further clarifies the role of PAPs and their responsibility in the entire exercise. The procedures to be followed, along with the support facilities available and a timeframe for implementation of each of the activities are also outlined.

The following institutions have been identified to be relevant in the implementation of the RAP.

10.2 Ministry of Water and Irrigation

The Project is owned by the Government of Kenya through MOWI and the KWSCRPMU / NIB-PIU will be responsible for its implementation. MOWI shall be responsible for mobilization of financing from Ministry of Finance (MOF) for this RAP. MOWI will request the Ministry of Finance to allocate funds for this RAP and will thereafter give the funds to NLC to compensate all the identified PAPs.

10.3 Kenya Water Security and Climate Resilience Project (KWSCRPMU)

KWSCRPMU has established a Project Implementation Unit (PMU) for the RAP, with a team dedicated to carrying out the respective activities, and coordinating with the County and National Government.

The KWSCRPMU Environmental and Social specialists will serve as the primary point of contact between communities of the project affected area and the project, and will have the following primary areas of responsibility inter alia:

- Liaise with County and Sub County government regarding local community liaison;
- Log and respond to grievances lodged by members of the community;
- Organize and facilitate compensation payment actions;
- Obtain prior written permission from community leaders/affected members for any intended damage to any infrastructure, crops or land because of construction and compensation to be paid.

KWSCRPMU has the following other responsibilities regarding the implementation of the RAP.

10.3.1 Communication and Coordination

- Communication and cooperation with County administrations as key actors with implementation of livelihood restoration programs;
- Communication and cooperation with local resettlement committees as key actors with implementation processes (i.e. compensation process, monitoring, identification of vulnerable people);
- Communication and cooperation with the institutions involved in the compensation process and into training measures for affected people;

- Overall coordination with national and county government and with local authorities and funding agency with regard to the Project's social and environmental issues.

10.3.2 Management of RAP Implementation

- Ensure and monitor overall social and environmental due diligence within RAP implementation (national requirements, lenders requirements);
- RAP Key Implementation Processes
 - Oversee and coordinate compensation process;
 - Operate Grievance Mechanism;
 - Operate Monitoring.
- Design of overall training plan for RAP implementation staff, oversee and coordinate implementation of plan;
- Manage staff recruitment processes and contracting processes of external service providers.

10.3.3 Change Management

Communicate necessary changes of approach, particularly where substantial and material changes to the RAP might be envisioned or necessary (i.e. as consequence of monitoring results) to KWSCR/PMU (see above) for final decision-making.

10.3.4 Capacity Building

Facilitate and guide capacity building for authorities on different levels with regard to due diligence of Project management and due consideration of environmental and social safeguards.

10.4 National Irrigation Board / Project Implementation Unit (NIB-PIU & SPIU)

NIB is a functionally semi-autonomous parastatal under MOWI. It is the project implementing agency for LNIP. NIB will have overall responsibility of carrying out monitoring and evaluation of the resettlement process through a Project Implementation Unit (PIU) that is already established for this project. The NIB-PIU will be coordinating its activities in close consultation with the PMU.

It will be responsible for the following:

- Ensure maximum participation of the affected people in the planning of their own resettlement and post resettlement circumstances;
- Coordinate with NLC over the issue of Land Acquisition;
- Accept financial responsibility for payment or compensation and other designated resettlement related costs;
- Ensure detailed valuation of the structures to determine the case to case value of each component of the project and agree upon a value for compensation;
- Ensure that the affected persons receive their compensation in terms of amounts agreed and promptly;
- Ensure monitoring and evaluation of the PAPs and undertake appropriate remedial action to deal with grievances and to ensure that income restoration is satisfactorily implemented;
- Oversee the implementation of the RAP;
- Oversee Implementation of Monitoring and Evaluation of the Resettlement Process.

10.5 National Land Commission

The National Land Commission (NLC) is an independent constitutional agency that has statutory powers to undertake compulsory acquisition of private or community land for public purposes or public interest.

It performs these functions on behalf of the national government and county governments. The specific powers and functions of the NLC are set out in the National Land Commission Act 2012, and the Land Act 2012.

Key roles of NLC in the implementation of this RAP will include:

- *Provide approval to request made by KWSCRPMU / NIB-PIU to acquire land for the Project;*
 - *Notify landholders in writing of the intention to acquire land;*
 - *Assist in resolving disputes related to compensation;*
 - *Acquire land on behalf of NIB;*
 - *Undertake public consultation on intended acquisition;*
 - *Undertake actual payment of entitlement awards to PAPs.*
-

10.6 Ministry of Lands

The Ministry of Land is mandated to:

- Formulate and implement land policy;
- Undertake physical planning;
- Register land transactions;
- Undertake land surveys and mapping;
- Land adjudication and settlement;
- Land valuation and administration of State and public land.

The ministry delegates the management of land in the Counties to the County Land Boards and Land Committees, while the Commissioner of Lands manages land belonging to the Government of Kenya.

10.6.1 County Lands Board

The roles of the County Lands Board are as follows:

- Keep and allocate land by the State in the County;
- Assist in recording, registering and transferring of rights or claims on land;
- Make and keep up to date a list of compensation rates for the loss or damage to crops, houses and other property;
- Revises the list of rates of compensation each year.

The following departments under the Ministry of Lands would be important in the implementation and management of the RAP:

10.6.2 County Lands Officer, County Lands Survey Office, and Valuation Surveyor

The office deals with acquisition, planning, demarcation, survey, and allocation of all agricultural land. In the implementation of this RAP the department will be relevant in provision of support in dispute resolution and provision of clarification where land ownership instruments

are outdated. This may occur in cases where registered owners are deceased or have subdivided and sold their land yet the records have not been updated.

10.7 Ministry of Interior and Coordination

Under the new dispensation, the Ministry has an 8 tier administrative framework starting with the County Commissioner to the Village Elders.

Below is the breakdown of levels of administration:

- | | | |
|---|--------------------------------|--|
| • | Regional Commissioner | Heads the Region (several counties); |
| • | County Commissioner | Head of County; |
| • | Deputy County Commissioner | Head of Sub-County; |
| • | Sub-County Commissioner | Head of Division; |
| • | Deputy Sub-County Commissioner | Head of Sub Division |
| • | Chief | Head of Location; |
| • | Assistant Chief | Head of Sub Location; |
| • | Village Elders | Operate under Chief and Assistant Chiefs within villages |

The officers of this Ministry were instrumental in mobilisation and co-ordination between the study team and the Siaya and Busia County Governments. Their contribution to the implementation phases of this RAP would promote continuity in whatever communication strategy is selected for RAP implementation.

10.8 County Governments of Siaya and Busia

The County Governments were formed under the Kenyan Constitution 2010 and consist of various levels including:

- The County Governor;
- The County Executive;
- The Legislature known as Members of the County Assembly, headed by a Speaker;
- Various officers leading specific departmental roles.

Other actors within the County include:

- Members of Parliament who represent their specific constituencies at the National Assembly;
- A County Level Women's Representative who represents gender issues at the National Assembly;
- A Senator who represents the County at the Senate.

The people's representatives play a crucial role in support of the resettlement program due to their role as opinion leaders in the project area. Support of the RAP by the County Government can also not be underscored as they play a crucial role in management of expectations both among the County Assembly and the PAPs.

This group can therefore provide advisory and support services on a case by case basis during the implementation of the project and all its components including this RAP.

10.9 Irrigation Water Users Association(IWUAs)

The Irrigation Water Users Association (IWUAs) is based at the project area. Farmers from each sub-location elect office bearers composed of three members (Chairman, Secretary and Treasurer). These office bearers come together to form the membership of IWUAs. IWUAs are established for effective participatory development and management of irrigation system. They are registered with the relevant Government institutions and legal instruments developed and applied to enforce accountability and transparency.

The role of IWUAs will be key since they will be charged with the responsibility of managing the operations of the project once NIB runs it over the initial period of 3 years. The responsibilities and roles of IWUAs include the following:

- Resource mobilization from members for the installation, maintenance and sustainable management of irrigation or drainage facility.
- Management of operation and maintenance of the irrigation facility for maximum benefits to members.
- Facilitate access and ensure effective management of resources for sustainability of the irrigation scheme.
- Provide equitable access to irrigation water and drainage to the members.
- Facilitate access to inputs, financial services, value addition and marketing.
- Develop and promote group cohesion.
- Participate in the tendering/contracting process. This will build transparency, accountability and harmony among the various actors in the schemes.
- Develop and enforce scheme bylaws and strategies to ensure participatory and representative decision making and management.
- Establish mechanisms for conflict resolution
- Develop annual workplans and budgets based on actual needs water acquisition, fees and other charges for O&M.
- Capability building for members.

10.10 Proposed RAP Implementation Arrangements

In addition to the existing institutions described above. This report proposes a two-tier mechanism for implementation of this RAP and will be described as RAPIC (RAP implementation Committee):

- Level One: Sub-County Resettlement and Compensation Committees (SRCCs)
- Level Two: Locational Resettlement and Compensation Committee (LRCCs);

Details are presented in subsequent sections.

10.10.1 Sub-county Resettlement and Compensation Committees (SCRCCs)

The SCRCCs will not engage in land acquisition or compensation as this remains the prerogative of the NIB. Each of the 2 Sub-Counties affected by LNIP will constitute a SCRCC. PMU will help constitute the SCRCC with the Land Offices at the Sub-County level which will be chaired by the Deputy County Commissioner (DCC). SCRCC will help NLC / PMU / NIB carry out their mandates efficiently; particularly ensuring effective communication between NLC with the affected communities. Members to SCRCC will include representation from the following agencies:

- The Sub-County Administration representative, who in this case will be the Deputy County Commissioner and will provide the much-needed community mobilization, and

- support the project in the process of resettlement. The DCC will chair respective SCRCCs in each respective Sub-County;
- A representative of PMU as the implementing agency implementing the Lower Nzoia Irrigation Project;
- Sub-County Land Survey Officer to help with survey works and demarcation of land to be acquired;
- A representative from County Government at the Sub-County level;
- PAPs representative introduced by the Location Resettlement and Compensation Committee – act as voice for the PAPs. Each of the 2 locations will elect 2 PAP representatives (male and female) to be part of the 2 SCRCCs;
- NGOs and CBOs locally active in relevant fields to ensure PAPs are assisted throughout the RAP implementation and help with the livelihood restoration, information dissemination, among other things.

PAPs will elect their representative to SCRCC while the Sub-County Social and Gender Officer will identify an active NGO/CBO in the project area. The SCRCC will have the following specific responsibilities as regard implementation of the RAP:

- Ensuring effective flow of information between NLC, PMU and PAPs
- Coordinate Locational Resettlement and Compensation Committees (LRCCs);
- Validate inventories of PAPs and affected assets;
- Guide and monitor the implementation of relocation
- Coordinate activities between the various organizations involved in relocation
- Facilitate grievance and conflict resolution
- Assist with the livelihood restoration activities.

10.10.2 Location Resettlement and Compensation Committees (LRCCs)

Locational Resettlement and Compensation Committees (LRCCs), based in each administrative location have been established and accepted. The LRCCs were constituted by the Consultant Team with the assistance of local administration from 21- 22 July 2017 within the RAP I Area. The LRCCs will work under guidance and coordination of SCRCC. Their membership comprise of the following:

- *The Chief, who is the Government administrative representative at the locational level and who deals with community disputes will represent the Government in LRCC*
- *Assistant Chiefs, who support the locational Chief and Government in managing local community disputes in village units, will form membership of the team.*
- *Female PAP, elected by women PAPs, will represent women and children related issues as regards resettlement and compensations*
- *Youth representative, elected by youths, will represent youth related concerns in the LRCCs*
- *Vulnerable persons representative, will deal and represent vulnerable persons issues in the LRCC.*
- *Representative of Irrigation Water Users Association (IWUA), if functional in that location.*

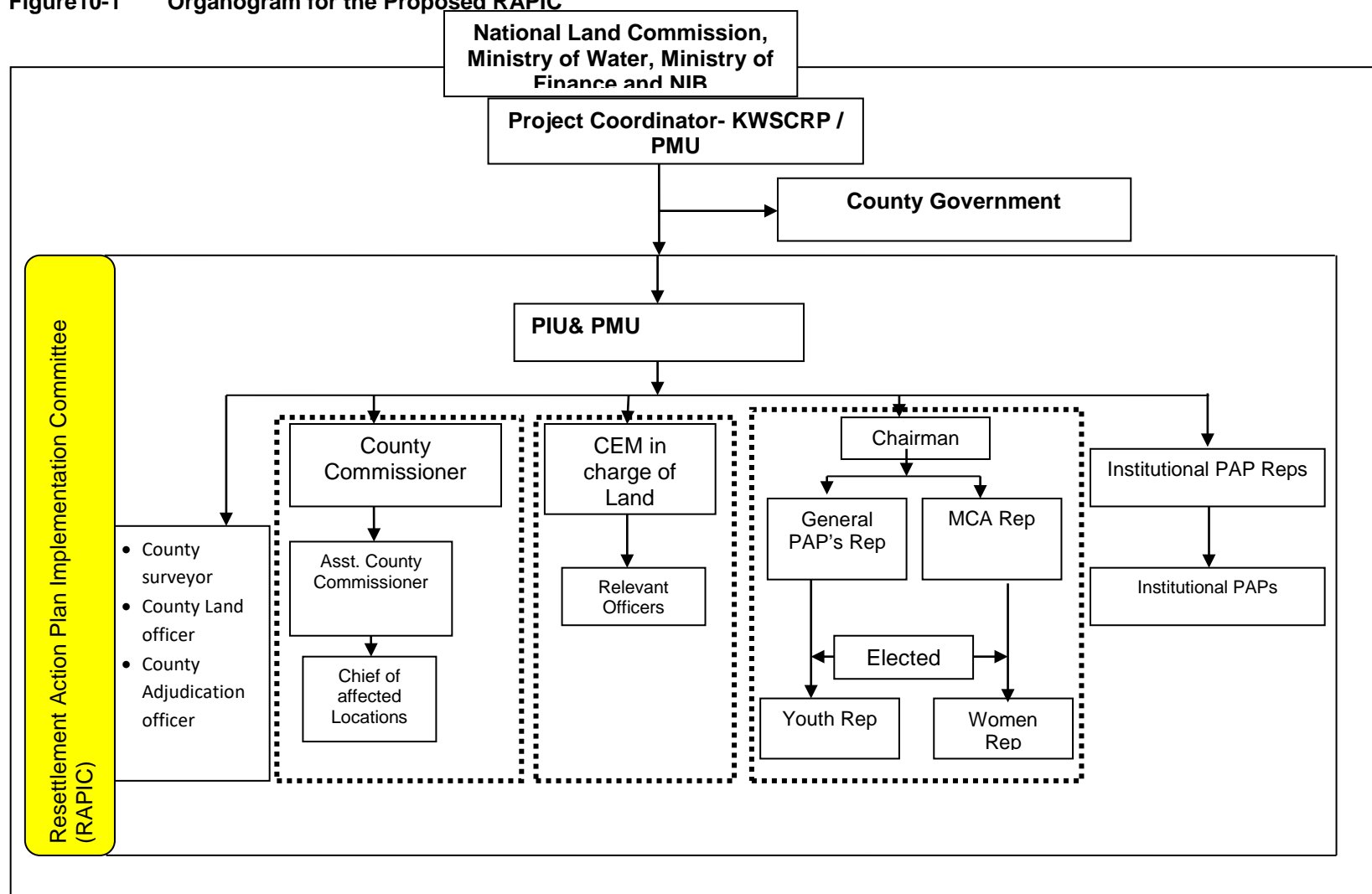
Memberships to LRCCs were elected by each category of PAPs except the Locational Chief and assistant chiefs who are automatic members of the team by virtue of their positions. Each LRCC elected their Chairpersons and a Secretary. The roles of LRCCs will include among others the following:

- *Conducting extensive public awareness and consultations with the affected people.*
- *Help ensure that local concerns raised by PAPs as regards resettlement and compensation among others are promptly addressed by relevant authorities*
- *Assist the effective working of RAP consultants in validation and updating of the RAP after the detailed design study is completed*

- *Resolve manageable disputes that may arise relating to resettlement and compensation process. If it is unable to resolve, help refer such grievances to the DRCC.*
- *Ensure that the concerns of vulnerable persons such as the disabled, widowed women, orphaned children affected by the sub project are addressed.*
- *Help the vulnerable during the compensation and restoration for their livelihoods*
- *Ensure that all the PAPs in their locality are informed about the content of the RAP.*

Figure 10-1 summarises the Organogram as proposed in above.

Figure10-1 Organogram for the Proposed RAPIC



Key

MCA: Members of County Assembly

Rep: Representative

CEM: Chief Executive Member

11 VALUATION, COMPENSATION AND ENTITLEMENT FOR LOSSES

11.1 Eligibility Criteria for Compensation

In line with O P 4.12, displaced persons may be classified in one of the following three groups:

- (a) Those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country).
- (b) Those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan.
- (c) Those who have no recognizable legal right or claim to the land they are occupying.

Majority (88.9 %) of the PAPs fall under category (b) and (c) while (11.9%) of the PAPs fall under category (a).

11.2 Project Principles of Compensation for Resettlement

The basic principles of resettlement to be adopted for the Project are as follows:

1. Involuntary resettlement is to be avoided or minimized by identifying possible alternative project designs and appropriate social, economic, operational and engineering solutions that have least impact on the population in the project area;
2. The Population affected by the Project are defined as those who may stand to lose, as a consequence of the Project, all or part of their assets which include homes, productive lands, commercial properties, tenancies, income earning opportunities, social and cultural activities and infrastructure together with any other losses that may be identified in the resettlement planning;
3. Neither lack of legal rights to the assets lost, tenure status, nor social or economic status shall bar the affected person from entitlement to the compensation and rehabilitation objectives and measures outlined in the RAP;
4. The cut-off date for eligibility for compensation for physical assets affected by Project activities such as the construction of the irrigation infrastructure including roads will be the date of commencement of the detailed measurement and census survey after completion of the detailed design has been completed for these components;
5. All PAPs will be entitled to compensation at replacement cost using current market value for affected assets, incomes and businesses; all severely affected PAPs will also be provided with transitional assistance and income restoration and other rehabilitation assistance which will be sufficient to improve or at least restore their pre-project living standards, income levels and productive capacity;
6. In the event that there is need for relocation, efforts are to be made for existing social and cultural status of the affected people who are being resettled to be maintained to the greatest extent possible;
7. Preparation of RAPs, as part of sub-project preparation and implementation, is to be done with the full participation of the affected people and representatives of the local governments of the affected areas, community leaders, civil society and social organizations such as the women groups and NGOs.

8. Comments, concerns and suggestions of those consulted are to be duly taken into consideration during the design and implementation phase of the resettlement plans;
 9. Consideration and assistance must be given to those that are vulnerable to the adverse impacts of resettlement (including the poorest, physically and mentally challenged, female headed households, the elderly with no means of support, and those from minority groups) to mitigate their hardships and to assist them in improving their livelihoods. Their needs will be considered in the formulation of the RAP and in the options and mitigation measures identified;
 10. Adequate budgetary support is to be fully committed and made available to cover the costs of land acquisition and resettlement and rehabilitation within the agreed implementation period;
 11. Appropriate reporting, monitoring and evaluation mechanisms are to be identified and put in place as part of the resettlement management system. Monitoring and evaluation of the land acquisition process and the final outcome is to be conducted independently of the executing agency.
-

11.3 Compensation Framework for Loss of Land, Structures and Trees

The Project is going to acquire land for the Project infrastructure Right Of Way. This will be used for the construction of the irrigation canals, drains, dykes and project maintenance access roads (to facilitate construction and maintenance of the irrigation project facilities). The principles for compensation for this Project are as below:

11.3.1 Compensation Methodology

The project recognizes that households falling within a certain threshold due to the land acquisition process could become more vulnerable than others and may need additional rehabilitation assistance. Such PAHs or PAPs will be identified as early as possible in the process and will be provided with additional support, assistance or compensation based on a reasonable and rational criterion.

In addition, the project will provide land purchase assistance to PAHs and PAPS who want to use their compensation to buy alternative lands. Costs of registration fees, etc for acquiring similar land/ structure will be reimbursed on actual costs or fair market value.

The RAP activities that will be undertaken by the project will also be designed and implemented to contribute additional assistance (transition allowance) to the rehabilitation of the affected households. The plan will also provide a detailed schedule for the implementation of the RAP.

- Compensation for trees will be based on current rates as guided by Kenya Forestry Service (KFS) and Ministry of Agriculture as well as prevailing market value of the trees at local level;
- Compensation for crops will be based on current rates as guided by Ministry of Agriculture;
- The value of structures have been determined by registered valuer based on current market rates for putting up a similar structure;
- Cash compensation for loss of land or for portion of acquired land at full replacement cost;
- Income restoration is going to be part of the monitoring programme normally carried out over a 3 year term with periodic reviews. Specific attention is going to be given to requirements of the Vulnerable Household Heads including single women, the blind, physical challenged, mentally challenged, sick and bed ridden, dumb etc.
- Consultation and Grievance mechanism is going to be an ongoing process even after resettlement to ensure that PAPs do not undergo marginalization due to the project.

- Compensation is going to consider vulnerability of the PAPs and not only the applicable laws of Kenya but also the World Bank involuntary resettlement guidelines OP. 4.12.

11.3.2 Project Compensation Categories

Area of Acquired Corridor

The RAP I infrastructure will require the following land sizes:

Table 11-1 Adopted Way-leaves

Infrastructure	Way Leave (m)
Connecting Canal	15
Head works Canal	40

Land Owned By PAP

For land that is permanently affected, all PAPs shall be entitled as follows:

Land Users with Legal Rights will be entitled to:

- Land-for-land of equivalent area and productive capacity at a location within the same or neighboring community which is satisfactory to PAPs;
- Cash compensation for loss of land or for portion of acquired land at full replacement cost;
- Compensation for structures at replacement cost in materials or cash or a combination of the two, with no deduction for depreciation or salvageable materials. If partially affected, cost of repair of property to original or better condition;

Land Used But Not Owned By PAP (No Land Rights)

Land-users without Legal and Legalizable or Lease or Temporary Rights will be entitled to:

- No compensation for loss of land, but entitled to cash compensation for loss of structures, crops and trees at market prices and a rehabilitation package so that their standard of living will be equal to, or better than, that which they had before the Project;
- Cash compensation for any damage to structures at Full Replacement cost and for repairing structures.

11.3.3 Compensation Procedure

MOWI / KWSCRPMU & NIB-PIU will liaise with NLC on compensation. NLC will take over the responsibility of providing to each property owner a Letter of Offer showing the amount of money that they will be paid for each affected property. Land acquisition will follow the procedure set out by NLC and will be followed through by NLC. Land owners will be required to provide proof of ownership of the affected parcel of land by either a Title Deed or Letter of Allotment or any other land ownership documents that are recognized by law.

If the PAP is not satisfied with the valuation offer given, they will be free to seek redress through the Resettlement and Compensation Committees.

11.3.4 Entitlement Matrix

The census survey has provided data that enables the RAP study team to identify the project affected persons (PAPs), Land, Assets, resources and businesses/livelihood that are going to be affected by the project. The values of the land and affected assets have also been determined. These have been listed in an Entitlement Matrix Table as shown in Table 11-2

and the Valuation Roll or PAP Compensation Cost Matrix provided in Appendix 9 of this Report.

11.3.5 Land parcels in Dispute

There are 2 affected land parcels that are currently in dispute due to land ownership. Resolutions can be achieved through the following avenues:

- Use of local and family resolution mechanism;
- Use of Land Courts for disputes that cannot be resolved locally.

The compensation amount for the land / assets that are in dispute will be kept in an Escrow Account with the National Land Commission (NLC) and only paid out once the dispute is resolved.

Table 11-2 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. Sensitisation/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 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 customary or legal acquisitions	<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 compensation paid for the acquired portion at full replacement cost. Sensitisation 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	<ul style="list-style-type: none"> Loss of land for grazing livestock therefore affecting livelihood. 	<ul style="list-style-type: none"> Sensitisation/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.

No.	Types Of Loss	Property Type/Use	Entitled Person	Type of Impact	Restorative Compensation
			acquisitions		
2.	Structures	Residential Houses,	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 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
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 Sensitisation and Education of PAPs on restoration through replanting
5	<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.
6	<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.

Notes to Entitlement Matrix

1. Full replacement cost for land covers: land search, negotiations fee, legal fee, land survey fee, registration at Ministry of Lands and stamp duty fee etc.

2. Current market value for trees considers the species, circumference, branches, production per year (fruit tree) and salvage value.

3. *Current market value for perennial crops was as guided by the Ministry of Agriculture and considered the value of the crop as if mature.*

12 LIVELIHOOD RESTORATION

This Chapter presents the livelihoods restoration activities the Project is proposing to mitigate for the full range of livelihood impacts that PAPs will experience during the resettlement process.

International best practice stipulates that livelihoods should be considered to encompass the full range of means that individuals, families, and communities utilize to make a living, such as wage-based income, agriculture, fishing, foraging, other natural resource-based livelihoods, trade, and bartering. A livelihood is sustainable when it enables people to cope with and recover from shocks and stresses (such as natural disasters and economic or social upheavals) and enhance their well-being and that of future generations without undermining the natural environment or resource base.

In this context, the Project acknowledges the responsibility not just to pay compensation for losses but also to assist PAPs (and vulnerable households) to restore their livelihoods and improve their standard of living. The livelihood restoration measures detailed below are designed to meet these responsibilities, in compliance with both international best practice and with the Kenyan national laws.

PAPs will have the opportunity to choose from a variety of options designed to leverage their current activities and skills. Extensive engagement will be undertaken to be sure that all PAPs are well informed of the opportunities open to them, and are given adequate opportunity to participate.

Majority of the Project Affected Persons (PAPs) are involved in agricultural activities for their livelihood. The main occupation of the PAPs includes Farming, Small Business, Sand Harvesting, Formal Employment, Fishing and Artisan jobs. Out of a total of 239, there are a total of 121 Vulnerable Households who will require special support with regards to livelihood restoration. The sources of income that sustain the PAPs will either be lost or interrupted hence livelihood restoration will focus on improving them or aiding in identifying alternative sources of income.

12.1 Key Principles Guiding Livelihood Restoration Planning

The sustainable approach to livelihood restoration is based on the following principles:

- Livelihoods are multi-faceted strategies and a combination of approaches is therefore required to support restoration of income and the re-establishment of community support networks;
- Active participation of intended beneficiaries in planning and decision making to ensure proposed support reflects local realities / priorities and have PAPs active buy-in;
- PAPs should be provided with choices so that they can self-determine how their household will best benefit from the livelihood restoration options;
- Vulnerable households are less able to adapt to changes and therefore require targeted support through the planning and implementation of livelihood restoration.
- Transition allowances are necessary, but require clear eligibility and end points.
- Capacity building should be incorporated into livelihood restoration activities to develop PAPs skills, including in financial management. Capacity building acknowledges the different needs of women, men, youth and vulnerable groups with respect to skills development.

12.2 Proposed Livelihood Restoration Program

The Livelihood Restoration Programme, LRP, is aligned with existing resources, knowledge, skills and household experiences. Different livelihood restoration programmes are proposed to be implemented by the Client with the assistance of relevant government agencies and the local community leadership. The LRP has various elements:

- Compensation and resettlement;
- Immediate provision of transitional support;
- Agricultural capacity enhancement / Land based livelihood support;
- Capital support and development of small businesses;
- Financial management training;
- Provision of employment to the local community during construction phase;
- Provision of training and support on HIV/AIDS awareness.

The proposed LRPs are discussed below.

12.2.1 Compensation and Resettlement

Livelihood Restoration of the PAPs will begin with adequate and prompt compensation for the acquired land, lost assets and sources of income (businesses). PAPs will also require resettlement assistance to relocate and resume their normal socio-economic activities. Vulnerable groups will particularly require special support to be able to overcome any challenges to settle down.

The assets affected by the project that will be compensated include the following:

Land

- Individual land (Homesteads, Grazing Land and Farmlands)

Structures

- Residential Houses
- Toilets
- Fences
- Graves and Grave Yards

Trees and Crops

- Trees
- Perennial Crops

12.2.2 Transitional Support

Transitional support will serve as supplementary assistance so that households can meet their basic needs until they recover from their losses and restore their livelihoods to pre-Project levels. All PAPS in category who are permanently displaced and vulnerable PAPs will be entitled to transitional support of **Kshs100,000** @ household(See section 12.2.9). The length of support will be determined by the extent of the impact experienced.

Transitional support will consist primarily of a “basket of goods” and cash handouts if necessary. The basket of goods contains supplies recommended by the United Nations World Food Programme (UNWFP). The basket will provide staples consumed in the Project area: cassava, banana, beans, rice, dried fish, sugar, salt and oil. The quantities of food in the UNWFP ‘reference basket’ are for populations entirely dependent on food aid. However, the PAPs will not be wholly dependent on the Project for food, and will continue their livelihood activities at least to some extent. Accordingly, the basket will initially contain 50% of the UNWFP recommended quantities. It is noted that many PAPs already cultivate some of food types that will be provided. Monthly monitoring of PAPs, of highly impacted PAPs will be

conducted to determine whether the quantities and variety of food supplied are sufficient. Continuous PAPs assessments will be carried out to determine whether households require continuing transitional support. It will be investigated whether households have replaced income streams or agricultural production, and whether any household members have found salaried employment.

12.2.3 Agricultural Capacity Enhancement

The LNIP second activity which is Agriculture and Value Chain enhancement program to be financed by KfW over 7 year period is going to benefit majority of PAPs. Many PAPs prefer agricultural capacity enhancement program as part of their livelihood recovery process. This activity which is part of LNIP will play the double role of enabling PAPs restore their livelihood as well as improve economically (see details in Section 2.6.2).

Budget allocation in the Project Appraisal Document is **USD 5.7 million** for Agricultural production and Market linkages and **USD 4.2 million** for Efficient Scheme Operation.

Priority will be given to the Vulnerable and Permanently displaced PAPs while implementing the above program.

12.2.4 Capital Support and Development of Small Businesses

The affected youth and women groups will be asked to organize themselves for training on small business development and given support to have income generating activities.

12.2.5 Financial Management

All PAPs will be eligible for financial management training. Training topics will include:

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

Financial management will commence as soon as all the PAPs have been paid their compensation in the first year. Follow up training will be done after the first 6 months of the Project to help households gain skills to manage their incomes.

PAPs will also be linked to micro-credit facilities in the area. This is to encourage savings and enable households to invest in their businesses and restore their livelihoods. The Project will not provide the credit but rather refer PAHs with existing rural banks and micro-credit organizations.

12.2.6 Employment during Construction

More than 50% of the PAPs requested to be given job opportunities during opportunities during the 4 year construction period as part of their livelihood restoration measure. These persons will be given preference in non-technical construction jobs at site. Vulnerable population especially female headed households, widows will be advised to form labour contracting groups to undertake simple project tasks such as excavations, watering of structure, bush clearing among other simple tasks. A clause may need to be incorporated in the contract document requiring the contractor to make these provisions available. Person below the age of 18 will not be allowed to work at the construction site as this will be against labour laws in the country. However if learning apprenticeship, then it should be in accordance with the laws on employment.

12.2.7 Provision of training and support on HIV/AIDS awareness

HIV/AIDS awareness programme shall be implemented and the training and support provided as below:

- Short-term: Medical support of the HIV/AIDS affected households by ensuring they are linked to HIV/AIDS mitigation support services
- Long-term: Put in place intervention programs that limit the spread of HIV/AIDS including community sensitization and training of workers who will be working in project area.

12.2.8 Re-establishing Vulnerable Groups Livelihood

Short-term livelihood regeneration assistance under this RAP will be granted to vulnerable groups that will be adversely affected by this project. The 121 PAHs with vulnerable persons affected by LNIP will be provided with short term rehabilitation assistance. Livelihood improvement and restoration program will be organized as shown in Table 12-1.

Vulnerability has been determined using the following parameters; age (elderly), disabled, widows, single mothers, and child headed households, as well as the severity of economic and/or physical displacement that the PAP is subjected to (for example where substantial land is to be taken by project and/or the house where the PAP household is living or located in project corridor). Vulnerable PAPs are followed up monthly, to give a clear indication of how their lives are at every point of the project.

A total of 121 PAP households have been categorised as vulnerable. They will be supported through land based support and financial management. In summary, they will qualify for all available livelihood programs.

The vulnerable groups will be given priority in the Livelihood Restoration Program while implementing support programs.

Table 12-1 Vulnerable Livelihood Restoration Options

#	Vulnerable Group	Displacement Challenge	Action
1	Female Headed Household/widows	<ul style="list-style-type: none"> • Culturally Relocation requires presence of a man replacing the husband • Community sometimes ignores widows if when they are sole inheritors of property • In-laws sometimes deny them rights 	<p>Provide administrative support to ensure rights are not infringed.</p> <p>Short term: compensation for the assets according to the RAP and extra amount for support Assistance for reconstruction of affected structures and priority in employment during construction</p> <p>Long-Term: Identification of needs and capacity, skill training, credit (micro-credit) support especially for business and agricultural production</p>
2	Eligible members of poor households to be relocated from the project area.	<ul style="list-style-type: none"> • Chances of being looked down upon by other members of the community are high • Lack of adequate skills in business 	<p>Short-Term: Compensation for the assets according to the RAP and extra amount for support Assistance for reconstruction of affected structures and priority in employment during construction. Given basket of goods as defined in the LRP.</p> <p>Long-Term: Identification of needs and capacity, skill training, credit (micro-credit) support especially for business and agricultural production</p>
3	Eligible members as physically or mentally challenged, other vulnerable groups who shoulder	<ul style="list-style-type: none"> • Lack of ability to handle compensation activities • The physical challenge may limit movement • Lack of ability to manage relocation or work for 	<p>Short-Term: Compensation for the assets in accordance to this RAP; provision of relocation allowances; consideration for special during construction. Given basket of goods as defined in the LRP.</p> <p>Long-term: Identification of needs and capacity,</p>

#	Vulnerable Group	Displacement Challenge	Action
	household responsibilities	regular income	skill training, credit (micro-credit) support especially for business enterprise
4	Poor vulnerable employees of affected businesses, including fishermen, sand harvesters, the landless laborers	<ul style="list-style-type: none"> Lack of source of income Possibility of being left out in the compensation bracket as affected 	<p>Short-term: Subsistence for loss of income and employment.</p> <p>Long-term: Entrepreneurial training and group formation, seed capital support (Both short term and long term budget to come from support funds).</p>
5	HIV/AIDS affected family	Lack of medical support in the neighbourhood	<p>Short-term: Medical support of the HIV/AIDS affected households by ensuring they are linked to HIV/AIDS mitigation support services</p> <p>Long-term: Put in place intervention programs that limit the spread of HIV/AIDS including community sensitization and training of workers who will be working in project area. Support to be on microenterprises with support budget</p>
6	Eligible members of poor households losing more than 20% of their plots	<ul style="list-style-type: none"> Challenges with relocation and resettlement Lack of adequate skills in business 	<p>Short-term: Replacement value of land, assistance for land purchase and employment in construction</p> <p>Long-term: Capacity assessment and empowerment programs</p>

12.2.9 Livelihood Restoration Program Cost Estimate

The cost estimate for LRP is **Ksh 29.8** million as indicated in Table 12-2. This cost estimate is over and above the compensation budget.

Table 12-2 Livelihood Support Cost Estimate

Activity / Description	Time Period	Budget Estimate (KES)	Remarks
Construction of houses (approximately 2 houses for vulnerable and permanently displaced @ 2.5 million)	6 months	5,000,000.00	Compensation by GoK
Transitional support assistance for 121 vulnerable households @ 100,000	-	12,100,000.00	World Bank
Agricultural Capacity support ³ (Separate KfW budget)	7 years	0.00	KfW
Financial Management – for all	3- 6 months	5,000,000.00	Funded by World Bank/KfW and managed by PMU
External consultants	Every 6 months for the whole period	5,000,000.00	Funded by World Bank/KfW and managed by PMU
Sub-total		27,100,000.00	
Add 10% Contingencies		2,710,000.00	
Total		29,810,000.00	

For the vulnerable to be constructed houses, there will be no compensation for their existing residential houses. If they want cash compensation, then the budget for construction of the houses will not be used and can be re-allocated for another activity.

³The Agricultural Capacity Support is financed under the KfW budget and totals to US \$ 5.7 million.

13 GRIEVANCE REDRESS

13.1 General Information

During consultations in the project area, there were concerns expressed that include adequate and timely compensation of affected persons, acquisition of land and resettlement of affected persons within the local area to avoid drastic change of environment and departure from ancestral land. Majority of the land parcels belong to private individuals and those with title deeds are less than half.

A well-defined Grievance Redress Mechanism that provides the PAPs with an avenue of lodging complaints and concerns and receiving quick/timely response is critical.

Grievance mechanisms are important to the resettlement process as they allow for RAP implementers to identify disputes in good time and allow for them to be resolved in a transparent and accountable manner.

Compensation based disputes are issues also likely to occur during and after the RAP implementation program, hence it is critical to establish this system prior to implementation of the resettlement program.

Lack of perceived transparency may lead to feelings of mistrust and misinformed judgements on both sides.

A well established and validated grievance mechanism can also promote good relations between the project proponent and the affected community thus reducing the risk of hostilities and delays on the construction program, both before and after the contractor takes possession of the site.

13.2 Subject Matter of Grievances / Expected Grievances

The PAPs may have grievances on the value of compensation for land, movable and immovable assets, crops, human and livestock disturbance. Other grievances may arise from the loss of livelihood, disconnection of streams of income and reduction of earning capacity due to the relocation.

Grievance redress mechanisms are necessary avenues for allowing project affected persons to voice concerns about the resettlement and compensation process as they arise and, if necessary, for corrective action to be taken promptly. Such mechanisms are important to achieve transparency in the land acquisition and resettlement processes. Arising from the above observations, the Consultant proposes that all the grievances be addressed before commencing construction and that where all or significant part of the land is acquired thereby requiring that PAP is resettled elsewhere, resettlement land should be sought from the local area and the affected communities be given an assurance of deserved consideration.

Considering the nature of resettlement and as informed by the findings of the field studies, the type of grievances that may arise include:

- Grievances on the value of compensation for land, movable and immovable assets, crops, human and livestock disturbance.
- Grievances between two PAPs from the same family (nuclear and extended). During the FGDs under this RAP study, the youth noted that there are some families where issues of succession have not been clearly resolved. Such situations among the PAPs

may result in family feuds over who should receive compensation on behalf of the affected family;

- Grievance between two PAPs from different families;
- Grievance between PAPs and the RAP implementers;
- Grievance between PAPs and the RAPIC regarding land ownership and compensation;
- Grievances between PAPs and RAP implementers may arise if PAPs feel they are not adequately involved in the implementation process.
- Grievances may arise from the loss of livelihood, disconnection of streams of income and reduction of earning capacity due to the relocation;
- Lack of appropriate timeframe for relocation;
- Sacred sites and graves;
- Resettlement and Relocation assistance;
- Livelihood restoration program packages;
- Hostility of Host PAPs.

Arising from the above observations, the Consultant proposes that all the grievances be addressed before commencing construction and that where all or significant part of the land is acquired thereby requiring that PAP is resettled elsewhere, resettlement land should be sought from the local area and the affected communities be given an assurance of deserved consideration.

The addressing of the above grievances that are likely to arise requires the setting up of a grievance management mechanism that can provide solutions to the aggrieved parties in a timely fashion.

13.3 Proposed Grievance Mechanism

During the Elders FGDs, the study team probed on the appropriate proposals to compensation to avoid the occurrence of the noted problems during compensation, such as family feuds and conflict. Members agreed that the most appropriate method would be to go through the local administration in case the issue was not solved at family level.

The organization structure for conflict resolution that was discussed by the attendees is as follows.

- The chief was given the responsibility of summoning members with disputes and solving problems arising from compensation.
- The chief will receive the cheques of all members who have agreed to be compensated.
- For those who have not agreed on how to divide the money/ have other disputes, the money will be deposited in escrow account with National Land Commission.
- Depending on the agreement and solution reached upon by the conflicting family, the chief will write to the bank to advice on how to divide the money among the beneficiaries.

This presupposes that the area Chief will be tasked with the main administrative roles within the local grievance resolution mechanism.

The findings from the FGDs also raised suggestion that while the proposed grievance mechanism should be through the local administration, other members of the mechanism should include PAP representatives from all locations affected as well as local and external professionals.

The following grievance mechanism is proposed for the implementation of this RAP:

13.3.1 Level One: Local Committee

A Local Grievance Committee constituted of the following members has been formed at the local level:

- Chairman: Area MCA;
- Secretary: Area Chief;
- Ward Administrator (Focal Person)
- Village Elder where the grieving PAP comes from;
- Members: Four PAP representatives consisting of a man, a woman and a youth (18 to 30 years) and an elder.
- An elected PAP from amongst the representatives to act as the focal point.

This committee will sit at the office of the Ward Representative every two weeks. The following procedure is proposed:

1. A PAP registers a grievance and within one working day, the committee members are alerted of the case;
2. The affected person is immediately informed of the next date of the scheduled hearing. Depending on the case load, a maximum of 7 working days should be given between the date that a case is recorded and the date when the hearing is held;
3. The committee meets once every seven calendar days to deal with emerging cases. At these meetings, hearings with the affected persons and related witnesses will be held;
4. The committee will communicate its judgement to the affected persons within 3 working days;
5. If no resolution is met or the PAP is not satisfied with the judgement, the case is moved to the next level by the committee. This will be done within 5 working days of the hearing;
6. If the PAP is not satisfied with the judgement, he or she will be allowed to move the case to the next level.
7. The Ward Administrator will be the focal person of the project or act as the Secretariat of the committees..

13.3.2 Level Two: County Committee

Some grievances may require calls for witnesses, unbiased parties or technical evaluations prior to proposing a solution. Local mechanisms may not have the capacity to meet all these requirements and would therefore require some form of support.

A County Level Committee constituted of the following members is therefore proposed:

- Respected Opinion Leader in the Community such as a religious leader or a community elder elected by PAPs;
- A specifically delegated representative from NIB;
- A specifically delegated representative from Ministry of Water;
- A specifically delegated representative from KWSCR/PMU office;
- A representative of the County Government e.g. the Chief Officer Lands Housing and Urban Development;
- Deputy County Commissioner (DCC);
- Members: three PAP representatives consisting of a man, a woman and a youth.
- An elected PAP from amongst the representatives to act as the focal point.

This committee will be chaired by the Opinion leader but the proposed secretary will either be the Sub-County Commissioner or his representative.

This committee may also invite an arbiter or qualified representatives from the Attorney General's Office at the County Level. Other specialists from the line ministries can also be invited to provide expert advice as the need arises. These may include officers from the MLHUD such as the District Lands Surveyor and / or the District Land Registrar.

This committee will sit once a month or as need be basis at the County Government Office.

The following procedure is proposed:

1. A grievance is forwarded from the Local Level Committee and logged at the County Government Office. This includes cases forwarded from the Local Committee Level;
2. Within five working days, a notice is sent out to all the interested parties informing them of the date of the hearing;
3. Prior to the hearing, the chairman and the secretary will determine the need for an arbitrator and invite them to the hearing;
4. A hearing will then be held within twenty days of the grievance being raised;
5. In cases where an arbitrator is required, the committee's ruling is final. The complainant should however be made aware of the fact early prior to commitment to the arbitration;
6. The ruling of the hearing should be communicated within 5 working days;
7. Disputes that cannot be resolved at this level should be forwarded by the committee to the next level within five working days.

13.3.3 Level Three: Project Committee

Some grievances may also occur that are outside of the direct control of the RAPIC and would require intervention at national or county policy level. These include disputes that require policy interpretation or investigations prior to a conclusive resolution. In such cases, the RAPIC may require legal interpretation on certain aspects.

A Project Level Committee constituted of the following members is therefore proposed:

- Chairman: Chief Executive/Ministry of Lands
- Secretary: County Commissioner;
- A specifically delegated representative from KWSCR/PMU;
- A specifically delegated representative from National Lands Commission;
- Members: three PAP representatives consisting of a man, a woman and a youth.

This committee will sit once a quarter at the County Government Office. The following procedure is proposed:

1. A grievance is logged at the County Government Office and within five working days, a notice is sent out to all the interested parties informing them of the date of the hearing. This includes cases forwarded from the County Committee Level;
2. A hearing will then be held within thirty days of the grievance being raised;
3. If investigations and technical witnesses are required, a maximum of thirty (30) calendar days will be taken prior to a hearing being held;
4. The committee's decision will be communicated in writing within 5 working days of the date of the hearing;
5. If the committee does not resolve an issue, the affected persons are free to go to the Land and Environment Court.

Considering the various levels of decision making required at this stage, it is proposed that the final decision from this committee be communicated within three months (a quarter within the financial year).

KWSCR – Social Specialist (Western Region) will be the focal person coordinating grievancies at the County level.

A flow chart of this process is presented in Figure13-1 overleaf.

13.3.4 Grievance Redress Service

In case a dispute cannot be addressed at the County, national or Project level. The dispute will be referred to Grievance Redress Service (GRS) at the World Bank. GRS ensures that complaints are promptly reviewed and addressed by the responsible units in the World Bank⁴.

GRS enables project affected communities to reach the Bank and have their disputes/complaints addressed.

GRS Process at the Bank:

- Upon receipt, the GRS team reviews and determines if the complaint meets the eligibility criteria.
- Within 2 business days of receipt of the complaint, the GRS notifies the complainant of receipt of the complaint and asks for additional information if needed.
- Within 10 business days, the GRS reviews and evaluates the complaint. If the complaint is accepted it proceeds to the next phase.
- Within 30 business days of acceptance of the complaint, the GRS sends a proposal to the complainant(s) with an action plan and timeframe for its implementation. The GRS consults with the complainant(s) on the proposal. (For complex complaints, the time limit may be extended to 60 business days.)
- If the complainant accepts the proposal, the project team implements it according to the process and timeframe set out in the proposal. The complaint is closed when the actions in the proposal are satisfactorily implemented⁵.

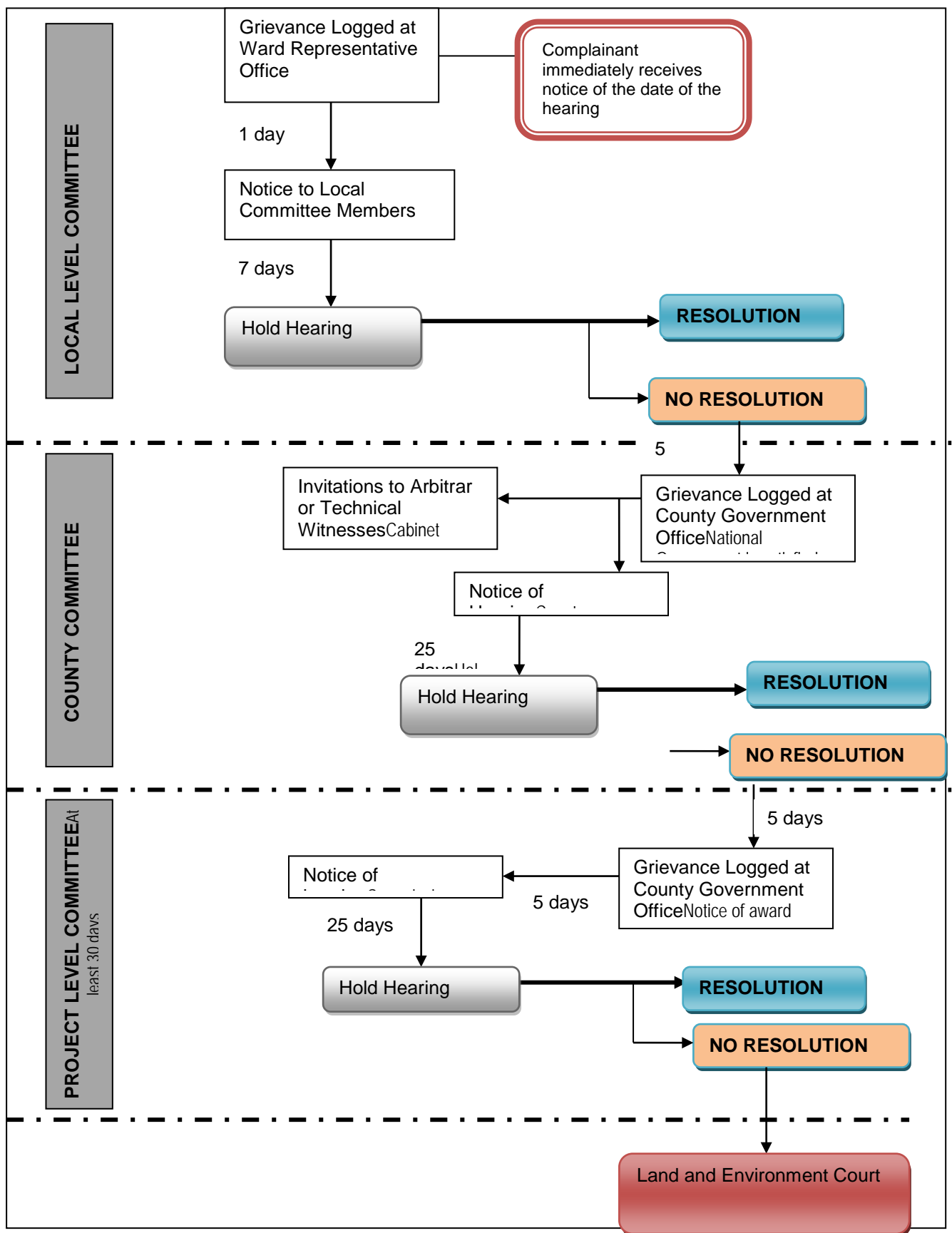
The GRS accepts complaints that are related to an active World Bank-supported project (IBRD or IDA) and are filed by a person or community who believes they are directly and adversely affected by a World Bank-Financed project. Importantly, should not be filed anonymously. The identity of the complainant will be kept confidential if requested, but anonymous complaints will not be accepted⁶.

⁴<http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>

⁵Ibid

⁶Ibid

Figure 13-1 Flowchart of the Proposed Grievance Redress / Resolution Mechanism



14 IMPLEMENTATION SCHEDULE

A tentative implementation schedule is proposed for discussion and agreement with the Client covering the following:

- Completion of RAP Study
- Formation of SCRCC
- Validation of Affected Persons by NLC
- Disclosure of Compensation to PAPs
- Compensation and Resettlement of PAPs (NLC/MEWNR/NIB)
- Training/Capacity Building of Resettlement Staff, SCRCC & LRCC Members
- Acquisition of Project Infrastructure Wayleave

The proposed schedule is presented in Figure 14-1.

Figure 14-1 RAP I Implementation Schedule

ACTIVITY	Months																								
	2017								2018												2019				
	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1.0 RAP Preparation Activities																									
1.1 Public Consultation Meetings.	■																								
1.2 Census and Socio-economic activities	■	■	■	■	■																				
1.3 Valuation for land, structures, trees and crops	■	■	■	■	■																				
1.4 Establishment of LRCCs			■																						
1.5 Preparation and Completion of Draft Final RAP Report					■																				
1.6 Preparation and Completion of Final RAP Report						■	■	■																	
1.7 Approval of Final Report by the World Bank										■	■														
2.0 RAP Implementation Activities																									
2.1 Validation of Affected Persons and Property							■	■	■	■	■														
2.2 Establishment of Sub-County Resettlement and Compensation Committees												■													
2.3 Disclosure of Compensation to PAPs												■													
2.4 NIB Request of funding from MOWI to NLC to undertake payment							■																		
2.5 Payment of Compensation Entitlement by NLC to PAPs												■	■	■	■	■									
2.6 Livelihood Restoration Programs												■	■	■	■	■									
2.7 Notice to PAPs for Relocation															■	■	■	■	■						
2.8 Undertaking Land Acquisition by NLC															■	■	■	■	■						
3.0 Capacity Building and Monitoring Activities																									
3.1 Capacity Building of Resettlement Staff, SCRCC & LRCC													■	■	■	■	■	■	■	■	■	■	■	■	■
3.2 Monitoring and Evaluation Activities													■	■	■	■	■	■	■	■	■	■	■	■	■

15 COSTS AND BUDGETS

15.1 Affected Property Holders and Property

The affected property holders and properties within and close to the wayleave of the backflow and the Connecting and Headworks Canals corridors of the RAP I Study Area are summarized in Table 15.1.

Table 15-1 Summary Table of Affected Property Holders and Property

No.	Items	Number		
A	Affected Population			
	Total No. of Affected Property Holders (Individuals, Households and Institutions)	239		
	PAP Population	Total		943
		Adults	Male	316
			Female	217
		Children	Male	153
			Female	101
		Not classified (adults or children)	Male	95
			Female	61
	Vulnerable Group of Persons	Affected households		121
		Elderly / Aged		58
		Mentally Challenged		22
		Orphans		58
		Physically Challenged		21
		Chronically ill or Sick (Asthmatic, Epileptic, Sickle Cell Anemia, etc)		49
		Sick (HIV Positive)		31
		Widowed		35
	Permanently displaced PAPs			11
B	Affected Land			
	Total Number of Affected Land Parcels	220		
	Land Parcels Belonging to Individual Land Owners	220		
	Schools/College	0		
	County Governments	0		
	Churches	0		
	Community Land	0		
	Total Land Size to be Acquired for LNIDP Phase 2	56.6 ha / 141 acres		
C	Affected Structures			
	Total No. of Households with Affected Structures	29		
	Total No. of Affected Structures	86		
D	Affected trees and crops			
	Total No. of Households with Affected Trees	100		
	Trees for wood products (Acacia, Eucalyptus, Pine, Gravellia, Cypress, Ober', 'Ciala, etc) and Fruit trees (Mango, Avocado, , Guava, Paw, etc')	3,839		
	Total No. of Households with Affected Crops	6		
	Total No. of Affected Crops	Various crops		
E	Affected Business			
	Total No. of Households with Affected Business	0		
	Total no. of Affected Businesses	0		
	Total Value of Affected Business	0		
F	Graves			
	Total No. of Households with Affected Graves	1		
	Total No. of Affected Graves	2		

15.2 Budget Requisition and Flow of Funds for RAP Implementation

Ministry of Water and Irrigation (MOWI) shall be the responsible agency for implementation of the RAP. It will be responsible for making the budget requisition from Treasury for implementation of the RAP. The Ministry shall then provide the National Land Commission (NLC) with the necessary funds for direct payment of compensation to the PAPs. The compensation payment are for acquired land, houses and other structures, trees, perennial crops and any other allowances thereof.

The Project Management Unit (PMU) will be responsible for contracting an independent Consultant to undertake the independent monitoring so as to evaluate how the compensation process is being carried out and measure its success or otherwise.

15.3 Compensation Payments

The National Land Commission (NLC) shall carry out compensation payments to the PAPs as per the Compensation amounts set in the detail compensation Matrix provided in Appendix 9 (Valuation Roll). NLC will work very closely with the Project Management Unit (PMU) and the National Irrigation Board (NIB).

15.3.1 Compensation Prices for Structures

Compensation price rates from different players vary considerably. For the purposes of this exercise, the current market cost of putting up a similar structure has been used to determine the compensation value for houses and other structures affected by the irrigation canal.

Table 15-2 Compensation Price Rates

Asset	Rate (Kshs.)
Land	74 and 99 per sq. m
Structures:	
i) House in mud walls under grass thatch roof	3,840 per sq. m
ii) House in mud walls under gci roof	10,800 per sq. m
iii) House in brick walls under gci roof	12,000 per sq. m
iv) Pit latrine in mud walls under grass thatch roof	15,000 per sq. m
v) Pit latrine in mud/gci walls under gci roof	15,000 per sq. m
vi) Pit latrine in brick walls under gci roof	20,000 per sq. m
vii) Poultry/domestic animals house	5,000 per sq. m
viii) Utensils rack in fitos	1,500 each
ix) Temporary bathroom	1,000 each
Graves	150,000 each
Trees (<i>Dependant on tree species and growth stage</i>)	From 150 up to 10,000 each
Vulnerable Persons (e.g. widows, aged, sick, orphans)	100,000 each

15.3.2 Special Assistance for Vulnerable Households

A total sum of Kshs. 100,000 has been allocated for the vulnerable households and the breakdown is as in the table below.

Table 15-3 Special Assistance for Vulnerables

No.	Item	Amount (Kshs)
1	Land preparation	10,000
2	Training and credit	50,000
3	Counselling	10,000
4	Social care	20,000
5	Building new social networks	10,000
	Total	100,000

15.3.3 Special Assistance for relocating graves

Graves are viewed as connection routes between the living and the dead explaining the reluctance to let them go. A special assistance of **Kshs 150, 000** has thus been proposed to allow for relocating the graves and the breakdown is as in the table below.

Table 15-4 Breakdown on cost of relocating graves

No.	Item	Amount (Kshs)
1	Food stuffs(bull, two goats, chicken, rice)	60,000
2	Exhumation and reburial costs	30,000
3	Government documentation for exhumation including official certificate.	10,000
4	Transportation	10,000
5	Bereavemen fee	30,000
6	Hiring of tents, chairs, utensils etc	10,000
	Total	150,000

15.3.4 Livelihood Restoration Program Cost Estimate

The cost estimate for LRP is **Ksh 29.8** million as indicated in Table 15-5. This cost estimate is over and above the compensation budget.

Table 15-5 Livelihood Support Cost Estimate

Activity / Description	Time Period	Budget Estimate (KES)	Remarks
Construction of houses (approximately 2 houses for vulnerable and permanently displaced @ 2.5 million)	6 months	5,000,000.00	Compensation by GoK
Transitional support assistance for 121 vulnerable households@ 100,000	-	12,100,000.00	World Bank
Agricultural Capacity support ⁷ (Separate KfW budget)	7 years	0.00	KfW
Financial Management – for all	3- 6 months	5,000,000.00	Funded by World Bank/KfW and managed by PMU
External consultants	Every 6 months for the whole period	5,000,000.00	Funded by World Bank/KfW and managed by PMU
Sub-total		27,100,000.00	
Add 10% Contingencies		2,710,000.00	
Total		29,810,000.00	

⁷The Agricultural Capacity Support is financed under the KfW budget and totals to US \$ 5.7 million.

15.4 Compensation and Resettlement Costs

There are **220** land parcels to be acquired with a total area of **56.6 ha or 141 acres**.

15.4.1 The Total Valuation Cost of the Projects

The value of the properties affected within the RAP 1 Study Area is **KShs. 80,521,231** (including 15% and 10% Implementation and Contingency Costs respectively). The respective compensation values are presented in the Table 15-6.

Table 15-6 Summary Table of Properties / Assets Affected and Costs

No.	Property	No. of Affected Property Holders	Size Affected (Acres)	Total No. of Affected Units	Total Amount (KShs.)
1	Land	220	141	220	34,142,460.00
2	Structures	22	-	86	15,164,458.00
3	Loss of Business	0	-	0	0.00
4	Trees	100	-	3,839	5,640,645.00
5	Crops	6	-	Various crops	103,000.00
6	Graves	1	-	2	300,000
	Sub-total 1 (KShs.)				55,350,563.00
7	Statutory Allowance (15% of Sub-total)				8,302,584.00
	Sub-total 2 (KShs.)				63,653,147.00
8	15% Implementation Cost				9,547,972.00
	Sub-Total 3(Kshs)				73,201,119.00
9	Add 10% Contingencies				7,320,112.00
	Grand Total				80,521,231.00

16 MONITORING AND EVALUATION

Monitoring will be carried out on a continuous basis by the NIB (Implementing Agency) who will collect and record the information of resettlement activities and submit the monitoring reports, on timely basis, to the KWSCR/PMU. Overall internal monitoring framework will incorporate continuous information flow from the village level through the LRCCs, SCRCCs to the NIB/LNIP/PIU accompanied by periodic supervision and verification by NIB. The monitoring process will involve both the internal and external monitoring.

16.1 Objective of LNIP RAP Monitoring

The main objective of monitoring resettlement activities is to ensure the following is achieved:

- PAPs have been fully compensated for acquired land and loss of property and livelihood;
- PAPs are satisfied with the process;
- Standards of living after resettlement are equal to or better than pre-project;
- Emerging issues that are likely to affect the PAPs negatively are identified in a timely fashion and addressed;
- Collect important information used to study trends of important parameters that will guide decision making on the action required.

16.1.1 Internal Monitoring

The Project Implementer (NIB) will conduct regular internal monitoring of the resettlement performance of the operation through the Resettlement Action Implementation Team (SCRCC and LRCC) which will be responsible for implementing resettlement and compensation activities and monitor its efficiency. LRCC will carry out monitoring at the location level while SCRCC will carry out monitoring at Sub-County level.

The objective of internal monitoring and supervision will be:

- To verify that the valuation of assets lost or damaged, and the provision of compensation, resettlement and other rehabilitation entitlements, has been carried out in accordance with the resettlement policies provided by the Government of Kenya and the World Bank.
- To oversee that the RAP is implemented as designed by the Client and approved by the Client and the World Bank;
- To verify that funds for implementation of the RAP are provided by the Project authorities in a timely manner and in amounts sufficient for their purposes and that such funds are used in accordance with the provisions of the RAP.
- Grievance Management System.

16.1.2 External Monitoring

The Project Management Unit (PMU) has the responsibility of carrying out the day-to-day coordination of the KWSCR investment pipeline, screening of projects, keeping records of the implementation of KWSCR projects and assisting the implementing agencies.

The PMU will recruit an independent consultant to carry out external monitoring of implementation of RAP. External monitoring will entail annual audits carried out during and post-RAP Implementation. This will then be followed by a Final audit after all RAP inputs have been completed. A budget of Ksh 20 million has been set aside for the external monitoring

16.1.3 Responsibility

The RAP Implementation Committees (SCRCC and LRCC) will be charged with the task of monitoring and evaluation of the PAPs since they would be familiar with the various variables in the project area. They will therefore be enlisted to continue the post project phase.

16.1.4 Performance Monitoring

Successful project management requires that ongoing monitoring of performance is done in order to generate data by which to judge the success or otherwise of a project. The data generated relates to the indicators to be monitored. It can be qualitative or quantitative in nature depending on the parameter being monitored. Parameters like management of grievances and level of success of compensation and resettlement will be addressed. The data will be collected on a regular basis and accumulated. It will then be analyzed and presented appropriately.

16.1.5 Impact Monitoring

The project will generate both positive and negative impacts. Social monitoring is envisioned as an important process in the implementation of RAP. The monitoring programme will reveal changes and trends brought about by the presence and operations of the project. Such information will be useful in the formulation of sustainable project management and operation strategies.

The basic activities for a sound-monitoring programme for the irrigation canal project once it starts operating should at least include the following parameters:

- Quality of life of the resettled persons
- Change in health trends of persons in the project area
- Identification of unexpected environmental impacts
- Change in livelihood

16.1.6 Monitoring and Evaluation Indicators

The main internal indicators that will be monitored regularly include the following:

- NIB entitlements are in accordance with the approved policy and that the assessment of compensation is carried out in accordance with agreed procedures.
- Payment of compensation to the PAPs in the various categories is made in accordance with the level of compensation described in the RAP Study.
- Public information and public consultation and grievance procedures are followed as described in the RAP.
- Relocation and payment of subsistence and shifting allowances are made in a timely manner.
- Restoration of affected public facilities and infrastructure are completed prior to construction.

Table 16-1 LNIP Monitoring and Evaluation Indicators

#	Item	Indicator	Variable	Impact Aspect
1	Land	Utilization of the land	<ul style="list-style-type: none"> Land Ownership (Private, Government or Community) Type of land use (Farming, Residential, Lying Fallow) Area of land acquired for Canal Area of communal or government private land acquired for project infrastructure developments Size of land being used as compared to before 	<ul style="list-style-type: none"> Loss of Agricultural Produce Loss of homestead Size of remaining for intended purpose
2	Structures/Buildings	Acquisition of buildings	<ul style="list-style-type: none"> Building type, quality and use (residential, commercial etc.) Number, type and size of buildings (residential or Commercial) Standard of building constructed compared to previous one 	<ul style="list-style-type: none"> Displacement of PAPs Displacement of sources of income
		Acquired structure	<ul style="list-style-type: none"> Number, type and size of other private structures acquired Number, type and size of other community structures acquired Standard of the new structure Use of the acquired structure 	Loss of use of structure
3	Trees and Crops	Acquisition of Trees	Number, size and type of trees cut	<ul style="list-style-type: none"> Loss of canopy Loss of income from sale
		Loss of Crops	Type of crop and acreage of crop loss	Loss of food crop
4	Compensation, Re-establishment and Rehabilitation	Compensation, Resettlement and Restoration of affected persons	<ul style="list-style-type: none"> No. of compensated PAPs, type of loss and amount paid No. of constructed replacement buildings Number, type and size of replacement houses constructed Period between compensation and beginning of civil works 	Disruption of settlements
		Government and Community Resources	<ul style="list-style-type: none"> Replaced Health Centre Building Number of community buildings replaced Number of Government, Community land compensated Number, type of school asset replaced Number of seedlings supplied by type for community trees Number of trees planted and their survival rate Replaced community water project 	Disruption of community services
5	Hazards and Disturbances	Introduction of nuisance factors	Number of homesteads affected by project related hazards and disturbances from construction (noise levels, blasting, increased traffic levels, etc.)	

#	Item	Indicator	Variable	Impact Aspect
6	Community Social/Demographics	Changes to homestead structure	<ul style="list-style-type: none"> • Homestead size (births, deaths, migration in and out) • Age and gender distribution • Marital status • Relationship to household head • Status of —vulnerablell homesteads 	Disturbance to homestead structure and access to amenities
		Household population	<ul style="list-style-type: none"> • Name of persons affected • Category of impact per individual • Number of people affected • Number of people compensated 	
		Changes to access	Distance/travel time taken by PAPs to nearest school, health centre, church, shop, administrative areas and water	
		Support to the LNIP by PAPs	<ul style="list-style-type: none"> • Number of people supportive of the project at Pre-project level, during the project and after the project • Number of locals reporting satisfaction with the LNIP 	
		Changes to health status	<ul style="list-style-type: none"> • Nutritional status of PAPs • Number of people with disease, by type (STDs, malaria, diarrhea, ARI, immunizable disease) • Mortality rates among the PAPs • Access to health care services (distance to nearest facility, cost of services, quality of services) • Utilization of health care services • Disease prevention strategies • Extent of awareness and educational programmes • Latrine provision and use at household and schools (school child population per VIP on site) • Number of water borne and respiratory disease cases recorded 	
		Changes to educational status	<ul style="list-style-type: none"> • Literacy and educational attainment of PAPs • School attendance rates (age, gender) • Number, type of educational establishments and proximity to PAPs 	
		Changes to status of women	<ul style="list-style-type: none"> • Participation in training programmes • Number of women utilizing credit facilities • Number of women with landholding status • Number of women participating in NIB livelihood training • Number of women in support groups 	

#	Item	Indicator	Variable	Impact Aspect
		Homestead earning capacity	<ul style="list-style-type: none"> • Ownership of capital assets • Ownership of equipment and machinery • Landholding size, area cultivated and production volume/value, by crop (cash and subsistence crops) • Landholding status (tenure) • Redistribution of cultivation land • Changes to livestock ownership: pre- and post-disturbance • Ease of access of livestock to water resources • Ease of access of livestock to pasture • Value of livestock sales, and imputed value of barter transactions • Employment status of economically active members • Skills of homestead members • Earnings/income by source, separating compensation payments pre- and post-disturbance changes to agriculture and off-farm income-earning activities • Amount and balance of income and expenditure • Possession of consumer durables • Realization of homestead income restoration plans (components implemented, net income achieved) • Possession of bank and savings accounts • Access to income-generating natural resource base (wood, grass, sand, stones) 	
		organization	Organizational membership of homestead members Number of PAPs still attending social organization meetings Leadership positions held by PAPs in social organization Leadership positions held by women PAPs in social organization Membership of youths in social organization	
		Population influx	Growth in number and size of settlements, formal and informal Growth in market areas	
7	Consultations	Consultation programme operation	<ul style="list-style-type: none"> • Number of public consultations related to resettlement held and their minutes • Type of issues raised at public consultation meetings 	

#	Item	Indicator	Variable	Impact Aspect
			<ul style="list-style-type: none"> Number of participants attending public consultation meetings related to resettlement 	
		Information	<ul style="list-style-type: none"> Level of access to information by PAPs Number of communication documents provided to PAPs and their subject matter (Health, Education, Security etc.) 	
		dissemination	<ul style="list-style-type: none"> The extent of information flows between SCRCC, LRCCs and NIB RAP/Entitlement information access by PAPs Number of people seeking information on resettlement and compensation 	
8	Grievance Redress Mechanism	Grievances resolved	<ul style="list-style-type: none"> Number of grievances registered by type Number of grievances resolved How quickly the grievances were resolved Number of cases referred to court 	
9	Training	Operation of training programme	<ul style="list-style-type: none"> Number of youth, women PAPs trained Number of training SCRCC/LRCC has undertaken Number of affected population trained on livelihood restoration Number of farmers receiving LNIP agricultural capacity enhancement program support 	
10	Livelihood Restoration	Livelihood improvement	<ul style="list-style-type: none"> Employment status of economically active members of PAPs Level of skills of PAPs members Earnings/income by source, separating compensation payments of PAPs Pre- and post-disturbance changes to agriculture and off-farm income-earning activities Amount and balance of income and expenditure Access to income-generating natural resource base (wood, grass, sand, stones) Number of vulnerable persons benefiting from livelihood restoration programs. Status of vulnerable people as compared to their initial situation. Number of people or groups assisted to improve their livelihood 	
11	Management	Staffing	Number of local organizations by function <ul style="list-style-type: none"> Number of GoK ministry officials available by function for resettlement Number of office and field equipment by type 	
		Procedures in operation	<ul style="list-style-type: none"> Census and asset verification/quantification procedures in place 	

#	Item	Indicator	Variable	Impact Aspect
			<ul style="list-style-type: none"> • Effectiveness of compensation delivery system by NLC • Number of land transfers effected • Co-ordination between local community structures, NIB and GoK officials 	

16.2 Monitoring Approach

- Each PAP will have a compensation file where there will be recording of his or her initial status before resettlement and compensation including all subsequent project use of assets/improvements, and compensation agreed upon and received.
- Questionnaire form will be developed entered into a database for comparative analysis;
- The SCRCC specifically the land's office and District Social Development Officer will maintain a complete database on every individual impacted by the project land use requirements.
- NIB will submit regular resettlement status reports to NIB-PMU and KWSCR-PMU
- More specifically, the IMU will carry out the following:

16.2.1 Agency Responsibilities

The project implementer (NIB) will hire an organization for the independent monitoring and evaluation of RAP implementation. The monitoring responsibilities of the RAP will rest with NIB. NIB will undertake the following role:

- Ensure that resettlement and compensation monitoring system are set up accordingly.
- Facilitate the recruitment of an independent consulting firm to undertake external monitoring of the RAP implementation. The organization, to be called the Independent Monitoring Agency (IMA) will be specialized in social sciences and experienced in resettlement monitoring. The IMA will start its work as soon as the final detailed RAP has been approved.
- Set-up internal monitoring systems for SCRCC and LRCCs through continuous information flow.
- Refine monitoring indicator as per the circumstances and define the frequency of such monitoring.

16.2.2 Methodology

The Monitoring & Evaluation advisors will use the baseline information that has been collected and that has been included in this RAP report and would hence be in a position to note changes that may have occurred before and after resettlement.

The basis of comparison could be qualitative, although a quantitative measure could also be developed based on per capita maintenance costs. Where land is severely affected and the PAPs have to look for alternative land to put up their shelter, the Consultant would recommend land for land compensation rather than financial compensations for land. This would ensure that funds are not misused causing displacement to family members. The choice of the relocation site would depend on the PAPs.

- Infrastructure inventories including land, common properties, Houses, fences, trees, commercial properties and social services infrastructure.

16.2.1 Database Management and Storage

The project implementer (NIB) will prepare and maintain a well-organized database of all project information in both hard and soft form. The information should be backed up in a safe area to ensure continuity in the event of loss of the master files. This database will require updating when new project information is obtained, analysed and new reports generated.

16.2.2 Reporting

After monitoring and evaluation, reports will be generated. Reporting stage will follow the analyzing of information.

The report will be in written form and can be made into PowerPoint presentation. These reports would be put on the proponent website for access by interested and affected parties.

16.3 Evaluation Method of Monitoring Results

Evaluation of monitoring results may use either quantitative or qualitative methods, or a mix of the two. As a starting point it will be useful to consider the various sources and type of data to be evaluated then choose an appropriate method.

Numerical data which includes the number of affected households and structures will be analyzed using quantitative methods while qualitative data which include the quality of life before and after resettlement will be analyzed using qualitative methods.

APPENDICES

The style definition for 'Heading No Number' includes the two horizontal lines.