



GOVERNMENT OF MALAWI
MINISTRY OF AGRICULTURE, IRRIGATION AND
WATER DEVELOPMENT

SHIRE VALLEY IRRIGATION PROJECT

**COMMUNICATION, COMMUNITY PARTICIPATION,
LAND TENURE AND RESETTLEMENT POLICY
FRAMEWORK FOR THE SHIRE VALLEY IRRIGATION
(SVIP)**

Resettlement Policy Framework

07.06.2017

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APPENDICES

Appendix 1 List of Main Canal Registrations

Appendix 2 Outline for the Resettlement Action Plan

Appendix 3 Resettlement Screening Form

Appendix 4 Acceptance of Valuation of Affected Property Form

Appendix 5 Receipt of Compensation Money of Affected Property Form

Appendix 6 Receipt/Summary Complaint

Appendix 7 Grievance Redress Mechanism Forms

Appendix 9 Budget Details for the Compensation Budget Phase 1

Appendix 10 Land Allocation and Consolidation Strategy

Appendix 11 Information Booklet SVIP



Definitions

Census	A complete and accurate count of the population that will be affected by land acquisition and related impacts. When properly conducted, the population census provides the basic information necessary for determining eligibility for compensation and for preparing and implementing a Resettlement Action Plan (RAP).
Compensation	Payment in cash or in kind for an asset or a resource that is acquired or affected by a project at the time the asset needs to be replaced ¹ .
Customary Estate	Under the Customary Land Act 2016, any customary land which is owned, held or occupied as private land within a traditional land management area and which is registered as private land under the Registered Land (Amendment) Act 2016
Cut-off Date	Date by which PAPs and their affected assets have been identified and new entrants to the site cannot make claims to compensation or resettlement assistance. Persons whose ownership, use of occupancy prior to the cut-off date can be demonstrated remain eligible for assistance, regardless of their identification in the census.
Displaced Persons	The people or entities directly affected by a project through the loss of land and the resulting loss of residences, other structures, businesses, or other assets ² .
Eligibility	The criteria for qualification to receive benefits under a resettlement programme ² .
Excess Land	Land within a household in excess of what the household needs for subsistence and the house is able to cultivate.
Grievance Redress Mechanism	Complaint mechanism is a locally based formalized way through which project affected people and communities may raise their concern directly with the project when they believe the project has caused or may cause them harm. The Grievance Redress Mechanism ensures that complaints are being promptly received, assessed and resolved by those the responsible for the project, in this case the SVIP.
Host Community	A host community is any community of people living in or around areas to which people physically displaced by a project will be resettled.
Household	The term household refers to a group of people who reside together and share in the functions of production and

¹ IFC Handbook for Preparing a Resettlement Action Plan, IFC, member of the World Bank Group. Undated.

² Operational Policies (OP 4.12) World Bank.



	consumption. It is also the smallest unit of consumption, and sometimes production. ³
Household Head	For purposes of the census, the household head was considered to be that person among the household members who is acknowledged by other members of the household as the head and who is often the one who makes most decisions concerning the welfare of the members of the household. Hence the people presented in this report as household heads are those males or females who were reported as heads by members of their specific dwelling units. ⁴
Involuntary resettlement	Direct economic and social impacts that both result from investment projects, and are caused by: (a) The involuntary taking of land resulting in (i) relocation or loss of shelter; (ii) loss of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) The involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons ² .
Involuntary	Means actions that may be taken without the displaced person's informed consent or power of choice ² .
Land Acquisition	The process of acquiring land under the legally mandated procedures of Malawi ² .
Livelihood Restoration	Livelihood Restoration means the measures required to ensure that Project Affected Persons (PAPs) have the resources to at least restore, if not improve, their livelihoods. It requires that people are given the means and assistance necessary for them to improve, or at least restore, their livelihood and living conditions to pre-project levels. Inventory of Losses means the pre-appraisal inventory of assets as a preliminary record of affected or lost assets.
Orthophoto	An aerial photo geometrically corrected "orthorectified" such that the scale is uniform: the photo has the same lack of distortion as a map.
Project Affected Persons (PAP)	Project Affected Persons are persons on whom the project has a direct economic and social impact. The impact may be caused by the involuntary taking of land resulting in; a) relocation or loss of shelter; b) loss of assets or access to assets;

³ Census for Housing and Population 2008. Gender Report. Section 6.1. NSO

⁴ Census for Housing and Population 2008. Gender Report. Section 6.2. NSO



	<p>c) loss of income sources or means of livelihood whether or not the person should move to another location; or</p> <p>d) by the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons⁵.</p>
Replacement Cost	Cost of construction a new structure with all outbuildings and utility connections of the same or better quality. The costs of replacement land of similar or better productive potential together with developing the land to the same or better level than the original land.
Resettlement	Resettlement covers all direct economic and social losses resulting from land taking and restriction of access, together with the consequent compensatory and remedial measures ² .
Resettlement Action Plan	A resettlement action plan [RAP] is the planning document that describes what will be done to address the direct social and economic impacts associated with involuntary taking of land ² .
Resettlement Entitlements	Resettlement entitlements with respect to a particular eligibility category are the sum total of compensation and other forms of assistance provided to displaced persons in the respective eligibility category ² .
Traditional Land Management Area	Under the Customary Land Act 2016, an area demarcated and registered as falling within the jurisdiction of a Traditional Authority ⁶ .

⁵ Involuntary Resettlement Sourcebook, Planning and Implementing in Development Projects. 2004 World Bank

⁶ Customary Land Act 2016, Government of Malawi



Abbreviations and Acronyms

ADC	Area Development Committee
ADD	Agricultural Development Division
AEC	Area Executive Committee
AEDC	Agriculture Extension Development Coordinator
AEDO	Agriculture Extension Development Officer
AfDB	African Development Bank
CCPLTRPF	Communication, Community Participation, Land Tenure and Resettlement Policy Framework
CLCs	Customary Land Committees
CLT	Customary Land Tribunal
CSO	Civil Society Organization
DAC	District Agriculture Committee
DADO	District Agriculture Development Officer
DAECC	District Agricultural Extension Coordination Committee
DAES	Department of Agricultural Extension Services
DAHLD	Department of Animal Health and Livestock Development
DC	District Commissioner
DEC	District Executive Committee
DOI	Department of Irrigation
EAD	Environmental Affairs Department
EMA	Environmental Management Act
EPA	Extension Planning Area
ERS	Estimated Recoverable Sugar
ESIA	Environmental and Social Impact Assessment
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
GoM	Government of Malawi
GRM	Grievance Redress Mechanism
GV	Group Village
GVH	Group Village Head
KII	Key Informant Interviews
LUANAR	Lilongwe University of Agriculture and Natural Resources
MCC	Millennium Challenge Cooperation
MGDS	Malawi Growth and Development Strategy
MGDS II	Second Malawi Growth and Development Strategy
MoAIWD	Ministry of Agriculture, Irrigation and Water Development
MoLHUD	Ministry of Lands, Housing and Urban Development
NGO	Non-Governmental Organisation
NRC	Natural Resources College
PAP	Project Affected Person
PC	Project Coordinator



PIOs	Private Irrigation Operators
PPP	Public Private Partnership
PTT	Project Technical Team
PTTC	Project Technical Team Coordinator
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SRBMP	Shire River Basin Management Programme
SOCFES	Smallholder Owned Commercial Farm Enterprises, which is the same as Agri-Business Units
SVIP	Shire Valley Irrigation Project
TA	Traditional Authority
TFS	Technical Feasibility Study
TLMA	Traditional Land Management Area
UNDP	United Nations Development Programme
VDC	Village Development Committee
VGGT	Voluntary Guidelines for the Responsible Governance of Tenure of Land, Fisheries and Forest in the Context of National Food Security
WB	World Bank



BACKGROUND

Executive Summary

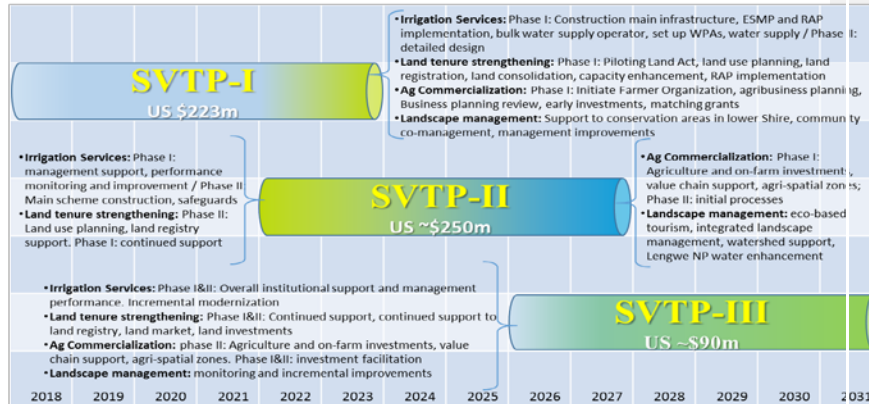
The Government of Malawi (GoM) has been interested in implementing the Shire Valley Irrigation Project since the 1940s. Since then a number of surveys and studies have been conducted but, so far, these have not resulted in project proposals and designs acceptable for funding by donor agencies. The Ministry of Agriculture, Irrigation and Water Development (MoAIWD) with assistance from the African Development Bank (AfDB) and World Bank (WB), have now financed studies to produce a 'bankable' project for the Shire Valley Transformation Program (SVTP) with the *program development objective* for the Shire Valley Transformation Program would be to: improve the management and utilization of natural resources in a sustainable way to increase productivity and commercialization for households in the targeted area in the Shire Valley. The SVTP-I *Project Development Objective* is to provide access to reliable gravity fed irrigation services, secure land tenure for smallholder farmers, and strengthen management of wetlands and protected areas in the Shire Valley. The first project under the program (SVTP-I) will initiate the process of transformation of the Shire Valley and pave the way for agricultural commercialization. The indicative objectives for the second and third phases would be to increase agricultural productivity in targeted smallholder-owned commercial farm enterprises; support value chain and value addition; extend area supported with irrigation and farm development; and continue and expand efforts to address land degradation and sustainable management of forests, wetlands and protected areas.

The SVTP is a 14-year program (2018-2031) structured around *three coordinated pillars*, that are sequential and partly overlapping: (i) Providing reliable, professionally managed and sustainably financed irrigation service to a large number of irrigators in a phased construction of the Shire Valley Irrigation Project scheme and providing multiple services including water supply (ii) Support farmer organization within a comprehensive land use plan; supporting land tenure strengthening and consolidation; as well as natural resources management; and (iii) establishment of smallholder owned commercial farm enterprises transitioning into commercial agriculture from subsistence farming and integrating them into commercial value chains. These pillars all contribute to the overarching goals of the program, and build on each other in a phased approach. The tentative budget for SVTIP is 563 million USD, i.e. 223 million for SVTP-I, 250 million USD for SVTIP-II, and 90 million USD for SVTIP-III. The figure below shows the indicative investments in each phase.



Program Focus Areas:

- **Irrigation Services:** *Irrigation and Drainage Infrastructure, Professional Operation, Environmental Integration, Multiple Use Services*
- **Land tenure strengthening:** *integrated Land Use planning, participatory customary land tenure administration, registration, consolidation*
- **Ag Commercialization:** *Farmer Organization, Value Chain Development, Productive Alliances, Investment facilitation, Production Support*
- **Landscape and conservation areas:** *conservation area management, wildlife conservation, community based NRM and development*



The SVTP is organized in four components, and Resettlement Policy Framework (RPF) specifically targeting activities under component 1.1 and 2. (detailed components are discussed later in this document):

Component 1: Irrigation Service Provision, that will finance the works, goods and services necessary to develop irrigation and drainage infrastructure in the SVIP-I area. This Component is split into two sub-components: Subcomponent 1.1 (Infrastructure Development and Subcomponent 1.2 (Support to Effective and Sustainable Irrigation Management, Operation and Maintenance.

Component 2: Preparing land-based investments and natural resources management support Sub-component 2.1 will finance the works, goods and services in support of addressing security of land tenure and organizing farmers for commercial production – as a first step in developing commercially oriented agriculture. Subcomponent 2.2: Natural Resources Management Investments at field level will focus on addressing land degradation immediately upstream of the offtake in the Kapichira sub-catchment and targeted investments at Lengwe National Park, Mwabvi and Majete Wildlife Reserves, Matandwe Forest Reserve and the Elephant Marshes Proposed Sustainable Use Wetland Reserve.

Component 3: Agriculture Development and Commercialization . This component will pave the way for major scale up in SVTP-II. This Component is split into two Subcomponents: 3.1 (Farmer group formation and land consolidation and 3.2 (Farm and Commercial Value Chain Development.

Component 4: Project Management and Coordination



IMPLEMENTATION MECHANISM

The Program has three major implementation modalities. There is need for a robust implementation mechanism for infrastructure development, secondly, there is need for meaningful community engagement processes on land tenure and initial farmer organization, and lastly project implementation and its success will primarily rely on its market and agri-business orientation and its ability to secure land tenure for its smallholders. For irrigation development, a strong project management team and monitoring will be set up. Many implementation responsibilities in terms of agricultural development and marketing will be given to private investors and farmers organizations. The approach will be based on successes in Malawi and in other countries in developing value chains based on promoting coordination among private stakeholders and on delivering well targeted services to help farmers comply with markets' requirements.

By nature, this Project will be multi-sectoral and will involve a number of key government agencies, and consultation and coordination mechanisms. The main implementing agency is the Ministry of Agriculture, Water Development and Irrigation. The Program will have a steering and technical committee at national level, a consultative committee and a technical team at local level.

LOCATION AND MAIN FEATURES OF THE IRRIGATION SCHEME

The intake structure is located on the right side of the Kapichira Reservoir. The design abstraction and maximum feeder canal conveyance capacity is 50 m³/sec. This capacity is for a command area of up to 43,370 ha, which includes 22,280 ha 21,090 ha to be developed under SVIP I and SVIP II respectively. The conveyance canal is designed for the full command area during SVTP-I. The first kilometre of the feeder canal will be constructed within the Majete Wildlife Reserve. This section will comprise a covered siphon structure in order to minimize adverse environmental impacts and allow free movement of wild animals. The conveyance canal is almost 34 km long from the intake at Kapichira Dam to the bifurcation point where the canal splits in two. Five secondary canals supply water to the Zone I-1 (6,098 ha) and are directly connected to the Main canal 1. One of the main canals is 10.6 km long and shall supply water to an area covering 12,124 ha, including 9,995 ha belonging to Illovo Estate. The other main canal will initially have a length of 18.4 km to irrigate zone A (4,058 ha), and will be extended by about 70 km to irrigate the area to be developed during Phase 2. Secondary canals will be constructed to take water from the main canals and deliver it to the farm zones.

A number of hydraulic structures are required for the higher-order canal system. Siphons will be constructed for crossing locations where valleys, rivers, and main roads are passing. Control and offtake structures (mostly weirs) will be constructed to distribute the water and deliver it to the head of the farm zones. There will be measurement devices to measure the volume of water delivered to each farm zone. There will be road and foot bridges, animal crossing points, offtakes to water points, as required. Sediment basins and night storage reservoirs will be constructed, as required. Drainage channels and access and field roads will be incorporated into the irrigation system. The conveyance canal will be used as source of drinking water for a projected 41,000 people in Chikwawa Township.

The secondary canals will each serve a number of farm blocks where farm organizations comprising groups of farmers will practice commercial agriculture. It is expected that during Phase I about 22,280 ha of on-farm area can be equipped for irrigation, including connecting about 10,100 ha of the currently irrigated estate areas to the gravity system.



ENVISAGED BENEFITS

The rewards⁷ are multiple and transformational at the regional level, and also combines benefits for smallholder farm households with benefits for agribusinesses, promising long-term viability: The economic net benefits from intensive agriculture in phase 1 in this area alone is about US\$56 Million, while the overall program benefit is estimated at US\$314 Million⁸. Many households will be lifted out of poverty due to significant improvements in their disposable income and livelihoods. The project also entails considerable foreign exchange earning benefits due to possible increase in exports and import substitutions. The program has a number of specificities catering to Malawian smallholder realities, including a transitional and adaptable pathway from current subsistence to commercial agriculture while enhancing household land rights and nutrition status. Through improved land management, diversified cropping for market and consumption, and access to water, multiple income, nutritional and health benefits are expected. The potential to provide gravity irrigation to a large expanse, and provide for livelihoods away from the hazardous floodplain people currently depend on will have strong resilience impacts. It will also have a significant net positive energy impact – since gravity irrigation will displace the need for energy-intensive pumping from the river, which in turn will free-up substantial and much-needed energy to the national grid - and make optimum use of the country's natural resources. The natural resources approach, including environmental services will support sustainable revenues from the scheme and surrounding natural resources, and help alleviate poverty driven pressures on conservation areas. Finally, the program makes a sizeable contribution to net GHG emissions reduction (through reduced pumping, improved land use, and improved carbon storage in protected areas). For more details reference is made to sections 1.2, and 9.1.

RATIONALE FOR A RESETTLEMENT POLICY FRAMEWORK

Land will be required for the infrastructure of the irrigation scheme as described in the section above. Further, the preparation of the irrigation blocks will require time during which the farmers might not be able to cultivate their land and thus earn an income. These activities will generate impacts under OP 4.12. The detailed design is not yet known and will only be known for the main scheme in yr 1 of the project after detailed design is completed. The detailed design of the blocks will be the result of an extensive participatory approach and will take 2-3 years. While the general outline of the scheme is well defined for compensation/land acquisition purposes it may be 100% wrong in identifying the beneficiaries if the canal route is shifted horizontally during the final design stage. Therefore, at this stage, a RAP cannot be developed yet.

This RPF sets out the procedures for the development of more detailed RAPs for those investments and associated facilities that have an impact on land, assets, and livelihoods. The RPF ensures that any possible adverse impacts are addressed through appropriate mitigation measures, in particular, against potential impoverishment risks.

There will be two main types of RAPs developed, one or more for the main canal and related infrastructure (according to progression of the work) and one (or more) for the irrigation block development. For the main infrastructure, these will be done as soon as detailed design is finalized. These RAPs will include mitigation measures deemed necessary for villages split by canals (e.g. bridges and lumpsum for other activities communities prioritize). For the irrigation

⁷ Information in this section and section 9.1 taken from the Draft Project Appraisal Document

⁸ This section reference: Agricultural Development Planning Strategy and Draft Project Appraisal Document



blocks RAP a socioeconomic studies, census and asset survey, will be done for all the irrigation blocks at block level and discussed by Group Village level as well to accommodate those who opt out. These will be done as part of the group formation processes and will be prepared prior to changes in land ownership (year 3&4 of the project). The entitlement matrix will include all potential cases of losses that may arise from technical design and group formation choices made for the blocks and take into account the high incidence of poverty.

This RPF complies with the policies and legal framework of the Government of Malawi, the Operational Policy (OP 4.12) of the World Bank and the African Development Bank Involuntary Resettlement Policy, and is guided by the “Voluntary Guidelines on the Responsible Tenure of Land, Fishery and Forests in the Context of National Food Security” of the FAO.

FLEXIBILITY TO THE RPF

As noted below, there have been significant recent changes in Malawi’s land laws, the implementation of which remains untested. This RPF therefore needs to be flexible to respond to regulatory changes affecting land governance as well as challenges in operationalizing new laws which are likely to emerge during the life of the SVIP.

The RPF is a living document and if need be, will be revised to reflect issues that may not have been foreseen now but may arise in the future as well as reflect legal, institutional, and policy changes that could occur during the life of the program. In addition, in the event that there are changes that arise anytime during the implementation of the program not covered in the RPF, the document will be updated accordingly.

OBJECTIVE

The purpose of the RPF is to provide a robust framework guiding land acquisition and resettlement issues in the Shire Valley Irrigation Project. This RPF provides the principles and entitlements to establish compensation, a process to be used in identifying individuals to be impacted by SVIP activities as well as the type and magnitude/severity of impact and outlines the process for preparing Resettlement Action Plans (RAPs). Further, the RPF aims at ensuring that project affected people (PAPs) are fairly/appropriately and transparently compensated for loss of land (be it permanently or temporarily) and assets and loss of access to natural resources which impact on their livelihood. This RPF will be the basis for preparing the project investments specific RAPs.

STAKEHOLDERS CONSULTATIONS

This RPF was prepared in close cooperation with the Ministry of Lands, Housing and Urban Development of Malawi (MoLHUD) at national, regional and district levels, the Project Preparation Team (PTT), and stakeholders. Extensive stakeholders’ consultations were conducted to obtain the stakeholders’ views on resettlement prior to drafting the PRF in the period of October to December 2015 and later on the draft RPF document in August and September 2016. In the third quarter of 2016 an intensive information and consultation campaign was conducted on the ‘Phata’ model in which members of the executive committee of the Phata Sugar Outgrowers’ Cooperative were present. Crosscutting issues of communication, gender, youth, illiteracy, poverty and vulnerable people were mainstreamed throughout the process.

The stakeholders were consulted in the following ways:

- Key Informant Interviews and regular consultations of stakeholders that included all the Traditional Authorities (TAs) and all Group Village Heads (GVHs) in both phases of the SVIP area.



- Consultation of stakeholders at the district level and below through individual and group meetings with members of the District Council, District Council staff, District SVIP Task Force of Chikwawa, MPs and other key informants.
- Dissemination of information and consultation of stakeholders through the SVIP Information Office staffed by a Communication Officer located in Chikwawa Boma⁹.
- An SVIP Information Leaflet was prepared in Chichewa and English and widely spread throughout the area, such as from the SVIP Information Office, the PTT, in individual and group meetings and other functions. An English copy is attached in Appendix 11.
- Suggestion boxes were placed at strategic places in the SVIP area and well used by the people in the area.
- SVIP information was disseminated through various media channels, such as radio, TV and newspapers.
- Awareness raising and information meetings on experiences with pooling land in the area.
- Household questionnaire administered to 574 households in Phase 1 and 406 in Phase 2. 16% of the households in Phase 1 were headed by a female and 84% by a male.
- Focus Group Discussions (FGDs) were held separately with adult and young men, adult and young women. A total of 110 FGDs were held in September to December 2014.
- Consultations, meetings and reviews by stakeholders of the draft documents. An SVIP Information Booklet was prepared on the main features of the implementation mechanism of the project. This included, among other, the RPF, the Grievance Redress Mechanism (GRM) and land reallocation.

An SVIP Information Office was operational during the preparation period and suggestion boxes were placed throughout the SVIP areas through which thousands of comments and suggestions were received. The SVIP Communication Officer provided information on the SVIP, conducted information meetings and stakeholders' consultations and followed up on communication issues.

Further, this RPF is based on the results of the:

- Socio-Economic Survey conducted in October to December 2015.
- Land Tenure Studies conducted in 2015 and 2016.
- Gender and Youth Strategy Study.
- Communication outreach study.

The main results of the stakeholders' consultation: (See chapter 2 for details):

	4th quarter 2015	3rd quarter 2016
Willingness to participate in the irrigation project	98%	100%
Willingness to pay for irrigation water	88%	100%
In agreement with the proposed compensation mechanism for the loss of land, structures and produce. The owner should receive money according to the value of the lost		100%

⁹ Boma is the town centre, in this case of Chikwawa



property. The owner should agree to the proposed compensation and the process should be transparent and accountable.

Agreed to the proposed grievance redress mechanism	100%
Willing to pool their land together into an agri-business unit based on the Phata model	100%
Willing to grow cash crops.	100%
Willing to hire a management firm to professionally farm their land, at least in the initial stage when the farmers are learning to manage themselves	100%

- The compensation process should be implemented by a combination of officials from the SVTP, District staff (land and extension officers), local leaders, valuation experts, the property owner her/himself, and traditional authority. One male FGD also wanted to involve human rights activists.
- Any conflicts concerning the pooling of land should be handled with the involvement of the traditional leaders (87%), committee of owners of the land (82%), and the government (51%). All women FGD groups wanted the scheme committee of owners to be involved, 92% of the leaders FGDs and 54% of the male FGDs. All male FGDs wanted to involve traditional leaders, 85% of the female FGDs did so and 77% of the leaders FGDs. The leader FGDs were the least inclined to involve the government in the solving of conflicts with pooling of land (38.5%) against 54% of the male FGDs and 61.5% of the female FGDs.

MEASURES TO REDUCE IMPACT

The Land and Resettlement team worked closely with the design team to reduce impact. By providing information about the communities and the possible impact to the design team, Technical Feasibility Consultant (TFS), such as the location of settlements and points of interest in these settlements and suggesting alternative routes the number of project affected people (PAPs) was reduced. The resettlement team also provided information on the location of graveyards to the design team, resulting in total avoidance of impacting graveyards, and suggested alternative routes. As a result the number of settlements affected by the main canal route was reduced from 19 to 7.

At the same time, this RPF is a detailed document, informed by: a) land tenure and land use survey of all Group Villages (GVs) in Phase 1 and 2; and b) detailed survey of the main canal route in Phase 1, and socio-economic baseline survey.

POLICY AND LEGAL FRAMEWORK

The Policy and Legal Framework of Malawi provide the legal framework within which the existing land rights of the PAPs will be consolidated and transformed in order to facilitate the construction and community governance of the irrigation scheme. Land-related Laws that are in the process of being changed. The Land Act, 2016, Customary Land Act, 2016, Lands Acquisition (Amendment) Act 2016, Land Survey Act, 2016, Physical Planning Act, 2016, The Forestry (Amendment) Act, 2016, Malawi Housing Corporation (Amendment) (No.2) Act, 2016, Registered Land (Amendment) Act 2016, Public Roads (Amendment) Act, 2016 and Local Government (Amendment) Act, 2016 have been passed into law by the President. They shall come into operation on a date



appointed by the notice published in the gazette. However, it is understood that the MoLHUD will pilot implementation of the new laws in selected areas, that is expected to include the project area.

Table 1 Overview of Land Act of 1965 and Land Acts of 2016

Land Act 1965	Land Act 2016 and Customary Land Act 2016
Vests land into the President into perpetuity	Vest land into the Republic into perpetuity
Divides land into: <ul style="list-style-type: none"> • Public Land • Customary Land • Private Land 	Divides land into: <ul style="list-style-type: none"> • Public Land • Private Land <p>Customary land is registered as private land apart from unallocated customary land, which is public land</p>
Chiefs have delegated powers from the President through the MoLHUD to administer customary land according to prevailing customs in the area	Customary Land Committees have the delegated powers to manage the customary land but require chief's approval. This improves fairness and transparency of land allocation
Land appeals are heard by the next level of chief and ultimately the court	Appeals are addressed by the Land Tribunal
Customary land cannot be registered	<ul style="list-style-type: none"> • Establishes and registers Traditional Land Management Areas at TA level • Customary land can be registered individually or as customary estates¹⁰
Minister responsible for land can allow anybody to lease customary land even without prior written consent of the Chief ¹¹ .	
Compensation is only made for improvements on the land not for the land itself	Compensation is made for land itself as well as the developments on the land ¹²
Does not forbid granting freehold title	Freehold land cannot be granted to any persons although persons with such land will maintain their status quo
	Allocates land for investment purposes to the Malawi Trade and Investment Centre Ltd

¹⁰ This strengthens security rights

¹¹ This means that the Minister can easily abuse his powers.

¹² Puts value on land, which can be used, among other, for collateral



GUIDING PRINCIPLES

Findings from the field indicate that displacement of people and land acquisition will take place. These actions will trigger OP/BP 4.12 related to involuntary displacement and land acquisition. The overarching principles revolve around the basic tenets of the *World Bank Operational Policy on Involuntary Resettlement*, the African Development Bank's *Involuntary Resettlement Policy*, the *Voluntary Guideline on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security* and the existing policies and laws of the Government of Republic of Malawi. The principles are as follows:

- a) Involuntary resettlement and land acquisition will be avoided where feasible, or minimized, where it cannot be eliminated.
- b) This RPF applies to all PAPs regardless of the total number affected, the severity of the impact and whether or not they have legal title to the land. Informal or customary tenure is to be treated in the same manner as formal, legal titles.
- c) Where involuntary resettlement and land acquisition are unavoidable, resettlement and compensation activities will be conceived and executed as sustainable development programs, providing resources to give PAPs the opportunity to share project benefits.
- d) PAPs will be meaningfully consulted and will participate in planning and implementing of the resettlement activities.
- e) PAPs will be assisted in their efforts to ideally improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or levels prevailing prior to the beginning of the project implementation, whichever is higher.
- f) Measures to address resettlement shall ensure that project affected peoples are informed about their options and rights pertaining to resettlement, are included in the consultation process and given the opportunity to participate in the selection of technically and economically feasible alternatives. They will also be provided prompt and effective compensation at full replacement cost for losses of assets and access attributable to the project investments.
- g) Grievance mechanisms will be put in place to ensure the PAPs and the communities affected have an easy access to voice their concerns and grievances.
- h) Projected affected persons if resettled will be supported to integrate economically and socially into host communities so that adverse impacts on host communities and vice versa are minimized. To this end, appropriate patterns of social organization will be promoted and existing social and cultural institutions of PAPs will be supported to the greatest extent possible.
- i) All PAPs will be identified and recorded as early as possible, preferably at project investment identification stage, in order to protect those affected by the project and prevent an influx of illegal squatters, and other non-residents who will wish to take advantage of such benefit.
- j) Particular attention will be paid to the needs of vulnerable groups among those displaced; especially those below the poverty line, the landless, the elderly, women and children, orphans, marginalized groups and the ethnic minorities or other displaced persons. The objective is to provide whatever additional assistance may be necessary to restore pre-project living standards.
- k) The provision of compensation and other assistance required in each of the individual PAPs must be provided to PAPs prior to the commencement of civil works or other activities under SVIP that results in their physical or economic displacement.



**TYPES OF
LOSSES
TYPES OF
LOSSES,
ESTIMATING
AND VALUING
LOSSES**

Care has been taken to avoid or at least minimize involuntary resettlement under SVIP to the extent possible. However, where it is unavoidable, appropriate measures to mitigate adverse impacts will be carefully planned and implemented in accordance with this document.

Estimated size of loss	Compensation entitlement
<i>Type of Loss 1: land/gardens (owned (customary) (leased) or rented, permanently or temporary) (reduction in land size)</i>	
300 hectares permanently	<ul style="list-style-type: none"> • Preferably land for land • Valuation based on the value as if irrigated land, given that this category of PAPs will lose land for the construction of irrigation canals • If the residual of the asset being taken is not economically viable, compensation and other resettlement assistance are provided as if the entire asset had been taken (OP 4.12 fn 12). This is estimated as Losing 25% of the agricultural land or more and remaining with 2 ha or less. • Livelihood restoration • Privately leased land will be compensated in cash based on the market value and taking into the account the loss of revenue of the remaining number of lease years • Employment opportunities in the SVIP or elsewhere
164 hectares temporarily	<ul style="list-style-type: none"> • Costs of renting and developing alternative land for the construction period, or, if not possible, compensation for the loss of revenue for the period the land cannot be used • Restoration of the land into the same condition as before • Crops, trees and other developments on the land as per type of loss in this table • Employment opportunities in the SVIP or elsewhere
<i>Type of Loss 2: Crops for a person/persons</i>	
In the canal route 88 hectares of crops will be affected permanently and 44.5 hectares temporarily. For the construction of the infrastructure of the irrigated areas 2,270 hectares is affected	<ul style="list-style-type: none"> • Allow harvesting before the construction team takes over the land is preferred • Valuation of perennial crops shall be based on net present value of income over the period required for newly planted trees and crops to reach production at market prices. • Valuation of annual crops shall be based on the market value of income from one season's production • For temporarily affected crops compensation will be paid for the period cultivation is not possible until the time of the first harvest as well as for development of the land for crop production
<i>Type of Loss 3: Loss of trees for a person/persons – forest and fruit trees</i>	
6% of the land is under forest. This is 30.2 hectares of land for the	<ul style="list-style-type: none"> • Valuation of forest trees (both indigenous and exotic trees) will be based on species of trees, measured diameter of breast height and market price in kwacha per cubic meter per hectare or per



Estimated size of loss	Compensation entitlement
main infrastructure in Phase 1 of which 19.6 hectares permanently	tree. The Department of forestry will provide schedule for calculating compensation for various trees to be used.
Only single fruit trees identified as well as other important trees like baobab, nkina and nimu trees	<ul style="list-style-type: none"> • Value of lost production until the replacement seedling comes into the same level of production. The time this takes varies per fruit species but generally takes about three to five years plus the time required for land preparation. The values are determined and verified by the Ministry of Agriculture, Irrigation and Water Development. Preference will be given to the replacement of affected trees with new seedlings.
<i>Type of Loss 4: Communal grazing land</i>	
About 12% of the land. In the main canal route in Phase 1 this is about 54.3 hectares of which 35.3 permanently	<ul style="list-style-type: none"> • Those affected permanently will be allocated land within the same area and compensation in cash to develop their new parcel. This parcel can be grazing land or land to grow fodder under irrigation. • If land is not available, costs for acquiring land elsewhere and moving the animals • If land elsewhere is not available cash compensation will be paid • Construction of watering troughs for cattle are included in the technical design and tender documents • Bridges to maintain access to grazing land outside the irrigated areas is include in the technical design and tender documents • Those affected temporarily: Renting alternative grazing areas and if this is not possible cash to buy fodder for the period grazing land area is required for construction purposes and is restored to its former condition
<i>Type of Loss 5: Private residential and commercial premises and rented accommodation</i>	
118 residential premises and related structures 56 commercial premises and related structures 6 community buildings and related structures	<ul style="list-style-type: none"> • Preferably replacement premises and related outbuildings and facilities are constructed by the SVIP contracted works • Costs of building replacement structure of premises and related outbuildings of similar or better quality at current market prices • Costs of sanitation facilities and access to water supply • Costs of moving to the new premises • Loss of revenue from business will be based on what one was making in a normal situation for the corresponding period when one is out of business based on the average revenue of the previous three years • If premises are rented, the owner will receive a lump sum for the loss of income from rented property based on the number of months per tenant per year. The renter will receive a financial assistance of a lump sum of one month rent to compensate for double renting plus assistance to find a new house and a lump sum payment for moving.



Estimated size of loss	Compensation entitlement
	<ul style="list-style-type: none"> The owners of the premises will have the right to salvage materials prior to demolition without deduction from compensation.
<i>Type of Loss 6: Livelihoods</i>	
Water points	<ul style="list-style-type: none"> Replacement included in the technical tenders and budget for construction Additional water points included in the tenders and budget for construction Watering troughs for cattle included in the tenders and budget for construction Alternative water provided during construction period until the new water point is operational
10 villages of which 3 villages are divided by the SVIP main canals	<ul style="list-style-type: none"> All owners who lose structures will be accommodated with land in the same village for reconstructing. Full compensation for the loss of the structure and related structures, based on current replacement costs at market value/rates paid to the owner plus costs for relocation to the new home. If premises are rented: Lump sum for loss of income from rented property to owner based on number of months per tenant. The design accommodates for access of te villagers who are divided due to the construction of the canals, including construction of bridges included in the technical design
Livelihood restoration programme for PAPs	<ul style="list-style-type: none"> Employment for those who lose their land or who cannot use their land temporarily. The livelihood restoration programme will include activities to develop the skills and capacities of the affected PAPs to enter into gainful employment. Maintain access during the construction If access during construction cannot be maintained the affected PAPs will receive a lump sum payment covering the extra costs made to circumvent the blocked route(s) If access to grazing land cannot be maintained during construction, alternative grazing land of the same or better quality should be provided or compensation should be paid to buy fodder When access to grazing land is permanently lost alternative grazing land of the same or better quality should be provided, or fodder should be grown on irrigate land or compensation should be paid.
<i>Type of Loss 7: Eviction of squatters and vendors</i>	
None found in the detailed survey of the	<ul style="list-style-type: none"> Lump sum replacement costs for erecting new shelters of the same or better quality plus a lump sum payment for moving to



Estimated size of loss		Compensation entitlement
main canal routes of Phase 1		<p>the new premises. They will have to right to salvage any materials without deduction in the compensation</p> <ul style="list-style-type: none"> • Permitted sufficient time for harvesting perennial crops, fruits and timber • The new premises of the vendor will be ready before moving. If this is not the case the vendors will be paid a lump sum of three months' income based on the past year's average turnover plus a lump sum for acquiring a new vending site and/or erecting a new structure
<i>Type of Loss 8: Closure/blockage of a footpath, road and/or pathways for livestock and access to resources permanently or temporary</i>		
Phase	1	2
Tarred roads	1	8
Gravel roads	24	34
Footpaths	8	9
<ul style="list-style-type: none"> • Construction of bridges included in the technical design • Maintain access during the construction period included in the tender documents • If access during construction cannot be maintained the affected PAPs will receive a lump sum payment covering the extra costs made to circumvent the blocked route(s) • Establish corridor routes for maintain access, e.g. to natural resources, grazing areas 		
<i>Type of Loss 9: Loss of cultural heritage sites</i>		
No sites for cultural rituals identified sites affected		
3 smaller graveyards in main canal route		Avoid the graveyards by realigning the main canal or excluding the areas from irrigation. If this is not possible, negotiate with the chiefs to move the graveyards. In that case the costs for the move and related rituals, etc. will be compensated.
No graveyards in proposed irrigation areas		
Archaeological sites present but sites not identified. Will be identified during construction.		<ul style="list-style-type: none"> • Archaeological sites should be avoid as much as possible • Sites identified in the ESIA Baseline Report shall undergo controlled archaeological rescue excavations and be recorded by experts in line with the procedures described in the ESIA and ESMP reports after an excavation permit is obtained from the Ministry of Culture responsible • Contractors' staff to be sensitised to identify chance archaeological sites and burial places and how to handle when found
<i>Type of Loss 9: Loss of public facilities (e.g. church, borehole, communal land etc.)</i>		
None identified		
<i>Type of Loss 10: Change of land right status and farming system</i>		
2,270 hectares in Phase 1 of the SVIP		<ul style="list-style-type: none"> • Share in agri-business unit in exchange for the land brought in



Estimated size of loss	Compensation entitlement
	<ul style="list-style-type: none"> • Compensations for the loss of permanent land if the person opts out of the agri-business unit at the value of irrigated land • Compensation for the loss of revenue during the period the irrigation infrastructure is constructed as described under the respective losses in this table • Land rights to be ensured through the legal registration of land and the stipulations in the constitution and by-laws of the agri-business unit whereby land will revert to the shareholders in case the agri-business collapses or is dissolved.
<i>Type of Loss 11: Loss of habitat for wildlife and natural environment</i>	
Impact on tourism and wildlife and flow in Kapichira Falls	<ul style="list-style-type: none"> • Financial compensation for loss of tourism at Majete Park to African Parks • Mobile noise barrier on construction site • Communication and advertisement on the works being carried out and increase attractiveness of game reserve • Pave road from Chikwawa to Reserve and pipeline from canal to staff village to increase attractiveness of the game reserve • Replacement costs in case any buildings are affected • Construction of (temporary/replacement) electric fences to contain animals in reserve and away from construction site • Upgraded water points to disperse animals away from construction site • Diverted road • Restore the construction site • Monitoring wildlife during construction • Fence or cover the canal within the game reserve

**LIVELIHOOD
AND INCOME
RESTORATION
PROGRAMME**

The purpose of the Livelihood and Income Restoration Programme (LRP) aims to enable PAPs to fully restore their livelihoods and improve living standards through capacity building for more profitable and sustainable use of livelihood assets, and development of alternative livelihood resources and developments. Some elements of the LRP are already partly developed and will be developed further in the RAPs. The Livelihood and Income Restoration Programme will include measures to support the processes to:

- Engage into employment for the PAPs that lose their land or opt out of the agri-business unit through skills and capacity development and assistance in job seeking
- Entrepreneurship programme and assistance to obtain capital investment support for PAPs wishing to engage into business
- Financially literacy programme to manage the compensation monies wisely
- Vulnerable Assistance Programme to provide a safety net for vulnerable households
- Address Gender and Youth (see Gender and Youth Strategy Study)



- Health considerations to mitigate the negative impact on sexual transmitted diseases including HIV/AIDS
- Host Community for a smooth transition of the resettlers into their new community

Support to pooling land into agri-business units and establishment and management of agri-business units (see the Agricultural Development Planning Strategy) are important measures to restore and improve livelihoods. A separate project component addresses agricultural investment and transformation. This is, therefore, not included in the LRP.

**PREPARING AND
IMPLEMENTING
RESETTLEMENT
ACTION PLANS**

The coordination of the implementation of the SVIP will be the responsibility of the SVIP Implementation Unit¹³ that will house the RAP team as well as experts providing overall implementation guidance. The capacity assessment showed that the GoM does not have sufficient qualified staff to conduct the preparation and implementation of the RAPs. Therefore, a professional team will be hired, anchored in the SVIP Implementation Unit, and that will work closely together with the District. The RAPs Team will also work closely together with all stakeholders, in particular the communities, traditional authorities and government officials. Several construction contracts will be issued that will each require a separate RAP, that may further be divided into sub-RAPs if the timespan of the contract is long and part of the land is not required until later. The exact tasks of each of these levels and the professional team will be defined during the development of the RAPs.

An SVIP Information Office will be established responsible for stakeholder information and communication and publishing cut-off dates, current status and results. Crosscutting issues, communication and monitoring will be mainstreamed and included in the monitoring framework, reporting and be a condition for contract payment, also of the construction contractor.

Two main types of RAPs will be prepared. Both RAPs follow the same implementation process that can be broken down into four main steps. Firstly, the preparation phase in which the RAPs are prepared, the implementation structures for the RAPs and GRM established and their capacity developed, information and awareness campaign prepared, cut-off dates set, and community contact persons selected and their capacities developed. At the same time the technical design will be finalised.

Secondly, an information and awareness campaign will be conducted on the RAPs processes and procedures and an information leaflet prepared and widely distributed. As per law, the land to be acquired for the SVIP infrastructure will be gazetted and also the cut-off dates will be widely published. The (temporary) executive management committees of the agri-business units to be formed will be part of the RAP preparation team.

Thirdly, the entitlements to compensation will be established by the RAP Valuation Team and the farmers in close cooperation with District officials, and the Executive Committees representing the farmers in irrigation blocks. Results of the inventory of the areas required for the SVIP infrastructure will be made available at the Group Village Office, the SVIP Information Office, the SVIP Implementation Unit and other easily accessible public places. PAs will be able to provide comments and suggest amendments for a specific period of time

¹³ The SVIP Implementation Unit is proposed to be established to manage the implementation of the project, to maintain an overall view of the process, and to coordinate.



after publication of the information, i.e. three weeks. Thereafter, the maps and information will be approved by the TA, the Village Executive Development Committees and ultimately by the District.

Fourthly compensation will be paid within a month of conducting the valuation. If the time lapse between conducting the valuation and payment of compensation is longer, interest shall be added for each calendar month of delay at current commercial market rates.

SAFEGUARD ISSUES

One of the main safeguard issues is the involuntary resettlement. This RPF sets out the procedures for the development of more detailed RAPs for those investments and associated facilities that have a known, specific impact on land, assets, and livelihoods.

A *Gender and Youth Strategy and Guidelines* were prepared for the project. Its purpose is to enhance development effectiveness of the project by: (i) identifying project specific gender and youth dimensions and (ii) mainstreaming measures in the project planning and implementation to ensure gender and youth equity, sensitivity and inclusiveness. The main gender and youth issues identified:

- Malawi has a low human development, ranking at 170 out of 186 countries on the Human Development Index. Although women are the majority of the population (51%), they are marginalized in economic and social spheres.
- Within the SVIP area, 35% of the household interviewed is not able to read or write and 20% never went to school. The illiteracy rate of 74% of the female household heads is far higher than the 27% of the male household heads.
- Using the Progress out of Poverty Index (PBM definition), the household survey conducted in the SVIP impact area found that 58.7% of households were likely to be living below the old poverty line of \$1.25/day, which is higher than the national average of 50.7%, with 55.8% and 62.0% respectively for Phase 1 (Chikwawa) and Phase 2 (Nsanje) respectively. Not surprising, more women and female headed households (61.4%) were likely to live below the poverty line compared with male headed households (58.1%).
- Food security: Chikwawa and Nsanje are traditionally vulnerable to climatic shock of which women and children mostly bear the biggest burden. The SVIP baseline survey reported that on average the staple food harvested by female headed households lasted fewer months (4.2 months after harvest) compared to that of male headed households (6.1 months after). The participation of women in decision-making processes is generally low in Malawi at all levels. Results from the SVIP based field study also found that men generally dominated decision-making at household level, in most aspects of household decision-making. Married women made fewer decisions on their own compared with female headed households, while children generally did not make decision on most household activities.
- Women also spend considerably less time than men on income-generating activities, but spend more time on reproductive and unpaid work. Male headed households are more likely to operate off-farm enterprises (22%) than female headed households (15%). The top three main sources of income for households in the area are crop production (50.9%), casual labour /ganyu (17.5%), permanent employment (7.8%) and income generating activities (6.7%).
- In Malawi, access to financial services, especially credit is a luxury for poor people. The COWI/SVIP baseline survey found that only 4.2% of respondents had obtained a loan in the past year (2014/2015). The percentage of those who had obtained a loan was lower for



the youths (2.9%) than the adults (4.8%), although overall access to loans was very poor. Fewer female headed households (3.6%) accessed loans than male headed households (7.1%). Many other studies have reported that the most common barriers for accessing credit include, but not limited to, high interest rates, short repayment periods and requirements for collateral and past experience in business.

Priority actions to address gender and youth issues in which both internal and external stakeholders will play critical roles in ensuring that these gender and youth guidelines and activities are implemented. See section 10.7 for details.

Environmental, natural habitat and cultural heritage safeguard issues are identified in the Environmental and Social Impact Assessment and the mitigation measures are specified and budgeted in the Environmental and Social Management Plan.

The action plan concerns *health and safety* impacts that are related to the first phase of the irrigation project and mainly aims at activities that are not related to the contractor. The project mitigation and compensation package cannot solve all problems that exist in the study area (and that do not worsen due to the project). In fact, many health actions require the interventions of stakeholders that are not necessarily related to the project and would require commitments from the government. The main health and safety impacts identified and their significance: 1) The significance of the increase of cases of bilharzia is expected to be moderate; 2) A moderate negative impact is the increased risk for spreading HIV/AIDS; 3) The significance of the increase in cases of drowning due to the presence of the main canal is considered major. Other expected *socio-economic impacts* is related to the expected influx of workers (moderate impact), increased job opportunities (moderate positive impact), and increase in human-wildlife conflicts (moderate impact). The main mitigation measure is to conduct sensitisation campaigns and to distribute posters and information materials widely. Further, health staff should be trained in detecting bilharzia. The risk of drowning should further be mitigated in the technical design by making the canal accessible for using the irrigation water in settlements and providing ladders at regular intervals to allow those falling into the canal to get out. Employment of local people can be encouraged to the contractors and names list of potential employees be collected and handed over to the contractors by the local authorities.

GRIEVANCE REDRESS MECHANISM

People adversely affected (or about to be affected) by the SVIP will raise their grievances and dissatisfactions about actual or perceived impacts in order to find a satisfactory solution. This includes grievance regarding resettlement issues but can also refer to other project issues. The objective of the SVIP grievance redress mechanism is to solve disputes at the earliest possible time, which will be in the interest of all parties concerned and therefore, it implicitly encourages resolution of conflicts at the lowest level possible, in an amicable and participatory way. The principles guiding the SVIP GRM's procedures have been adapted from lessons learnt and documented by the World Bank from its funded projects¹⁴ and incorporate the Voluntary Guidelines.

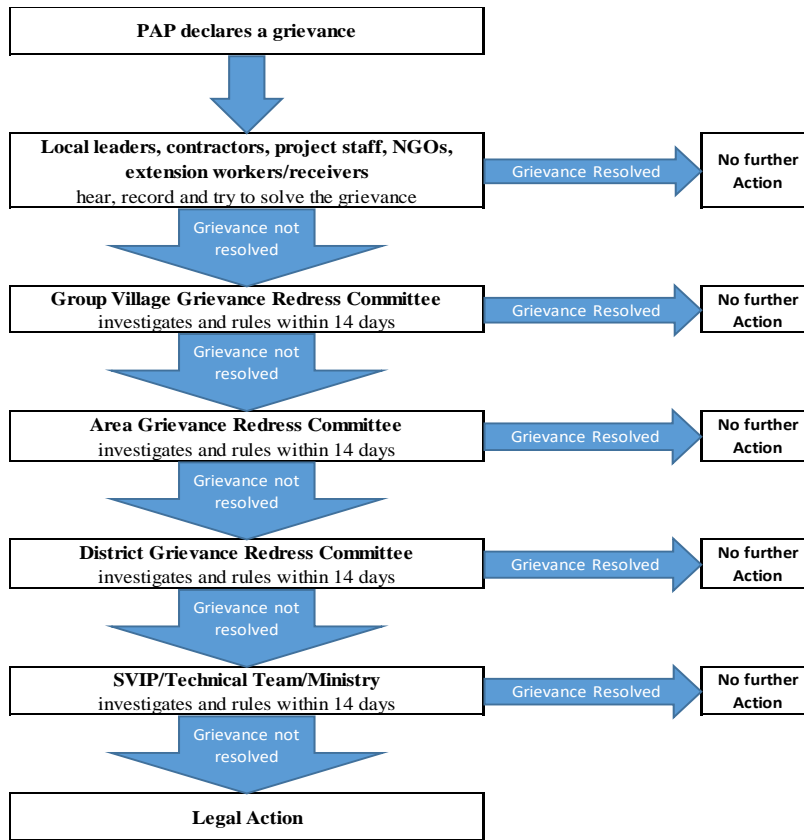
¹⁴<http://www.forestcarbonpartnership.org/sites/fcp/files/Documents/tagged/GRM%20Manual%201.2.pdf>



At every stage of the GRM, there will be somebody dedicated to handle and record complaints. The first step for a projected affected person who has a complaint is to notify their Local Leader, extension worker and/or project staff. These will record and try to solve the case, but if this is not successful, the case will be referred to the Group Village Grievance Redress Committee (GVGRC) to determine the validity of claims. If valid, the Local Leaders will notify the complainant and s/he will be assisted. If the complainant's claim is rejected, unsolved or not resolved satisfactorily, the matter shall be brought before the Area Grievance Redress Committee (AGRC) and subsequently before the District Grievance Redress Committee for settlement. Thereafter, the case can be presented to the MoAIWD/PTT. The SVIP Project will be responsible for the operation of this GRM. A contact person for the GRM will be appointed. For further information on the Grievance Redress Mechanism reference is made to section 10.9 and the separate Grievance Redress Mechanism document for this project.



Figure 1: The proposed SVIP Grievance Redress Mechanism



ESTIMATED COSTS

The total estimated budget is USD 7,320,377 including 20% contingencies. The budget excludes the expenses for project support, RAP preparation, GRM Implementation, land reallocation and consolidation and all items budgeted for in the Environmental and Social Management Plan. These items were costed and added to cost estimates for service providers and operational costs under the project under component 2.1. As such they are fully integrated within the program implementation arrangements for SVTP. Table 2 below shows the main budget lines. Budget assumptions and details can be found in chapter 11.

Table 2 Total estimated RPF Budget

	Budget line	USD
1	Compensation of losses	5,984,314
2	RAP capacity development	83,000
3	Monitoring	33,000



Contingencies 20%
Total

1,220,063
7,320,377



COWI

1 Background

1.1 The Shire Valley Transformation Project

The lower Shire Valley is an area with a high agricultural potential that has so far not been realised mainly because of erratic rainfall. Realizing that lack of water is the main constraint, the Government of Malawi has for many years intended to develop irrigated agriculture in the Lower Shire Valley to increase the agricultural productivity and reduce the extreme poverty and recurrent need for urgent recovery assistance. A multi-pronged response is required to overcome both climate shocks and the challenge of weak fiscal space. A more climate-smart, diversified and connected agriculture sector is required. Malawi is well endowed with agricultural and water resources and its neighbors are experiencing growth, creating an enlarged demand base for its produce.

The *program development objective* for the Shire Valley Transformation Program would be to: improve the management and utilization of natural resources in a sustainable way to increase productivity and commercialization for households in the targeted area in the Shire Valley. The SVTP-I *Project Development Objective* is to provide access to reliable gravity fed irrigation services, secure land tenure for smallholder farmers, and strengthen management of wetlands and protected areas in the Shire Valley. The first project under the program (SVTP-I) will initiate the process of transformation of the Shire Valley and pave the way for agricultural commercialization. The indicative objectives for the second and third phases would be to increase agricultural productivity in targeted smallholder-owned commercial farm enterprises; support value chain and value addition; extend area supported with irrigation and farm development; and continue and expand efforts to address land degradation and sustainable management of forests, wetlands and protected areas.

The SVTP is a 14-year program (2018-2031) structured around *three coordinated pillars*: (i) Providing reliable, professionally managed and sustainably financed irrigation service to a large number of irrigators in a phased construction of the Shire Valley Irrigation Project scheme and providing multiple services including water supply (ii) Support farmer organization within a comprehensive land use plan; supporting land tenure strengthening and consolidation; as well as natural resources management; and (iii) establishment of smallholder owned commercial farm enterprises transitioning into commercial agriculture from subsistence farming and integrating them into commercial value chains. These pillars all contribute to the overarching goals of the program, and build on each other in a phased approach.

This project is the first of *three sequential but partially overlapping phases* (with different financiers entering at different times and in parallel financing arrangements). In general terms, SVTP-I initiates the process on all pillars with a major focus on irrigation service provision to the SVIP-I area, land tenure, farmer organization and natural resource management as these precede any downstream development. While not investing heavily yet in areas of agricultural commercialization and investment promotion, it incorporates the vision and principles of agricultural modernization and commercialization and prepares for downstream investments under SVTP-II, which shifts investment focus to agricultural investment, private sector and value chain support. Finally, SVTP-III is the massive scale up phase of investments to the SVIP-II area. Phases can be overlapping and there is both donor and private sector interest in

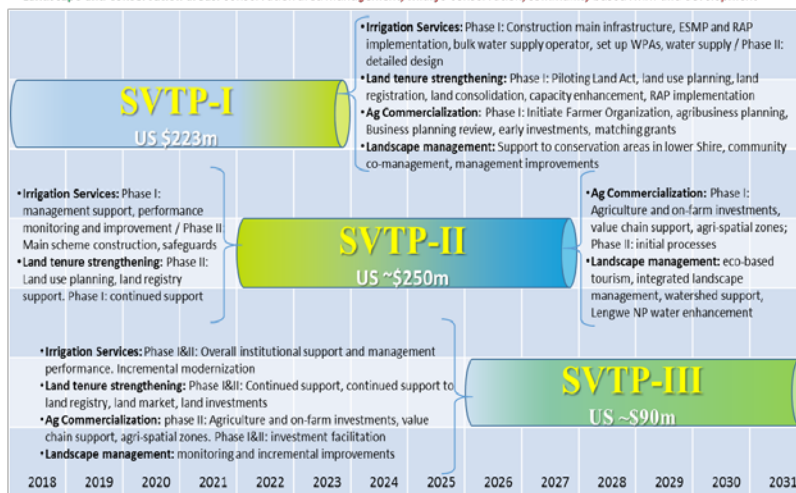


investing in agricultural development within the scheme as well as associated services. The graph below shows the indicative investments in each phase.

The tentative budget for SVTIP is 563 million USD, i.e. 223 million for SVTIP-I, 250 million USD for SVTIP-II, and 90 million USD for SVTIP-III.

Program Focus Areas:

- **Irrigation Services:** *Irrigation and Drainage Infrastructure, Professional Operation, Environmental Integration, Multiple Use Services*
- **Land tenure strengthening:** *integrated Land Use planning, participatory customary land tenure administration, registration, consolidation*
- **Ag Commercialization:** *Farmer Organization, Value Chain Development, Productive Alliances, Investment facilitation, Production Support*
- **Landscape and conservation areas:** *conservation area management, wildlife conservation, community based NRM and development*



Agricultural intensification and modernization will be pursued in a **market-led irrigated agriculture development project** that will, at the same time be inclusive of smallholders in private sector-led value chains to help them move from subsistence farming to commercial agriculture. The overall area for the project (including villages, non-irrigable and non-agricultural land) is about 800 km². Irrigation will be provided over time through the phased construction of the new gravity-fed Shire Valley Irrigation Scheme which will supply over 29,000 ha of agricultural land presently under rainfed cultivation, creating agricultural development opportunities in this fertile valley, away from the risk-prone floodplain, and the existing Illovo and outgrower estates (approximately 14,000 ha), making part of their electricity requirements available for other uses in the country. The overall project area is mostly under traditional (customary) tenure. The proposed irrigation area is based on technical feasibility and is roughly equally divided between customary land and private. The customary land will be consolidated into irrigated blocks that will be exploited by the smallholder farmers with the support from selected private agribusiness enterprises in various value chains and organizational structures, with Smallholder Owned Commercial Farm Enterprises (SOCFE) as the basic building block. A performance contract arrangement will be used for the management of the bulk water infrastructure. This concentrated growth pole investment will enable significant improvement in rural livelihoods, agricultural outputs and value addition, and will both benefit farmers as well as have regional economic impact.



Component 1: Irrigation Service Provision (US\$136.1 million including US\$86.0 million IDA)

This component will finance the works, goods and services necessary to develop irrigation and drainage infrastructure in the SVIP-I area. This includes preparation of detailed designs, construction supervision and quality assurance, construction of the physical bulk water conveyance and main distribution system, major drainage and service and access roads. Provisions will be made for SVIP-II area in terms of canal dimensions, right of way, and preparatory studies. In parallel, the component will support spatial planning in the wider project area to ensure the irrigation scheme is well integrated with other land uses and natural resources. Subcomponent 1.2 will support the establishment of a professional management, operation and maintenance system for the scheme.

Component 2: Preparing land-based investments and natural resources management support (US\$14.29 million, including US\$8.7 million IDA and US\$5.59 million GEF)

The first phase in developing commercially oriented agriculture is to address security of land tenure and organize farmers for commercial production. The new legal framework for land administration, which was adopted in 2016 entails important challenges and opportunities for project design and implementation. In an effort to broaden the multisector benefits of the program and enhance environmental sustainability within the modernization program, the program will invest in natural resources management investments in Lengwe/Mwabvi protected areas, the Elephant Marshes and associated activities that will support improved natural resource management and the development of a broader land use plan for the Shire Valley. These investments will be in addition to mitigation measures identified in the project ESIA; and they will build on earlier work under the GoM's Shire River Basin Management Program, with which this component shall be closely coordinated.

Component 3: Agriculture Development and Commercialization (US\$49.9 million IDA)

Financial sustainability of the SVIP irrigation investment can only be achieved through profitable agricultural production. Farms will need to be linked to Commercial Value Chains for production and sale of their produce. Such value chains are currently poorly developed due to the low level of commercial production in the area, with the exception of sugar cane. Development of commercial value chains will be needed to enable farmers to gain access to markets and commercial services; this is essential to enable viable commercial agriculture.

Component 4: Project Management and Coordination (US\$22.6 million, including US\$15.4 million IDA – out of which US\$ 6.0 million is PPA repayment)

This component will finance the multiple coordination and management needs of a project of this scale and focus on the roll out of the communications strategy and manage grievance redress mechanisms, as well as day-to-day management of the project. The sub-component will finance project management structures that have been established and in place throughout project preparation. Fiduciary management will be with the PMT, and procurement and FM staff have been recruited and the positions need to be maintained. The project will provide funding for professional and support staff to strengthen the Technical Team and facilitate its operations, including procurement, financial management, environmental and social safeguards specialists, as well as a diverse range of short term expertise and annual external audits.



1.1.1 Location and Features of Phase 1 of the irrigation scheme

The intake structure is located on the right side of the Kapichira Reservoir. The design abstraction and maximum feeder canal conveyance capacity is 50 m³/sec. This capacity is for a command area of up to 43,370 ha, which includes 22,280 ha 21,090 ha to be developed under SVIP I and SVIP II respectively. The conveyance canal is designed for the full command area during SVTP-I. The first kilometre of the feeder canal will be constructed within the Majete Wildlife Reserve. This section will comprise a covered siphon structure in order to minimize adverse environmental impacts and allow free movement of wild animals. The conveyance canal is almost 34 km long from the intake at Kapichira Dam to the bifurcation point where the canal splits in two. Five secondary canals supply water to the Zone I-1 (6,098 ha) and are directly connected to the Main canal 1. One of the main canals is 10.6 km long and shall supply water to an area covering 12,124 ha, including 9,995 ha belonging to Illovo Estate. The other main canal will initially have a length of 18.4 km to irrigate zone A (4,058 ha), and will be extended by about 70 km to irrigate the area to be developed during Phase 2. Secondary canals will be constructed to take water from the main canals and deliver it to the farm zones.

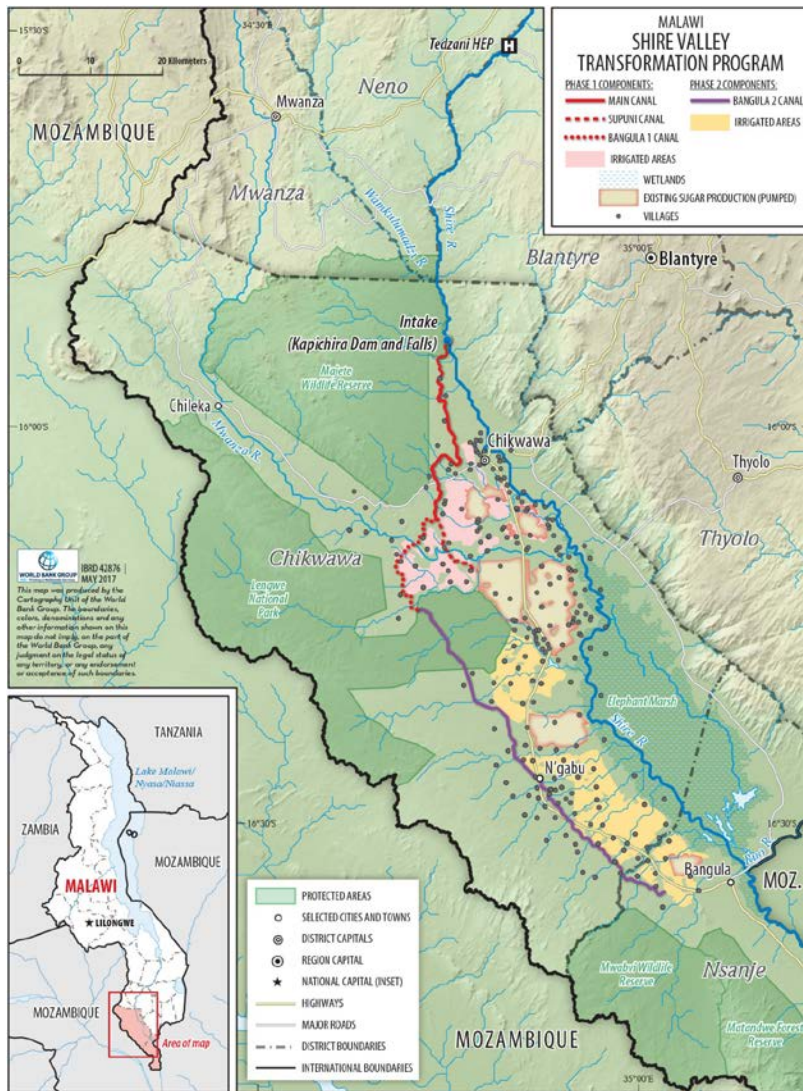
A number of hydraulic structures are required for the higher-order canal system. Siphons will be constructed for crossing locations where valleys, rivers, and main roads are passing. Control and offtake structures (mostly weirs) will be constructed to distribute the water and deliver it to the head of the farm zones. There will be measurement devices to measure the volume of water delivered to each farm zone. There will be road and foot bridges, animal crossing points, offtakes to water points, as required. Sediment basins and night storage reservoirs will be constructed, as required. Drainage channels and access and field roads will be incorporated into the irrigation system. The conveyance canal will be used as source of drinking water for a projected 41,000 people in Chikwawa Township.

The secondary canals will each serve a number of farm blocks where farm organizations comprising groups of farmers will practice commercial agriculture. The design of the farm blocks and the irrigation method (surface, sprinkler, drip) will be prepared in full consultation with the members of the farm organizations, supported by professional organizations that are also expected to manage the irrigation infrastructure and farm operations on behalf of the members of the farm organizations. It is expected that during Phase I about 22,280 ha of on-farm area can be equipped for irrigation, including connecting about 10,100 ha of the currently irrigated estate areas to the gravity system. The actual area will depend on the readiness of the farmers (see Component 2 and 3), progress with the construction of the higher-order canal system, and the available financing. A mix of irrigation methods, including surface and pressurized irrigation, is expected to be developed, based mostly on farmers' preferences. A mix of irrigation methods, including surface and pressurized irrigation, is expected to be developed, based mostly on farmers' preferences, crop choice, land development cost considerations (with respect to soil and topography), and water productivity considerations.

Figure 2 below shows the areas included in the SVTP.



Figure 2 Map of the SVTP area



A water supply system with a design capacity of 14.4 l/s will be designed in collaboration with SRWB and installed to benefit residents within and around the Chikwawa Boma area. Applying the 2008 population growth rate, the beneficiary population is projected to be 30,619



by 2016 and 41,335 by 2026. The source of water shall be from a Feeder Canal which will be designed to include this demand over and above the irrigation water requirements.

Throughout the scheme provisions are designed for safe canal crossing for people, vehicles and animals; a variety of safety measures especially near populated areas; safe washing and playing access; livestock watering, to allow for safe multiple use of the infrastructure. These aspects will be designed in detail with the neighboring communities and more details are provided in the Environmental and Social Management Plan (ESMP) and RPF.

Table 3 Summary of gravity-fed irrigation areas to be developed

Phase	Irrigation area (in ha) to be developed by typology		
	New	Direct supply to equipped area	Total
Phase I	11,535	10,745 (Illovo and outgrowers)	22,280
Phase II & II	17,515	3,575 (Illovo and outgrowers)	21,090
Total	29,050	14,320	43,370

The new area of lands to be included are those in the vicinity of Kasinthula, Mthumba Valley and between the Mwanza River and Lengwe National Park. During Phase I about 11,535 area of land is expected to be equipped with irrigation infrastructures. Similarly, 17,515 ha irrigable area will be equipped in Phase II. The already equipped 14,320 ha (10,745 ha and 3,575 ha) area of lands under Phase I and II respectively, will only require connecting them with the gravity water supply of SVIP.

1.1.2 Implementation Mechanism

The Program has three major implementation modalities. There is need for a robust implementation mechanism for infrastructure development, secondly, there is need for meaningful community engagement processes on land tenure and initial farmer organization, and lastly project implementation and its success will primarily rely on its market and agri-business orientation and its ability to secure land tenure for its smallholders. For irrigation development, a strong project management team and monitoring will be set up. Many implementation responsibilities in terms of agricultural development and marketing will be given to private investors and farmers organizations. The approach will be based on successes in Malawi and in other countries in developing value chains based on promoting coordination among private stakeholders and on delivering well targeted services to help farmers comply with markets' requirements.

By nature, this Project will be multi-sectoral and will involve a number of key government agencies, and consultation and coordination mechanisms. The main implementing agency is the Ministry of Agriculture, Water Development and Irrigation, and it coordinates overall implementation together with the Ministry of Finance, Economic Planning and Development (MoFEPD). Other agencies involved in the program are the Ministry of Natural Resources, Energy and Mining (MNREM); the Department of National Relief and Disaster Management (DNRDM); the Ministry of Lands and Housing (MLH); Ministry of Local Government and Rural Development (MLGRD); the Ministry of Transport and Public Works (MTPW); the Ministry of Tourism and Culture (MTC); Malawi Investment and Trade Centre (MITC), EGENCO; the PPP Commission; the Southern Region Water Board (SRWB); and the Shire River Basin Agency/National Water Resources Authority.



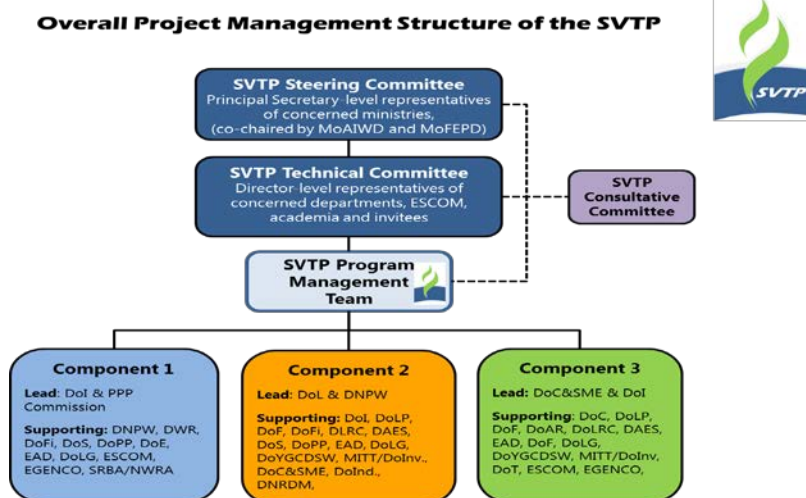
The Program will have a steering and technical committee at national level, a consultative committee and a technical team at local level. The Project Management Team (PMT) comprises of civil servants and recruited professionals for project management, coordination and monitoring. This team will be based in the Shire Valley (Chikwawa) and nearby Blantyre.

The Program has three major implementation modalities. Firstly, there is need for a robust implementation mechanism for infrastructure development, secondly there is a need to have structured stakeholder consultation and community development to organize land tenure, land use planning and community engagement, and thirdly project implementation and its success will primarily rely on its market and agri-business orientation and its ability to secure land tenure for its smallholders.

- a) For irrigation development, a strong project management team and monitoring will be set up and technical services will be outsourced. For irrigation management the contract with the private operator will be based on careful commercial modeling and financial and legal structuring of the overall project. The contracting authority will be (an agency of) the Ministry, and the Water Purchase Agreements will be drawn up with all prospective water users (per block). Support to on-farm irrigation depends on farm choices and is included under c).
- b) For farmer organization and community development a strong support mechanism will be set up for citizen engagement and farmer's organization support. This will include support to structured dialogue, grievance redress, and process monitoring including communities. Discussions with communities on land consolidation will employ field based modern techniques to avoid processing errors and delays.
- c) In terms of the agricultural development aspects within the SOCFE's, many implementation responsibilities will be given to private investors and farmers organizations. The approach will be based on successes in Malawi and in other countries in developing value chains based on promoting coordination among private stakeholders and on delivering well targeted services to help farmers comply with markets' requirements. This approach will be developed under the program and will be based on the model of challenge funds in which private sector and marketing expertise is well represented.



Figure 3 Overall Project Management Structure of the SVTP



These choice for three distinct approaches recognizes the very different nature of each pillar of the program. They are combined within one umbrella implementation and coordination mechanism at the program level, that brings together different implementing and supporting agencies, as well as strong stakeholder and private sector representation. MoAIWD will share coordination responsibilities with the MoFEPD. A Project Steering Committee (PSC) (at principal secretary level), a Project Technical Committee (at director level), and a multisector Task Team have been established for this purpose which encompasses all these agencies. This collaboration is governed by a joint MoU. This MoU spells out objectives, specific role of each stakeholder, the requirement to mainstream and provide staff time for implementation, knowledge management and overall support.

The PSC will provide programmatic and strategic guidance, direction and oversight to the program. The PSC is chaired by the PS of Agriculture, Water Development and Irrigation and co-chaired by the PS for Planning of the MoFEPD. It comprises the Ministry of Natural Resources, Energy and Environment (MoNREE); the MLH; the MLGRD; the MIT; the MTC; the DNRDM; and the PPP Commission. Composition and ToR for the PSC will be further detailed in the Project Implementation Manual (PIM). The Project Coordinator will serve as Secretary of the PSC. The PSC would meet at least twice a year and is responsible for inter-sectoral coordination and facilitation, annual programming of activities and approval of work plan and budget, monitoring implementation and results (including audits), policy guidance and recommending corrective actions that may be necessary.

The Program Technical Committee (PTC) will provide a multi-sector advisory and consultative platform to review technical reports, synthesize information and insight on program preparation and implementation issues. The PTC is co-chaired by the Director of Irrigation Services in MoAIWD and the director of planning in MoFEPD. Members include Director-level representatives of the Departments of: Water Resources (DWR); Department of Irrigation (DoI); National Parks and Wildlife (DNPW); Department of Energy (DoE); Environmental



Affairs Department (EAD); Department of Surveys (DoS); and DNRDM; as well as representatives of the ESCOM; MITC; The Shire River Basin Agency/National Water Resources Authority; Private Sector/Agribusiness Representatives, Civil Society Organizations (CSOs); academia and invitees as appropriate. The Project Coordinator will serve as Secretary of the PTC. The PTC would meet at least three times per year and be responsible for: technical guidance and oversight of program activities (including reports and studies), review and synthesize suggestions and recommendations from studies, reports and by the consultative committee and submitting these to the PSC for review and decision.

The PMT, led by the Project Coordinator from MoAIWD and based in MoAIWD, would ensure day-to-day coordination and management. Based in Chikwawa or Blantyre, the Project Coordinator would report directly to the PS and act as Secretary of the PSC and PTC. The MoU will be re-affirmed ahead of Project Effectiveness between the different concerned ministries and departments to formalize existing working arrangements and clearly define roles and reporting modalities during program implementation. The PMT is a fully integrated project team which includes professional staff from the main government agencies involved in the SVTP-I who are assigned full-time to work on this project, as well as Technical Assistance on planning, management and evaluation.

Although it will take 3-4 years for the physical infrastructure to be in place, the process of capacitating farmers to take full commercial advantage of the investment will begin immediately after the project is commenced and in parallel with the land consolidation process. The envisaged building block for commercial agriculture is a land-based agri-business partnership among smallholders. This will take the form of the participatory formation of commercial farming organizations (cooperative or company), with an expected minimum size of about 500 ha per unit. In SVIP Phase I it is anticipated that there will be about 15 of these units, partially based on expansion of existing farmer models, but primarily through introduction of new farm entities. The basis would be current owners of affected lands and people affected by the irrigation infrastructure and interested in irrigated agriculture, holding shares in this entity distributed on a pro rata basis per the amount of land that each owner 'contributes' to a consolidated block.

The project will recruit a specialized firm of experts in local land governance, land administration and land use planning. These experts will support the government in the development of a land registry at district level, the deployment of modern and efficient technology for the delimitation of 5 TLMA's, the identification and recording of existing household land rights, and the establishment of around 30 Group Village land committees. The project will also support a participatory process aimed at developing a regulatory framework for customary estates applications (see detail in the Land Tenure Annex). Issuance of the TLMA certificates and the constitution of the Land Committees should be achieved at an early stage of the project implementation as well. Through this localized support, the project will also generate lessons and test methodologies for the operationalization of the new legislation in the context of large-scale land-based investments, feeding into and benefiting from parallel initiatives in the operationalization of the land laws elsewhere in the country. The specialized firm working on land local governance will work closely with the Ministry of Lands Housing and Urban Development (MoLHUD) at both national and local level to implement the legal provisions in Chikwawa district. The actual process of land consolidation itself is intertwined with community mobilization and SOCFE development



Detailed Communication and Provision of Information on the proposed SVIP investments and alternative farm models will be the first intervention providing initial orientation for potential participants. The implications, costs and potential benefits as well as the risks of irrigation farming will be presented and discussed in detail with potential participants. Issues pertaining to commercial agriculture to be discussed will include farm investment decisions, farm organization, crops, livestock, fisheries/aquaculture, potential markets, land tenure implications and cost of water. This will be undertaken by a service provider over a period of 6 months as soon as possible after project start-up. There is a strong linkage between the initial communication and organization processes and future agriculture development support under component 3, as farm decisions will influence identification of early adopters, organization of blocks and those who opt out or require additional time for decision-making.

The farmers' group will be supported in formation of its Farm Cooperative/Company/Association or Trust, with proper registration and ownership of the land tenure for the farm area. They will receive intensive support from a specialized service provider, assisted by officers from the Ministry of Lands and the Department of Co-operatives, over a two-year period to achieve this outcome. Once this building block for land consolidation and commercial farm formation is achieved, the project will provide for alternative development pathways, recognizing the need for flexibility and a demand-driven approach. All are based on the principle of commercial agriculture on consolidated land. Four possible pathways¹⁵ with varied challenges and likelihoods of success were identified based on local and regional experience.

1.1.3 Preparing Land Based Investments

The PMT will be supported by a specialized technical assistance firm that will support outreach and communication on the project, with an emphasis on communication with local stakeholders. This will set off a process of support to local land governance and farmer identification and group formation, in an iterative process that results in land consolidation, registration of customary estates and the formation of cooperatives. The service provider will work with and strengthen the local offices of MLHUD in land administration, facilitate processes of land use planning, land surveying, land adjudication and land consolidation. RAP development will be fully integrated in this process. The rationale is to have a fully informed and integrated process in which farmers are make informed decisions on their changes in land tenure and are protected from possible negative impacts. This process is fully intertwined with the activities under component 3 where agricultural commercialization and livelihood support are provided in one approach, and which addresses many of the potentially negative social impacts of the land consolidation process. Thus, safeguards are fully integrated into the core economic and social development activities of the program. The service provider will form an extensive team for community engagement and advocacy to support communities and groups in decision making with group-village level facilitators that support the process from identification to co-op formation and beyond. A major advantage of this integrated approach is that there is much less coordination risk, that holistic development plans can be drawn up and that the process equally engages those who opt in and those who opt out in one planning process. Grievances related to land tenure under the project can be addressed at this level, and

¹⁵ See report entitled "Analysis of Land Tenure Options and Potential Land Consolidation Arrangements within the Development of the Shire Valley Irrigation Project-Malawi", S Norfolk and J Denison 2017.



there will be an independent GRM under the PMT to ensure adequate checks and balances in the system.

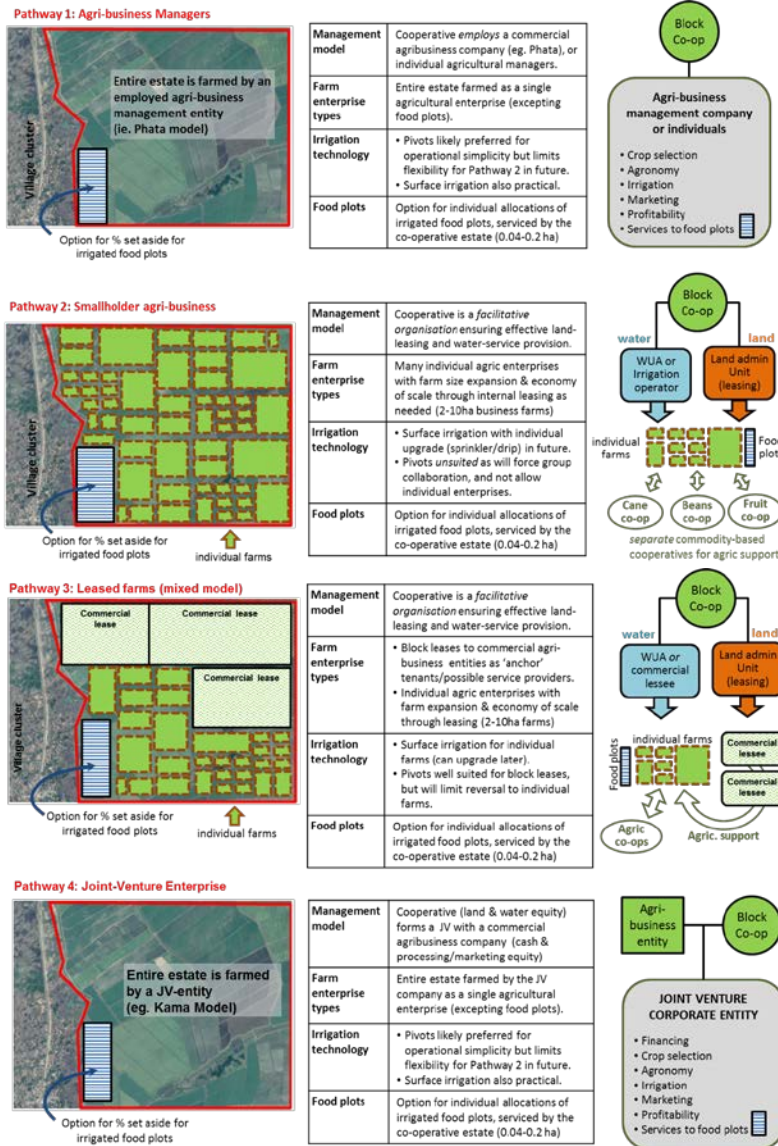
1.1.4 Land Governance and Consolidation

The investment processes entailed in enabling farmers to progress from their current rain fed subsistence orientation to commercial irrigation farmers (supported under component 3) will involve several steps, applied over the life of the program. It is proposed that commercial farming organizations (cooperative or company), with an expected size of at least 500 ha per unit, will be modelled on the successful Phata cooperative that is operating with the project area, although other development pathways can be considered as well by the farmers. Strengthening land tenure security and governance will enable farmers to benefit from the opportunities offered by the project. This will be an iterative process that continues (from preparation stage) with provision of information on the proposed SVIP providing initial orientation for potential participants. The implications, costs and potential benefits as well as the risks of irrigation farming will be presented and discussed in detail with potential participants, who will have the option to opt in or out or be on a faster or slower pace towards self-organization. Communities will be facilitated in land use planning and group identification, and the project will facilitate viable group formation. Formation of commercial legally registered farming organizations will be the next process, involving the development of their internal regulations, including on land and water. It is expected that about 15 of these units will be formed, with formation still ongoing in some areas at the end of SVTP-I. When this process is completed, the Farm Cooperative/Company/Association or Trust would be formed, with proper internal regulation, registration and ownership of the land tenure for the farm area. This process will proceed in parallel to the bulk water infrastructure development and these processes will need to inform each other to ensure technically viable irrigation complements commercially viable SOCFEs.

Extensive consultations with the existing smallholders in the Shire Valley have demonstrated a strong preference for Pathway 1, based on the successful Phata Co-operative model operating in the area. However, the other models would be offered as alternative pathways, with the advantages, disadvantages and implications of each model being fully discussed and analyzed in consultation with prospective co-operative members prior to a decision being made. It is possible that more than one model may be used, based on the needs and demands of the smallholder owners. In some cases, especially for Pathway 2, this may have some implications for physical scheme design and investment. During implementation, the models being used may be modified and improved based on the application for the first farming organizations. From a land consolidation perspective, the starting point in any of these four pathways remains the same: the documented consolidation of individual/family holdings into a single land holding unit, with internal administration and by-laws.



Figure 4 Four possible pathways for smallholder farm organisation



1.2 Envisaged Benefits of the SVTP

The rewards¹⁶ are multiple and transformational at the regional level, and also combines benefits for smallholder farm households with benefits for agribusinesses, promising long-term viability: The economic net benefits from intensive agriculture in phase 1 in this area alone is about US\$56 Million, while the overall program benefit is estimated at US\$314 Million¹⁷. Many households will be lifted out of poverty due to significant improvements in their disposable income and livelihoods. The project also entails considerable foreign exchange earning benefits due to possible increase in exports and import substitutions. The program has a number of specificities catering to Malawian smallholder realities, including a transitional and adaptable pathway from current subsistence to commercial agriculture while enhancing household land rights and nutrition status. Through improved land management, diversified cropping for market and consumption, and access to water, multiple income, nutritional and health benefits are expected. The potential to provide gravity irrigation to a large expanse, and provide for livelihoods away from the hazardous floodplain people currently depend on will have strong resilience impacts. It will also have a significant net positive energy impact – since gravity irrigation will displace the need for energy-intensive pumping from the river, which in turn will free-up substantial and much-needed energy to the national grid - and make optimum use of the country's natural resources. The natural resources approach, including environmental services will support sustainable revenues from the scheme and surrounding natural resources, and help alleviate poverty driven pressures on conservation areas. Finally, the program makes a sizeable contribution to net GHG emissions reduction (through reduced pumping, improved land use, and improved carbon storage in protected areas).

The Program also contributes to ending extreme poverty and promoting shared prosperity in a sustainable manner, especially given the unique circumstances in the Valley where the predominant situation is of extreme poverty and risk, and recurrent need for urgent recovery assistance; but also with the examples of pockets of relative wealth where the underlying problems of the region have already been resolved. Through productivity increase, risk mitigation, job creation, value addition, and resource optimization, the proposed project [promotes sustainable, diversified and inclusive growth, enhances the development of human capital and reduces vulnerabilities. The Project addresses key development questions in the water and agriculture agenda on optimizing water productivity and water use efficiency to feed a growing population with increasing climate risk.

The primary purpose of SVIP is to enhance farm income through increasing the productivity and production of irrigated crops in a predominantly drought and flood prone area of Malawi. In addition, the project implements other complementary interventions necessary for protecting the area against flood damage, diversifying income and livelihoods, and increasing access to improved domestic water supply. The project also opens the option for shifting the current pump-based irrigation system to gravity system at Illovo estate thereby reducing cost of production and stabilizing and/or enhancing the productivity of the existing irrigated sugarcane production enterprises. Thus, the project entails varieties of benefits including:

- increased income from irrigated crop production,

¹⁶ Information in this section and section 9.1 taken from the Draft Project Appraisal Document

¹⁷ This section reference: Agricultural Development Planning Strategy and Draft Project Appraisal Document



- increased income from livestock production,
- increased income from aquaculture production,
- avoided flood damage loss,
- increased access to improved domestic water supply,
- reduced level of illegal hunting and logging,
- reduced land degradation and soil loss,
- sustainable supply of biofuels for communities,
- increased nature-based tourism,
- reductions in GHG emissions, and
- economic multiplier effects.

Several crops were evaluated for their suitability to grow in the Lower Shire Valley based on climate and soil considerations, market potential, profitability, and readily availability of support services¹⁸. The analysis identified several tropical and temperate crops that can grow well in the lower Shire Valley during summer, winter or all year-round. Six crops were selected from the list of 22 crops evaluated¹⁹. The crops selected are those that are best suited to the agronomic conditions of the Shire Valley, have reasonably high gross margin, have readily available market either in Malawi or in the region, and are easily handled, transported and stored without elaborate transformation or investment in processing and storage facilities beyond those that already exist in the SVIP area. Table 4 summarizes the results of gross margin analysis.

Table 4 Gross margin estimates and ranking of six priority suitable crops

	Crop	Average yield (kg/ha)	Av. Price (US\$/kg)	Gross margin (US\$/ha)	Include/exclude from cropping programme
1	Sugar cane	120,300	0.07	3,320.62	Included
2	Beans (dry)	2,500	1.04	1,657.97	Included
3	Pigeon peas	2,500	0.75	1,500.50	Included – for rotation purposes and to meet the national aspirations
4	Cotton	4,000	0.45	1,223.43	Included
5	Soya beans	3,100	0.28	337.85	Included
6	Maize (grain, irrigated)	5,000	0.24	196.64	Included -food security, political and social reasons

This analysis showed that the following six crops would have highest priority for inclusion in the cropping program for the proposed SVTP during the first five years of scheme implementation: sugarcane, dry beans, pigeon peas, cotton, soya beans, and maize for grain production. Sugarcane is already the major commercial crop in the project area with a well-developed value chain and it is envisaged that the crop will retain this status for the foreseeable

¹⁸ Agricultural Development Planning Strategy (Final Report)

¹⁹ The 22 crops are: 1) tomatoes, 2) sweet corn, 3) green mealies, 4) sugarcane, 5) cassava (wet), 6) baby corn, 7) rice (polished), 8) beans (dry), 9) pigeon peas, 10) cassava (dry), 11) Cotton, 12) Chillies, 13) Rice (unpolished), 14) Groundnuts (shelled), 15) Soya beans, 16) Maize (seed, irrigated), 17) Maize (grain, irrigated), 18) sorghum, 19) groundnuts (unshelled), 20) Wheat, 21) Cowpeas, 22) Sesame



future. However, expansion of sugarcane under the project will be limited due to capacity constraints at both the Illovo mill and the existing manufacturers of ethanol. Dry beans, cotton, maize, pigeon peas and soya beans are well established crops in Malawi in general, and are considered easy to grow, store and market locally and in the region.

Sugarcane will continue to be grown and processed by the Illovo estate, and the outgrowers currently producing for it. The new smallholder farms will not be able to grow sugarcane because of capacity constraints at the Illovo processing facility. It is therefore proposed that the farmers will be advised to initially grow cotton, soya beans and pigeon peas in summer, and maize and dry beans in winter, until such time that value chains and market opportunities for other crops can be determined. Provision will also be made for enhanced production of livestock, using irrigated crop residues as fodder, and for aquaculture. Subsequently, after farms have gained experience in irrigated agriculture, it is proposed that a small part of the irrigated area be used for high value crops such as banana, mango and citrus, for which there are ready off-takers and markets.

Further information on the Economic and Financial Analysis can be found in Section 9.1.

1.3 This Resettlement Policy Framework Report

This Resettlement Policy Framework (RPF) provides a framework and procedures for resettlement activities for the proposed Shire Valley Irrigation Project (SVIP).

This RPF presents the basis for preparing the project investments' specific RAPs based on the results of the socio-economic baseline and the land tenure survey. This RPF sets out the procedures for the development of detailed RAPs for those investments or subprojects and associated facilities that have an impact on land, assets, and people's livelihoods. The RPF ensures that possible adverse impacts are addressed through appropriate mitigation measures, in order to guard against potential impoverishment risks of the project affected persons.

The RPF is to provide a robust²⁰ framework guiding land acquisition and resettlement issues from irrigation projects to be funded through the SVIP. There are five types of land areas that will lead to displacement of people, land acquisition, impact on crops, and livelihoods as a result of the construction of SVIP. As a result the OP 4.12 on involuntary resettlement was triggered. Following are the activities that will necessitate resettlement or land acquisition:

- (a) Area required for the main canals, including the Supuni canal. In some places the infrastructure will pass through villages, take up land and some people's houses and business premises will have to be demolished to make way for the infrastructure. People whose land or houses will be taken up by the canal and related infrastructure will have to be resettled. Equally people whose businesses have been disrupted will have to be compensated for the loss.
- (b) Associated with the canal will be other infrastructures like feeder canal, night storage ponds, and buildings required for project operations.

²⁰ Terms of Reference CCPLTRPF under Scope of Services Task VII Resettlement Framework.



- (c) In addition, land will be required to construct the irrigation scheme infrastructure such as drainage lines and roads, e.g. adjacent to the canals.
- (d) Land will also be required to form the irrigated areas/blocks in the agri-business units. Although it is expected that land will be exchanged into a share into the agri-business unit, there may be rare cases of people who do not wish to be part of the agri-business unit.
- (e) Land that will be used for agri-business units will be pooled together. Those who do not wish to be part of the agri-business unit will have to be compensated. Based on the experiences to date this number will be very low or nil.

As most of the land is allocated by village head to the villagers, although it may appear to be vacant, acquisition of such land by the SVIP would deprive some people of their land and source of livelihood. Also, seasonally wet land, locally known as “*Dambo*” is generally treated as communal land for grazing and some winter cropping depending on water availability. Such areas will also be affected by the implementation of the SVIP. As such communities will have to be compensated for loss of grazing areas and source of livelihood.

Some people will be negatively impacted by the canals and night storage that may block access to grazing area and natural resources which provided some of their livelihood needs, e.g. grazing land close to the rivers.

Other communal lands which might be affected include graveyards and religious sacred sites. Due to the sensitivity attached to such sites, traditional leaders and district administration was consulted and canal alignment avoids such places.

1.3.1 Rationale of the Resettlement Policy Framework

Land will be required for the infrastructure of the irrigation scheme as described in section 1.1.1 above. Further, the preparation of the irrigation blocks will require time during which the farmers might not be able to cultivate their land and thus earn an income. These activities will generate impacts under OP 4.12. Once the irrigation scheme is complete and operational farmers will have the opportunity to gain a higher income than at present. Reference is made to section 1.2 for more details on the envisaged benefits of the SVTP.

The detailed design of the irrigation canals is not yet completed and will only become available during Year 1 of project implementation. The detailed design of the project-supported irrigation blocks will be the result of an extensive participatory approach that is expected to take 2-3 years. While the general footprint of the project’s irrigation canals and command areas is mostly already known, the specific people to be compensated or otherwise assisted under the project will only be known when the final design is completed of the canal and other irrigation works. Accordingly, this Resettlement Policy Framework (RPF) has been prepared, which sets out the procedures for the development of more detailed RAPs for those investments and associated facilities that have a known, specific impact on land, assets, and livelihoods. This RPF seeks to ensure that any possible adverse impacts will be addressed through appropriate social mitigation measures, particularly to avoid any potential impoverishment of Project-affected people. Preparation of this RPF included carrying out a variety of socioeconomic studies, including one on land tenure. For planning and budgeting purposes, the RPF made estimates on anticipated number of PAPs, types of losses, based on preliminary designs and



anticipated project activities. These will need to be confirmed and updated during RAP formulation.

There will be two types of RAPs developed, one or more for the main canal and related infrastructure (according to progression of the work) and one (or more) for the irrigation block development. For the main infrastructure, these will be done as soon as detailed design is finalized. These RAPs will include mitigation measures deemed necessary for villages split by canals (e.g. bridges and lumpsum for other activities communities prioritize). For the irrigation blocks RAP a socioeconomic studies, census and asset survey, will be done for all the irrigation blocks at block level and discussed by Group Village level as well to accommodate those who opt out. These will be done as part of the group formation processes and will be prepared prior to changes in land ownership (year 3&4 of the project). The entitlement matrix will include all potential cases of losses that may arise from technical design and group formation choices made for the blocks and take into account the high incidence of poverty.

1.3.2 Objective of the Resettlement Policy Framework

This RPF applies to all components of the SVIP that could affect land, assets, and livelihoods. It applies to all eligible persons regardless of the severity of impact and whether or not they have legal title to land.

The overall aim of RPF is to provide a process to be used in identifying individuals to be impacted by SVIP activities as well as the type and magnitude/severity of impact and outline the process for preparing a Resettlement Action Plans. Further, the RPF aims at ensuring that project affected people (PAP) are fairly/appropriately and transparently compensated for loss of land (be it permanently or temporarily) and assets and loss of access to natural resources which impact on their livelihood. Specific objectives of the Resettlement Policy Framework are:

- To describe the policy and legal framework on land acquisition and resettlement.
- To describe the eligibility criteria for compensation to various categories of PAPs.
- To describe the different land tenure arrangements in the project area.
- To describe methods of valuing affected assets for purpose of compensations.
- To estimate the categories and numbers of potentially affected persons, including type of property and structures to be affected such as land, houses, business premises, schools and clinics.
- To outline compensation options for inclusion in RAPs that ensure people are not worse off than before resettlement.
- To describe the implementation process for resettlement related activities and organisation measures for delivery of compensation and mitigation of negative impacts.
- To provide budget estimates for resettlement.
- To specify parameters as yet unknown and to be included in the analysis in order to finally determine project affected people for the future development of the RAPs.



- To describe consultation and grievance mechanisms to be created and used in the preparation and implementation of RAPs
- Measures for monitoring and evaluation with specific monitoring indicators.

1.4 Experiences and Challenges with Resettlement

Malawi has experiences in resettling people for various reasons. Here a few resettlement initiatives are discussed as examples.

1.4.1 Community Based Rural Land Development Project

After the adoption of the Malawi national Land Policy by the GoM in 2002, the GoM with the support from the World Bank designed and implemented the Community Based Rural Land Development Project (CBRLDP) locally known as “*Kudzigulira Malo*”. Implementation started in July 2004. The objective of the project was to help landless and land poor rural households to own and develop land. The project also piloted an open market land acquisition process through willing seller willing buyer. Beneficiary households formed groups between 10 and 35 households and became a legal entity, a trust, and each member was a trustee. Each beneficiary was given a grant for land acquisition and for farm development. Funds for land acquisitions were pooled to enable them buy land. The project subdivided the acquired land into equal plots for allocation to trustees of the group.

Selection of beneficiaries was on a voluntary basis. However potential beneficiaries had to satisfy selection criteria. Because the resettlement was on a voluntary basis, WB OP 4.12 was not invoked and hence there was no need to prepare a resettlement policy framework.

A number of lessons were learnt; among them were;

- The acquired land maintained its leasehold status although it was subdivided into individual plots for individual households;
- Most of the estates were established at the peak of the tobacco industry and leases were granted based on sketch plans which were mostly incorrect. Because Burley tobacco was grown on a quota basis and the quota was related to the size of the farm, the area of the sketch plan might have been deliberately exaggerated in order to have a bigger quota.
- Estate boundaries were not clearly marked and there were many cases of encroachment with other people claiming that the estate was on their ancestral land.
- Conflict with host community who felt that the incoming people were being favored by the government.
- Lack of social amenities in most the areas settled by project beneficiaries meant that life was difficult initially.
- Provision of transport cost for project beneficiaries moving over 50 kilometers was a worth-while afterthought decision which eased movement of the resettling people.

According to the WB Independent Evaluation Report on the project, results showed that households that relocated greater distances -across districts and/or from populated areas to



more remote areas- had systematically higher impacts than households that stayed within their district of origin, because they had to adapt to unfamiliar agro-ecological, cultural and market environments (IEG-World Bank, 2009). This is something to consider when looking for land to resettle PAPs under the SVIP.

1.4.2 Roads Authority

The Road Authority (RA) has prepared and implemented a number of resettlement policy frameworks as well as resettlement action plans.

Before PAP and asset identification, RA conducts sensitization of communities in the project area. This includes defining who a project affected person is and how assets can be affected by the project. In addition, people are told how the valuation of the affected properties would be done. They are also advised that should a PAP leave the area before receiving compensation, he or she should advise RA in writing who the next of kin will be. For family property, concerned families are advised to nominate a representative in whose name the property would be registered. How family members share compensation proceeds is not a concern to the RA.

Verification of PAPs and affected properties is done by the District Commissioner's office. Valuation of assets is done by the MoLHUD. Public disclosure is done by the District Commissioner under whose jurisdiction the project falls and this is through newspapers, placement of the documents at strategic places and also through electronic media.

Once the valuation of properties is verified, payment is effected by the Roads Fund Administration (RFA) and PAPs get their money through the District Commissioner's Office.

1.4.3 Electricity Supply Cooperation of Malawi (ESCOM)

By the nature of its work ESCOM would prepare RPF/RAP when it wants to build hydropower station, power distribution stations and when erecting high voltage power transmission lines. All these activities affect people in different ways.

Currently the GoM is implementing the Malawi Power System Project through Millennium Challenge Account Malawi (MCA-MW) with the support from the Millennium Challenge Corporation (MCC). The initiative is designed to rehabilitate and modernize ESCOM's capacity to generate, transmit and distribute power. As some aspects of the Malawi Power System Project will trigger involuntary resettlement, MCA MW has prepared a Resettlement Policy Framework and a number of subproject specific Resettlement Action Plans (RAPs). Implementation of the RPF/RAPs is through a contractor and payment of compensation to PAPs is through a bank if the amount exceeds MK50,000.00).

1.4.4 Lilongwe Water Board

In 2015 and 2016 the Lilongwe Water Board prepared Environmental and Social Impact Assessment and Resettlement Action Plans for the Rehabilitation and Raising of Kamuzu Dam 1 and Diamphwe Multipurpose Dam and Associated Structures respectively. The Kamuzu



Dam1 supplies water to Lilongwe City. But due to increase in population and destruction of the catchment area, the Dam no longer supplies enough water for the residence of the city; hence the desire to build another Dam on the Diamphwe River.

1.4.5 Experienced Challenges in Implementing RPF/RAPs

Experiences from implementing RPF/RAPs in Malawi shows the following common challenges:

- (i). *Lack of capacity*: Implementing institutions lacked capacity to prepare, implement and monitor implementation of the RPF and RAPs. Without proper implementation and monitoring the PAPs were having raw deals as restoration of livelihoods was not always achieved and hence the PAPs were worse off as the result. To overcome this some institutions such as MCA-Malawi hired external technical expertise to implement the RPF/RAP.
- (ii). *Disagreement on valuation figures*: Although some of the PAPs initially agreed with the valuation of their assets overtime they changed their mind claiming that their properties were undervalued and refused to receive the compensation money until the matter was resolved. This meant that the valuation team had to explain again how the valuation was done and that the process was fair. Once satisfied the PAPs received their dues. To minimize occurrence of this situation, valuation of assets should be done with full participation of the owners and local leadership. Once a figure is arrived at and the PAP is satisfied, s/he is required to sign an agreement form.
- (iii). *Missing assets*: There were times whereby some assets were missed out during the identification and subsequently valuation. Although this was rare, but it called for people conducting asset identification to be vigilant and involve PAPs and local leadership to ensure that all eligible assets were duly identified.
- (iv). *PAPs feel that they were not paid adequate compensation taking into account assistance after displacement and involuntary access restriction to reserved areas resulting in adverse impacts on their livelihood.*
- (v). *Availability of land is diminishing due to high population growth*: This forced PAPs to forgo land for land compensation and opt for cash instead. Where livelihoods are land-based, as they are in agricultural areas, land-for-land compensation is strongly preferred as a principle of resettlement. Where that is not possible, and cash compensation needs to be used instead, there are risks that such compensation will be misused and livelihoods will deteriorate.
- (vi). Irrigated agriculture is seen as a good tool in compensation to ease the land pressure as it is much more productive and similar productivity can be obtained on a much smaller area,



- (vii). *Conflict resolution mechanisms were often not comprehensively designed and implemented.* Experience shows that resettlement impacts can be exacerbated if such mechanisms are weak or inaccessible to the people who need them.

- (viii). *Delayed payment of compensation:* For projects funded through government, payment of compensation is the responsibility of the GoM. Usually there is lack of synchronization between government budgeting cycle and when compensation money is due. To compound the matter the local currency (Malawi Kwacha) may lose value in due course. Since the principle is compensation money has to be paid in full to all PAPs before any work can start on the affected areas, delays in effecting payment for compensation money inevitably delays implementation of the projects. To minimize the time it takes to effect compensation payment due to unavailability of funds, (a) line ministries should liaise with the Ministry of Finance and Economic Development as to how anticipated money for compensation can be made available soon after the valuation process; and (b) GoM should explore the possibility of including money for compensation in the project financing with its development partners. To contain the loss of value of the Malawi Kwacha while waiting for the compensation to be paid, inflation (based on the difference between CPI at valuation and payment times) should be factored in at the time of paying compensation money to the PAPs.



2 Consultations and Preparations of this RPF

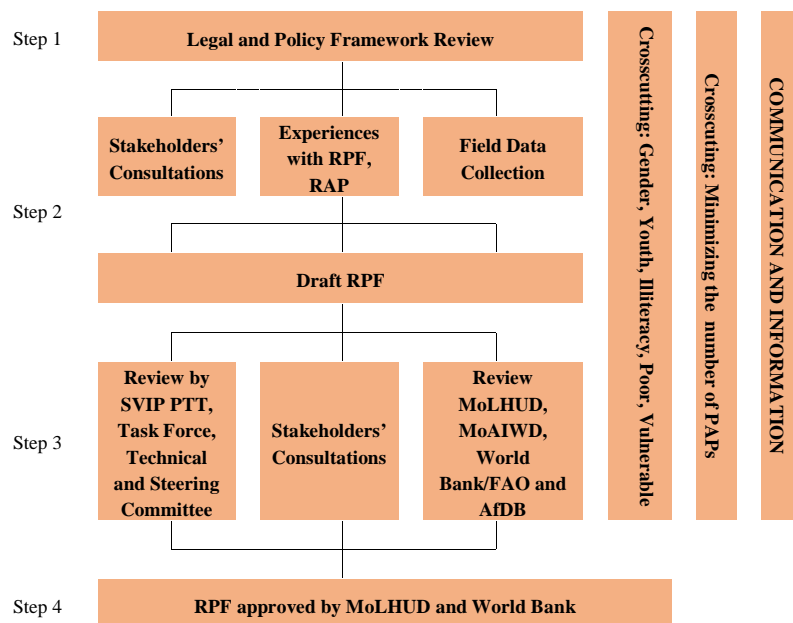
This chapter presents the process for developing this RPF including its consultation and disclosure and presents a summary of the main reports on which this RPF is based, i.e. 1) The land tenure survey; 2) the land diagnostic, allocation and consolidation strategy, and 3) the Gender and Youth Strategy. The main results of the stakeholders' consultations and the socio-economic baseline are presented in chapter 4.

2.1 Process for Consultation and Preparation of this RPF

This RPF was prepared in close cooperation with the MoLHUD at national, regional and district levels and the Project Technical Team (PTT) and informed by stakeholders' consultations, past experiences and document reviews.

The process can be divided into four main steps which are shown in Figure 5 below

Figure 5 Overview of the RPF Preparation process



Step 1: Review of Legal and Policy Framework.

In this step the legal and policy framework of Malawi was reviewed and compared with the policies of the World Bank Operational Policy (OP 4.12) and the African Development Bank



Involuntary Resettlement Policy, and guided by the “Voluntary Guidelines on the Responsible Tenure of Land, Fishery and Forests in the Context of National Food Security” of the FAO. Experiences with RAPs and RPFs from other projects were reviewed as well. The Ministry of Lands, Housing and Urban Development has just produced a Draft National Resettlement Policy that outlines the process to prepare such a policy. A list of documents reviewed is shown in Appendix 1. Where there are gaps between the policy and legal framework of Malawi and the policies of the World Bank and the African Development Bank, the requirements of latter have been incorporated into this RPF. The legal and policy framework, described in Chapter 3 is the overarching framework for the RPF and the RAPs that will be prepared on the basis of the RPF.

Step 2: Consultations Informing the Drafting the RPF

The drafting of the RPF drew from three main sources, i.e. 1) the views and opinions of stakeholders from national to community level, 2) previous experiences in drafting and implementing RPFs and RAPs, and 3) Collected field data to obtain a socio-economic profile of the area and to enable the estimation of losses. The outcome is this RPF.

The stakeholders were consulted in the following ways:

- Key Informant Interviews that included all the Traditional Authorities (TAs) and all Group Village Heads (GVHs) in both phases of the SVIP area and regular consultations with the Traditional Authorities, Group Village Heads, Village Heads, District Council staff and others whenever necessary.
- Consultation of stakeholders at the district level and below through individual and group meetings with members of the District Council, District Council staff, District SVIP Task Force of Chikwawa, Members of Parliament (MPs) and other key informants.
- Dissemination of information and consultation of stakeholders through the SVIP Information Office staffed by a Communication Officer located in Chikwawa Boma²¹.

An SVIP Information Leaflet was prepared in Chichewa and English and widely spread throughout the area, such as from the SVIP Information Office, the PTT, in individual and group meetings and other functions. An English copy is attached in Appendix 11.

Suggestion boxes were placed at strategic places in the SVIP area and well used by the people in the area. Thousands of comments and suggestions were received through this channel.

SVIP information was disseminated through various media channels, such as radio, TV and newspapers.

- Awareness raising and information meetings on the SVIP preparation Phase in general and the Phata model specifically. Experiences of pooling land and establishing the Phata Sugarcane Outgrowers’ Cooperative stands model for the proposed approach to pooling land, forming farmers’ organisations, and farm management of the SVIP irrigated agri-

²¹ Boma is the town centre, in this case of Chikwawa



business areas in which no farmers' organisation exists at present. The vast majority of stakeholders preferred the Phata model to establish their agri-business units.

- Household questionnaire administered to 574 households in Phase 1 and 406 in Phase 2. 16% of the households in Phase 1 were headed by a female and 84% by a male. The questionnaire included several questions to obtain the views on the SVIP, the resettlement, grievance redress, pooling of land, forming and managing farmers' organisations. For more information see section 2.2 below
- Focus Group Discussions (FGDs) were held separately with adult and young men, adult and young women. Youth was defined as younger than 35 years in line with the Malawi National Youth Policy. A total of 110 FGDs were held in Phase 1 in which 841 persons participated, which is an average of 7.6 persons per group.
- Field data formed the basis for the socio-economic profile, estimating the losses, and process to implement the RPF and, at a later stage, the RAP. More details on the data sources is provided in section 2.2 of this chapter.

Below the views of the communities on the SVIP collected in the last quarter of 2015 before the preparation of the draft implementation mechanisms. It describes the willingness to participate in the SVIP and to pay for water, their views on the management of the irrigation blocks, their views on commercial agriculture and livestock in the irrigation scheme, resettlement and reallocation of land and their perceived benefits. The questions were open and no specific model was presented.

Willingness to Participate in the SVIP

At the time of the survey in 2015, 52% of the respondents had heard about SVIP. Of those who heard about SVIP, 32% heard about it from friends, 31% from local leaders and 27% through the radio. Only 5% heard about the SVIP from extension workers and 1% from district officials. At the time of the survey a public communication strategy had not yet been developed and implemented by the Government, hence limited information was obtained from district officials and extension workers. Those that are not willing to participate do not want to take the risk or want to decide themselves what crops to grow. Participants in the FGDs were equally positive about participating in the SVIP and thought it a good development that is welcomed with open hands, because it will alleviate poverty.

Almost all households (98%) are willing to participate in the SVIP. The proportion is similar across all areas, both genders and age groups. The main conditions for participating in the SVIP are getting financial support to develop their parcel(s) (55%) and receive extension services from the government (41%). Overall 20% of the households wanted to keep their parcels. This proportion is higher in the Phase 2 area and among male headed households. The reason for the lower proportion in the Phase 1 area is probably the past experience with the reallocation of land whereby land was exchanged for shares in the irrigation organisation.



Table 5 Willingness and conditions to participate in the SVIP by location and gender (percent)

Willingness to participate in the SVIP	Total SVIP Area			SVIP	
	Total	FHHH	MHHH	Phase 1	Phase 2
Yes, willing to participate in the SVIP	98	98	98	98	98
Conditions for participation in the SVIP					
Get financial support to develop parcel/s	55	54	55	61	48
Govt. extension services	41	37	42	40	42
Keep my parcel/s	20	13	21	15	25
None	11	16	10	13	8
Other	16	13	16	11	22

Source: SVIP Household Survey 2015

A majority of 98% of households are willing to participate in the SVIP even if it is decided, on their behalf, what crops can be grown under irrigation. The proportion is similar for the whole of the SVIP area, in each of the two phases and for female and male headed households. 58% mentioned that willingly pooling their land and giving up the individual management of their land was the way to participate in the SVIP. This proportion is higher in male headed (81%) than in female headed (33%) households. The second largest proportion (39%) mentioned allowing to farm their land. This reason was the only and most mentioned way to participate mentioned in 79% of the female Focus Group Discussions (FGDs). The main difference between females and males was that women prefer allowing to farm their land communally over giving up ownership of their land. After the information campaign together with members of the executive committee of the Phata Sugar Outgrowers Cooperative ('Phata') on the 'Phata' Model the views changed as shown in the results of the focus group discussions held on the draft implementation framework, including the draft Resettlement Policy Framework (see this chapter Step 3: Stakeholders' Consultations and Disclosure on the Draft RPF.)

In addition, in the first round of consultations that informed the development of the implementation mechanisms, farmers suggested participating in one or more of the following ways:

- Willing rent out part of their land to others was mentioned in 16% of the FGDs and only in female FGDs (33% of the total female FGDs).
- Willingly learn and follow farm practices of the SVIP was mentioned in 12% of the FGDs.
- Be employed in the construction works was mentioned in 12% of the FGDs and only in female FGDs (24% of the total female FGDs).
- Willingness to provide local resources and manpower was mentioned in 11% of the FGDs and only in male FGDs (21% of the total male FGDs).
- Be in the forefront in project planning and implementation was mentioned by 5% of the FGDs and only in male FGDs (9% of the total male FGDs).



- Taking care of the project facilities was mentioned in 5% of the FGDs and only in male FGDs (9% of the total male FGDs).

In one fifth of the FGDs it was mentioned that the way to participate is by cultivating their land individually and not in a group. This way was mentioned more in female than in male FGDs.

Willingness to Pay for Irrigation Water

The number of households willing to pay for irrigation water is 88% within the SVIP area. The willingness to pay is slightly higher in male headed than in female headed households and slightly higher in Phase 1 than in Phase 2.

Table 6 Willingness to pay for water by location and gender (percent)

Willingness to pay for irrigation water	Total SVIP Area		
	Total	FHHH	MHHH
Total	88	80	89
Phase 1	91	86	92
Phase 2	85	76	88

Source: SVIP Household Survey 2015

The proportion of FGDs that is willing to pay for irrigation water is 95.3%, which is even higher than in the household survey. Another 2.4% of the FGDs were of the opinion that they should only start paying after getting a profit and 1.2% after taking ownership of the scheme. Only 1.2% mentioned that they cannot afford to pay.

Pooling Land and Managing Irrigation Blocks

66% of the FGD participants were of the opinion that the size of an irrigation block should be determined by the number of farmers per block. In female FGDs this proportion was 86%, which is higher than the 47% in male FGDs. 40% of the male FGDs and 22% of all FGDs believed the size of an irrigation block should be determined by the number of hectares. Another 13% of the FGDs were of the opinion that technical manageability should be the criterion.

52% of the FGDs believed that the size of the shares should be determined by the size of land whereby a larger piece of land would translate into a larger number of shares. This proportion was 83% in male FGDs and 26% in female FGDs. 34% of all FGDs and 56% of female FGDs believed that higher investments should translate into a larger share. Another 14% believed that the type of crop grown should determine the size of the shares whereby cash crops would translate into a larger share than other crops.

Of all the FGDs, 38% thought the irrigation block should be organised in a cooperative in which they work together as a group. More male (49%) than female 26% FGD participants thought a cooperative was the best option. 31% of the FGDs were of the opinion that a hired company dealing with farming should manage the irrigation block. Another 19% thought an irrigation block should be organised as a scheme, among others, for the convenience to access loans and find markets. More male FGDs (26%) than female FGDs (12%) were of this opinion. A total of 18% of the FGDs found a water user association the best organisation option, because



these have expertise in water management. This group consisted of only female FGDs, i.e. 36% of the total female FGDs. 21% of the female FGDs thought a trust would be the best option, because of the ease of handover when the agreed time of service is over. Only few only male FGDs mentioned NGOs as a form or block organisation (9%).

81% thought that a management company should manage the irrigation block, and 16% thought farmers themselves should do so. The main reasons for hiring a company to manage the farm are:

- Allowing farmers to learn whilst the management company manages the farm. 78% of the FGDs believed so, 95% of the female FGDs and 60% of the male FGDs.
- Blocks are managed well. 16% of all the FGDs, 26% of the male FGDs and none of the female FGDs.
- Farmers' past experiences. 4% of all the FGDs, 5% of the male FGDs and 2% of the female FGDs.
- Sense of ownership. 4% of all the FGDs, 5% of the male FGDs and 2% of the female FGDs.
- To access farm inputs and equipment. 1% of all the FGDs, 2% of the male FGDs and none of the female FGDs.

Farmers wishing to manage the farm themselves cited as reason that they wanted to do so with a committee because they did not want a company or organisation to benefit.

Growing Cash or Food Crops?

FGDs thought that the proportion of commercial and subsistence crops should be more or less equal with a slight preference for subsistence crops. Within the SVIP Phase 1 area there is a slightly higher preference for growing more commercial crops than subsistence crops whilst the reverse is the case in the SVIP Phase 2 area. Female FGDs were slightly more in favour of growing commercial crops than male FGDs in both areas.

Table 7 Opinion on which type of crops to grow under irrigation by location and gender (percent)

WHAT CROPS TO GROW?	Total SVIP		
	T	M	F
TOTAL SVIP			
Percentage commercial crops	46	44	48
Percentage subsistence crops	54	66	52
PHASE 1 SVIP			
Percentage commercial crops	56	53	59
Percentage subsistence crops	44	47	41
PHASE 2 SVIP			
Percentage commercial crops	36	35	37
Percentage subsistence crops	64	65	63



Source: SVIP FGDs 2015

Livestock in SVIP

The main challenges in keeping livestock when the SVIP is operating is a reduction in grazing area according to two thirds of the FGDs. Women fear the reduction of grazing area more than the men since this challenge was mentioned in 93% of the female compared to 40% of the male FGDs. This will affect the household's economy negatively. This challenge can be addressed by growing animal fodder under irrigation (25%), setting land aside for grazing (23%), or reducing the number of animals kept (21%).

Livestock destroying crops and the canal and restriction of livestock movement was seen as a challenge in about one third of the groups. An increased theft of livestock was feared in three of the female FGDs. These challenges can be addressed by guarding the animals and controlling their movement.

Participants in 58% of the male FGDs did not foresee any challenge in keeping livestock when the SVIP is operational but all of the female FGDs did.

Reallocation of Land

In the view of the communities, the reallocation of land should be based first and foremost on the size of land according to all participants in the FGDs. Other criteria were firstly, the fertility of the land mentioned in 62% of the FGDs, secondly the profitability of the land or value of the harvest mentioned in 19% of the FGDs, and thirdly the assets on the land mentioned in 21% of the FGDs. A few groups also mentioned location of the land.

Overall 58% of FGDs were of the opinion that the chiefs and village committees should be involved and decide on the reallocation of land. The proportion of female FGDs who thought so was 76%, much higher than the 40% of the male FGDs. The proportion in the SVIP Phase 1 area was also higher than in the SVIP Phase 2 area, 65% versus 52%. Half of the male FGDs in the SVIP Phase 2 area thought the Government and Village Committees should be involved and decide, and 30% of the male FGDs in the SVIP Phase 1 area, but hardly any female FGDs. Others that should be involved and decide were:

- Extension workers (9%), more so by the males than females
- Government extension workers and the Chief (6%) mentioned by males only
- SVIP Management (6%) mentioned by female FGDs only
- Village Committee (5%) mentioned by female FGDs only
- NGOs (5%) mentioned by male FGDs only
- Chiefs and District Council (5%)
- Traditional Authority and Chiefs mentioned in the SVIP Phase 2 area only
- Village Committee and extension worker (4%) mentioned by male FGDs in the SVIP Phase 1 area only
- Management Company (2%) mentioned by male FGDs in the SVIP Phase 1 area only.

Results show that the majority of the participants in the FGD are of the opinion that the government and traditional authority should be involved in the reallocation process. The



females generally have more faith in the village committees than males who have more faith in the traditional authority and chiefs.

People who do not want to participate in the SVIP should be convinced to change their mind (9%), or rent out their land to those willing to participate (36%) or sell their land (41%) or be given land elsewhere (30%)²².

The majority were of the opinion that complaints should be lodged with the Chiefs (52%)^{Error! bookmark not defined.}, Group Village Head (16%) or Traditional Authority (12%). 35% thought the District Council should handle complaints. A few FGDs thought that grievance redress committees, NGOs and human rights organisations, village committees, and human rights organisations should handle complaints and the court is not satisfied with the verdict of the Traditional Chiefdom.

Resettlement

The process for resettlement and compensation should be based on proper consultation and have room for discussion according to two thirds of the FGD participants. They should be notified well in advance and given the reasons for having to move as well as options on where to move to. People should be given proper time to move and the timing should take into account the farming season and allow harvesting before giving up the land. Compensation should be paid before vacating the land.

Almost all FGD participants were of the opinion that people who have to resettle due to the infrastructure of the SVIP should be compensated with money (94%). They should also be given land (54%) and a house (52%) and some also thought they should be given food (15%).

The criteria for valuing the land should be the size of the land (9%), the resources on the land (94%), the fertility of the land (8%) and the cost of the land (5%). One third of the FGDs also mentioned the quality of the house.

All the male FGDs thought that the Government together with the NGO and the Chiefs should implement the resettlement and compensation process. The view of 71% of the female FGDs was that the SVIP management should implement the process, whilst 29% thought the village committee should do so.

Complaints should be lodged to the following organisations if not satisfied with the resettlement and compensation:

- Government department (31%) mainly mentioned in male FGDs
- Chiefs, TA and GVH (44%)
- Human rights organisations and NGOs (26%)
- District Commissioners' Office or Courts (36%)
- Village Committee (12%)

Resettling is generally perceived as moving to another area and another village whilst it is the policy of the SVIP to resettle people within their own communities. Several of the fears expressed relates to this perception of having to move to a new community, such as adult women fearing it may be difficult to sustain themselves in the new area, the poor and young

²² The total is more than 100% because multiple answers were possible



women may find it difficult to sustain themselves in the new area and find work, finding it difficult to root in the new village, etc. Another set of fears concerns the work involved in moving and building a new house. Adult men are responsible for the construction of the house and are most concerned. For the elderly the construction may be especially hard. Young people are afraid the resettlement will disturb and affect their social life and studies. The poor will be especially affected because they do not have reliable assets and may misuse the resettlement compensation because they are not used to handle finance.

Decision Making on Participation in the SVIP

The adult male takes the decision to participate within the SVIP or not in 44% and the adult female in 19% of the households. In another 36% of the households the decision is taken jointly.

In female headed households the decision on SVIP participation is taken by the adult female in 82% of the households. This may be because there is no adult male within the household or because most of the land within the SVIP areas is occupied by matrimonial societies in which women own the land. Within male headed households the decision is taken by the adult male in 51% of the households and in 43% jointly.

Table 8 Household decision making on participation in the SVIP by location and gender (percent)

Household decision making on SVIP	Total SVIP Area		
	Total	Phase 1	Phase 2
TOTAL			
Adult Female	19	20	17
Adult Male	44	43	48
Jointly	36	37	35
Female Child	0	1	0
Other Members of the HH	0	0	0
Total	100	100	100
FEMALE HEADED HOUSEHOLDS			
Adult Female	82	88	72
Adult Male	12	6	21
Jointly	4	2	7
Female Child	1	2	0
Other Members of the HH	1	1	0
Total	100	100	100
MALE HEADED HOUSEHOLDS			
Adult Female	6	6	5
Adult Male	51	50	54
Jointly	43	44	41
Female Child	0	0	0
Other Members of the HH	0	0	0
Total	100	100	100

Source: SVIP Household Survey 2015



Perceived Benefit of the SVIP

74% of the households perceived food security as the main benefit of the SVIP. This correlates with the high level of poverty within the area where people go without sufficient food for months at a time. The proportion of households expecting food security is higher in the Phase 2 (84%) than in the Phase 1 (71%) area.

Table 9 Perceived benefits from the SVIP by location (percent)

Perceived benefits of the SVIP	Total SVIP Area		
	Total	Phase 1	Phase 2
Food security	74	71	84
Increased agricultural productivity	17	20	7
income	7	7	9
Able to send children to school	0	0	0
none	0	0	0
Other	1	1	0
Total	100	100	100

Source: SVIP Household Survey 2015

An even larger proportion of 94% of the participants in the FGDs perceived the main benefit as improving the availability of food and thus an improvement of their food security. The second most mentioned benefit is obtaining income after sale of the farm produce in 84% of the FGDs, and thirdly improving people's livelihoods and health in 54% of the groups. The proportion of all these three perceived benefits was higher in female than in male FGDs. 75% of the participants in the FGDs believed that the SVIP will increase the availability of food and reduce the poverty of the poor. 40% also believed the SVIP will provide a source of income to the poor, among others, through the provision of piecework. 10% expected the SVIP to provide training to the poor which will make them self-reliant.

Participants in the FGDs believed that farm inputs (54%), starter packs and irrigation equipment (45%) should be provided to achieve the perceived benefits. The proportion of female FGDs mentioned that these inputs should be provided was respectively 93% and 81%, much higher than the 16% and 9% mentioned in the male FGDs. The inputs to be provided to achieve the perceived benefits are more spread; 21% mentioned the provision of input (revolving) loans, 9% mentioned equal opportunities and distribution of resources (9%), closely followed by introducing programmes targeting the poor (8%), and more extension workers (7%).

The results of the stakeholders consultations were presented in the Stakeholders' Views Report made available in February 2016. The views of the communities are also presented in the last chapter of the separately-prepared Socio-Economic Baseline Report.

Step 3: Stakeholders' Consultations and Disclosure on the Draft RPF.

The draft RPF was distributed for review and an SVIP Information Booklet prepared in Chichewa and English and widely distributed through the SVIP Information Office in



meetings, at stakeholders' consultations, etc. A copy of the English version is attached in Appendix 11.

- Meetings were held with the MoLHUD to discuss the draft document and the RPF implementation mechanisms. Further, written comments were received.
- Consultations of stakeholders were conducted on the draft implementation mechanisms for resettlement, grievance redress and pooling of land in farmers' organisations. The stakeholders' consultations were conducted by District extension staff with facilitation of the PTT and the Consultant. In total 39 Focus Group Discussions were held in which 784 persons participated. Separate FGDs were held with women, men and leaders in each of the Group Villages within Phase 1 of the SVIP in August/September 2016.

Table 10 Areas in which Focus Group Discussions were held on draft Implementation Mechanisms

Group Village	TA	Women	Men	Leaders	Total
Bereu (Kalima)	Kaseya	11	5	13	29
Chikambi	Kasisi	38	25	17	80
Kalima	Maseya	19	10	12	41
Kampani	Ndakwera	25	24	26	75
Mangulenje	Lundu*	23	13	9	45
Mbande	Maseya	37	24	19	80
Mbenderana	Kasisi	34	25	14	73
Molongeni (Patalawo)	Katunga	23	19	10	52
Ndakwera	Ndakwera	28	27	18	73
Njereza	Kasisi	21	14	19	54
Patalawo	Katunga	27	21	16	64
Salumenji	Katunga	10	17	9	36
Tomali (Mangulenje)	Lundu	32	33	17	82
TOTAL		328	257	199	784
<i>Average</i>		<i>25.2</i>	<i>19.8</i>	<i>15.3</i>	<i>20.1</i>

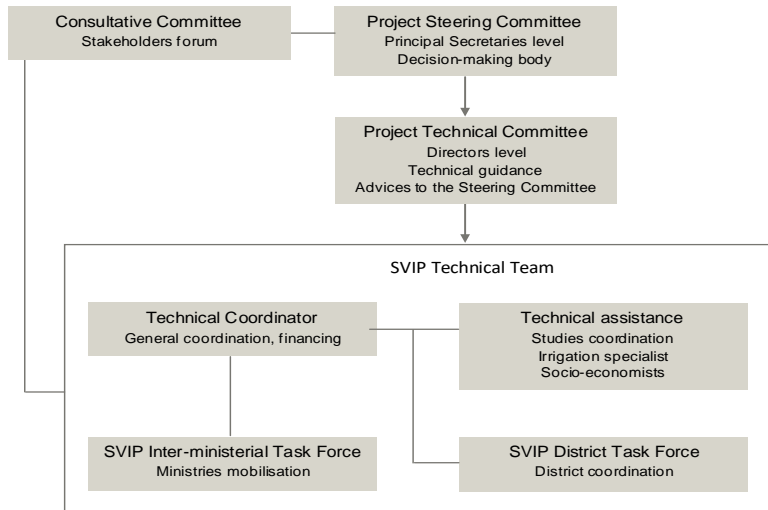
*Lundu is the Paramount Chief covering TA Lundu

- The MoLHUD, MoAIWD, World Bank/FAO and AfDB reviewed the draft document and provided written comments. In addition, constructive meetings were held during the Joint Pre-appraisal Mission in November 2016.
- Members of the SVIP Project Technical Team, Task Force, Technical and Steering Committees reviewed the document and provided written comments. The SVIP Task Force and Committees are chaired by the MoAIWD and composed of Ministries and other key stakeholders involved in the SVIP.

Figure 6 below shows the organogram of the SVIP in the preparation phase.



Figure 6 Organogram of the SVIP during the Preparation Phase²³



- Consultations with the Traditional Authorities, Group Village Heads, Village Heads, District Council staff and others whenever necessary.

No specific model was mentioned in the initial consultations that informed the preparation of the implementation mechanisms, but many farmers mentioned that the 'Phata' model would be excellent to base the establishment of future agri-business units on. Therefore, stakeholders' meetings were conducted in all group villages to provide information on the formation and management of the Phata Sugar Outgrowers Cooperative ('Phata'). Members of the executive board of 'Phata' were present to share their experiences and provide information on the processes of 'Phata' to pool land together, exchanging land for shares, level of profits and how these are shared, decision-making, etc. Results from earlier and these consultations showed an overwhelming support for using the 'Phata' model as a base for forming additional agri-cultural business.

Another round of stakeholders' consultations FGDs were conducted on the implementation mechanism, such as the Resettlement Policy Framework, Grievance Redress Mechanism, pooling of land and formation of agri-business units, etc. Separate consultations were held with groups of women, men and leaders in all GVHs that are part of the SVIP in Phase 1. The groups were presented with the current status of developing the SVIP and the draft implementation instruments (mainly RPF, GRM, Land re-allocation), received the information booklet and were asked for their views. The main results:

- 100% of the FGD participants are willing to participate in the SVIP.

²³ From the Terms of Reference



- 100% of the FGDs are in agreement with the proposed compensation mechanism for the loss of land, structures and produce. The owner should receive money according to the value of the lost property. The owner should agree to the proposed compensation and the process should be transparent and accountable.
- The compensation process should be implemented by a combination of officials from the SVTP, District staff (land and extension officers), local leaders, valuation experts, the property owner her/himself, and traditional authority. One male FGD also wanted to involve human rights activists.
- 100% of the FGDs agreed to the proposed grievance redress mechanism and none had any suggestions for improvement of the GRM.
- 100% of the FGD participants are willing to pool their land together into an agri-business unit based on the Phata model. The pooling of land should be based on the size of land brought in, which should be measured for each farmer.
- Any conflicts concerning the pooling of land should be handled with the involvement of the traditional leaders (87%), committee of owners of the land (82%), and the government (51%). All women FGD groups wanted the scheme committee of owners to be involved, 92% of the leaders FGDs and 54% of the male FGDs. All male FGDs wanted to involve traditional leaders, 85% of the female FGDs did so and 77% of the leaders FGDs. The leader FGDs were the least inclined to involve the government in the solving of conflicts with pooling of land (38.5%) against 54% of the male FGDs and 61.5% of the female FGDs.
- All of the FGDs members were willing to grow cash crops. The most important conditions for growing cash crops are available markets for the produce (85%) and provision of inputs (26%). 13% mentioned that cooperatives or clubs should be formed, among other, to look for markets.
- 100% of the FGDs are willing to hire a management firm to professionally farm their land, at least in the initial stage when the farmers are learning to manage themselves.
- Only 15% of the FGDS are willing to lease out their land to a company for a longer period of time to establish a nuclear estate on the condition that the land remains theirs and that a solid agreement/contract is signed. None of the leader groups was in favour of leasing out land to a company. All those 85% of the FGDs fear losing their land if it is leased to a company for a longer period.
- 100% of the land within the irrigation blocks can be irrigated, meaning there is no area that for cultural or other reasons cannot be used for irrigation and none of the villages have conflicts with each other and all can work together in one agri-business unit.
- There are no farmers' organisations active reported within any of the proposed irrigation areas.
- Participants verified the maps prepared of the area and listed the names of the villages that will be covered by an irrigated agri-business unit within their group village.
- Road and footpaths crossing the main canal should be bridged according to all stakeholders to maintain access.



Crosscutting: Minimizing the Number of PAPs

The land tenure and land use survey of the whole SVIP area and the detailed investigation of the main canal area in Phase 1 were based on the information of the scheme lay-out of the Technical Feasibility (TFS) Consultant. Overlaying the results of the survey conducted at the end of 2015 with the proposed canal route showed that initially 19 settlements were affected by the canal route, splitting the villages into two parts or even, in the case of Supuni, in three parts. Within these 19 settlements a larger number of buildings were affected than estimated in the later design. Results also showed that several graveyards would be affected by the SVIP infrastructure. According to the culture of the people in the area, moving a graveyard should be avoided because of the believed strong negative side effects that are difficult to manage. Various changes of the canal route were proposed to avoid settlements, graveyards and buildings as much as possible. The result of the proposed changes and a joint field visit reduced the number of affected settlements from 19 to 10 in Phase 1, reduced the number of affected buildings and graveyards, and reduced the length of the main canal.

The results of the detailed land survey conducted in the third quarter of 2016 showed that two graveyards are affected and 10 settlements. Of those 10 settlements the main canal runs along the border of 7 settlements and through 3 settlements splitting the communities into two. This has been brought to the attention of the TFS Consultant with a recommendation and proposal to re-align the canal route to avoid the graveyards and splitting settlements. More information can be found in section 7.2.

Crosscutting: Gender, Youth, Vulnerable Groups, Illiteracy, Poor

FGDs were held separately with adult men, adult women, young men and young women to obtain gender and youth disaggregated opinions at all stages. Data from the household questionnaires were disaggregated according to the gender and/or age of the household head and/or poverty where relevant. In addition, the questionnaire included specific gender questions. The socio-economic baseline further includes information on vulnerable groups.

The information leaflet and booklet were distributed at gatherings on the SVIP and thus supported the verbal messages. The information material include images showing the main messages.

An SVIP Information Office was established within the SVIP area providing information on the project. An average of 6 people visited the office per day. Suggestion boxes were placed at easily accessible places throughout the SVIP area attracting thousands of reactions such as comments, views, questions and suggestions. The officer manning the SVIP Office organised meetings and participated in several gatherings within the area to provide information on the SVIP. The project also received attention from the media, such as radio, TV and newspapers.

Crosscutting: Communication and Information

Communication and Information is key in the preparation and implementation of the SVIP. It was mainstreamed throughout the preparation of the SVIP including the RPF. The main communication and information activities in connection with the RPF are described in above



in Step 2 and Step 3. Results from access, use and preferred ways of communication from studies of the NSO and SVIP is shown here.

The NSO conducted a survey on the access and uses of Information, Communication and Telecommunication (ICT) services in Malawi in 2014. The results of the survey show that 45.5% of the Malawian households had access to a mobile phone 34% of the individuals owned a phone. This proportion was lower in the rural areas of the Southern Region where 40% of the households and 28% of the individuals had access to a mobile phone. These figures are similar in the whole of rural Malawi.

About 44% of the Malawian households and individuals own a radio and 96% listens to the radio. In rural Southern Malawi 42% owns a radio and 96% listens regularly. Only few households have a TV, 14% in Malawi and 7% in the rural Southern Region.

Overall 18% of the Malawians watches TV, but in the rural areas this percentage is lower, 12%. Access and use of other ICT equipment and services is low. For example, less than 1.5% has access to a desktop or laptop computer in the rural Southern Region and only 3% uses internet.

The higher the level of education the higher the access to ICT equipment and services. Households and individuals residing in urban areas have a far higher access than those residing in rural areas. For example, the proportion of households with access to a mobile phone is twice as high in urban compared to rural areas, 85% versus 40%.

The SVIP Survey results show that the radio is the most common way to receive messages in all households in the whole area (99%). 55% of the female and 19% of the male FGDs also mentioned extension workers as conveyors of messages. Especially the male FGDs mentioned village meetings (14%) and newspapers (18%). Other means of receiving messages that were mentioned include, NGO club trainings (5%), and people from other villages and friends (9%).

The preferred way of receiving messages on irrigation is through extension workers (80%) from government or NGOs, because it is easy to interact, they have the practical expertise and are trustworthy, demonstrate and use demonstration plots, explain in detail and can answer questions. The disadvantages of government extension workers is their poor availability and their lack of resources. There are only few extension workers and those experience mobility problems so their visits are few and far between and not always at the agreed date and time. Implementation of the messages and keeping promises may be difficult because there is not sufficient or no funding. A few also mentioned lack of motivation and only being active when officials are coming. The advantages of NGO extension workers is that they have the resources and funding to train people, provide resources quickly, promote learning through practice and thus create good relations and trust. The disadvantages are that NGOs only stay for a short period of time as long as the resources last, select only few groups of farmers to work with and that promises are not always fulfilled.

9% of the FGDs preferred the radio or TV. The advantages of radio/TV are that one can learn/hear/see about what farmers are doing, it is motivating and reaches many farmers at once and fast. The disadvantages are that one cannot ask questions, the messages are not always clear or may not be trustworthy, and not all people have a radio and few a TV.

A smaller 6% of the groups preferred village meetings. The advantages are the ease of interaction and ability to ask questions. One group mentioned the fear to ask questions in the presence of the chief.



Newspaper articles has pictures showing what is being written and the article can be kept for future reference. The large disadvantages are that newspapers are hard to get and that many are not able to read because of the high illiteracy in the area.

Step 4: RPF Endorsed by the MoLHUD and World Bank

The comments and suggestions received in step 3 were incorporated in the RPF, finalised and endorsed by the MoLHUD. The document will also be approved by the World Bank.

This RPF will form the basis for preparing and implementing the RAPs and form part of the legally binding financing document for the SVIP of the World Bank and the AfDB.

The RPF will be publicly disclosed in Malawi by the government, and by the World Bank in its InfoShop.

2.2 Field Data Sources of the RPF

The following are the main field data sources of the RPF. The results form the basis for drafting the implementation mechanisms of the RPF and for estimating the losses. An integrated field study was conducted that combined data collection with stakeholder consultations.

- The land tenure and land use survey of the SVIP area in both Phase 1 and Phase 2. This survey was conducted in all Group Villages in Phase 1 and Phase 2 of the SVIP and based on the information of the technical lay-out of the irrigation scheme obtained from the TFS.
- The detailed survey of the canal route of the main canals in Phase 1. This detailed inventory collected information on the parcels in the canal route. The location of the canal route was obtained from the TFS in October 2016 when the scheme was being designed. The survey was conducted in close collaboration with the Group Village Heads or Village Heads, who knew the boundaries and the persons to whom the land has been allocated. After the data collection, the Group Village Heads received the data collected and a map showing the identified parcels and their particulars and given two weeks to make corrections.
- Socio-economic baseline. sources of information for the socio-economic baseline were derived from a separate socio-economic baseline study (methodology and results explained in more detail in the separate report). Key data includes the following:
 - Household questionnaire administered to 574 households in Phase 1 and 406 in Phase 2. 16% of the households in Phase 1 were headed by a female and 84% by a male.

Table 11 Number of households interviewed by location, gender and age

Number of households interviewed	SVIP area		
	Total	Phase 1	Phase 2
Total	980	574	406
Female headed total	17%	16%	18%
Female headed 19-25	2%	2%	3%
Female headed 26-35	4%	3%	5%



Number of households interviewed	SVIP area		
	Total	Phase 1	Phase 2
Female headed 36>	12%	12%	11%
Male headed total	83%	84%	82%
Male headed 19-25	9%	9%	9%
Male headed 26-35	17%	27%	3%
Male headed 36>	46%	48%	45%

Source: SVIP Household Survey 2015

- Focus Group Discussions (FGDs) were held separately with adult and young men, adult and young women. Youth was defined as younger than 35 years in line with the Malawi National Youth Policy. A total of 110 FGDs were held in Phase 1 in which 841 persons participated, which is an average of 7.6 persons per group.

Table 12 Participation in FGDs and number of FGDs held by gender, age and location

FGD Participation SVIP Area	Total SVIP				Total
	Men		Women		
	35>	35≤	35>	35≤	
Total					
Number of FGDs Conducted	83	47	65	59	254
Number of Participants	537	339	562	491	1929
Average number of participants	6.5	7.2	8.6	8.3	7.6
Phase 1					
Number of FGDs Conducted	35	23	29	23	110
Number of Participants	221	172	260	188	841
Average number of participants	6.3	7.5	9.0	8.2	7.6

Source: SVIP survey 2015

- The latest available national surveys done by the National Statistical Office in Malawi, of which the main ones are the Census of Population and Housing of 2008, the Integrated Household Survey of 2011, the Demographic and Health Survey of 2010, the Welfare Monitoring Surveys of 2014 and 2011, and the National Census of Agriculture and Livestock of 2006.

Relevant information from the socio-economic baseline is repeated in this RPF.

- Key Informant interviews with Traditional Authorities, Group Village Heads, Village Heads, District Council staff, Ministries' staff, including the MoLHUD.

2.3 Summary of the Land Tenure and Land Use Survey

The land inventory started with producing general land cover maps, for both Phase I and II to facilitate other parts of the project, the other consultants teams and provide a basis for analysis. These maps are based on the orthophotos provided by the Department of Survey. Information from other sources were inserted to show physical features (roads, rivers, lakes, etc.), registered



land tenure, public facilities and enumeration areas. Orthophotos were used to identify the settlements and general land use.

The Aide-Memoire of the GoM/AfDB/WB-FAO mission in June 2015 recommended to focus the detailed land data acquisition at parcel level only, where the line of the irrigation canals are established with the support of the Technical Feasibility Study consultants²⁴. Following the recommendations, the land inventory was divided into two parts:

Firstly, the land tenure and land use mapping conducted from September to December 2015, and secondly, the detailed mapping of parcels of the areas required for the SVIP main infrastructure, which was carried out from August to October 2016. This second round of survey also included land tenure and land use mapping of the SVIP project areas, which had not yet been identified during the 2015 surveys. Those areas consisted mainly of new areas defined by the Technical Feasibility Consultants and areas which had been included due to a more western location of the main canal structures. The map in *Figure 7* below shows the adjusted phase I and Phase II areas.

2.3.1 Land tenure results

The land tenure issues related to the SVIP project is focused on establishing both a land tenure overview of all the land within the project areas (customary land, private land and public land) and at the same time identify village boundaries and macro areas, such as livestock movement corridors, settlement areas, common areas for grazing or wood collection, flooding areas, graveyards etc.

Especially the village boundaries have never been clearly identified before within the customary land. The new land-related laws propose to register customary land areas and defining the Traditional Land Management Areas (TLMA's) which later on can form the base for registering customary estates, is one of these aspects.

The land inventory methodology was presented and agreed upon at the SVIP District of Chikwawa Task Force meeting in which the Traditional Authority (TA) was present. Consequently, the land tenure registration was carried out in cooperation with the TA's by walking the boundaries of the individual villages together with the Group Village Headmen, and at the same time digitizing these on a tablet. During the field study new settlements were identified and registered together with the GVHs. Also boundary disputes were registered.

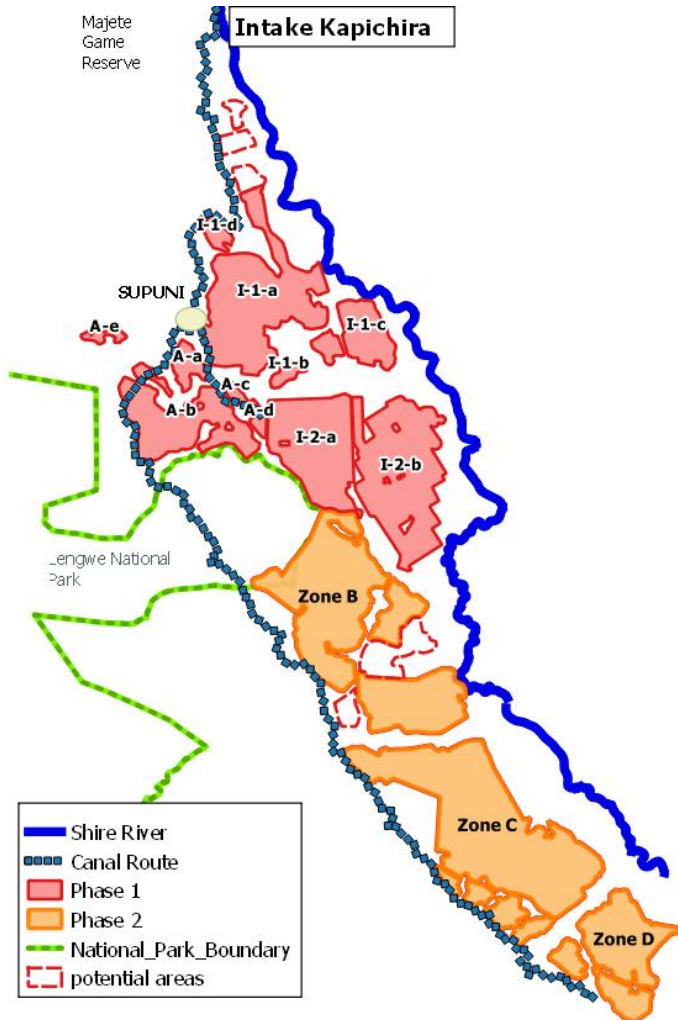
The result of the first land inventory was an up to date map of the customary land tenure covering around 60,000 hectares. After the second field survey the coverage of Group Villages and Villages including the land tenure and land use is close to 80,000 hectares for both phase 1 and 2. However, as also described in the Land Tenure Diagnostic, Allocation and Consolidation Strategy (LTDACS) report, of these 80,000 hectares only around 50,831 hectares will be part of the two SVIP phases, when using the latest definition of project boundaries from the TFS consultant (October 2016).

No public land, including government land, were found within SVIP except a short 1 km stretch of the Majete Game Reserve in Phase I. In Phase II the Bangula Canal will pass for a 14 km long stretch through Lengwe National Park.

²⁴ Aide Memoire of the Joint AfDB-WB/FAO Preparation Mission (June 8-18, 2015) for the SVIP – 20.



Figure 7 Map from October 2016 of the adjusted SVIP Phase I-II areas



During the registration process in the area it has become clear that the traditional hierarchy with Chiefs of TAs, Group Villages Heads and Village Heads is quite dynamic, since the villages and settlements gradually expands with the growing population and very often one village turns out to be several with the same name, like Chikhambi 1, 2 and 3. In the same way the villagers themselves recognizes themselves to be part of a village group, which has not been officially gazetted and recognized by the District Council. The expanding number of village groups again has led to several appointments of a Senior Group Village Heads, which



often speaks for 4-5 GVHs. This has mostly been the case in phase 1, where the population density is higher than in phase 2.

Consequently the definition of village boundaries both clarify the actual boundaries between the various communities and gives an actualization of the traditional authorities' structure within the SVIP area.

The results from the field survey shows that 66% of the area within SVIP is customary and 34% private land, see Table 13 below. The high percentage of private land is due to the large sugarcane estates owned by Illovo and PressCane. Apart from these large companies only a couple of small private leases exist in the project area, mostly located within the village habitation areas.

Table 13 Private leasehold percentage in SVIP

	Total Area (ha)	Private leaseholds (ha)	Part of leases within SVIP (ha)	%
Phase 1	26,014	16,840	12,092	46%
Phase 2	24,750	8,506	5,298	21%
Total	50,764	25,346	17,390	34%

2.3.2 Land use results

Together with the registration of the land tenure a detailed registration of the land use was carried out, identifying settlement areas within each village or group village, areas with crops (both subsistence crops and commercial farming areas), common areas for grazing or wood collection, existing irrigation schemes, areas of special cultural and religious significance. Points of importance like schools, health clinics, graveyards, cultural sites, etc., were also registered and digitized. The cultivation areas were identified with their main crop, and any secondary crop as well.

The dominant farming system within the customary land is rain-fed subsistence farming system, where each farmer grows a mixed crop on 2-3 parcels. The results from the Socio-Economic report also shows that commercial farming in customary land outside the outgrowers' schemes are very rare. Where the communities are located close to a river, the "dambos" are used for cultivation as well. These are temporary wet-land areas, which will be flooded during the heavy rain periods and have a fertile soil. These areas are often seen as common community areas to be used by the poor and landless people. In other cases they are used for vegetable or rice production or grazing.

Livestock are mainly kept by farmers on post-harvest crop residue fields and small open-access grazing areas; only a few communal free grazing area were identified in the inventory.

Table 14 below shows the results of the land use study based on the information that was available in October 2016. The land use area covers all the potential irrigation areas. The figures differ with the Technical Feasibility Study Team (TFS) because TFS deducts a percentage of the irrigation blocks which is estimated not to be irrigated due to reasons such as elevation (too high to be covered by gravity irrigation), poor soils, etc.



Table 14 Land use in Phase 1 in hectares

Land use within the boundaries of Phase 1 (TFS boundary map of 24.10.2016)													
Phase 1	Commercial farming	Settlement areas	Subsistence crops	Common areas	Forest Areas	Grazing areas	Wet lands	Grave yards	Shrubs	Fish ponds	Total	%	Total New land
Maize	0	0	391	0	0	0	331	0	0	0	722	3%	722
Sorghum	0	0	4787	0	0	0	0	0	0	0	4787	18%	4787
Millet	0	0	1603	57	0	0	0	0	0	0	1660	6%	1660
Rice	0	0	2	0	0	0	118	0	0	0	120	0%	120
Cotton	1698	0	1024	320	0	0	0	0	0	0	3042	12%	3042
Sugarcane	14390	0	0	0	0	0	0	0	0	0	14390	55%	
Vegetables	0	0	0	0	0	0	70	0	0	0	70	0%	70
villages & other use	0	255	0	0	0	0	0	73	0	34	361	1%	
rural uncultivated	0	0	0	92	188	30	200	0	350	0	860	3%	860
Total	16088	255	7807	469	188	30	720	73	350	34	26014	100%	11262
%	62%	1%	30%	2%	1%	0%	3%	0%	1%	0%			

As seen from Table 14 above, 55% of the phase 1 area is used for sugarcane. For the remaining crop areas, the dominant farming system is a mix between predominantly maize and sorghum. The field registrations have identified the main crop within each land area, but often the crops are mixed, so maize and sorghum or pearl millet are grown in the same areas. When comparing the figures in Table 14 above with the information from the household questionnaires, there is a discrepancy for maize accounting for approximately 24% of the agricultural land use and pearl millet accounting for 31%. The figures compare better for sorghum (18%) and cotton (17%), while beans and rice only accounts for 3 and 4% of the area in the household survey. At the time of survey at the end of 2014, the technical design was still in progress and changed several times. To ensure coverage of all areas, the socio-economic baseline collected information from households in all group villages within the proposed area. Information was collected in settlements surrounding the commercial estates, but not in the commercial estates itself.

Land maps

The results of the land inventory were 3 types of maps:

- Land Use maps showing the various use of the land (subsistence or commercial farming, grazing land, etc.) and the main crop type grown.
- Land Tenure maps showing the boundaries of the Group Villages for the customary land and the private lease applications within the SVIP area
- Maps of Local Important Sites, showing graveyards, schools, religious or cultural sites, water points, etc.

The abovementioned maps have all been submitted as appendices to the Land Tenure Diagnostic and Allocation and Consolidation Strategy (LTDACS) report.



Detailed survey of Main Canal route

The location of the main canal route has undergone several adjustments during the project study period. The first detailed alignment of the canal structures were done by the TFS consultant in December 2015.

COWI carried out a detailed investigation of this alignment and discovered that a total of around 40 settlements with around 300 houses would be affected by the alignment, hereof 19 settlements in phase 1. The canal route would therefore have a serious impact on the social village structures, where settlements were divided into 2 or 3 parts and the risk of children or animals drowning would be high. We then suggested a number of adjustments to the canal line in phase 1, reducing the number of affected settlements from 19 to 6. After several discussions and field inspections the TFS consultant accepted the proposals and adjusted the canal alignment, at the same time "smoothing" it to reduce the overall length of the canal-

A detailed diagnostic study was then carried out for a 60 meter wide belt of the main canal area in phase 1 for resettlement and compensation purposes. It was built upon the methodology used earlier but provided more details, such as the location of the parcels, the current owners and users, and the main crops grown at present. In total 621 parcels and 127 buildings were registered during the process.

2.4 Summary of the Land Tenure Diagnostic and Allocation and Consolidation Strategy, Resettlement Policy Framework, and Grievance Redress Mechanism

The Integrated Field Study collected information, amongst others, on the views of and experiences with land tenure, grievance redress and resettlement, which was used to draft the Land Tenure Diagnostic and Allocation and Consolidation Strategy (LTDACS) and the Grievance Redress Mechanism (GRM) together with the Resettlement Policy Framework (RPF). The reports have earlier been submitted in draft versions and now in new final versions in January 2017.

2.4.1 Land Tenure Diagnostic and Allocation and Consolidation Strategy

When looking at the ways of establishing organisations that will be able to manage the proposed irrigation schemes, it is obvious to use some of the organizational structures already implemented and accepted within the area like the outgrowers' schemes instead of introducing new unproved systems.

An important result from the field investigations is that half of the customary land in phase 1 already is organised in existing outgrowers' schemes like Kasinthula, Phata and the newest scheme KAMA as well as couple of smaller irrigation schemes. Knowledge and perception of these schemes are in general very positive.

Table 15 Areas per zone in Phase 1 with existing irrigation schemes

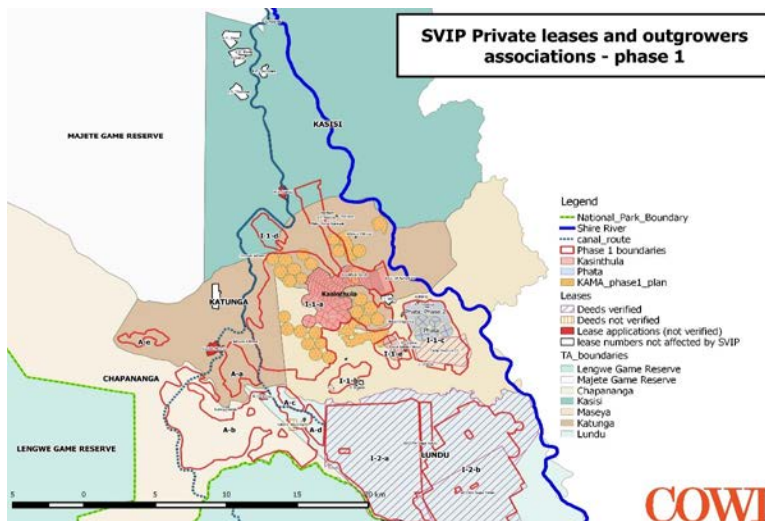


Zone	Area (has)	Existing irrigation	New to be irrigated	Comments
A-a	596			
A-b	3,936			
A-c	183			
A-d	233			
A-e	239	29		Wimwi scheme
ZONE A sub-total	5,188	29	5,159	
I-1-a	6,757	1,780		Kasinthula
I-1-b	353			
I-1-c	1,680	1,680		Phata & Sande
I-1-d	386			
I-1-e	388			
ZONE I-1 sub-total	9,564	3,460	6,104	
I-2-a	4,868	4,868		Illovo
I-2-b	6,578	6,578		Illovo
ZONE I-2 sub-total	11,446	11,446		
Total Phase 1	26,198	14,935	11,263	

The established irrigation schemes with fixed structures and executive committees can be seen in the following Figure 8.

Figure 8 Coverage Outgrowers' schemes, phase 1





Especially the first phase of the Phata cooperative has shown good profits and results in terms of cooperation and management. The KAMA cooperative has used the experiences from Phata when establishing their constitution with an elected Executive Committee, and includes the principles of size of shares in the cooperative based on the amount of land the individual farmers and how to work the land as a whole.

Taking into account that the cooperatives also are securing the right to the land by applying for a lease for the cooperative and have established detailed regulations regarding family ownership and transfer of the shares, the Phata and KAMA cooperatives are obvious models for the organization of irrigation schemes within SVIP. The results of the stakeholders' consultations show a clear preference for the Phata/KAMA model of farmer organisation, which is also an indication of the high level of acceptance of this known model.

2.4.2 Incorporating new Land Acts in SVIP

In the LTDACS report it is described how SVIP can be used as a pilot project for the implementation of the new Land Acts, with the establishment of new Land Committees and definition of Traditional Land Management Areas (TMLAs) within the SVIP area.

The first 4 Land Acts, i.e. the Land Act, the Customary Land Act, the Physical Planning Act and the Land Survey Act were signed in September 2016, and although the procedures and regulations are not yet in place, the SVIP project will create a good opportunity for the MoLHUD to investigate the various issues related to the definition of the TLMAs and Land Tribunals, the establishment of Local Land Committees at Group Village level and the establishment of customary estates.



2.5 Summary of the Gender and Youth Strategy Study

2.5.1 Introduction

Gender and Youth was integrated in the field study instruments, e.g. the household questionnaire, focus group discussions and key informant interviews, as well as stakeholders' consultations. The resulting information, together with a document review provided the input into drafting the Gender and Youth Strategy Study and, where applicable, in other reports.

The Gender and Youth Strategy Study is based on information collected from stakeholders and key informants. Draft Gender and Youth Strategy Study and Guidelines were submitted on the 22nd of September 2015, mainly for the guidelines part because field data were not yet collected by that date. However, the comments received were mainly on the strategy part. The main comment was to integrate data into the report. Result of the integrated field study was available in the first quarter of 2016 and the revised Gender and Youth Strategy Study and Guidelines was submitted the 6th of May 2016. The fourth version was submitted on the 1st of March 2017.

Gender and youth were mainstreamed throughout the assignment. For example:

- Separate meetings were held with adult men, adult women, young men and young women during the consultations to obtain the views of the stakeholders.
- Gender and youth were represented in the SVIP District Task Force of Chikwawa, in the National SVIP Task Force, in stakeholders' meetings, joint missions, etc.
- Gender and youth was part of all training.

In the reports, the resulting information are disaggregated to gender and age where relevant.

2.5.2 Summary of the Gender and Youth Strategy

The purpose of the Gender and Youth Strategy and Guidelines for the SVIP is to enhance development effectiveness of the project by: (i) identifying project specific gender and youth dimensions and (ii) mainstreaming measures in the project planning and implementation to ensure gender and youth equity, sensitivity and inclusiveness. It has been developed through a mix of methods involving four interrelated data collection methods: review of documents and policies; key informant and focus group discussions with community members in the SVIP impact area; baseline household survey and national and district level individual in-depth interviews involving key stakeholders of the project.

The Constitution of Malawi upholds the principle of equal rights for men and women and prohibits discrimination. Malawi is also a signatory to the major international conventions on human rights, gender and youth. Gender and youth is also integrated in the Malawi Growth and Development Strategy, and has a National Gender and Youth Strategic Plan as well as a Youth Policy and Agricultural Sector Gender, HIV and AIDS Strategy.

Malawi has a low human development ranking and a relative high Gender Equality Index that measures reproductive health, empowerment and economic activity. Despite the relatively high



ranking, women are marginalised in many spheres of social, economic and decision-making positions. Malawi has not met Millennium Development Goal (MDG) 2, for universal primary education, MDG 3 on gender equality and women's empowerment²⁵ and MDG 5 on improving maternal health²⁶.

The strategy study has identified gender and youth issues related to:

- Education and literacy. Literacy and education rates of women are considerably lower than those of men, especially of the population above 35 years of age.
- Access to and control over land is dominated by adult males over 35, also in matrilineal societies.
- Labour is the major input in most of the agricultural activities in Malawi (GoM, 2012) as well as in the SVIP impact area. The third integrated household survey showed that 94% of the cultivated plots used women to provide labour while a quarter of the cultivated plots reported to have used children in cultivating their plots. Only 23% reported to have hired their labour input.
- It has been reported that while a husband and wife may work equally on the farm, the man enjoys more benefits, especially income from the produce sold. The man takes control of all income from crop sales. This was confirmed by stakeholders interviewed in the SVIP impact area.
- Women are generally not able to irrigate at night owing to security concerns and during the day may face other time limitations. This reduces their productivity. It has been reported that when women are owners of the farm and have adequate resources to manage it, their productivity tends to be higher than or at least equal to that of men.
- Resettlement. Experience shows that women and youth often lose out in resettlement and reallocation processes, especially when they are poor because they do not have sufficient power to attain their rights.
- Access to economic assets, credit and finance. Fewer high value assets and lower value assets are owned by female headed compared to male headed households. Access to credit is problematic for the poor. Only 4.2% of the household respondents obtained a loan in the last year, 3.6% of the female headed and 7.1% of the male headed households. Fewer female (8.0%) than male (15.9%) headed households had a bank account in the SVIP survey.
- Decision-making at household level. Often women are only allowed to make decisions on small and daily purchases for household needs. Decisions on large investments related purchases and important issues affecting the household are made by men. Results of the

²⁵2010 Malawi Millennium Development Goals Report

²⁶GoM, 2014, Ministry of Gender, Children and Community Development, Draft National Plan of Action to Combat Gender-Based Violence in Malawi, 2014 – 2020, Private Bag 330, Lilongwe 3



household survey show that married women made fewer decisions on their own compared with female headed households, while children generally did not make decision on most household activities. Generally the man takes control of all income from crop sales. This was confirmed by stakeholders interviewed in the SVIP impact area.

- Agricultural labour. The third integrated household survey showed that 94% of the cultivated plots used women to provide labour while a quarter used children in cultivating their plots. Only 23% reported to have hired their labour input.
- Poverty, food and income security. Using the Progress out of Poverty Index (PBM definition), the household survey conducted in the SVIP impact area found that 58.7% of households were likely to be living below the old poverty line of \$1.25/day, which is higher than the national average of 50.7%, with 55.8% and 62.0% respectively for Phase One (Chikwawa) and Phase Two (Nsanje). Not surprising, more female headed households (61.4%) were likely to live below the poverty line compared with male headed households (58.1%).
- Participation in water management and gender and youth mainstreaming capacity. Participation of women and youths in institutions which govern the water sector is often limited. Because few women formally own land and their literacy levels are low, their participation and representation in WUAs are normally low.

The activities identified cover both Phase 1 and 2 of the SVIP. In order to address the issues identified, the strategy has identified priority actions and implementers, both internal and external stakeholders will play critical roles in ensuring that these gender and youth guidelines and activities are implemented. For the mitigation measures reference is made to section 10.7

The strategy has proposed that at national level, the Ministry of Agriculture, Water and Irrigation Development and Irrigation (MoAIWD), will provide overall policy and technical guidance for the design and implementation of the programme. It will ensure that such guidance incorporates gender issues that have been identified and included in this strategy. The Ministry will ensure that planners involved in the project have requisite gender analysis skills and utilise gender lens in designing the scheme. The Ministry will work closely with the Ministry of Gender, Community Development and Children Affairs to ensure that gender issues are implemented and reported in a coordinated way. At district level, the District Executive Committee will appoint a SVIP committee, which will oversee implementation of the gender and youth interventions as prioritised in the strategy. At community level, water management entities created through the SVIP will ensure that a certain minimum percentage of women and youths are involved and benefit from the programme equally with men. They will implement affirmative actions on areas where gender gaps are identified. Contractors and consultants will ensure that women, youth and other vulnerable groups are consulted regularly through systematic processes and their views reflected in irrigation designs and specifications.



3 Policy and Legal Framework

Policy and legal framework on resettlement in Malawi is drawn from the Constitution of Republic of Malawi, Malawi National Land Policy and various pieces of legislation, which include the current acts and the newly passed acts.

The following paragraphs highlight the resettlement related requirements, which should be adhered by the SVIP.

3.1 Constitution of Malawi

The 1994 Malawi Constitution provides a number of safeguards and directives regarding the manner in which property rights and resettlement should be managed, since these affect human rights and welfare of the people of Malawi²⁷. Section 28 of the Malawi Constitution provides for the right to property and prohibits arbitrary deprivation of any person's property whether by a public or private entity. Section 29 gives every person the right to pursue economic activity or livelihood anywhere in Malawi. These provisions are complimented by the right to development, stipulated under section 30 of the Constitution. In particular, this provision imposes a duty on the state to protect and facilitate the realisation of social, cultural, economic and political development. In this regard, the state is required to take measures to ensure the realisation of the right to development, including facilitating "equality of opportunity for all in their access to basic resources, education, health services, food, shelter, employment and infrastructure"²⁸. Further, the state is required "to introduce reforms aimed at eradicating social injustices and inequalities"²⁹. Section 44(4) of the Constitution states that "Expropriation of property shall be permissible only when done for public utility and only when there has been adequate notification and appropriate compensation provided that there shall always be a right to appeal to a court of law".

These provisions have important implications for the policy and practice of resettlement in Malawi. In the first place, the Constitution prohibits arbitrary taking of property. Hence, even in cases where legislation, such as the Land Acquisition Act, the Public Roads Act or the Electricity Act, provide for land to be acquired for public purposes such as infrastructure, the Constitution demands not only fairness and due process³⁰, but also requires that appropriate

²⁷ The right to dignity accorded to every Malawian in section 19 of the Constitution requires that those exercising property expropriation must treat affected invidiously and families with requisite and dignity. In addition, persons exercising political and legal authority are required to do so in the interest of the people of Malawian and recognise and protect the rights and interests of women, children and other minorities, as provided for in sections 12 and 13 of the Constitution.

²⁸ Section 30 (2) of the Constitution

²⁹ Section 30 (3) of the Constitution

³⁰ Section 43 provides that every person shall have the right to: a) lawful and procedurally fair administrative action, which is justifiable in relation to reasons given where his or her rights, freedoms, legitimate expectations or interests are affected or threatened; and b) be furnished with reasons in writing for administrative action where his or her rights, freedoms, legitimate expectations or interests if those interests are known.



compensation be made to those affected. Section 44 (4) of the Constitution makes this very clear as noted at the end of the first paragraph of this section.

Secondly, as stipulated in section 30, the Constitution requires that any resettlement of individuals or communities must respect social, economic, cultural and political interests of those affected. Thus, resettlement policy must address not only issues of livelihoods, but the overall bundle of social economic rights that enables affected communities live meaningful and fulfilling lives in accordance with their cultural and political context. Relocations that fundamentally disrupt these cultural and political interests may therefore be subject to challenge.

3.2 Malawi Development and Growth Strategy

The Malawi Growth and Development Strategy II (MGDS II) is the overarching medium term strategy for Malawi designed to attain long term development aspirations for the country. It is the reference document for all stakeholders on broad thematic areas and key priority areas, which are carefully selected to sustain and accelerate economic growth within the available resources. The thematic areas are: social development; social support and disaster risk management; infrastructure development; governance; and gender and capacity development. The thematic areas are further split into key development areas, namely: agriculture and food security; transport infrastructure; energy, industrial development, mining and tourism; education, science and technology; public health, sanitation, malaria and HIV and AIDS management; integrated rural development and empowerment; and climate change, natural resources and environmental management.

3.3 The Malawi National Land Policy

The Malawi National Land Policy recognises land as a basic resource for social and economic development in Malawi. To achieve this, the policy guarantees full legal protection of customary land tenure to the people of Malawi. Malawians regard access to land as a fundamental right. In line with this, Section 4.11 of the policy affirms equitable access to land to all citizens of Malawi. In line with Section 28 of the Malawi Constitution, the policy provides for the right to property and prohibits arbitrary deprivation of any person's property whether by a public or private entity, the Malawi National Land Policy states that "*compensation valuation for customary land, at the time of acquisition by the Government, should be based on the open market value of the land and all improvements on the land*"³¹. On relocation of displaced people, the policy advocates adequate consultations between the District Commissioner's office, Traditional Authorities and the affected people so that their interests are taken care of. Details on the consultation process are provided in subsequent sections. The policy advocates adequate consultations with the affected people so that their interests are taken care of.

³¹ See Section 4.16.2



3.4 Legal framework

Land related laws are in the process of being changed. Land Act, 2016, Customary Land Act, 2016, Land Survey Act, 2016, the Lands Acquisition (Amendment) Act, 2016, Physical Planning Act, 2016, Land Survey Act, 2016, the Forestry (Amendment) Act, 2016, Malawi Housing Corporation (Amendment) (No.2) Act, 2016, Registered Land (Amendment) Act, 2016, Public Roads (Amendment) Act, 2016 and Local Government (Amendment) Act, 2016 have been assented into law but are not yet operational. They shall come into operation on a date appointed by the Minister for Lands, Housing and Urban Development by notice in the Gazette

The Ministry of Lands, Housing and Urban Development is currently preparing the regulations for the implementation of the new laws.

It is expected that the new laws will be operational on a pilot basis (See section 10.11) by the time the SVIP will be implemented.

3.4.1 The Land Related Laws

The new Land related laws have been passed by parliament and assented into law by the President. Table below provides a brief overview of the differences between the old and new Land related Laws The Ministry of Lands, Housing and Urban Development is currently preparing the regulations for the implementation that will be piloted before the effective date is gazetted. Table 16 below provides a brief overview of the differences between the old and new Land related Laws.

Table 16 Overview of Land Act of 1965 and Land Acts of 2016

Land Act Cap.57:01 (1965)	Land Act 2016	Customary Land Act 2016	Comments
Vests land into the President into perpetuity	Vest land into the Republic in perpetuity		
Divides land into: <ul style="list-style-type: none"> Public Land Customary Land Private Land 	Divides land into: <ul style="list-style-type: none"> Public Land Private Land 		Customary land is registered as private land apart from unallocated customary land, which is public land
Chiefs have delegated powers from the President through the MoLHUD to administer customary land according to		Customary Land Committees have the delegated powers to manage the customary land but require chief's approval.	Improves fairness and transparency of land allocation



prevailing customs in the area			
Land appeals are heard by the next level of chief and ultimately the court		Appeals are addressed by the Land Tribunal	
Customary land cannot be registered		Establishes: <ul style="list-style-type: none"> • Traditional Land Management Areas at chief level • Customary land can be registered individually or as customary estates 	Strengthens land security rights
Minister Responsible for Land Matters can allow anybody to lease customary land even without prior written consent of the Chief.			This means that the Minister can easily abuse his powers.
Compensation is only made for improvements on the land not for the land itself		Compensation is made for land itself as well as the developments on the land	Puts value on land, which can be used, among other, for collateral
Does not forbid to grant freehold title	Freehold land cannot be granted to any persons although persons with such land will maintain their status quo		
	Allocates land for investment purposes to the Malawi Trade and Investment Centre Ltd		

3.4.1.1 The Land Act Cap.57:01 (1965)

The Land Act Cap.57:01 (1965), mainly deals with issues of land tenure, land transfer, land use and compensation. It recognizes that every person has a natural dependency on land and that it is therefore important that Government provides for secure tenure and equitable access to land as a means of achieving socio-economic development. Among other provisions, the Act divides land into three categories namely, public land, customary land and private land;



does not explicitly prohibit granting of freehold title to any person; chiefs have delegated powers from the Minister responsible for land matters to administer customary land according to prevailing customs of the area. Section 8 of the Act vests all public and customary land in the President in perpetuity. Section 26 of the Land Act empowers the Minister Responsible for Land Matters to allow anybody to lease customary land even without prior written consent of the Chief. This means that the Minister can easily abuse his powers. The Land Act Cap.57:01 (1965) does not provide for registration of customary land as private land thus compromising land tenure security.

The Land Act Cap.57:01 (1965) does not provide for payment of compensation in respect of customary land compulsorily acquired under the Lands Acquisition Act (58:04), compensation is only made for the improvements on the land and not for the land itself; thus many customary rights holder were negatively impacted with compulsory customary land acquisitions. However, since when the Malawi National Land Policy was adopted in 2002, customary land has been compensated whenever it is acquired in the public interest or for private investments.

3.4.1.2 The Land Act (2016)

The Land Act, 2016, is the principal act with respect to land administration and management in Malawi and for all matters relating to land such as land tenure, land transfer, land use and compensation. The Act vests all land in the Republic in perpetuity, as opposed to the President as was the case with the repealed Land Act (Cap 57:01). Section 9 of the Land Act, 2016 provides that freehold land shall not be allocated or granted to any person although persons with such land will maintain their status quo. The Act has two categories of land, which are public land and private land. Section 7(2) classifies Public land as Government land and unallocated customary land while Section 7(3) classifies private land as freehold, leasehold or customary estate.

Section 18 of the Land Act, 2016 provides for reasonable compensation to individuals for loss, damage or disturbance.

Section 19 of the Land Act, 2016 provides that nothing in this Act shall be construed as preventing the registration of customary land under the Registered Land Act as private land. As such the customary estates which will be created under the Customary Land Act, 2016 will be registered under the Registered Land (Amendment) Act, 2016 once the same passes into law. This will ensure tenure security and enhance investment on the land.

Another important provision in the Act is allocation of land for investment purposes to the Malawi Investment and Trade Centre Limited.

It recognizes that every person has a natural dependency on land and that it is therefore important that Government provides for secure tenure and equitable access to land as a means of achieving socio-economic development.

3.4.2 Registered Land (Amendment) Act, 2016

The Act seeks to amend the Registered Land Act, Cap 58:01, in order to align the Act with the Malawi National Land Policy in accordance with the recommendations of the Law



Commission on the Review of the Land Related Laws. The Act therefore incorporates provisions to provide for title registration throughout the country for all land categories, including customary estates. The Act also takes into account the move to decentralise land management.

In accordance with the Land Policy, all land shall be subjected to registration for purposes of determination of ownership. Registration districts shall now be decentralised and reliance will no longer be placed on the Minister to declare registration districts. Among other things, land registers shall indicate the class of land that is registered.

In order to prevent the unwise disposition of customary land converted to private land, the Act provides for that the consent of local lands committees be obtained in the dealings with customary land in place of the Local Land Boards which the now repealed Local Lands Boards Act provides for.

The age of majority for accessing private land has been reduced from twenty one to eighteen taking into account the fact that people in rural areas marry at a young age.

The Act affords protection to beneficiaries of land held on a trust and subjects land held on trust to any unregistered liabilities and such persons having claim on land shall be deemed to have notice of the trust.

The ownership of family land has been done away in accordance with the Land Policy and sections of the Act have been repealed accordingly.

Public land shall not be acquired, nor easements or profits therein be acquired by prescription. Fines for commission of offences, which were on the lower side, have been enhanced in order to take into account of the prevailing economic situation in Malawi.

3.4.2 The Customary Land Act (2016)

Customary law exists where actors consider long-established legal rules and practices as law. In Malawi, where these rules and practices vary between communities, the local customary law defines the land rights of members. Customary land is, therefore, the lands occupied and used by members of a community who live under customary law. Customary land, however, is not communal land. Most customary land is divided into pieces allocated for the use of individuals and their families. Rights to this land are usually well defined, often for exclusive use (with some exceptions), and transmissible,³² but do not extend to transfer for value (money) or outside of the community, although, in practice, sale of customary land does occur. Customary land obligations often include allowing open access to post-harvest land for common grazing.

The Customary Land Act, 2016 is the main act in customary land administration and management in Malawi. The Act establishes “*customary estates*”, which is customary land owned, held or occupied as private land within a traditional land management area and which is registered as private land under the Registered Land Act. As such, customary land will no longer be treated as valueless commodity, but will be given equal value as any privately owned land such as leasehold or freehold.

In terms of operation, the Customary Land Act 2016 creates customary land committees (CLCs) at group village headman (GVH) level to manage land within a Traditional Land management Area (TLMA). The CLC will be chaired by a GVH and will have six elected

³² Transferable by process of law, usually through inheritance.



members from the community, three of which will be women. In discharging its duties the CLC shall, among other, have regard for the principle of sustainable development and the relationship between land use, natural resources and the environment contiguous to the customary land; seek and consider views of other local government authorities having jurisdiction in the TLMA; and not allocate land or grant a customary estate without the prior approval of the relevant Traditional Authority. Local government authorities shall provide advice and guidance based on the same being originating from the Commissioner of Lands. Local government authorities will oversee the operations of the CLCs.

Land dispute resolution under the Customary Land Act, 2016 will be through land tribunals. These will be Customary Land Tribunal at traditional Authority level (to be chaired by the TA for TLMA), District Land Tribunal (to be chaired by the District Commissioner) and Central Land Board (to be presided a Resident Magistrate). The Act prescribes the minimum number of women to serve in each land tribunal. If the complainant is not satisfied with a decision of a land tribunal, he or she can appeal to the next level or the high court.

The Customary Land Act, 2016 was passed in Parliament in the beginning of July 2016 and assented to by the president in the middle of September 2016. The Customary Land Act has now become the law, but the regulations for the implementations and an effective date have not been published yet. The old laws apply in the transition period.

3.4.3 The Land Acquisition Act (1971)

The Lands Acquisition Act (Cap 58:04) covers procedures relating to the acquisition of land by either the government or individuals or developers from any form of the land tenure systems (customary or private) in Malawi. The act makes provision for preliminary investigation, preliminary survey of the area, and the procedure to be followed where land should be acquired. The Land Acquisition Act gives power to the Minister responsible for land matters to acquire land where (s)he considers this is in the interest of Malawians³³. In addition, the Minister is given power to enter any land earmarked for acquisition, without notice, unless there is a building or an enclosure in which case seven days' notice shall be given³⁴. Section 5 makes provision for the procedure to be followed when acquiring land in accordance with the Act. A notice must be published in the Gazette and served on affected persons; and the notice must state the period upon whose expiry the affected persons must yield possession³⁵. In addition, sections 9 and 10 of the Act covers the steps for assessment of land, crops, fruits and other landed properties and subsequent procedures for payments of the compensations to the displaced people. The Act gives mandate to the Minister to assess for compensation³⁶.

Section 11 to 14 outlines the necessary steps for land surveying and land transfer following notices in government gazette. The responsibility of identifying alternative land for those affected people rests with their village headman, their traditional authority and District

33 Section 3 of the Land Acquisition Act

34 Section 4 of the Land Acquisition Act

35 Section 6 of the Land Acquisition Act

36 Section 10 of the Land Acquisition Act



Commissioner of the district. The District Commissioner assists in transportation and provisions of necessary services on new sites of resettlement.

3.4.4 Lands Acquisition (Amendment) Act 2016

The Lands Acquisition (Amendment) Act 2016, is a principal Act that empowers the Minister to acquire land in the interest of Malawians.

Section 9 (1) provides that where any land is acquired by the Minister or a local government authority, as the case may be, under this Act the Minister or local government authority shall pay in respect thereof appropriate compensation agreed or determined in accordance with the provisions of this Act. Section 9 (2) provides that any compensation payable under this section shall be paid in one lump sum and section 10 (1) provides that unless otherwise agreed between parties, appropriate compensation shall be assessed by an independent valuer appointed by the Minister.

3.5 The Town and Country Planning Act (1988)

The Town and Country Planning Act, is a principal act for regulating land use planning and physical developments in Malawi. The aims of regulating land uses and location of physical developments are: a) to enhance orderly spatial physical growth of human settlements activities; b) to enhance optimum use of land and service infrastructures; and c) to protect and conserve fragile environmental systems in space. These objectives are achieved by guiding physical developments, and controlling building uses in designated zones with regulated planning permissions. Section 40 basically prescribes environmental and socio-economic screening for medium to large scale development projects before they can be granted planning permissions under this Act. Normally this screening is undertaken by local councils and developers of proposed large projects before they can be sanctioned under this act.

The Town and Country Planning Act recognize the need of appropriate compensations to land owners in case of compulsory acquisition of land for public interest (sections 63-65). This is in line with the provisions in the Malawi Constitution and the Malawi National Land Policy.

3.5.1 The Physical Planning Act (2016)

The Physical Planning Act, 2016 is a principal act for regulating land use planning and physical developments in Malawi both in rural and urban areas. The Act reaffirms the Malawi Land Policy Recommendation of declaring the whole Malawi a "planning area". The aims of regulating land uses and location of physical developments are: a) to enhance orderly spatial physical growth of human settlements activities; b) to enhance optimum use of land and service infrastructures; and c) to protect and conserve fragile environmental systems. These objectives are achieved by guiding physical developments, and controlling building uses in designated zones with regulated planning permissions.



The Physical Planning Act, 2016, is holistic when dealing with physical planning; Section 24 prescribes what a National Physical Development Plan should consist of; among which are development statements, principles and background studies which among other things should cover analysis of demographic, economic, energy and environment issues, land use and land tenure. Further the Act demands that relevant authorities should consult other relevant institutions when reviewing physical plans for development..

The Physical Planning Act, 2016 recognizes the need of reasonable compensation to land owners in case of compulsory acquisition of land for public interest in accordance to section 18 of the Land Act of 2016. This is in line with the provisions in the Malawi Constitution and the Malawi National Land Policy.

Implementation of the SVIP cannot be done without technical input of physical planners. Thus application of the Physical Planning Act 2016 in the implementation of the SVIP is imperative.

3.5.2 Land Survey Act (1955)

The Land Survey Act of 1955 is a law "to make better provision for Land Surveys and the Licensing and Control of Land Surveyors and for matters incidental thereto and connected therewith." A registered licensed land surveyor is the only person who can prepare plans, diagrams or maps that are used for registration of a land title or a deed. However section 12 provides for persons other than licensed land surveyors to carry out surveys for specific uses. Any boundaries marked or demarcated by a land surveyor are lawfully established. The method and accuracy for establishing boundaries of pieces or parcels of land is not specified in the law or regulations but if measurement is made then certain procedures and precision must be applied. Therefore, boundary corners and lines may be either precisely defined by measurement (distances and directions between corners) or by reference to the monuments or markers placed or existing on the ground or by reference to adjoining land. Since colonial times, private land has traditionally been measured precisely by 'cadastral survey' although the concept of 'general boundaries' and the use of general index maps rather than detailed plans to describe land operated in areas is covered by the Registered Land Act.

3.5.3 The Land Survey Act (2016)

The Land Survey Act 2016 repeals the Land Survey Act (Cap 59:03) of 1955. The Act provides for land survey and related matter to ensure provision of better land surveys and the licensing and control of Land Surveyors. The Act also provides for establishment of Land Surveyors Registration Board and Malawi Geographical Information Council. The main function of the Land Surveyors Board is to license and oversee the conduct of Land surveyors. The Main functions of the Malawi Geographical Information Council are to register spatial data and to advise on policies and technical issues relating to spatial data development, update, management, and transfer.

A licensed land surveyor is the only person who can prepare plans, diagrams or maps that are used for registration of a land title or a deed. Any boundaries marked or demarcated by a land surveyor are lawfully established. The method and accuracy for establishing boundaries of pieces or parcels of land is not specified in the law but is to be defined in the regulations and rules. Equally the fees to be paid for surveying services shall be included in the regulations and



rules since these are reviewed periodically. For precise location of land parcel, boundary corners and lines are defined by measurement (distances and directions between corners) and referenced to the monuments or markers placed or existing on the ground or to adjoining land.

3.5.4 The Public Roads Act (1962)

The Public Roads Act (Cap 69:02) covers the management of road reserves and streets. Land acquisition and resettlement issues are outlined in part II of the Act. Section 44 provides assessment of compensations, which can be paid under this Act. Compensations cover surface and land rights of the owner or occupier of land. Section 45 provides for compensation for conversion of land into public use. In case of customary land, compensation is paid in respect to disturbance to people in terms of possible relocation, loss of land and that alternative land may not be as good as the land which has been lost. Section 49 and section 50 provide opportunities for land owners or occupiers to appeal to the High Court on grievances related to resettlement and compensations provided for in this Act.

The Public Roads Act (Amendment) 2016 is awaiting Parliament approval. The main thrust of the amendment is to align the Act with the Land Act, 2016 and the Customary Land Act, 2016 among others.

3.5.5 The Water Resources Act No.2 of 2013

Water Resources Act No. 2 of 2013 is the principal statute whose objective is to promote the rational management and use of the water resources of Malawi through, among others, the progressive introduction and application of appropriate standards and techniques for the investigation, use, control, protection, management and administration of water resources by government agents and the general public. The Act establishes a National Water Resources Authority, whose powers and functions include; (a) to develop principles, guidelines and procedures for the allocation of water resources; (b) to monitor, and from time to time reassess, the National Water Policy and the National Water Resources Master Plan; (c) to receive and determine applications for permits for water use; (d) to monitor and enforce conditions attached to permits for water use; (e) to regulate and protect water resources quality from adverse impacts and to manage and protect water catchments, among others. All these are designed to ensure sustainable use of the water resource. Further, the National Water Resources Board regulates the locations of dams in order to minimise risks and conflicts among users of “dambo” land and water resources.

3.5.6 The Forest Act (1997)

The Forestry Act number 11 of 1997 affirms the role of Department of Forestry on control, protection and management of forest reserves and protected forest areas. In addition, the act recognizes the need to promote participatory social forestry and empowerment of communities for conservation and management of trees within the country. In this regard, the act encourages community involvement in woodlots and management of forest reserves through co-management approaches. Section 86 of Forestry Act has provided guidelines on values/rates for sale of both indigenous trees and exotic trees. These rates are gazetted, and are reviewed



from time to time on need basis to reflect current values by authorities. The values are used to calculate compensation to people who may lose timber and fruit trees.

3.5.7 The Monuments and Relics Act (1991)

The Act stipulates the proper management and conservation of monuments that are of importance, both nationally and locally. It also provides for proper preservation of monuments in the event that there is a change in the use or development of land. This gives room for the authorities for monuments and relics to protect monuments under the provisions of the Land Act or the Lands Acquisition Act. The SVIP may pose a danger to some archaeological, cultural and spiritual sites and graveyards. Utmost care is taken to ensure that the location of the SVIP infrastructures avoids such place to the extent possible through consultations with traditional leaders in the area and government officials at national and district levels.

3.5.8 The Environment Management Act, Cap.60:02

The Environment Management Act (Cap.60:02) makes provision for the protection and management of the environment and the conservation and sustainable utilization of natural resources and for matters connected therewith and incidental thereto.

The Act provides that it shall be the duty of every person to take all necessary and appropriate measures to protect and manage the environment and to conserve natural resources and to promote sustainable utilization of natural resources in accordance with the Act and any other written law relating to the protection and management of the environment or the conservation and sustainable utilization of natural resources.

The Act provides for matters relating to:

- Environmental planning, environmental impact assessment, audit and monitoring;
- Environmental Management;
- Pollution control;
- Environmental fund;
- Offences under the Act;
- Legal proceedings;

3.6 Implementation of the New Land Related Laws

For the new land laws to be implemented they will require regulations and rules to be developed as well as the passing of enabling law, such as the Registered Land (Amendment) Act, 2016. This is critical as registration of customary estates as provided for by the Customary Land Act 2016 would not be possible without the Registered Land (Amendment) Act, 2016 passed into law. For the regulations to be relevant there is need to pilot them during the implementation of the SVIP. The EU funded project on Strengthening Land Governance is funding a pilot project on Customary Land Act 2016 in some parts of three TSs of Mzimba, Kasungu and Phalombe districts. The pilot will test the application of the Act in patrilineal and matrilineal societies as well as in an area where there was massive conversion of customary land into leasehold.



It is expected that the new laws will be effective before project effectiveness, although it is not yet sure whether implementing regulations will be in place by then as well. One goal of the project is to pilot rules and procedures for communal estates. A letter of sector policy is expected from the MLHUD, which provides for this and formalizes this arrangement, which can be grandfathered in national regulations later. This has been agreed with Minister. These are processes that will need to fall in place during project implementation.

The individual rights to land can be secured best through the new laws by registering the names and entitlements of each farmer in a customary estate. In addition, the constitutions and by-laws of the legal entity in whose name the customary estate is registered, will stipulate the entitlement of each farmer that brought land into the legal entity. In addition, the constitution and by-laws will stipulate the entitlements to land and/or compensation in case the legal entity is dissolved or does not take of as envisaged.

In case the new laws are not yet in place, land can be registered in the name of the legal entity formed by the participating farmers under the existing laws. This will provide the legal ownership of the land by the legal entity. The constitution and by-laws will stipulate the entitlements to land and/or compensation in case the legal entity is dissolved or does not take of as envisaged.

3.7 Policies of the World Bank and African Development Bank

The World Bank policies on resettlement are outlined in Operational Policy (OP 4.12); those of African Development Bank are contained in “*Involuntary Resettlement Policy*”. The overall objective is to avoid or minimize involuntary resettlement where feasible by exploring all viable alternative project designs. Further, the policy advocates and encourages community participation in planning and implementing resettlement. Where resettlement is unavoidable, the policies stipulate criteria for eligibility to compensation, resettlement and rehabilitation assistance measures to project affected persons to ensure that they are treated equitably, and that they share in the benefits of the project that involves their resettlement and that their rights to land and assets are protected. PAPs who have formal legal rights to land, leasehold land, freehold and customary/traditional rights recognized under the legal laws of Malawi; and those without formal legal rights to land at the time of the census, but have a claim to such land or assets provided that such claims are recognized under the legal or traditional laws of Malawi, are legible for land and asset compensation. However, people with no legal right or claim to the land they are occupying prior to an established cut-off date (date of original census) will only be compensated for assets and not land.

In addition the World Bank policy on resettlement stipulates those impacted persons who encroach on the project area after the cut-off date shall not be entitled to compensation, or any resettlement assistance or any other form of rehabilitation assistance.

The GoM further may use the *Voluntary Guidelines on the Responsible Tenure of Land, Fishery and Forests in the Context of National Food Security (VGGT)* as a guide. The purpose of VGGT is to serve as a reference and to provide guidance to improve the governance of tenure of land, fisheries and forests with the overarching goal of achieving food security for all people especially the marginalized ones and to support the progressive realization of the right



to adequate food in the context of national food security. By adopting the VGGT, states have committed to apply the guidelines in order to achieve the right to adequate food by improving the governance of tenure and safeguarding land rights for the benefit of vulnerable and marginalized people and communities. In addition, the VGGT call for transparent and accessible conflict resolution mechanisms. As the name suggests, application of VGGT is voluntary. However, for the application to be in harmony with national policy and legal framework, Malawi should domesticate the VGGT.

The policies and guidelines of the World Bank and AfDB (as well as the VGGT) on resettlement and of Government of Republic of Malawi have a number of common aspects in management of resettlement. For example all policies emphasise on minimisation on the extent of resettlement. Secondly, the policies recommend considerations of fair, transparent and adequate (open market) compensations to project affected persons. However, there are some gaps which exist between the policies of WB and AfDB, and the VGGT on one hand and those of Government of Republic of Malawi on the other. A detailed comparative analysis is provided in Table 17. Some selected examples:

- (a) People without formal legal rights to land or without rights that are recognizable under national law are eligible for compensation at replacement cost for their fixed assets under OP4.12. In case of Malawi, such claimants are not entitled to compensations.
- (b) Where project affected people have land-based livelihoods OP4.12 gives preference to land-for-land replacement. Such land should be equal or better in quality, and tenure arrangements to the new land should be secure. Before the adoption of the Malawi National Land Policy in 2002, compensation on land held under customary tenure was on improvement only. In practice however, donor funded projects were paying compensation for customary land.
- (c) OP4.12 clearly stipulates that the implementation of resettlement activities is linked to the implementation of the investment component of the project to ensure that displacement or restriction of access does not occur before necessary measures for resettlement are in place. For impacts covered in para. 3(a) of this policy, these measures include provision of compensation and of other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, taking of land and related assets may take place only after compensation has been paid and, where applicable, resettlement sites and moving allowances have been provided to the displaced persons.
- (d) OP4.12 stipulates that “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.” They should also be offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living.



- (e) GoM policy is that compensation given to the PAPs is sufficient to cover transportation of personal belongings to new locations. OP 4.12 requires relocation assistance beyond compensation for lost assets.
- (f) GoM policy is not to compensate renters and tenant farmers since they do not own the land. This practice is inconsistent with OP4.12 requirements.

3.7.1 Addressing the Identified Gaps

Discrepancies between policies of the WB and AfDB on the one hand and the GoM on the other, WB/AfDB policies would be applied. In this regard, suitable options to be adopted are as follows:

- (a) Compensation in form of 'land for land loss' to those who have been displaced by the main canal shall be a top priority. Cash compensation will be considered only when no viable alternative is available. Replacement land should have the same or better production potential. For monetary compensation valuation will be based on open market value consistent with the Land Act 2016, Lands Acquisition Amendment Act, 2016 and Customary Land Act 2016 and WB OP4.12.
- (b) For those PAPs who relinquish land in order to make it available for inclusion in a consolidated irrigated block, they will trade their land for shares in the project enterprise proportionate to the amount of land they have given up. The value of the land is expected to increase provided the agri-business unit is profitable. For any period between the time PAPs lose access to agricultural land and the time that the new land (i.e., consolidated farm) begins cultivation, they should be compensated for the potential productivity of that land to at least cover the lost income and lost personal consumption during that period. The transitional support those PAPs will receive are described in chapter 5.4.

For those who opt out before the irrigation blocks are formed one scenario is that they will be given similar land in the same village but outside the irrigated area, with the same productive capacity. The second scenario is safeguarded under the project through a review of the articles of constitution under the new land tenure arrangement, which should provide for an op out (not compensation, but buy out) and a fall-back in case the SOCFE or indeed the scheme fails..

- (c) Affected houses and other fixed assets, including related ancillary and utility connections will be replaced at full replacement cost.
- (d) People without formal or recognizable rights to the land they reside upon or use may nonetheless be entitled to compensation and resettlement assistance in lieu of compensation for land (as specified in the entitlement matrix) if they are in occupation at the cut-off date.
- (e) PAP's who are physically displaced from their existing residences will be provided sites to construct houses within their existing villages. According to the TAs sufficient land is available within the settlements to allocate replacement land for construction. As such provisions of basic and social amenities will not be required as PAPs would be using whatever social amenities existed in their areas.



Table 17: Summary of differences between the legal and policy framework of Malawi and the World Bank Policy on Resettlement (OP 4.12) and measures for addressing the gaps

PAP	Government of Malawi provisions	World Bank/AfDB Provision on the aspects	Appropriate measures for addressing the gaps.
Land Owner/Occupier	<ul style="list-style-type: none"> Land for land compensation preferred; Land owners can be compensated for land to money if there is no alternative land or if the offered alternative land is not economically productive. Land owners are entitled to reasonable compensation based on open market value (as provided for in the Land Act 2016 and Customary Land Act 2016) offered by government on customary land and agreed by parties Valuation of affected land can be done by government valuers or private valuers approved the Commissioner for Lands) 	<ul style="list-style-type: none"> Land for land option is recommended compensation where PAPs lose land. Replacement land should be of the same or better productive quality. Or in monetary value at open market rate if there is no alternative land or if the alternative land is not of good quality. 	<ul style="list-style-type: none"> Compensation of land for land of the same or better productive quality to PAPs will be first priority. For PAPs who may decide not to be part of the irrigation scheme, replacement land of equal or greater value than land lost to the project will be offered. Compensation of money for land at irrigated value to project affected persons in cases of lack of alternative suitable land.
	<ul style="list-style-type: none"> Payment of cash compensation based on loss or damage or destruction buildings. 	<ul style="list-style-type: none"> The policy stipulates that land owners are entitled to compensation of buildings at replacement costs and expenses on labour at current market rates. 	Buildings will be compensated at replacement costs without discounting for depreciation.



<p>Housing compound land</p>	<ul style="list-style-type: none"> On customary land compensation is for improvements on the land and not on the land itself, although customary land is in practice compensated since the adoption of the Land Policy in 2002. On private land compensation is both on the improvements and on the land itself 	<ul style="list-style-type: none"> Land for land compensation principle applies to all land regardless of status All structures and improvements should be compensated with replacement value plus labour and transport cost of materials 	<ul style="list-style-type: none"> Land for constructing dwelling and business houses will be provided by chiefs within existing villages Privately owned land and structures will be compensated at replacement value plus labour and transport cost for materials at current market rates.
<p>Owners of structures in road reserves</p>	<p>No compensation to improvements on land within road reserves in accordance with the Public Road Act, 1962</p>	<ul style="list-style-type: none"> PAPs with temporary structures or buildings are entitled to land compensation or cash compensation at full replacement costs including labour and relocation. PAPs with buildings built illegally are entitled to compensation at full replacement costs including labour costs prior to displacement. 	<ul style="list-style-type: none"> Compensation of all structures at full replacement costs prior to displacement, without taking into consideration the depreciation. . Compensation on labour costs based on gazetted government rates.
<p>Squatters</p>	<ul style="list-style-type: none"> No compensation to squatters unless they occupy the land continuously for a period of more than 12 years. 	<ul style="list-style-type: none"> Persons are entitled to compensation regardless of the legal status of their structures or occupation of the land. 	<ul style="list-style-type: none"> Compensation of all structures at full replacement costs prior to displacement.



<p>Timber and fruit trees and crops</p>	<ul style="list-style-type: none"> • Crops and fruit are compensated based on the level of production • Timber trees if proven that they were planted by claimant can be compensated 	<ul style="list-style-type: none"> • Compensated at market value • Labour input to look after fruit trees and timber trees are also compensated 	<ul style="list-style-type: none"> • Compensation should be at market value and labour input to look after the trees should equally be compensated
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4 Socio-Economic Profile of Phase 1 of the SVIP

This chapter describes the socio-economic profile of the area that will be covered by the SVIP. As part of the project preparations an integrated survey was conducted consisting of, among others, land tenure and land use survey, household questionnaire and focus group discussions. Details of these studies have been described in section 2.2 of this report. The information in this chapter is taken from this report.

4.1 Estimating the SVIP Project Area Population

The population in the SVIP project area is estimated based on the information from the national census of 2008 and triangulated with the population figures obtained from the Group Village Heads within the area. The estimated 2016 population in the project area is 223,000 people in 48,400 households. Of these 95,000 people are residing in 21,000 households in the SVIP 1 area and 128,000 people in 27,400 households in the SVIP Phase 2 area.

The percentage of population increase is calculated from the population projection tables in the Census reports of NSO for Chikwawa District and applied to the estimated 2016 population in the SVIP area. It is estimated that the 2016 population of 95,000 in the Phase 1 area will have grown to about 110,000 in 2021 when the SVIP is expected to become operational. By 2025 the population will have grown to about 125,000 and in 2030 to about 145,000.

Table 18 Estimate population and households in the SVIP area

Year	2016	2021	2025	2030
Chikwawa	549,796	638,633	720,209	834,723
Increase		16.2%	31.0%	51.8%
Population				
SVIP Total	223,000	259,126	292,130	338,514
SVIP Phase 1	95,000	110,390	124,450	144,210
SVIP Phase 2	128,000	148,736	167,680	194,304
Households				
SVIP Total	48,400	56,241	63,404	73,471
SVIP Phase 1	21,000	24,402	27,510	31,878
SVIP Phase 2	27,400	31,839	35,894	41,593

Source: Own calculations and NSO estimated percentage of population increase.

4.2 Education

In 2011 the highest level of education attained of the population aged 15 years and above in Chikwawa and Nsanje Districts and all TAs apart from three TAs in the SVIP area is lower than the national average³⁷. Three quarters of the national population did not receive any

³⁷ Source data this paragraph: IHS3, NSO, Chapter 3

education compared to 86% in Chikwawa and 84% in Nsanje Districts. The proportion of people without any education is higher than the national average in all TAs apart from TA Lundu (58%), and TA Katunga (69%). The proportion of people who attained an MSCE level is highest in the area of TA Lundu (15%) and TA Katunga (12.5%). The highest level of education attained is higher within these TAs may be due to the workforce of Illovo staying and working within these areas.

The highest level of education attained by the household heads in the project area is low. Results of the SVIP Survey show that 47% of the female headed households (FHHH) and 29% of the male headed household (MHHH) never went to school. Only 5 % of the female and 24% of the male household heads followed secondary school or higher education. The younger age groups attained a higher level of education than the older age groups of both women and men. However, the proportion of female and male household heads that passed junior high school or above remains low.

Table 19 Literacy rate of the household head by gender, age and location (percent)

Literacy rate	Never been to school	Junior primary school	Senior primary school	Junior secondary school	Senior secondary school	Higher education
TOTAL SVIP						
Total	19	27	32	9	11	1
FHHH	47	29	17	2	4	1
FHHH 19-25	14	27	45	5	9	0
FHHH 26-35	32	37	24	0	5	2
FHHH ≥36	59	27	9	3	3	0
MHHH	13	27	35	10	13	1
MHHH 19-25	7	17	42	13	19	0
MHHH 26-35	8	19	40	14	19	1
MHHH ≥36	18	34	31	7	8	1
SVIP Phase 1						
Total	17	26	32	8	14	2
FHHH	45	30	17	1	6	1
FHHH 19-25	0	33	44	0	22	0
FHHH 26-35	25	38	25	0	6	6
FHHH ≥36	55	28	12	1	4	0
MHHH	12	26	35	9	15	2
MHHH 19-25	6	23	35	12	23	0
MHHH 26-35	6	19	37	11	24	2
MHHH ≥36	16	30	34	8	8	3
SVIP Phase 2						
Total	22	28	32	10	8	8
FHHH	52	28	15	4	1	1
FHHH 19-25	25	25	42	8	0	0
FHHH 26-35	42	32	21	0	5	5
FHHH ≥36	64	27	5	5	0	0
MHHH	16	28	36	11	10	10

Literacy rate	Never been to school	Junior primary school	Senior primary school	Junior secondary school	Senior secondary school	Higher education
MHHH 19-25	8	8	53	18	13	13
MHHH 26-35	11	15	43	16	14	14
MHHH ≥ 36	20	40	27	7	6	6

Source: SVIP Household Survey 2015

The literacy rate in Chikwawa and Nsanje Districts of the population aged 15 years and above is the lowest of all districts in Malawi. Whilst the overall literacy rate of Malawians in 2011 was 65%, the literacy rate in Chikwawa District was only 47% and in Nsanje even a lower 46%³⁸. The literacy rate of men (74%) is higher compared to women (57%). The literacy rate is lower in all TAs in the SVIP area than the national average and lowest in Chapananga, Ngabu and Mbenje. The reason for being illiterate of a little more than one third of the persons in Chikwawa and Nsanje Districts is because they never went to school and of another third because they were not interested³⁹. The remaining people were not allowed to go to school, had to help at home or cited other reasons.

Of the interviewed household heads 65% was able to read and write, 26% of the female household heads and 73% of the male household heads. The proportion of younger household heads below the age 36 years that is able to read or write is higher than of those who are 36 and older. The literacy rate is 50% for female household heads aged 19-25, 34% for those aged 26-35 and 18% of those aged 36 and over. For male household heads these figures are respectively, 73%, 80% and 68%. The increasing higher literacy rate of the household heads in a decreasing age group is in line with the overall trend.

Table 20 Literacy rate of the household head by gender, age and location (percent)

Literacy rate	Total SVIP		SVIP Phase 1		SVIP Phase 2	
	Able to read or write?		Able to read or write?		Able to read or write?	
	No	No	No	Yes	No	Yes
Total	35	65	33	67	38	62
FHHH	74	26	68	32	83	17
FHHH 19-25	50	50	33	67	58	42
FHHH 26-35	66	34	50	50	79	21
FHHH ≥ 36	82	18	77	23	91	9
MHHH	27	73	26	74	28	72
MHHH 19-25	21	79	23	77	16	84
MHHH 26-35	20	80	19	81	23	77
MHHH ≥ 36	32	68	31	69	34	66

Source: SVIP Household Survey 2015

³⁸ Source data this paragraph: IHS3, NSO, Chapter 3

³⁹ What not interested contains is not specified. It might refer to all other reasons like lack of funds, having to help at home, etc. as a cover up.

4.3 Economy

4.3.1 Income and Poverty Levels

Measured by per Capita Consumption

The mean per capita expenditure in Malawi was MK 56,548 in 2011⁴⁰. This per capita expenditure was twice as high in urban than in rural areas, MK 72,469 versus MK 33,103. The poorest 20% of households spent only MK 15,161 per person per year whilst the richest spent more than 9 times as much (MK140,458) as the poorest consumption quintile, and 2.5 times as much as the 4th consumption quintile (54,770).

Table 21 below shows that the median per capita consumption is lower compared to the national figure in all TAs within SVIP area⁴¹. Chapananga has the lowest mean per capita consumption. Lundu and Katunga TAs, in which the Illovo company and estate is located, have the highest income within the two districts, indicative of the positive impact of irrigated sugar and out-grower schemes by smallholder farmers. The per capita expenditures in female households are sometimes higher and sometimes lower than in male headed households.

Table 21 Mean Annual per Capita Consumption by location and gender (MK)

Location	Male	Female	Total
Malawi			
Average			54,568
Median			32,633
Urban average			118,840
Urban median			72,469
Rural average			43,055
Rural median			33,103
CHIKWAWA DISTRICT			
Chikwawa average			26,645
Chikwawa median			20,320
Lundu	37,820	22,433	35,896
Chapananga	14,441	17,611	14,788
Maseya	23,878	30,905	25,415
Katunga	25,474	76,728	35,084
Kasisi	22,892	16,933	21,030
Ngabu	19,243	20,878	19,512
NSANJE DISTRICT			
Nsanje average			26,890
Nsanje median			21,733
S/C Mbenje	23,499	20,106	22,905

⁴⁰ Source of data in this paragraph: IHS3, NSO.

⁴¹ SVIP Phase 1 area is located within the TAs of Lundu, Maseya, Chapananga, Katunga and Kasisi. SVIP Phase 2 is located in the TAs of Ngabu and Mbenje.

Location	Male	Female	Total
Malawi			
Average			54,568
Median			32,633

Source: IHS3 2011

The poverty line was set at MK 37,002 per person per year in 2011⁴², of which MK 22,956 is expenditure on food items and MK 14,045 on non-food items. Overall 50.7% of the population of Malawi was poor in 2011 and 24.5% ultra-poor. The proportion of the population that is poor is almost three times as high in rural as in urban areas, 56.6% and 21.1% respectively. The Southern region has the largest proportion of poor, 55.5% compared to the Central Region with 44.5% and the Northern Region with 54.3% poor. The proportion of people that is ultra-poor is six and a half times as high in rural as in urban areas. It is the highest in Southern region (29.5%), followed by Northern Region (25.6%) and Central Region (18.9%). Chikwawa and Nsanje Districts have the highest incidence of poverty and ultra-poverty in Malawi.

Table 22 below shows that the incidence of poverty and ultra-poverty in TAs in Chikwawa and Nsanje Districts is higher than the national average in all TAs, apart from TA Lundu and TA Katunga, where the Illovo Company is located. Chapananga and Makhwira are the TAs with the highest proportion of poor and ultra-poor, in line with the lowest per capita expenditures.

Table 22 Proportion of incidence of poverty and ultra-poverty by background characteristics

Location	Poverty			Ultra-poverty		
	Male	Female	Total	Male	Female	Total
MALAWI			50.7			24.5
Chikwawa District			81.6			59
Nsanje District			81.2			56
SVIP Phase 1 TAs						
Lundu	38	67	42	21	67	27
Chapananga	91	86	91	60	86	63
Maseya	64	71	66	32	43	34
Katunga	54	33	50	8	33	13
Kasisi	68	70	69	36	60	44
Average in Phase 1	63	65.4	63.6	31.4	57.8	36.2
SVIP Phase 2 TAs						
Ngabu	78	71	77	59	52	58
S/C Mbenje	70	71	70	53	64	55
Average in Phase 2	74	71	73.5	56	58	56.5

Source: IHS3, NSO.

The average proportion of poor in the TAs that will be part of the SVIP Phase 1 area is 63.6% and of ultra-poor 36.2%. The level of poverty is slightly higher among females (65.4%) than among males (63%). There is a larger difference in the occurrence of ultra-poverty in females (57.8%) compared to males (31.4%).

⁴² Source of data in this paragraph: IHS3, NSO.

Measured by Progress Out Of Poverty Index

Using the Progress out of Poverty Index (PBM definition), the household survey conducted in the SVIP impact area found that 58.7% of households were likely to be living below the old poverty line of \$1.25/day, which is higher than the national average of 50.7%. The Poverty Index (PBM definition) in Phase 1 is 55.8% and 62.0% in Phase 2. Not surprising, more female headed households (61.4%) were likely to live below the poverty line compared with male headed households (58.1%). According to key informant interviews and focus group discussions, the main causes of poverty in Chikwawa and Nsanje districts is adverse weather conditions characterized by unreliable rains, floods, extreme hot weather, that affect agricultural production causing persistent hunger and poverty.

Measured by Income Out Of Income Generating Activities

The SVIP household survey collected information on the main income generating activities and income earned in the last 12 months prior to the interview conducted in the last quarter of 2015. Table 23 below shows that the average income per household is MK 73,601. The median income most households earned was MK 40,000 for all groups apart from the female headed households where most earned MK 30,000.

All households earned at least some income although for 11% this was less than MK 10,000. Female headed households earn less than male headed households. Of the female headed households 55% earned less than MK 40,000 and of the male headed households 45%. Within the two highest income groups of MK 60,000 per year or more, the proportion of the male headed was 37% as compared to the 25% of the female headed households who earned these incomes. The income patterns are the same in Phase 1 and Phase 2, also for the female and male headed households.

Table 23 Household income from all activities in the last 12 months by location and gender

Household income in the last 12 months	Total SVIP area			SVIP Phase 1		
	Total	FHHH	MHHH	Total	FHHH	MHHH
Average in MK	73,601	53,029	77,359	71,164	60,372	73,127
Median in MK	40,000	30,000	40,000	40,000	35,500	40,000
Percent of respondents per income group in Malawian Kwacha						
0	0	0	0	0	0	0
1 – 9,999	11	14	10	11	12	11
10,000 – 24,999	23	26	23	22	24	21
25,000 – 39,999	12	15	12	14	18	13
40,000 – 59,999	18	20	17	20	21	20
60,000 – 99,999	12	11	13	12	11	12
≥100,000	23	14	25	22	14	23
	100	100	100	100	100	100

Source: SVIP Household Survey 2015

Note on Comparing the different ways of measuring poverty

Poverty levels in the IHS3 are based on the per capita consumption whilst the information collected by the SVIP Household Survey income levels are based on the income earned by the total income generating activities per household in the last 12 months without the inclusion of non-cash earned income, such as home produced and consumed food. When the non-cash income is added the household income would increase.

Therefore, the figures are calculated differently and cannot be directly compared, but do give an indication. When dividing the average household income by the average household size, the annual per person income is MK 23,721 in Phase 1 and MK 27,818 in Phase 2. Within the IHS3 the average annual mean per capita consumption was MK 26,645 and in Nsanje MK 26,890. Although the areas cannot be completely compared, the levels are considered to be in the same range. When using the same calculation method on the median annual per capita income on the data of the SVIP Household Survey the annual median per person income in the SVIP area is MK 13,333. This is lower than the IHS3 data for Chikwawa (MK 21,320) and Nsanje (MK 21,733) District, which is expected without the inclusion of non-cash income.

4.3.2 Financial Inclusion and Access to Credit

In Malawi, access to credit is a luxury for poor people. The SVIP household survey found that only 4.2% of respondents had obtained a loan in the past year (2014/2015). The percentage of those who had obtained a loan was lower for the youths (2.9%) than the adults (4.8%), although overall access to loans was very poor. Fewer female headed households (3.6%) accessed loans than male headed households (7.1%). Many other studies have reported that the most common barriers for accessing credit include, but are not limited to, high interest rates, short repayment periods and requirements for collateral and past experience in business. A baseline survey for the Millennium Challenge Account in the middle Shire found that other people were afraid of getting loans for fear of losing their collateral which included land⁴³. Table 24 below shows some reasons why people do not apply for loans as reported by the IHS3. Due to low uptake on commercial loans, most enterprises do not use formal credit sources such as banks to finance their businesses.

The IHS3 found that only 8.9% of female headed households in the SVIP Districts had a bank account compared to 15.9% of male headed households. This also explains why access to financial products such as loans is quite poor. The Integrated household survey of 2012 showed that own savings from agriculture constituted the main source of initial capital for enterprises in both female and male headed households at 28% and 34% respectively. Female headed households rely more on informal lenders than male headed households, thereby subjecting women to harsh lending conditions and putting them at risk of sexual violence. About 8% of enterprises in female headed households relied on loans from family or friends for initial financing as opposed to 4% in male headed households (NSO, 2012).

⁴³ LTS International, 2012

Table 24 Main reasons for not applying for a loan by area (percent)

Reasons for not applying for a loan	Malawi	Chikwawa	Nsanje
No need	21.2	7.0	7.9
Believed would be refused	15.7	16.7	19.8
Too expensive	12.2	18.7	18.5
Too much trouble for what it's worth	14.5	15.3	14.0
Inadequate collateral	3.5	14.8	14.0
Do not like to be in debt	10.3	8.4	7.7
Do not know any lender	21.8	18.8	19.3
Others	1.0	0.4	1.0

Source: IHS3, NSO

Stakeholder interviews confirmed that access to financial services is a strong barrier to women and youth empowerment. Chikwawa district has some formal financial institutions such as banks, but their lending conditions and interests are not conducive to poor people. Most of these banks target Illovo Sugar Company and its employees, hence they operate from Nchalo as opposed to Chikwawa boma, which is the district head-quarters. It is well documented that access to bank loans is a luxury to poor people in Malawi. Hence most poor people, especially women and youths depend on own capital and other informal sources of capital. Nsanje District has only two formal banks (MSB and Opportunity Bank), but both of them do not have agricultural related financing windows. As the baseline report was being written Opportunity Bank had closed its branch in Nsanje. Businesses owned by women are less likely to be registered by government authorities compared to those operated by men. This, therefore, makes women less likely to access credit from formal banks as they would not have certificates of registration. The limited access to credit and finance means that the SVIP will have to develop a sustainable financing mechanism to enable smallholder farmers, especially women and youth, invest in irrigation, value addition or other SMEs associated with the programme.

Very few households obtained a loan from a formal bank in the six months prior to the interview (4%) and only 24% has an account with a formal bank. Male headed households more often have a bank account in a formal bank (25%) than female headed households (19%). The proportion of households with a formal bank account (8%) is much lower in the Phase 2 area than in the Phase 1 area (40%) of the SVIP. The reason for this may be the availability of a formal bank within a reasonable distance. There are formal banks in Chikwawa and Nchalo Boma, but in the Phase 2 area these are much further away. The proportion of households with a bank account is higher in the SVIP Phase 1 area than the average for Chikwawa District found in the IHS3. This may be due to the requirement for members of the farmers' organisations and employees of the companies to have a bank account with a formal bank.

55% of the households has cash savings. More male headed (68%) than female headed (54%) have cash savings. The proportion of households with cash savings is 10% higher in the Phase 1 area (70%) than in the Phase 2 area (60%).

Most people save their money at home (47%) or with a VSL/SACCO/Cooperative (45%) and few at a formal bank (6%). More households save their money at home in the Phase 1 area

(55%) as compared to the Phase 2 area (39%). The opposite is the case for saving money with the VSL/SACCO/Cooperative, 34% in the Phase 1 and 59% in the Phase 2 area.

Table 25 Proportion of households saving patterns by location and gender (percent)

Having a bank account, having savings and ways of saving money	Total SVIP area			SVIP Phase	
	Total	FHHH	MHHH	1	2
Household member has a bank account with a formal bank	24	19	25	40	8
Household member has/had a loan with a formal bank in the last six months	4	7	3	4	7
Household has cash savings	66	54	68	70	60
Household usually saves money:					
At home	47	50	47	55	39
With friends	0	0	0	0	0
Formal bank	6	2	7	9	2
VSL/SACCO/Cooperative	45	48	45	34	59
Money lender	0	0	0	0	0
Farmers' club	0	0	0	0	0
Mobile money account	1	0	1	2	0

Source: SVIP Household Survey 2015

4.3.3 Engaging in and Financing Business within the SVIP

Table 26 below shows that within the SVIP area 29% of the households are engaged in businesses, half of which are registered in the name of the adult woman and 35% in the name of the adult man. Of all the business 11% is jointly registered in both the adult men and adult woman's name. Hardly any of the businesses are registered in the name of young men and/or young women. The main source of finance in 75% of the business is own funds. Another 20% of the businesses is financed through a Village Savings and Loan Groups (VSL) or other informal group lending system.

Table 26 Percentage of respondents with business and how business is financed

	Total SVIP area			SVIP Phase	
	Total	FHHH	MHHH	1	2
HH member runs business					
Yes	29	35	28	35	21
No	71	65	72	65	79
Total	100	100	100	100	100
In whose name is business registered?					
Adult man	35	4	43	59	67
Woman	50	74	44	31	13
Jointly adult man and adult woman	11	9	12	10	20
Youth man	2	4	1	0	0

	Total SVIP area			SVIP Phase	
	Total	FHHH	MHHH	1	2
Youth woman	1	4	0	1	0
Not registered	0	0	0	0	0
Other	1	4	0	0	0
Total	100	100	100	100	100
How is business financed?					
Own funds	71	74	70	78	87
Katapila/Informal money lender	2	2	2	2	7
Family member	4	4	3	7	0
Banks	0	0	0	1	0
Microfinance programme	1	2	1	0	0
VSL and other informal group members internal loan	20	17	20	10	7
External financing	0	0	0	0	0
Other	3	0	4	1	0
Total	100	100	100	100	100

Source: SVIP Household Survey 2015

4.4 Holding Size and Composition

All male headed households in the SVIP had at least one parcel of land and women at least two. 65.6% of the households had 3 or 4 parcels. Male headed households more often had five parcels of land or more (4.8%) than female headed households (3.5%) and households heads aged over 35 more often than those younger in both the female (4.4% versus 1.8%) and male (6.1% versus 3%) headed households.

Table 27 Number of parcels per household by gender, age and location (percent)

Land holding size in hectares	Total	FHHH			MHHH		
		<=35	>35	Total	<=35	>35	Total
Total SVIP							
5+	4.6	1.8	4.4	3.5	3.0	6.1	4.8
4	29.5	26.3	30.1	28.8	26.0	32.5	29.7
3	36.1	43.9	35.4	38.2	34.9	36.2	35.7
2	27.9	28.1	30.1	29.4	33.8	22.7	27.6
1	1.9	0.0	0.0	0.0	2.2	2.4	2.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N=	989	57	113	170	361	458	819

Source: SVIP Survey 2015

Parcel sizes range from less than 0.12 ha to over 4 ha, but the majority of the parcels sizes are small. More than half of all parcels in Phase 1 (55.2%) are smaller than 0.4 ha and over three quarters less than 0.8 ha (77.5%). Almost one third (32.5%) is more than 0.4 ha and less than 0.8 ha and the remaining 12.2% is more than 0.8ha in Phase 1.

Within Phase 2 no parcels sizes larger than 3.44 ha were recorded. The proportion of parcels of 0.4 ha or less was 33.6%, which is less than in Phase 1. Just over half of the parcels (50.7%) had a size of 0.4 ha to 0.8 ha and 15.7% more than 0.8 ha and less than 3.44 ha.

Table 28 Parcel sizes in Phase 1 and Phase 2 by gender and age in percentages

Parcel size in hectares	Total	FHHH			MHHH		
		<=35	>35	Total	<=35	>35	Total
Phase 1							
0.12 or less	2.4	0.0	0.0	0.0	1.9	3.6	2.9
0.12> - 0.20	8.8	26.9	10.1	14.7	8.1	7.2	7.6
0.20> - 0.28	22.4	30.8	24.6	26.3	27.6	17.0	21.6
0.28> - 0.41	21.7	23.1	21.7	22.1	21.9	21.4	21.6
0.41> - 0.61	22.2	7.7	26.1	21.1	19.0	25.0	22.4
0.61> - 0.81	10.3	7.7	5.8	6.3	8.1	13.4	11.1
0.81> - 1.22	8.3	0.0	8.7	6.3	8.6	8.7	8.6
1.22> - 2.03	2.9	3.8	2.9	3.2	2.9	2.9	2.9
2.03> - 3.44	0.2	0.0	0.0	0.0	0.0	0.4	0.2
3.44> - 4.05	0.2	0.0	0.0	0.0	0.5	0.0	0.2
4.05 or more	0.7	0.0	0.0	0.0	1.4	0.4	0.8
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>N =</i>	26	69	95	210	276	486	581
Phase 2							
0.12 or less	0.2	0.0	0.0	0.0	0.0	0.5	0.3
0.12> - 0.20	2.9	6.5	0.0	2.7	4.6	1.6	3.0
0.20> - 0.28	9.6	19.4	15.9	17.3	12.6	3.8	7.8
0.28> - 0.41	20.8	19.4	22.7	21.3	21.2	20.3	20.7
0.41> - 0.61	29.2	35.5	27.3	30.7	34.4	24.2	28.8
0.61> - 0.81	21.6	12.9	11.4	12.0	17.9	28.6	23.7
0.81> - 1.22	11.0	3.2	13.6	9.3	7.9	14.3	11.4
1.22> - 2.03	3.9	3.2	9.1	6.7	1.3	4.9	3.3
2.03> - 3.44	0.7	0.0	0.0	0.0	0.0	1.6	0.9
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>N =</i>	31	44	75	151	182	333	408

Source: SVIP Survey 2015

The size of the land holding is less than 2 ha in 77.5% of the households in Phase 1 and 69.1% in Phase 2. The land holding is less than 0.4 ha in 7.1% of the households in Phase 1 and 6.4% in Phase 2. Only 3.4% of the households in Phase 1 and 6.9% in Phase 2 have a land holding of more than 3.44 ha.

More male than female headed households have larger land holdings. The proportion of male headed households with a larger land holding of more than 2 ha is 23.9% as compared to 15.8% of the female headed households in Phase 1.

Similarly fewer households headed by a person of 35 years or younger have land holdings of more than 2 ha for both young female (15.4%) and young male (19.5%) headed households than the female (18.2%) and male (27.2%) headed households over 35 years of age in Phase

1. The holding size of 47.3% of households is between 0.8ha and 2 ha in Phase 1. In Phase 2 this is 55.2%.

Table 29 Land Holding Sizes in Phase 1 and Phase 2 by gender and age in percentages

Land holding size in hectares	Total	FHHH			MHHH		
		<=35	>35	Total	<=35	>35	Total
Phase 1							
0.12 or less	1.9	0.0	0.0	0.0	1.4	2.9	2.3
0.20> - 0.28	1.4	0.0	0.0	0.0	1.9	1.4	1.6
0.28> - 0.41	3.8	11.5	4.3	6.3	3.3	3.3	3.3
0.41> - 0.61	12.6	34.6	13.0	18.9	16.2	7.6	11.3
0.61> - 0.81	10.5	7.7	10.1	9.5	14.8	7.6	10.7
0.81> - 1.22	20.8	23.1	27.5	26.3	20.0	19.6	19.8
1.22> - 2.03	26.5	15.4	26.1	23.2	22.9	30.4	27.2
2.03> - 3.44	16.9	3.8	13.0	10.5	12.9	22.1	18.1
3.44> - 4.05	1.5	0.0	2.9	2.1	1.4	1.4	1.4
4.05 or more	4.1	3.8	2.9	3.2	5.2	3.6	4.3
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>N</i> =	26	69	95	210	276	486	581
Phase 2							
0.28> - 0.41	1.0	0.0	0.0	0.0	1.3	1.1	1.2
0.41> - 0.61	5.4	12.9	2.3	6.7	10.6	0.5	5.1
0.61> - 0.81	7.6	12.9	11.4	12.0	8.6	4.9	6.6
0.81> - 1.22	18.4	12.9	25.0	20.0	20.5	15.9	18.0
1.22> - 2.03	36.8	45.2	34.1	38.7	35.8	36.8	36.3
2.03> - 3.44	24.0	12.9	18.2	16.0	21.9	29.1	25.8
3.44> - 4.05	3.4	0.0	4.5	2.7	1.3	5.5	3.6
4.05 or more	3.4	3.2	4.5	4.0	0.0	6.0	3.3
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>N</i> =	31	44	75	151	182	333	408

Source: SVIP Survey 2015

4.5 TAs and GVHs in the SVIP

The administrative structure in Malawi recognises regions, districts, traditional authorities and group villages. The SVIP is located in the Southern Region of Malawi. Phase 1 is located in Chikwawa District and covers the TAs of Chapananga, Kasisi, Katunga, Lundu, and Maseya. Phase 2 covers the TA of Ngabu in Chikwawa District and the STA Mbenje in Nsanje District. The land tenure and land use mapping collected information, amongst other, on the names and boundaries of the Traditional Authority and Group Village areas. The resulting maps were reviewed and verified by the TAs and the GVHs. Figure 9 below shows their location.

The District of Chikwawa request the TAs annually for the names of the TAs, the GVHs and Villages. The information in the latest available list at the District Council of 2015 differs from the information collected in the field. Group Village areas are split and GVHs and other

chiefs appointed regularly. Apart from TAs and GVHs there are Sub-Traditional Authorities (STA) and Senior Group Village Heads (SGVH). These are mostly not reflected in the District Council list.

The main canal will run from the intake through Maganga, Bwalo and Misungu and further south. Within these first three group villages there will not be any irrigated land under the SVIP. It is, however, very likely that farmers will pump water from the main canal to irrigate their land nearby. All the other group villages will benefit from the SVIP. However, the western side of the canal has a higher elevation to which water cannot be gravitated. Those people will most likely want to pump water from the canal.

Figure 9 Map of the Traditional Authorities and Group Villages in Phase 1



In the household interviews 16% of respondents reported an ongoing land dispute. These can be broken down into disputes with neighbours about overlapping rights, access or boundaries (45%), intra-family about inheritance (21%), with Village Head (25%) and with others about various issues (9%). Disputes outside the family are always taken to the traditional authority for resolution – first to the village head then the group village head and chief if necessary. Family disputes are either resolved internally (58%) or with the help of the traditional authority (33%), or by other means (8%). In case of a dispute with the Village Head the next higher level in the Traditional system will be contacted to solve the dispute. Conflict of a wider, more serious character were not revealed by the field surveys or interviews. The same proportion of conflicts over land were found in the NACAL study done by NSO.

Looking at the results from the detailed land registration of 361 hectares in the main canal line in Chapter 5, it doesn't give the same picture. Out of 696 parcels identified in the canal line, only 1 conflict was identified, which concerned a larger parcel that a person had bought from the TA and where 4 other people claimed that they have acquired each their part of the parcel by inheritance. The conflict was settled in the magistrate court in Chikwawa, but afterwards appealed to High Court by one of the 4 claimants.

4.6 Gender and Youth

A Gender and Youth Strategy and Guidelines were prepared for the project. Its purpose is to enhance development effectiveness of the project by: (i) identifying project specific gender and youth dimensions and (ii) mainstreaming measures in the project planning and implementation to ensure gender and youth equity, sensitivity and inclusiveness. It has been developed through a mix of methods involving four interrelated data collection methods: review of documents and policies; key informant and focus group discussions with community members in the SVIP impact area; baseline household survey and national and district level individual in-depth interviews involving key stakeholders of the project.

The Constitution of Malawi upholds the principle of equal rights for men and women and prohibits discrimination. Malawi is also a signatory to the major international conventions on human rights, gender and youth. Gender and youth is also integrated in the Malawi Growth and Development Strategy, and has a National Gender and Youth Strategic Plan as well as a Youth Policy and Agricultural Sector Gender, HIV and AIDS Strategy.

Malawi has a low human development ranking and a relative high Gender Equality Index that measures reproductive health, empowerment and economic activity. Despite the relatively high ranking, women are marginalised in many spheres of social, economic and decision-making positions. Malawi has not met Millennium Development Goal (MDG) 2, for universal primary education, MDG 3 on gender equality and women's empowerment⁴⁴ and MDG 5 on improving maternal health⁴⁵.

4.6.1 Gender and Youth Issues

The strategy study has identified gender and youth issues related to:

- Education and literacy. Literacy and education rates of women are considerably lower than those of men, especially of the population above 35 years of age.
- Access to and control over land is dominated by adult males over 35, also in matrilineal societies.
- Labour is the major input in most of the agricultural activities in Malawi (GoM, 2012) as well as in the SVIP impact area. The third integrated household survey showed that 94% of the cultivated plots used women to provide labour while a quarter of the cultivated plots

⁴⁴2010 Malawi Millennium Development Goals Report

⁴⁵GoM, 2014, Ministry of Gender, Children and Community Development, Draft National Plan of Action to Combat Gender-Based Violence in Malawi, 2014 – 2020, Private Bag 330, Lilongwe 3

reported to have used children in cultivating their plots. Only 23% reported to have hired their labour input.

- It has been reported that while a husband and wife may work equally on the farm, the man enjoys more benefits, especially income from the produce sold. The man takes control of all income from crop sales. This was confirmed by stakeholders interviewed in the SVIP impact area.
- Women are generally not able to irrigate at night owing to security concerns and during the day may face other time limitations. This reduces their productivity. It has been reported that when women are owners of the farm and have adequate resources to manage it, their productivity tends to be higher than or at least equal to that of men.
- Resettlement. Experience shows that women and youth often lose out in resettlement and reallocation processes, especially when they are poor because they do not have sufficient power to attain their rights.
- Access to economic assets, credit and finance. Fewer high value assets and lower value assets are owned by female headed compared to male headed households. Access to credit is problematic for the poor. Only 4.2% of the household respondents obtained a loan in the last year, 3.6% of the female headed and 7.1% of the male headed households. Fewer female (8.0%) than male (15.9%) headed households had a bank account in the SVIP survey.
- Decision-making at household level. Often women are only allowed to make decisions on small and daily purchases for household needs. Decisions on large investments related purchases and important issues affecting the household are made by men. Results of the household survey show that married women made fewer decisions on their own compared with female headed households, while children generally did not make decision on most household activities. Generally the man takes control of all income from crop sales. This was confirmed by stakeholders interviewed in the SVIP impact area.
- Agricultural labour. The third integrated household survey showed that 94% of the cultivated plots used women to provide labour while a quarter used children in cultivating their plots. Only 23% reported to have hired their labour input.
- Poverty, food and income security. Using the Progress out of Poverty Index (PPI definition), the household survey conducted in the SVIP impact area found that 58.7% of households were likely to be living below the old poverty line of \$1.25/day, which is higher than the national average of 50.7%, with 55.8% and 62.0% respectively for Phase One (Chikwawa) and Phase Two (Nsanje). Not surprising, more female headed households (61.4%) were likely to live below the poverty line compared with male headed households (58.1%).
- Participation in water management and gender and youth mainstreaming capacity. Participation of women and youths in institutions which govern the water sector is often

limited. Because few women formally own land and their literacy levels are low, their participation and representation in WUAs are normally low.

4.7 Vulnerable Groups

Vulnerable groups⁴⁶ comprises several groups such as the illiterate, the poor, people living with a disability and HIV/AIDS, age, and gender. Information of illiteracy is included in section 4.2 on Education and on Poverty in section 4.3. Available information on gender and youth is reported throughout this document where relevant and. Information on people living with a disability and HIV/AIDS is presented in this section.

4.7.1 People Living with a Disability

The National Statistical Offices defines disability as a reduced ability to undertake “activities” and “participation” resulting from functional limitations⁴⁷. During the survey people were asked if they have problems with the following: seeing, speaking, hearing, walking/climbing and/or any other problem. Anyone reporting a least one problem in the above list was classified as having a disability.

The proportion of persons living with a disability in Malawi was 3.8 percent in 2008. The proportion of persons living with a disability is higher in rural (4.1%) than in urban (2.5%) areas. The proportions in Chikwawa and Nsanje District were respectively 3.4% and 1.6%. The proportion of disability raises with age, but there is not much difference between the proportion of disability among females and males.

The literacy rate of people living with a disability aged 5 years or above is slightly lower (65%) compared to the national population (64.4%). Of women living with a disability 48% is literate compared to 59.7% of the women without a disability. For the men living with a disability the literacy rate is 62.2% compared to 69.2% of men living without a disability.

The first type of disability mentioned by the respondent was taken as the main disability. Table 30 below shows the proportion of persons living with a disability. Nsanje is the district with the highest proportion of people with problems with seeing within Malawi in 2008.

Table 30 Percentage of Persons Living with a Disability by Types of Disability and Place of Residence

Area	Type of Disability				
	Seeing	Hearing	Speaking	Walking	Other
Malawi	26.5	16.4	6.1	22.0	29.0
Urban	31.9	14.2	7.3	21.6	24.9
Rural	25.9	16.7	5.9	22.1	29.4
Southern Region	27.2	17.9	6.9	22.2	25.8
Chikwawa District	26.6	15.4	5.9	21.7	30.3
Nsanje District	31.6	15.6	6.0	22.0	24.8

⁴⁶ Information within this section on Vulnerable Groups is taken from the Census 2008, the Disability and Elderly Report and/or the Youth Report unless otherwise stated.

⁴⁷ National Census for Housing and Population 2008, Disability and Elderly Report.

Source: Census 2008

The proportion of persons having problems with seeing or walking is more prevalent in the older age groups. Hearing, speaking and other types of disabilities are mostly reported among younger age groups.

The main cause of disability is disease for all types of disability regardless of age, sex, place of residence and type of disability apart from speaking. Congenital causes were higher among the younger population. Table 31 below shows the percentage of persons living with a disability by its cause and place of residence.

Table 31 Percentage of Persons Living with a Disability by Cause of Disability and Place of Residence

Area	Cause of Disability				
	Congenital	Disease	Injury	No known	Other
Malawi	13.9	40.3	7.0	18.5	20.4
Urban	16.8	32.7	8.9	21.5	20.2
Rural	13.6	41.1	6.8	18.1	20.4
Southern Region	14.7	42.3	7.4	17.0	18.7
Chikwawa District	10.7	43.1	7.9	20.6	22.9
Nsanje District	9.8	38.9	10.0	13.5	16.9

Source: Census 2008

4.7.2 People Living with HIV/AIDS

The HIV prevalence in Malawi of adults aged 15-49 was 10.6% according to the results of the Demographic and Health Survey 2010 (DHS)⁴⁸, 12.9% in women and 10.6% in men. The prevalence of HIV is highest among women age 35-39 (24%), which is six times the rate among women aged 15-19 (4%). For men, the prevalence increases sharply from 1% among men age 15-19 to 21% among those aged 40-44, and drops thereafter. The HIV prevalence rates are higher in urban than in rural areas. The higher the consumption quintile and the higher the level of education the higher is the prevalence of HIV. The Southern Region has the highest prevalence rate of HIV of 17.6% of all three regions in Malawi.

Almost all had heard about HIV and a majority ranging from 66% to 88% knew about HIV prevention measures, such as using condoms, limiting sexual intercourse to one uninfected partner or a combination of these two and abstaining from sexual intercourse.

⁴⁸ Source data this section: DHS 2010, NSO, Chapters 13 and 14

5 Types of Losses and Entitlement to Compensation

The SVIP will affect people differently. People will lose land (owned or rented--formal or informal), houses, businesses and grazing; land, access to sources of livelihood and access to public facilities, among other. Type, nature, (permanent or temporary) and severity of loss will determine entitlement and amount of compensation.

5.1 Guiding Principles

Preliminary findings from the field indicate that displacement of people and land acquisition are likely to happen although their impacts can be minimized through careful routing of the canal. Thus, these actions will trigger OP/BP 4.12 related to involuntary displacement and land acquisition. In this respect, several overarching principles will be adopted in the implementation of the SVIP. The principles revolve around the basic tenets of the *World Bank Operational Policy on Involuntary Resettlement*, the African Development Bank's *Involuntary Resettlement Policy*, the *Voluntary Guideline on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security* and the existing policies and laws of the Government of Republic of Malawi. The principles are as follows:

- l) Involuntary resettlement and land acquisition will be avoided where feasible, or minimized, where it cannot be eliminated.
- m) This RPF applies to all PAPs regardless of the total number affected, the severity of the impact and whether or not they have legal title to the land. Informal or customary tenure is to be treated in the same manner as formal, legal titles.
- n) Where involuntary resettlement and land acquisition are unavoidable, resettlement and compensation activities will be conceived and executed as sustainable development programs, providing resources to give PAPs the opportunity to share project benefits.
- o) PAPs will be meaningfully consulted and will participate in planning and implementing of the resettlement activities.
- p) PAPs will be assisted in their efforts to ideally improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or levels prevailing prior to the beginning of the project implementation, whichever is higher.
- q) Measures to address resettlement shall ensure that project affected peoples are informed about their options and rights pertaining to resettlement, are included in the consultation process and given the opportunity to participate in the selection of technically and economically feasible alternatives. They will also be provided prompt and effective compensation at full replacement cost for losses of assets and access attributable to the project investments.
- r) Grievance mechanisms will be put in place to ensure the PAPs and the communities affected have an easy access to voice their concerns and grievances.

- s) Projected affected persons if resettled will be supported to integrate economically and socially into host communities so that adverse impacts on host communities and vice versa are minimized. To this end, appropriate patterns of social organization will be promoted and existing social and cultural institutions of PAPs will be supported to the greatest extent possible.
- t) All PAPs will be identified and recorded as early as possible, preferably at project investment identification stage, in order to protect those affected by the project and prevent an influx of illegal squatters, and other non-residents who will wish to take advantage of such benefit.
- u) Particular attention will be paid to the needs of vulnerable groups among those displaced; especially those below the poverty line, the landless, the elderly, women and children, orphans, marginalized groups and the ethnic minorities or other displaced persons who may not be protected through the Malawian law. The objective is to provide whatever additional assistance may be necessary to restore pre-project living standards.
- v) The provision of compensation and other assistance required in each of the individual RAPs must be provided to PAP's prior to the commencement of civil works or other activities under SVIP that results in their physical or economic displacement.

As noted above, care has been taken to avoid or at least minimize involuntary resettlement under SVIP to the extent possible. However, where it is unavoidable, appropriate measures to mitigate adverse impacts will be carefully planned and implemented in accordance with this document.

5.2 Types of Losses Considered

Resettlement costs are paid to Project Affected Persons (PAP) that can be defined as "persons on whom the project has a direct or indirect economic and social impact. The impact may be caused by the involuntary taking of land resulting in; a) relocation or loss of shelter; b) loss of assets or access to assets; c) loss of income sources or means of livelihood whether or not the person should move to another location; or by the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons".⁴⁹ The laws and policy framework of Malawi together with the guidelines of the World Bank, African Development Bank and FAO⁵⁰ determine what is eligible for compensation. The overview of the parameters for estimating the resettlement costs will be based on this framework.

Based on the definition of PAPs above, the following type of losses may occur for the construction of the infrastructure of the SVIP:

1. Loss of land/gardens (owned (customary) (leased) or rented, permanently or temporary) (reduction in land size)

⁴⁹ Involuntary Resettlement Sourcebook, Planning and Implementing in Development Projects. 2004 World Bank

⁵⁰ Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security. FAO 2012.

1. Loss of crops for a person/persons
2. Loss of trees for a person/persons
 - a. Forest trees
 - b. Fruit trees
3. Loss of communal grazing land
4. Loss of private residential and commercial premises and rented accommodation
5. Loss of livelihoods
6. Eviction of squatters and vendors
7. Closure/blockage of a footpath, road and/or pathways for livestock and access to natural resources permanently or temporary
8. Loss of cultural heritage sites (e.g. graveyards, ritual sites, etc.)
9. Loss of public facilities (e.g. church, borehole, communal land etc.)
10. Change of land right status and farming system (my point above, where the bundle of rights post should be comparable as the one before and there should be a fall-back mechanism to the ex-ante position).
11. Loss of habitat for wildlife and natural environment

These types of losses may be subdivided further, e.g. premises may be subdivided according to the type of structures based on the construction materials used.

5.3 Entitlements to Compensation

Table 32 below shows the various types of loss due to the construction of the infrastructure of the SVIP and the types of compensation considered in connection with resettlement and the proposed entitlements for the affected persons. In addition to the compensation for the types of losses mentioned in Table 32, there will be costs for preparing and implementing the resettlement action plan.

Table 32 Summary of entitlements for resettlement compensation per type of loss

Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
Property owners including those on customary land regulated by traditional authorities	Loss of agricultural land	<ul style="list-style-type: none"> • If the residual of the assets being taken is economically viable, the loss of land will be compensated • If the residual of the asset being taken is not economically viable, compensation and other resettlement assistance are provided as if the entire asset had been taken (OP 4.12 fn 12). This is estimated as Losing 25% of the agricultural land or moreand 	<p>Cost at full replacement value based on current market rates/values to build a similar or improved structure</p> <p>Preferably premises are constructed by the SVIP, but if this is not possible cash will be paid</p>	<p>Permanent loss</p> <ul style="list-style-type: none"> • Land for land, if possible, and if not, fully compensated at the irrigated value. • Land under private lease will be compensated in cash at market value established by the valuation committee based on current market prices for land. The value will take into account the remaining lease period • Whole size of the land holding is compensated if the total holding of the household is 2 ha or less and/or if the loss is 25% or more of the land holding 	<ul style="list-style-type: none"> • Allow sufficient time to harvest • Cash compensation for the value of trees taking the maturation into account • Valuation of perennial crops shall be based on net present value of income of the period required for newly planted trees and crops to reach production at market prices • Valuation of annual crops shall be based on the market value of income from one season's production at average prices • For temporarily affected crops compensation will be paid for the period cultivation is not possible until the time of the first harvest as well as for development of the land for crop production



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Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
		remaining with 2 ha or less ⁵¹ . <ul style="list-style-type: none"> • Lost crops, trees Lost structures		Temporary loss: <ul style="list-style-type: none"> • Cost of renting alternative land for the construction period, or, if not possible, compensation for the loss of revenue for the period the land cannot be used • Restoration of the land into the same condition as before • Crops, trees and other developments on the land as per type of loss in this table • Employment opportunities in the SVIP or elsewhere 	

⁵¹ The 2 ha are based on the size of land required to live a life out of poverty within the area.



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Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
	Loss of structures – residential premises or business	Land used for residence and assets affected. Loss of business income, loss of rental income, loss of livelihood of those affected	<p>Preferably premises are constructed by the SVIP, but if this is not possible cash will be paid</p> <p>Cost at full replacement value based on current market values/rates plus full cost of moving including:</p> <ul style="list-style-type: none"> • Outbuildings, e.g. granaries, sanitary facilities, outdoor kitchens, fences, etc. • Wells • Wastewater facilities • Utility connection • Access roads • Moving costs 	Compensate for loss of revenues until a replacement structure is constructed	<ul style="list-style-type: none"> • Full compensation for the loss of the structure and related structures, based on current replacement costs at market value/rates paid to the owner plus costs for relocation to the new home. • If premises are rented: Lump sum for loss of income from rented property to owner based on number of months per tenant. • Renter (person renting) receives a financial assistance of a lump sum of one month rent to compensate for double renting plus assistance to find a new rental house, and lump sum payment for moving.. • Loss of revenue from business will be based on



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Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
			<ul style="list-style-type: none"> • Loss of rental income • Replacement costs for non-movables if agreed with owner 		what one was making in a normal situation for the corresponding period when one is out of business. <ul style="list-style-type: none"> • Right to salvage materials without deduction from compensation
	Loss of comunity buildings	Livelihood community especially those using the community building			<ul style="list-style-type: none"> • Costs of using and, if so required, adjusting, another building for the period the community building cannot be used • If applicable, loss of revenue from business/renting will be based on what one was making in a normal situation for the corresponding period when one is out of business. • Right to salvage materials without deduction from compensation
Change of land rights and farming systems	Loss of individual customary land right	Dependency on larger agri-business unit in	None	<ul style="list-style-type: none"> • Share in gri-business unit in exchange of and to the proprtion of land 	<ul style="list-style-type: none"> • Compensation for the loss of revenue druing the period the irrigation



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Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
	Change from mostly subsistence to commercial farming systems	decision making, profits, loss of individual land rights, land speculation from outsiders		brought in. The value of the irrigated land is higher than the current land provided the agri-business is profitable. <ul style="list-style-type: none"> • Compensation for the loss of permanent land at irrigated value if the person opts out of the agri-business unit 	infrastructure is constructed for crops, forest and fruit trees, grazing land, etc. <ul style="list-style-type: none"> • Land rights to be ensured through the legal registration of land and the stipulations in the constitution and by-laws of the agri-business units whereby land will revert to the shareholders in case the agri-business collapses or is dissolved
Livestock owners	Loss of grazing land and/or access to grazing land	Longer travel times and loss of income opportunities	None	Land reallocated within same area (e.g. grazing land and/or irrigated land to grow fodder), and if not possible, animals will be moved elsewhere	<ul style="list-style-type: none"> • Those affected permanently will be allocated land within the same area and compensation in cash to develop their new parcel. This parcel can be grazing land or irrigated land to grow fodder under irrigation. • If land is not available, costs for acquiring land elsewhere and moving the animals



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Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
					<ul style="list-style-type: none"> • If land elsewhere is not available cash compensation will be paid • Construction of watering troughs for cattle are included in the technical design and tender documents • Bridges to maintain access to grazing land outside the irrigated areas is include in the technical design and tender documents • Those affected temporarily: Renting alternative grazing areas and if this is not possible cash to buy fodder for the period grazing land area is required for construction purposes and is restored to its former condition
Squatters/vendors	Loss of shelter/structure for squatters Loss of income	Loss of livelihood Loss of income	Cost at full replacement value for structure Payment of site rent at a new place	None	<ul style="list-style-type: none"> • Lump sum payment at replacement cost for erecting new shelters of the same or better quality plus a lump sum payment for



Communication, Community Participation, Land Tenure and Resettlement Policy Framework for SVIP

Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
			until the new structure is constructed with a maximum of four months		<p>moving to the new premises. They will have to right to salvage any materials without deduction in the compensation</p> <ul style="list-style-type: none"> • Permitted sufficient time for harvesting perennial crops, fruits and timber • The new premises of the vendor will be ready before moving. If this is not the case the vendors will be paid a lump sum of three months' income based on the past year's average turnover plus a lump sum for acquiring a new vending site and/or erecting a new structure
Blockaded people /those denied access to sources of livelihood	Loss of access to sources of livelihoods, e.g. markets, grazing areas, people living	Loss of access to neighbourhood and sources of income	None – loss of access should be mitigated by providing crossings over the canals at	Compensation for land required for building bridges will be compensated as per type of loss experienced as mentioned in this table	<ul style="list-style-type: none"> • Construction of bridges included in the technical design • Maintain access during the construction period included in the tender documents



Communication, Community Participation, Land Tenure and Resettlement Policy Framework for SVIP

Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
	on the other side of the canals, etc.		reasonable intervals		<ul style="list-style-type: none"> • If access during construction cannot be maintained the affected PAPs will receive a lump sum payment covering the extra costs made to circumvent the blocked route(s) • If access to grazing land cannot be maintained during construction, alternative grazing land of the same or better quality should be provided or compensation should be paid to buy fodder • When access to grazing land is permanently lost alternative grazing land of the same or better quality should be provided, or fodder should be grown on irrigated land, or compensation should be paid. • Establish cattle corridor routes for cattle owners to
		Temporary loss of access to neighbourhood and sources of income	Preferably temporary structures to maintain access during construction or compensation	Loss/blockage of access during the construction period	



Communication, Community Participation, Land Tenure and Resettlement Policy Framework for SVIP

Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
					access the grazing areas and abattoirs Lump sum payment for the blockage/loss of access during construction per week
	Loss of access to sources of livelihoods, especially for the poor who use natural resource areas as a source for food (detailed mitigations are included in the Process Framework)	Loss of access to neighbourhood and sources of income	None – loss of access should be mitigated by providing canal crossings at reasonable intervals	Compensation for land required for building bridges will be compensated as per type of loss experienced as mentioned in this table	<ul style="list-style-type: none"> None – the construction of bridges over the canals to maintain access be included in the technical design for the SVIP
		Temporary loss of access to neighbourhood and sources of income	Preferably temporary structures to maintain access during construction or compensation	Loss/blockage of access during the construction period	<ul style="list-style-type: none"> Lump sum payment for the blockage/loss of access during construction per week
Livelihood	Loss of community sense in villages skimmed or split by main canal	<ul style="list-style-type: none"> Loss of access to other part community and danger for disaggregation into separate areas 	None	<ul style="list-style-type: none"> Mitigating dangers of canal running through the community Mitigating the disaggregation into separate community areas 	<ul style="list-style-type: none"> Budget to implement livelihood restoration plan prepared by the village and approved by the SVIP Implementation Unit



Communication, Community Participation, Land Tenure and Resettlement Policy Framework for SVIP

Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
		<ul style="list-style-type: none"> • Canal may lead to loss of life 			
	Water points	<ul style="list-style-type: none"> • Longer travel time to other (safe) water points • Loss of access to safe water point 	<ul style="list-style-type: none"> • Replacement included in the technical tenders and budget for construction • Additional water points included in the tenders and budget for construction • Watering troughs for cattle included in the tenders and budget for construction 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Alternative water provided during construction period until the new water point is operational
	Livelihood restoration programme	<ul style="list-style-type: none"> • See section 5.4 above 			
Community	Loss of cultural sites with cultural value (e.g.	Loss of cultural identity	Full costs for moving cultural sites and related ceremonies, e.g.		<ul style="list-style-type: none"> • Lump sum payment for each type of cultural heritage site covering moving the site and



Communication, Community Participation, Land Tenure and Resettlement Policy Framework for SVIP

Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
	graveyards, ritual sites, etc.)		for cultural acceptance Salvaging artefacts and making records of the archaeological and cultural heritage site before constructing and/or relocating to another site		performing relating rituals as well as the caused inconvenience <ul style="list-style-type: none"> • Lump sum payment for salvaging and recording artefacts and allowing time to do so in line with the ESMP • Relocation costs for moving an archaeological or other cultural heritage site to another location as recommended by the ESIA
	Loss of public facilities (e.g. places of worship, access to water) etc.	Livelihood loss	Cost at full replacement value plus costs for equipment and moving to the new facilities	<ul style="list-style-type: none"> • Costs for materials, labour and other related costs to erect premise(s) at new location • Costs for equipment destroyed when relocating • Moving costs 	<ul style="list-style-type: none"> • Lump sum payment for erecting the new public facility (i.e. replacement cost) • Costs for replacing destroyed equipment • Lump sum payment for move to new public facility
Cultural heritage sites	No cultural ritual sites identified	Loss of physical cultural heritage			



Communication, Community Participation, Land Tenure and Resettlement Policy Framework for SVIP

Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
	Archaeological sites and graveyards	Loss of physical cultural heritage	<ul style="list-style-type: none"> • Should be avoided when possible • Sites identified in the ESMP shall undergo controlled archaeological rescue excavation and be recorded by experts in line with the procedures described in the ESIA and ESMP after an excavation permit is obtained from the Ministry of Culture responsible 	None	<ul style="list-style-type: none"> • Cost for excavated artifacts and recording of archaeological sites and artifacts found. • Artifacts to be donated to the department of archaeology for safe storage and public display at a museum • Contractors' staff to be sensitised and trained in identifying chance archaeological sites and burial places and how to handle when found • If graveyards cannot be avoided negotiate with the chiefs to move the graveyards. In that case the costs for the move and related rituals will be compensated
Majete Wildlife Reserve (all losses and	Disturbs wildlife Affects tourism levels	Impact on tourism and wildlife (mostly	<ul style="list-style-type: none"> • Replacement costs in case any 	<ul style="list-style-type: none"> • Pave road from Chikwawa to Reserve and pipeline from canal 	<ul style="list-style-type: none"> • Financial compensation to African Parks (Reserve manager) for loss of tourism



Communication, Community Participation, Land Tenure and Resettlement Policy Framework for SVIP

Category of Project Affected Persons	Type of Loss	Types of Impact	Entitlement for the Project Affected Persons		
			Compensation for loss of structure	Compensation for loss of land and other assets	Compensation for Loss of Home and Livelihood
mitigation measures included in the Environmental and Social Management Plan (ESMP)	Destroys vegetation at construction site	anticipated during temporary construction phase) Impact on flow in the Kapichira Falls	buildings are affected	to staff village to increase attractiveness of the game reserve <ul style="list-style-type: none"> • Upgraded water points to disperse animals away from construction site • Diverted road 	<ul style="list-style-type: none"> • Mobile noise barrier on construction site • Communication and advertisement on the works being carried out and increase attractiveness of game reserve • Construction of (temporary/replacement) electric fences to contain animals in reserve and away from construction site • Restore the construction site • Monitoring wildlife during construction • Fence or cover the canal within the game reserve



5.4 Livelihood and Income Restoration programme

The purpose of the Livelihood and Income Restoration Programme (LRP) is to provide a framework for mitigating and restoring livelihoods of project affected communities as early as possible. The LRP includes livelihood enhancement initiatives which will assist Project Affected Persons/Households to re-establish their livelihoods or create new ones.

The LRP aims to enable PAPs to fully restore their livelihoods and improve living standards through:

- Capacity building for more profitable and sustainable use of livelihood assets, and
- Development of alternative livelihood resources and developments.

Some elements of the LRP are already partly developed and will be developed further in the RAPs. This section describes what has been developed already and what further may be included in the livelihood restoration programme.

Pooling land together into agri-business units and support to establish viable agri-business units could be seen as part of the livelihood and income restoration and improvement programme. However, since this is an important component of the SVIP implementation it will be a separate programme and not part of the LRP forming part of this RPF. The Land Tenure Diagnostic, Allocation and Consolidation Strategy presents an assessment of the current land tenure and land use and proposes ways to pool land together into agri-business units. Stakeholders prefer to pool their land based on the experiences of Phata and Kama Cooperatives. These strategy can be found in Appendix 10. The Agricultural Development Planning Strategy presents the assessment of the value chain of potentially profitable crops that can be grown in short term and longer term. The Strategy includes an assessment of the institutions that form part of the value chain and a plan to support the establishment of viable agri-business units. This livelihood restoration support is divided into:

- Establishing agri-business units
- Agri-business investment
- Agri-business operational development
- Agri-business institutional support

1. Employment

PAPs whom are losing their land permanently or temporarily will lose all or part of their income opportunities. The livelihood restoration programme will therefore include activities to develop the skills and capacities of the affected PAPs to enter into gainful employment. Further, provide assistance for the PAPs to find employment. Farmers getting shares in irrigation blocks will also receive skills training under the project's technical assistance program.

The SVIP contracts will include clauses to employ a percentage of staff from the local communities and to provide them with training. Tender specifications will include the percentage of working days to be achieved by people recruited within walking distance of the works. Adherence to the minimum number of working days of local community members is subject to monitoring and penalty if the target is not achieved. This same clause can further

stipulate the number of men and women, youth and adults to be employed in total and in addition in leading and other positions.

2. Entrepreneurship Development Programme

PAPs losing their land may wish to enter into business. They will have the opportunity to develop their business and management skills through training and/or obtaining individual support, for example in financial administration, human resource management, developing and implementing business plans, marketing, etc.

PAPs that have to relocate their business due to the SVIP could benefit from the same business support.

The entrepreneurship Development Programme may facilitate the provision of soft loans to start up the business. Initially lower than commercial interests will be charged that will be increased annually until the commercial rates are reached. This will facilitate the transition to commercial loans.

3. Financial Literacy Programme

Experience shows that people receiving a large sum of cash may not use it for the intended purpose but instead use it on different short-term items especially when they are not used to receiving a larger sum of cash. Therefore, PAPs should be offered a household budgeting and financial management course prior to receipt of the cash compensation. Both the head of the households and his/her spouse(s) should attend the course and receive assistance to prepare their individual budget. This could be part of the course. Thereafter, the implementation of the budget will be followed up.

Providing financial literacy training for guiding and encouraging use of banking services.

4. Vulnerable Assistance Programme

A Vulnerable Assistance Programme will be developed to provide a safety net for vulnerable households. The objective is to identify, assess, support, remediate and monitor vulnerable project-affected households experiencing severe hardships, as part of the overall Livelihood Assistance Package for each household. As a result each household should have a place to live, means of income, access to medical care, and ability to feed itself. Vulnerable people may be identified through:

- The census of the areas required for SVIP infrastructure
- Community identified households receiving charity
- And other means to be identified

Criteria will be developed on which a vulnerable household and vulnerable person will be identified.

Vulnerable PAPs will be allocated a community contact person to assist them with resettlement, exchanging land for shares in the agri-business units, etc. to ensure they are receiving their rights and restore their livelihoods.

Assistance may take the following forms depending on vulnerable persons' requests and needs:

- Assistance in the compensation payment procedure. (E.g. especially explain the compensation process and procedures, make sure that documents are well understood and duly filled)
- Assistance in the post payment period to secure the compensation money and reduce risk of misuse/robbery. Additional measures such as in kind compensation in case the vulnerable household is losing residential house and/or all or a large part of their land
- Assistance with the lodging and following up on grievances if these occur
- Assistance with joining the Agri-Business Units, (e.g. Explaining the benefits, eligibility criteria, processes and procedures, making sure that documents are well understood and duly filled)
- Assistance with being a member of the Agri-business Unit (e.g. rights and responsibility of members, specifically explaining all aspects such as business plans, implementation structures and processes, financial management)
- Assistance in finding alternative income permanently or during the construction period of the infrastructure

5. Gender, Youth and Vulnerable People

The Gender and Youth Strategy Study contains an assessment of the gender and youth situation in Malawi and presents affirmative actions to be undertaken to address gender and youth issues. For example, activities ensuring women, men and youth have equal opportunities to obtain shares in the agri-business unit, are actively involved in decision making of the agri-business units and other decision making bodies.

The purpose of the Gender and Youth Strategy for the SVIP is to enhance development effectiveness of the project by: (i) identifying project specific gender and youth dimensions and (ii) mainstreaming measures in the project planning and implementation to ensure gender and youth equity, sensitivity and inclusiveness.

The strategy study identified gender and youth issues as noted previously in Section 2.5 of this report

The recommended activities for women and youth include, amongst others:

- Land redistribution & resettlement
 - Ensure that women and youth are involved so that they also benefit from the employment created, where feasible.
 - Ensure gender sensitive resettlement in terms of targeting, compensation and provision of services to new locations.
 - Include measures, such as specific indicators, approaches, empowerment, etc. to ensure that both genders, youth and the poor benefit and are treated equally with all others in the land re-allocation and resettlement and not deprived as is often the case.
 - Provide social safeguards to protect women and girls from being sexually abused
- Irrigation scheme management

- Ensure gender, youth and poverty criteria apply in the compilation irrigation management bodies and that each group is empowered and capable to attain their rights.
- Water management
 - Gender, youth and poverty is mainstreamed in all implementation mechanisms of the SVIP.
 - Address the multi-purpose water needs in the design of the SVIP, e.g. to include water supply for domestic, livestock and commercial purposes, and inclusion of all groups in the management of the water supplies.
- Monitoring and evaluation
 - Gender, youth and poverty sensitive indicators for monitoring results and impact.
 - Include gender, youth and poverty in all terms of references, staff requirements.
 - Collect disaggregated data on gender, youth and poverty and apply appropriate approaches.
- Coordination
 - Ensure both genders, youth and the poor are represented and have a voice in consultations and decision-making bodies.

The SVIP will engage an organisation that will specifically be responsible for addressing gender, youth and vulnerable groups as briefly described in section 10.6 below.

6. Health Considerations

The implementation of the SVIP will provide employment from elsewhere. Experience shows that the occurrence of Sexual Transmitted Diseases (STDs) including HIV/AIDS increase with a large influx of migrant workers and higher income levels. Therefore it is necessary to mitigate this negative impact with measures such as:

- Incorporate STDs and HIV/AIDS into all Terms of Reference, Tender Documents and Training to increase awareness of the diseases and knowledge on avoiding infection, and the importance of seeking medical assistance when infected.
- Include STDs/HIV/AIDS in all awareness campaigns

7. Programme Sustainability

Measures to ensure the sustainability of the LRP may include the following:

- Communication and community participation
- Fees and charges for the delivery of the irrigation water to the fields and for operation and maintenance of the irrigation system
- Empowering the people in the SVIP to manage their agri-business units and successfully engage in commercial irrigated agriculture and other income sources (e.g. fisheries, animal husbandry, woodlots) for sustainable and improved livelihoods.

8. Host communities

Consultations and experience from past projects in the region indicated that all or almost all PAPs can be resettled within their current village. Chiefs ascertained that PAPs can be allocated alternative land within the same village to construct new premises. However, it may be more difficult to find alternative land of the same productive quality within the village or nearby village. The number of PAPs that will be relocated to another village is nil or very low.

In case this occurs the RAP has to include procedures to identify alternative land for those PAPs either within the same community, or, if this is not possible, in another community that is preferably located nearby and with the same cultural identity.

The process to relocate PAPs and for the host communities to receive the PAPs has to be carefully managed and will include

- Community participations with involvement of resettlers and host communities.
 - Description of a strategy for consultation with and participation of resettlers and hosts in the design and implementation of the resettlement activities
 - Summary of the views expressed and how these views were taken into account in preparing the RAPs
 - A review of the resettlement alternatives presented and choices made by displaced persons regarding options available to them
 - Information on the Grievance Redress Mechanism available and assistance to lodge complaints when required
- A land availability assessment will be conducted during the RAPs preparation for those losing land and structures within the home community of the PAP and if this is not possible to identify land availability in host communities that are preferably located nearby.
- Integration with host communities will require measures to mitigate the impact on the host community, such as:
 - intensive consultations with host communities, traditional authority and local authorities
 - Arrangements of prompt tendering of any payment due to the hosts for land and other assets provided to resettlers
 - Arrangements for addressing any conflicts that may arise between resettlers and host communities
 - Any measures to augment services (e.g. education, water, health, production services) in host communities to make them at least comparable to services available to resettlers

6 Estimating and Valuing the Loss of Land in Phase 1

This chapter describes the methodology on estimating the losses and estimates the various types of losses of land of the PAPs. The results of the estimates form the basis for calculating the budget in the last section of the chapter.

The determinant of the number of project affected persons and quantities of assets lost is the location of the infrastructure of the irrigation scheme, i.e. the alignment of the main canal and feeder canal, retaining ponds for night storage, roads along the main canals, land adjacent to the infrastructure required to access the construction sites, etc.

People will have to move permanently if their assets are located within the line of the canal, night storage ponds or other infrastructure of the irrigation scheme. Another group of people have assets on land required for construction purposes, for example a stretch along the canals to construct the canal and roads alongside. Therefore, a distinction is made between permanent and temporary losses.

6.1 Assumptions

- a) The estimated loss of land is based on the information of TFS Consultant on the alignment of the main canal and main branch canals in Phase 1 of October 2016. The TFS Consultant was in the process of designing the infrastructure and the location may change slightly between October and the submission of the TFS Feasibility Consultant's final design report. However, the information is sufficiently accurate for the preparation of the RPF. Information of the TFS Consultant was obtained on:
 - a. The location of the main canal route in Phase 1.
 - b. The width of the canals and roads along the canals in Phase 1.
 - c. Type of canal alignment selected for the design.
 - d. The location and size of the irrigated areas.
 - e. The estimated land required for construction purposes along the main canals.
- b) Only the main infrastructure will trigger loss of land, i.e. the main canals and branch canals with related roads from the main canal until the irrigation blocks, and the night storage ponds. Additional land will be affected during the construction period to access the building areas. This land will not trigger loss of land but does trigger compensation for other types of losses.
- c) People whose buildings will be demolished to make way for the SVIP infrastructure will be provided land by chiefs within their settlements to replace their buildings. The land in settlements is communal land under the jurisdiction of the chief. The building density in the settlements is low so there is room for the chiefs to allocate alternative building land. Consultations with the Group Village Heads confirmed that alternative land can be

allocated within the same settlement to those whose buildings have to be demolished within the area required for SVIP infrastructure.

6.2 Estimating the Land Affected by the Main Infrastructure

6.2.1 Estimating the Area Affected by the Main Infrastructure

The Main Canal alignment is divided into 3 sub-stretches:

- The Feeder Canal from Kapichira Dam until the Group Village of Supuni of 33.7 km.
- The Bangula Canal from Supuni to Bangula of 88 km. The first 18.4 km of the Bangula Canal north of the Lengwe National Park is part of Phase 1.
- The Supuni Canal from Supuni to Illovo of 10.6 km Supuni Canal.

The layout plan of the canals and the irrigation zones is shown below in Figure 10. The canal channel will be with concrete lining and without a loop into the Mwanza River Valley.

Figure 10 Layout of canals and irrigation zones



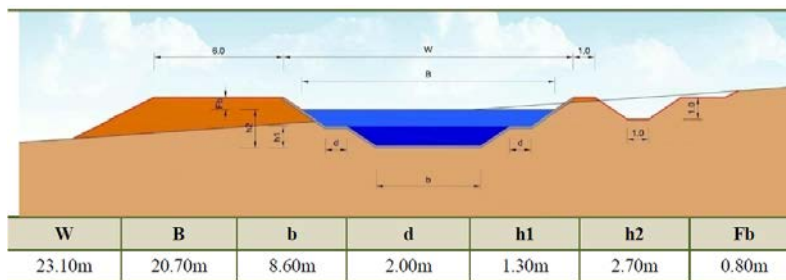
The width of the main canal for the SVIP is based on the lined canal design, which, according to the interim report, is 23.10 meters for the actual canal, and 40-45 meters overall, including the maintenance road. The total width is depending on how much slope is needed for the earthwork on both sides, see *Figure 11* below.

This width is for the main feeder canal until Supuni, while the lined canal width from Supuni until Bangula will be reduced to 17.80 meters. The total width including the roads will total 35-40, meters, including earthworks.

The Supuni canal to Illovo is estimated to be 12.10 meters wide for the lined canal itself and 25-30 meter including earthworks.

However, these figures are only indicative for the various parts of the canal on a sloped surface, and the width will be reduced gradually along the line, when the amount of water is reduced.

*Figure 11 Cross Section of Feeder canal*⁵²



Apart from the aforementioned width it is estimated that an additional 10 meters on each side will be temporarily required for construction, so the width of the various parts of the canal in Phase 1 will be assumed as shown in Table 33.

Table 33 Estimated the average width of the SVIP main canal infrastructure in meters in Phase 1

		Length (km)	Permanent width main canal (m)	Temporary width for constructing main canal	Total affected main canal width
1	Feeder Canal:	33.7	40-45	20	60-65
2	Supuni (Illovo) Canal	10.6	25-30	20	45-50
3	Bangula Canal	18.4	35-40	20	55-60

For compensation calculation purposes an average total width of the canal of 60 meters is used for the total length of the main canals in phase 1. This width of 60 meters includes 20 meters required temporarily during the construction period.

⁵² Interim Report, Technical Feasibility Study by Korea Rural Corporation Joint Venture. September 2016.

The total land area affected by the main infrastructure in Phase 1 consists of the area of the canal route plus the area required for the main branches to the irrigated areas and the night storage. The total area affected by the main infrastructure of the SVIP is 464 hectares of which 300 hectares will be required on a permanent basis and 164 ha on a temporarily basis.

Table 34 Estimated hectares of land required for the main infrastructure in Phase 1

	Feeder canal	Bangula Canal to Lengwe	Supuni Canal	TOTAL
Length in km	33.7	18.4	10.6	62.7
Width required (m):				
- permanently	40	40	40	
- temporarily	20	20	20	
Ha of land required for main canal route:				376
- permanently	135	74	42	251
- temporarily	67	37	21	125
Ha of land required for main branch canals and night storage:				88
- permanently				49
- temporarily				39
TOTAL ha of land affected				464 (100%)
- permanently				300 (65%)
- temporarily				164 (35%)

6.2.2 Land Tenure of the Area Affected by the Infrastructure

The detailed land tenure survey collected information on the type of land tenure in the main canal area, but not on the main branch canals and night storage. It is assumed that the division of the various type of land tenure in the area is the same as in the main canal area that was surveyed. Table 35 below shows the estimated number of parcels and land area for the three main types of land tenure, i.e.:

- Customary land divided into:
 - Individual/family, and
 - Communal customary land,
- Private land under lease entitlement, and
- Government land which is the area in Majete Game Reserve.

Table 35 Land Tenure in the Area Affected by the Main Infrastructure in Phase 1

Type of Land Tenure	Estimated land area	Estimated land area required for main branch	Estimated total area required for infrastructure

	required for main canals		canals and night storage				
	No. of parcels	Ha	No. of parcels	Ha	No. of parcels	Ha	%
Customary land tenure, consisting of:	616	344	158	88	774	432	93.1%
a) Individual/family	597	290	133	74	730	364	78.5
b) Community	19	54	25	14	44	68	14.6
Private land	3	17	0	0	3	17	3.7
Government land	2	15	0	0	2	15	3.2
Total	621	376	145	88	779	464	100.0

The total land area affected by the main infrastructure of the SVIP consists of various types of land tenure, some of which trigger compensation under the RPF/RAPs and some do not. Government land is public land held in trust by the Government who cannot compensate itself for the loss of land. Customary communal land is land for the general use that is governed by the traditional authorities who received their mandate from the Government. This land is also 'owned' by the government and can therefore not be compensated. Other entitlements on compensation may apply on government and community land. These are described under the relevant sections in this RPF.

Table 36 below shows the estimated land use that was identified in the detailed land tenure survey of the main canal route. It shows that 123 ha of the land area is not used. Analysing the results on the maps shows that some of this unused land is located on steep hills just outside the settlement area. This may explain why some of the land is not in use. However, this land is allocated to a person/family/entity.

Table 36 Land use in the surveyed main canal area

Land use	No. of Parcels surveyed	Belonging to no. of households	Ha	%
Crop	332	310	132.50	35.2%
Forest	36	31	24.29	6.5%
Grazing	34	32	43.91	11.7%
Settlement Area	0	0	35.22	9.4%
Game Reserve	2	0	14.95	4.0%
Not used at time of survey	214	197	122.66	32.6%
Graveyard	3	0	2.71	0.7%
Total	621	570	376.24	100.0%

Of the permanently affected 302 ha of land, 93% is customary land, of which 84% is privately held and 16% is held by the community. Table 37 below shows the estimated hectares of land to be compensated divided over customary, private and government land.

Table 37 Estimated hectares to be compensated in Phase 1

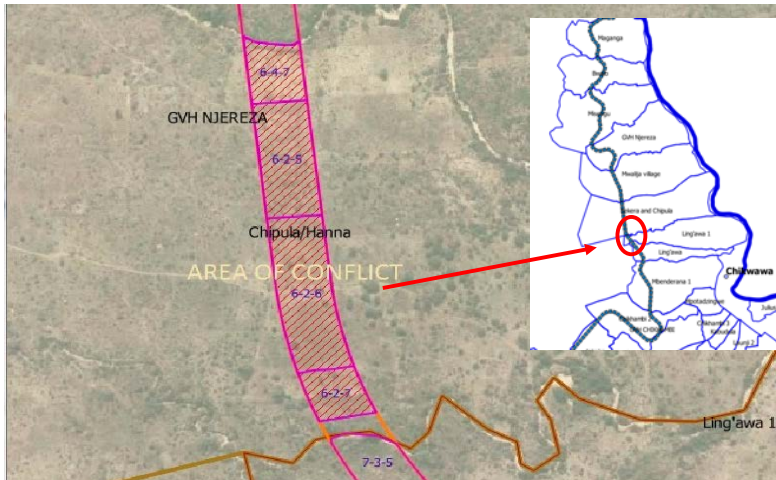
	Land area required for SVIP main infrastructure (ha)			
	Total	Permanently (65%)	Temporarily (35%)	Compensated?
Customary land tenure	432	281	151	
Individual/family	364	237	127	Yes
Community	68	44	24	No
Private land	17	11	6	Yes
Government land	15	10	5	No
Total	464	302	162	
Land area to be compensated	381	248	133	

6.2.3 Parcel Ownership Disputes

Only one conflict was discovered in the main canal area where people were claiming the same land. The conflict is in GVH NJEREZA, Segula-Chipula village, as shown in Figure 12 below.

The 4 plots of land were claimed by Witman Kabwazi, Goodson Chipula, Tonnex Goodson and Paul Gonagona, who all claimed they received the land from their parents by inheritance. The same land covering the 4 plots were also being claimed by Edmond Hanna, who bought the land in 2001 from the TA Kasisi. He brought the papers signed by the TA Kasisi. The issue was in Chikwawa magistrate court who decided that the land belongs to Mr Edmond Hanna. Mr Goodson Chipula has appealed to the High Court in Blantyre.

Figure 12 Conflict in Main Canal zone



Conflicts will have to be resolved before valuing land and assets in the RAPs process.

6.2.4 Valuing and Compensating Permanent Loss of Land

6.2.4.1 Valuing and Compensating Customary Land

The principle for compensating land is providing land of the same productive potential as the land lost. However, almost all the land in the SVIP area is allocated to a person, a family, used for settlement, etc. The remaining land is usually of low value, for example because of its low productive potential or unfavourable locations. There is, therefore, hardly any land available of the same productive capacity to replace the land lost. This has to be taken into account in determining how land should be valued and compensated as well as the following considerations:

- The high poverty rate of 63% in the TAs in which Phase 1 of the SVIP is located (See section 4.3.1). Losing land will have a large negative impact on the livelihood of the affected households.
- The results of the household survey show that 77.5% of the households have a land holding of 2 ha or less (See 4.2). Averagely 2 ha of land is required to sustain a household. Losing a (part) parcel of land will therefore have a large negative impact on the livelihood of most of the affected households.
- All households in the SVIP household survey had access to at least one parcel of land. For 3% of the households this is the only piece of land. 20% of the households have access to two parcels of land and 67% to 3 or 4. Only 10% of the households have access to 5 parcels of land or more. Although most households have one or more other parcels to sustain their livelihood, losing a (part) parcel of land does have a large impact.
- The land lost is located in the proximity of the irrigated areas. Even if the land is not part of the SVIP irrigation scheme it can easily be irrigated by pumping water out of the nearby irrigation canal. This is very likely to happen even if pumping water from the canals is not allowed.

Compensating the loss of land:

- In principle, households should be compensated with land of the same productive potential as the land lost, if available. If replacement land is not available the households will be compensated in cash.
- Households losing 25% of their land holding or less will be fully compensated in cash if they remain with more than 2 ha of land.
- The livelihood of households losing more than 25% of their land or remaining with less than 2 ha in their land holding will be severely affected. These households will be compensated for their whole land holding. This will apply to an estimated 77.5% of the households.
- The value of all the appropriated land should be based on irrigated land.

-

6.2.4.2 Valuing and Compensating Privately Leased Land

Within the SVIP Phase 1 area there are a few private leases of land. About 17 ha privately leased land will be required for the SVIP infrastructure, of which an estimated 11 ha will be permanently acquired. However, this land forms only a small portion of the whole leasehold and does not affect the livelihood of the PAPs. Therefore, privately leased land can be compensated in cash. The value of the land will be based on the market value and take into account the loss of revenue of the remaining numbers of years in the lease. During the preparation of this RPF it will be established whether the private lease is active. Verification has, therefore, to be included in the process to prepare the RAPs.

6.2.5 Valuing and Compensating Temporary Loss of Land

About 162 ha of land will be required temporarily for construction purposes. About 5 ha of this land is government land 24 ha customary communal land. The land itself will not trigger compensation, because the land is not acquired permanently and returned to the former user after the construction period in the same condition or better as before.

The tender documents, inspection forms and bill of quantities have to specifically include clauses to ensure that the temporarily acquired land is returned in the same condition or better than before. This needs to be verified by inspections and be related to contract payment. Penalties will apply if the contract specifications regarding the return of land in the same condition are not complied with. Although the land itself will not be compensated, the temporarily loss of land may trigger other compensations, e.g. loss of buildings, livelihood, etc. These are described in chapter 7 of this document.

6.3 Land in Agri-Business Units

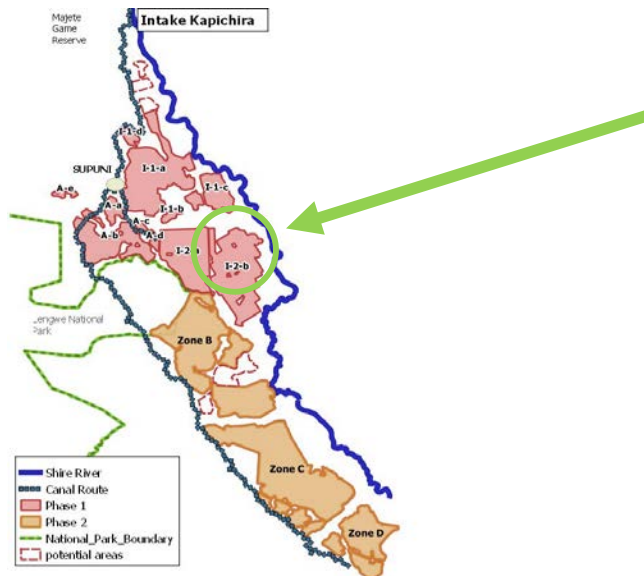
This section presents a brief description of the proposed reallocation of land in agri-business units. The Land Allocation and Consolidation Strategy is enclosed in Appendix 10. The model that will be promoted for the re-allocation of land to form agri-business units does not only take into account the land to be irrigated but also the area required for the SVIP area infrastructure. Experiences so far show that the Phata/KAMA based models work well. Therefore, these models will form the base for establishing future agri-business units.

This means that land required for the irrigation structure of the agri-business unit will be brought into the organisation and that no compensation is required.

The proposed agri-business units for SVIP irrigation can be visualised by looking at the irrigation block I-1-d of 386 hectares which is located in the north-western part of phase 1, see Figure 13 below.

Figure 13 Irrigation Zones in SVIP

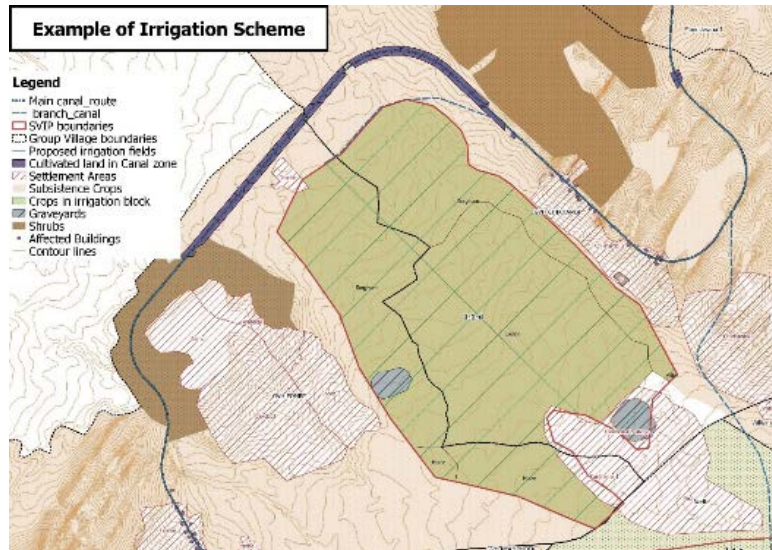
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The irrigation block I-1-d as identified by the Technical Feasibility Consultant can be seen in more detail in Figure 14 below. The area is gently sloping from the north-western part down to the village of Kanthema. It is farmland predominantly with cotton, maize and sorghum divided into smaller individual parcels, which belong to the people in the nearby villages Chikhambi 2, Pendekali, Jakobo 1 and 2 and Kanthema 1 and 2.

The Main Canal route runs along the contour lines around a little hill north of Chikhambi 2 and then continues through the farmland north and northwest of the irrigation scheme with a branch canal going into the scheme, before it continues around the hill containing the villages of Semu and Pendekali. In the detailed land inventory for the main canal it was found that around 3 km of the canal zone was cultivated in a width of 60 metre (40 metre canal + 20 metre temporary land), covering around **16 hectares**, divided into 33 parcels. The remaining main canal adjacent to the irrigation block is not cultivated and consists mostly of shrubs and small trees. Between the canal and the proposed irrigation blocks there is a 250-300 m wide stretch of land of **70 hectares** also divided into several parcels used by the villagers. The total of these areas is around **86 hectares**.

Figure 14 Irrigation block in Zone I-1-d



The 6 villages surrounding this irrigation block, which belong to the 2 Group Villages Chikhambi and Fombe will very likely all have parcels in the area, and it will be obvious for them to identify it as an agribusiness area and agree with the two Group Village Headmen that the area belonging to farmers with parcels within the area will get registered as a Customary Estate under the new Customary Land Act.

It will be the farmers themselves, through consultations with those with land inside and outside (but nearby) the schemes who will decide the extension of the Customary Estate and whether it shall include only the defined irrigation block or it shall include all the farmers who have cultivated areas close to the irrigation block. This could include the 16 hectares of land directly affected by the main canal, but could also include the additional 70 hectares between the main canal and the irrigation block. It is not imperative that the land is irrigable, it could be used for grazing areas, common rainfed food crop areas or fruit orchards and in this way form a part of the Customary Estate and its various activities.

There will also be people affected by the main canal structures, who not naturally belong to the villages that will be part of the irrigation scheme, as the figure above also shows. At the left side of the figure the canal goes around another village Semu, which most likely will not be part of the scheme. As the area here is identified as shrubs and not cultivated, it remains to be determined through consultations during RAP preparation if there is no obvious reason for including these landowners. If so, they will be compensated either by cash or by reallocation of land in another area, if any unallocated land is available within the Group Village.

The same situation occurs, where the Main canal line curves around a hill north of the village Chikhambi 2. It is a hilly, rocky area and although the land is allocated to members of the villages, there is no cultivation of the land. If RAP consultations determine that this land apparently is not important for the livelihood, a cash compensation for the land could be an option instead of including the landholders in the irrigation schemes.

6.3.1 Valuing and Compensation Land in Agri-Business Units

1) Land required for the SVIP main infrastructure.

Communities where land will be needed for the main canals and branch canal infrastructure will have farmers who may want to join the blocks but whose land is to be acquired for the infrastructure. In such a case, the land of the farmers could be compensated by obtaining a share in the agri-business unit in relation to the land brought in. However, agri-business unit will not be formed and the process of land re-allocation not be completed before the start of construction. And the contractor cannot start work until the land required for the SVIP infrastructure is handed over, meaning the land should be owned by the government. Therefore, a direct exchange from land to share into the agri-business unit is not possible. Therefore, the land will be compensated in cash based on the value of irrigated land.

Therefore, the land will be compensated by cash as described in this RPF and the RAPs. During the preparation of the RAPs the PAPs will decide how they would like this cash to be managed. Some options:

- The compensation can be paid to the PAP. If the PAP decides to be part of the Agri-Business Unit (s)he will pay the received cash to the Agri-Business Unit and receive a share in relation to the land compensated. There is a risk that the PAP will use all or part of the compensation monies in the meantime and is no longer able to pay for his/her share.
- The compensation can be put into a savings account kept by the SVIP management who will be pay directly to the Agri-Business Unit when formed. Putting the cash into a savings account is expected to reduce the negative impact of inflation on the value of the money.

In addition, the PAP will receive a compensation for the loss of revenue during the period of handing over the land for construction and the first harvest as described in chapter .

2) Land required for establishing the Agri-Business Units

Other land required for the establishment of the Agri-Business Units and its infrastructure will entitle the owner to obtain a share in the agri-business unit proportionate to the land brought in. The profits of the share in the agri-business unit are expected to be higher than the current profits, due to the increased productivity gains expected from converting from single season rainfed agriculture to year-round irrigated agriculture systems. Dilution of benefits from allowing new investors (including already-compensated canal infrastructure PAPs who want to participate in irrigation blocks) is expected to be small (less than 5%) and would be offset by an increase in overall capital for the block. The construction of the irrigated areas and preparation of the land will take quite some time, most likely including at least one growing season. Therefore, the PAP will receive a compensation for the loss of revenue during the period of handing over the land for construction and the first harvest as described in chapter 8. Farmers may be able to have access to the land once it has been levelled but prior to final installation of irrigation equipment.

Commented [SK1]: New

3) Land of PAPs not willing to participate in the Agri-Business Units

Experience has shown that hardly any farmer is not willing to participate in the Agri-Business Units. In case it does occur, the farmer will be compensated under the RAPs prepared in accordance with this RPF, through a land for land swap. If available land outside the proposed scheme is in short supply, an irrigation block can be reduced slightly to ensure there is sufficient land for anyone who wishes to opt out and receive an unirrigated plot outside the scheme.

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7 Estimating How Group Villages Are Affected

7.1 Group Villages Affected by the SVIP

Affected areas were identified in a detailed inventory that mapped the parcels and infrastructures along the main canal route proposed by the Technical Feasibility Consultant. A 60 meter wide buffer zone was defined along the centreline, and within this zone the owners of the plots were identified together with the Group Village or Village Headmen, who knew the boundaries and the persons to whom the land has been allocated. The inventory was conducted for the main canal and main branch canals in Phase 1, from Majete down to Lengwe and including the canal from Supuni to Illovo, in total 62.7 km. See Figure 15 below.

Figure 15 Group Villages/Villages affected by main canal in phase 1



The villages (GVHs/VHs) affected by the canal route and their land area are listed in *Table 38* below. This table does not include the land area affected by the main branch canals and night storage ponds. Ndakwera is a settlement scheme managed by a committee and where the parcels are allocated to the surrounding village members.

Table 38 Settlements and their land area affected by the main canals in phase 1

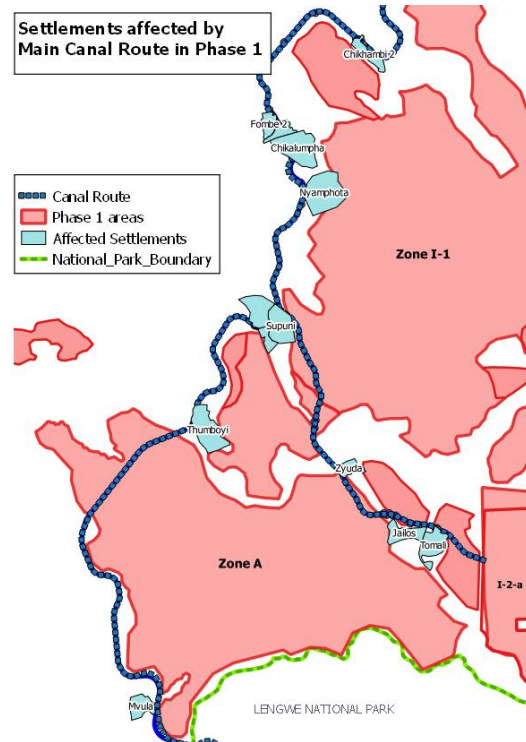
GROUP VILLAGES AFFECTED			
	GVH/VH	Estimated No. of parcels	Estimated Hectares
1	Bwalo	14	11.62
2	Chikalumphu	9	3.88
3	Chikhambi 1	2	3.05
4	Chikhambi 2	33	19.67
5	Chikhambi 3	1	1.75
6	Fombe	0	0
7	Fombe 2	3	1
8	GVH Jailos	25	8.18
9	Kapendekali	20	10.11
10	Ling'awa	14	10.74
11	Maganga	12	15.8
12	Majete	2	14.95
13	Mbenderana	19	15.95
14	Misengo	13	18.58
15	Mkanoyza	37	9.71
16	Mlangeni	8	2.97
17	Molongeni/Tomali	16	8.24
18	Mvula	23	5.87
19	Mwaliya	10	7.62
20	Ndakwera	150	52.19
21	Njereza	14	12.41
22	Nyamphota	17	9.99
23	Polova	6	4.52
24	Sekera/Chipula	15	11.58
25	Semu	5	7.2
26	Supuni	116	53.03
27	Thuboyi	10	6.35
28	Tizola	7	3.4
29	Zyuda 2	20	7.95
	Total	621	338.31

Source: SVIP Land Tenure and Land Use Inventory

7.2 Settlements Divided By the Main Canal

Figure 16 below shows the map of the canal route in Phase 1 from the point where the main canal reaches the irrigated areas and the settlements affected by the main canal route. No settlements are affected in the first stretch from the intake until what is shown on the map.

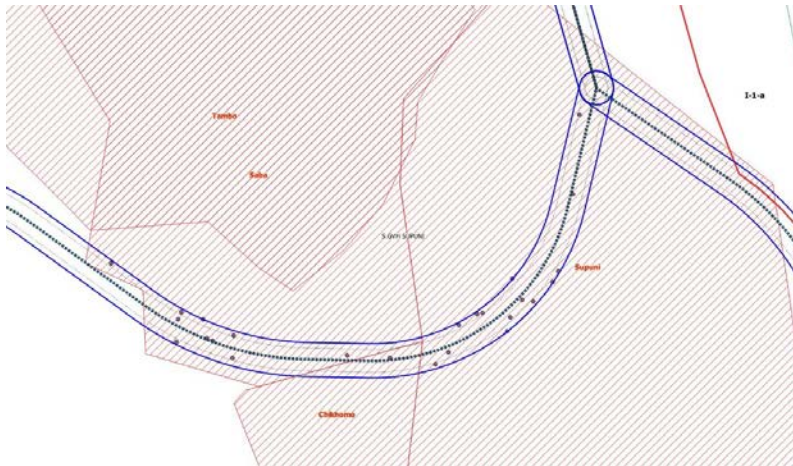
Figure 16 Map of Main Canal and Affected Settlement Areas



The number of settlements that will be affected by the main canals in Phase 1 has been reduced as much as possible during the design process and as a result the number of affected settlements was reduced from 19 to 10, where only 3 of the settlements will be divided. In the remaining settlements only a few buildings will be reallocated. The SVIP will be a gravity scheme without pumping. Therefore, the canals have to follow the contour lines, which made it unavoidable to divide the settlements of Supuni, Fombe and Chikambi 2. The names and number of villages might still change until the design is finalised and construction starts.

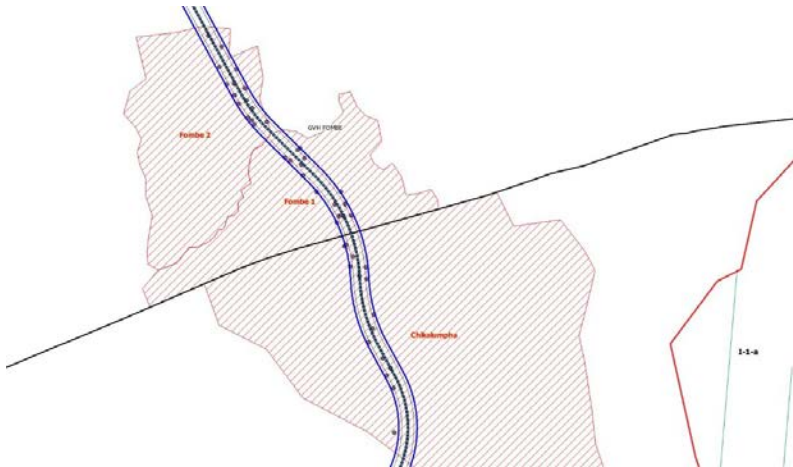
Supuni is the settlement where the feeder canal splits into the Bangula canal running south towards the end of the scheme and the Supuni canal towards the Illovo Estate. The design is already adjusted to reduce the separation of the village from three to two parts as shown in the Figure 17 below.

Figure 17 Map of the Main Canal Through Supuni



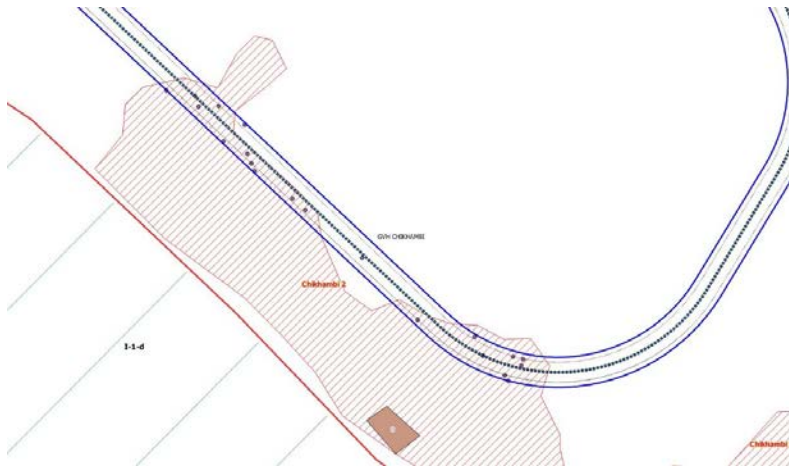
The settlement of Fombe/Fombe 2 under GVH Njereza will be divided into two parts by the main canal as shown in Figure 18 below.

Figure 18 Map of the Main Canal through Fombe



In the settlement of Chikambi 2 the canal touches the outskirts of the area. As a smaller area is affected the impact is less than in Supuni and Fombe.

Figure 19 Map of Main Canal through Chikambi 2



The division of the settlement by the main canal has an impact on the village. The costs of relocating houses is not that high in economic terms but the social costs of splitting villages into two parts is very high indeed. There are several serious risks related to a canal running through a villages, for example:

- Access from one side of the village to the other will not be possible unless there is at least one bridge or crossing. Even then, people will have to cover a larger distance, which also has a psychological effect and may divide a village into two social areas - more wealthy secure part that is developing and a poorer part that is not developing or not at the same pace due to the poorer accessibility.
- Children will play along the canal and people will use the water and may fall into the canal and drown, because most cannot swim and also, it will be difficult to get out of canal with a 30 to 40 degrees concrete slope that, over time, will be overgrown with slippery algae/plants. The latter should be mitigated in the design.
- Animals will fall into the canal and drown whilst trying to drink. Apart from the loss of the animals, this may affect the quality of the water as well when the carcass decomposes in the canal.
- People will use the canal water for drinking, bathing and washing clothes and other purposes. This will affect the quality of water and people may develop health problems because of drinking the polluted water.

7.3 Roads and Footpaths/ Affected Access

The estimated number of affected roads and footpaths presented in Table 39 is based on the results of the land tenure and land use mapping. The majority of these crossing are dirt or gravel roads, with the only crossing of a tarred road around Ngabu in phase 2. The majority of the

roads will require a bridge over the canal. Roads can be combined using only one bridge when these are located close to each other. However, some people will be denied access to their sources of livelihood due to the construction of the main and branch canals, or will have to walk a considerably longer distances to get to their plots.

The survey conducted by CC consultant has shown that access to grazing areas is through the existing roads and footpaths and therefore there will be no need for special roads/paths for livestock movements. This should be verified again in the census conducted as part of the RAP.

Table 39 Canal crossing access roads

Main canal crossings	Phase 1	Phase 2	Total
Tarred road crossings	0	2	3
Gravel road crossings	20	26	45
Footpath crossings	4	4	8
Branch canal crossing	Phase 1	Phase 2	Total
Tarred road crossings	1	6	7
Gravel road crossings	4	8	12
footpath crossings	4	5	9

Source: SVIP Land Tenure and Land Use Inventory

7.4 Water Points

Any water points affected are included in the TFS Report and will be replaced. The replacement costs are included in the SVIP Construction Budget.

7.5 Points of Special Interest

Identification of the points of interest are based on the available information from the following sources:

- a. Data on cultural heritage sites obtained when doing the land tenure and land use mapping.
- b. Cultural Heritage Assessment Report for the SVIP, Malawi Department of Antiquities, January 2015.
- c. Environmental and Social Impact Assessment Draft Report 2016

The proposed area for the SVIP has a number of points of special interest. These range from archaeological, graveyards, cultural and religious points.

7.5.1 Cultural Heritage Sites

Shire Valley is blessed with many sacred cultural places for the Mang'anja. Many of them relate to Mbona, whose shrine is at Khulubvi sacred grove in Nsanje. There are a number of

sacred sites within the proposed Shire Valley Irrigation Project. The ESIA Draft Baseline Report by BRL 2016, identified the following sacred cultural sites:

- Mbewe ya Mitengo located behind Paramount Chief Lundu's residency. This is the site where the ancient Lundu's resided and was also used for sacrifices and initiations. According to Paramount Chief Lundu, Mbewe ya Mitengo, it is a protected site and cannot be impacted by any development.
- Chifunda Lundu was a resting place for Mbona as he was coming from Kaphirintiwa to establish his own capital at Mbewe ya Mitengo. As such people used to worship Mbona there. In the past, newly enthroned Chief Lundu would be anointed at Chifunda Lundu before going to Mbewe ya Mitengo. No negative impacts such as land transformation activities can be made on this site.
- Mwala Umodzi shrine, located near Mgwiriza Village within the course of the Thangadzi River
- Kaloga sacred cave site, located within the area near Kanyimbi village in the Mwabvi Wildlife
- Mtsakana rain shrine, in the vicinity of group village headman Zimara, T.A. Maseya in Chikhwawa
- Mangalangala Hill is a sacred hill, located close to the site of Mawira. The hill is visited by women who have difficulties conceiving as well as in times of drought.
- Mawira is essentially a hot water spring located next to the Mwanza River and is of cultural significance to the area's local community. The hot water spring has water throughout the year.

These areas are not affected by the present main canal route. Further details on these and other archaeological sites can be obtained from the ESIA report.

7.5.2 Other Special Points of Interest

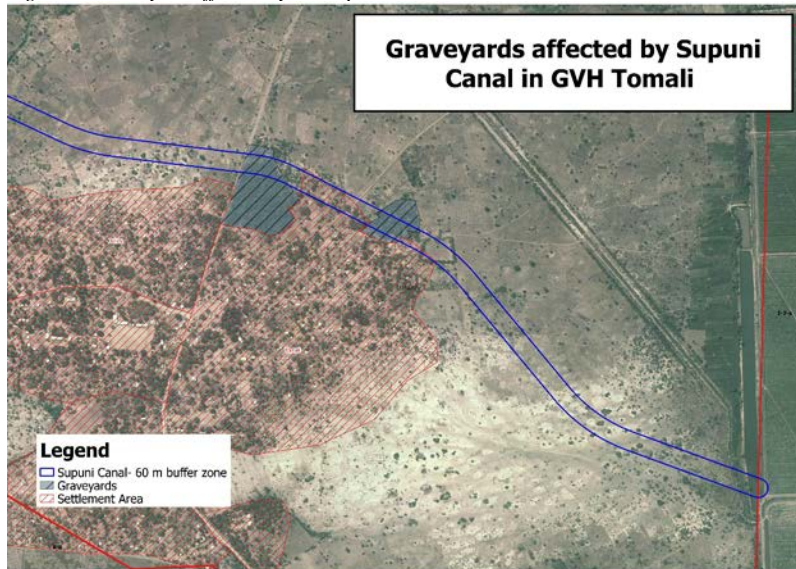
Graveyards are protected areas and trespassing is not permissible. According to tradition, relocation of graveyards is not accepted unless in extreme cases and it has to be sanctioned by high traditional leadership. During the land use mapping, all the graveyards in the project area were identified. Usually they are located close to the settlements. During the detailed registration of parcels along the main canal line it was registered that the 60 m buffer zone would get in contact with 3 smaller graveyards, 2 in the GVH of Tomali and 1 in the GVH of Ndakwera. The buffer zone was just touching the graveyard in Ndakwera and it should give no problem for the construction, since the outermost 10 meter of the buffer is a temporary working area. For the graveyards in Tomali is a different matter, where the canal line are passing through them, as shown in *Figure 20* below.

Since the area is flat and there are no buildings or other physical elements north of the canal line it should be possible to adjust the canal slightly and avoid these two graveyards. A slight

adjustment to the north would also mean that 5 households don't have to be reallocated. Later designs may have a changed canal route and avoid graveyards. The census which will be conducted as part of the RAP preparation will investigate whether graveyards are affected in the final design that cannot be avoided.

Commented [SK3]: New

Figure 20 Graveyard affected by the Supuni canal



Religious structures, such as places of worship, were also recorded as points of special interest during the land use mapping. A significant number of such religious structures were identified, but none will be affected by the main canal or branch canals.

Environmental and social impact of the canal in the Lengwe National Park and Majete Game Reserve are discussed in more detail in the BRL ESIA Report 2016 and mitigation measures in the Environmental and Social Management Plan for the SVIP (ESMP).

7.6 Valuing and Compensating the Affected Group Villages

The group villages affected by the main canal will be compensated as follows:

Table 40 Compensation of Affected Group Villages

No.	Affect/Risks	Compensation
1.	Split Settlements	The plans for mitigating negative results will be included the RAP for the infrastructure. The RAP will include additional mitigation measures (to those included in the technical design) deemed necessary for villages split by canals (bridges and

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		lumpsum payments for other activities the community prioritizes).
2.	Roads/footpaths	Bridges included in the technical design. If not found sufficient it can be included in the lump sum allocation plan to affected settlements.
3.	Points of special interest	Graveyards avoided in the technical design. Other special points of interest are not affected.
4.	Cultural Heritage Sites	Will be identified when implementing the SVIP. The procedures and budget are included in the Environmental and Social Management Plan.
5.	Water Points	Included in the technical design. If not found sufficient it can be included in the lump sum allocated plan to affected settlements.

8 Estimating and Valuing Other Assets than Land

8.1 Residential and Commercial Premises

The detailed registration of the residential and commercial premises affected by the main canal route, shows a total of 127 premises, 118 of those are residential, 3 commercial and 6 community buildings. Of those buildings 56 premises are affected permanently and the remaining are located in the temporarily affected areas.

Table 41 Group Villages in Which Buildings Affected by the Main Canal are Located in Phase 1

No	GROUP VILLAGES AFFECTED/ GVH/VH	ESTIMATION OF BUILDINGS AFFECTED			
		Within Settlements		Rural areas	
		Total	Of which permanently	Total	Of which permanently
1	Bwalo			3	2
2	Chikalumpha	15	5	2	1
4	Chikhambi 2	20	12	1	
5	Fombe	19	7		
6	Fombe 2	13	6		
7	GVH Jailos	8	2		
8	Kapendekali			1	
9	Mlangeni	1			
10	Molongeni/Tomali	4	1		
11	Nyamphota			1	
12	Polova			3	2
13	Supuni	25	11		
14	Thuboyi	9	5		
14	Zyuda 2	2	2		
	Total	116	51	11	5

Households in the 118 residential buildings have a total of 545 members, which gives an average household size of 4.36. This is higher than the 3.0 found in the household survey, but corresponds well to the figure of 4.3 for the Southern region from the 2008 Census. The average number of rooms in residential buildings is 2.92 (see Table 42 below).

Table 42 Building type – Canal route

Type building:	
Commercial	3
Community Building	6
Residential	118
Household members	515

Type building:	
Average number of households members	4.36
Average no. Rooms	2.92

The following *Table 43* shows the type of construction materials of houses for walls, roofs and floors. The most common materials are burnt bricks for walls and grass thatched or iron sheets for the roof. These data make it possible to make a more accurate estimate of the compensation costs for premises.

Table 43 Construction materials of buildings

House Material (Wall/Roof/floor)	
BurntBrick/GrassThatched/Mud	38
BurntBrick/GrassThatched/Cement	1
BurntBrick/IronSheet/Mud	45
BurntBrick/IronSheet/Cement	17
UnburntBrick/GrassThatched/Mud	22
Mud/GrassThatched/Cement	2
Other material	2

Premises do not include the main building but also outlying structures such as fences (brick or wooden), outside kitchens, toilets, bathroom and animal pens. It is assumed that a PAP who loses a residence or business premises would also lose a kitchen, a toilet and a bathroom as these are ordinarily inseparable. *Table 44* below shows the additional structures registered as belonging to the main premise, and the types.

Table 44 Ancillary structures

Ancillary structures	
Toilet building	134
Kitchen building	45
Storage building	5
Animal house	51
Other houses	14
Additional houses total	249
<i>Average additional structures per main house</i>	<i>2,11</i>
Animal pen	59
Water points/pumps	2

8.1.1 Valuing and Compensating Premises

Value of residential dwellings, commercial structures and associated structures such as toilets, kitchen, bathrooms, temporary structures made of wood and metal and animal enclosures shall be calculated based on the cost of building new replacement structures of a similar or better quality. This cost shall include all costs at current market prices, such as the required construction material and labour.

Valuation of replacement dwellings shall include the cost of sanitation facilities and access to water supply, if the displaced structure had access, regardless of the situation at the place being displaced from as well as the costs.

Compensation shall include the costs of moving to the new premises, and if applicable, moving to a temporary premises pending the completion of the new premises. However, preferably the construction of the new building will be completed before the existing building is demolished.

Loss of revenue from business will be based on what one was making in a normal situation for the corresponding period when one is out of business based on the average revenue of the previous three years.

If premises are rented, the owner will receive a lump sum for the loss of income from rented property based on the number of months per tenant per year. The tenant will receive a financial assistance of a lump sum of one month rent to compensate for double renting plus assistance to find a new house and the cost of relocation.

The owners of the premises will have the right to salvage materials prior to demolition without deduction from compensation.

To arrive at acceptable compensation/replacement estimate costs, the valuer will seek the views of PAPs and other local residents, contractors and suppliers in the affected areas. Also compensation/replacement schedules provided by Ministry of Lands, Housing and Urban Development will be considered, but market prices will prevail.

8.1.2 Crops

Through the detailed land tenure and land use mapping the Consultant will be able to calculate hectares under arable crops. However, areas under different crops and average yields per crop will be estimated using the results of the detailed inventory. The estimated crop loss will be calculated by multiplying the two sets of corresponding data. However, loss of annual crops would be minimised by starting the project after the harvest.

The detailed land use registration identified 332 parcels with crop cultivation out of the total of 696. The different crop types can be seen in Table 45 below. According to this, around 2/3 of the plots are cultivated with sorghum, with cotton and maize accounting for the remaining third. The remaining crops types are insignificant.

Table 45 Crop Types in the Main Canal in Phase 1

Crop type	No. parcels	Hectares	%
Maize	34	15.8	11.9
Sorghum	213	85.6	64.6
Cotton	68	28.0	21.1
Vegetables	1	0.3	0.2
Rice	12	2.2	1.7
Pigeon Peas	2	0.2	0.2
Sweet Potato	2	0.4	0.3
Total	332	132.5	100.0

In many of the plots several types of crops are grown, and only the main crops are shown in the table. In Appendix 2 a complete list of plots can be found, where it is noted if other crops are grown as well. Also in the list are any big trees that have been identified on the plots.

8.1.3 Compensating Crops

This will be done based on the type of crop, divided into annual and perennial crops, as discussed below:

Perennial Crops

Valuation of perennial crops shall be based on net present value of income over the period required for newly planted trees and crops to reach production. The Valuation team will use market prices and compare these with schedules provided by responsible line ministry. The highest valuation shall apply. This category covers crops, perennial crops such as fruit trees, bananas, flowers, etc. The valuation will be done by a professional valuation team in coordination with the district and with support from the MoAIWD and Department of Forestry. A detailed inventory of affected agricultural produce (in terms of type, quantity and quality) will be produced through a census/inventory of the land to be acquired.

Annual crops

Valuation of annual crops shall be based on the market value of income from one season's production. However, one guideline principle for the SVIP is not to start implementation until after annual crops have been harvested. Should it be absolutely necessary to start implementation before annual crops have been harvested, the same procedure discussed under perennial crops would apply.

8.2 Grazing Land

Land set aside for just grazing is very little. However, animals do feed on crop residue, which is individual land. Further, mostly by the road side and other public places, which is communal land. The results of the detailed survey of Phase 1 showed that 11.7% of the land is used for grazing. The area affected by the SVIP infrastructure is therefore estimated at 54.3 ha of which

35.3 ha will be relocated permanently. This estimate excludes the feeding on crop residue, by the road sides and at other public places.

Those who have individual grazing land and are affected permanently will be allocated land within the same area and compensation in cash to develop their new parcel. This parcel can be grazing land or land to grow fodder under irrigation. If land is not available, animals will be moved elsewhere or a cash compensation paid. The valuation will be done by assessing the carrying capacity of all grazing areas affected by the SVIP implementation. The carrying capacity assessment will be for goats and cattle. Economic loss will be calculated by multiplying the number of livestock which could have been supported in the lost grazing areas and market value of the animals.

Those affected temporarily will be allocated land within the same area. If this is not available a cash compensation will be paid covering the costs of buying fodder, or moving the animals temporarily to another area for the period the owner cannot use its land due to the SVIP construction activities.

Bridges have been included in the technical design at the current roads and footpaths to maintain access to grazing areas on the other side of the canal.

8.3 Forests and Fruit Trees

Survey results shows that 6% of the land in Phase 1 is used for forest. The total area affected by the SVIP infrastructure is 30.2 ha, of which 19.6 ha permanently. The average number of trees per hectare will be sourced from the district forestry office. The estimated loss will be calculated by multiplying the area under forestry trees with the average number of trees per hectare and the value of the trees.

Valuation of forest trees (both indigenous and exotic trees) will be based on species of trees, measured diameter of breast height and market price in kwacha per cubic metre. The Department of forestry will provide schedule for calculating compensation for various trees to be used. The valuation team will be supported by relevant experts from the Department of Forestry regional office. Type, number and quality of trees affected will be established through a survey. Compensation rates from the schedule will be used to calculate the amount of compensation.

During the detailed field investigations only few single fruit trees were identified. However, other types of important trees were registered, like Baobab, Nkina and Nimu trees. In total 303 larger solitary trees with importance for the locals, have been identified along the canal line.

For fruit crops compensation will be the value of lost production until the replacement seedling comes into the same level of production. The time this takes varies per fruit species but generally takes about three to five years excluding the time for land preparation. The values are determined and verified by the Ministry of Agriculture, Irrigation and Water Development. Preference will be given to the replacement of affected trees with new seedlings unless otherwise agreed with the PAPs.

The valuation of fruit trees will take into account the replacement costs for a tree of similar maturity and the loss of income in the period from taking possession of the tree until the

replacement tree is bearing a similar volume of fruits. The same procedure will be followed to assess the value of each of the main type of fruit trees as described for forest trees.

8.4 Squatters and Vendors

The detailed SVIP land tenure and land use survey of the main canal route did not find any squatters or vendors. However, not all areas required for the irrigation infrastructure were surveyed. In addition, the canal route location of other irrigation infrastructure may change in the final design (see also rationale in section 1.3.1). These groups would lose livelihood and access to income. In case squatters and vendors are found to have been living in the project area prior to the established cut-off date in the later inventory of losses, those affected should be compensated at full replacement value at market prices. Depending on the type of losses occurred the PAP will receive:

- Lump sum payment for erecting new shelters of the same or better quality plus a lump sum payment for moving to the new premises. They will have to right to salvage any materials without deduction in the compensation.
- Permitted sufficient time for harvesting perennial crops, fruits and timber.
- The new premises of the vendor will be ready before moving. If this is not the case the vendors will be paid a lump sum of three months' income based on the past year's average turnover plus a lump sum for acquiring a new vending site and/or erecting a new structure.
- Provided with disturbance assistance.

8.5 Loss of Access

The canals will block access to sources of livelihood, such as grazing, medicinal plants, herbs and spices and, in general, block or limit access to places and people at the other site of the canal. Section 7.3 above shows the number of roads and footpaths listed in the detailed survey of the canal route.

The Technical design includes bridges to maintain access at the current roads and footpaths and additional crossings if the stretch between bridges is too large. Group Villages have the opportunity to include additional bridges within their mitigation plan to reduce the adverse impacts of the canal. Reference is made to chapter 7.

Those affected temporarily to their sources of livelihood will be paid a lump sum for the blockage/loss of access during the construction period of the structure causing the blockage.

9 Envisaged Benefits, Health, Safety and Social Impacts

The Environmental and Social Impact Assessment (ESIA) identified health, safety and social impacts in addition to those identified in the other studies. The actions are included in the Environmental and Social Management Plan (ESMP) for the project. Relevant parts are reflected below. For additional information reference is made to the two ESIA and ESMP reports.

9.1 Envisaged Benefits of the SVTP

9.1.1 Background

The economic analysis was done for four alternative scenarios of configurations of the possible project costs and benefits. These are:

- **Scenario 1:** Analysis for phase I of the project considering only benefits and costs of irrigated crop production, livestock production, and aquaculture production only;
- **Scenario 2:** Analysis for phase I considering the costs and benefits of crop production, livestock production, aquaculture production, flood protection, domestic water supply, and NRM;
- **Scenario 3:** Analysis for Phase I considering all relevant benefits and costs of the project including crop production, livestock production, flood protection, domestic water supply, NRM, energy saving, and GHGs emission;
- **Scenario 4:** Analysis for Phase I and Phase II considering all relevant costs and benefits, and
- **Scenario 5:** Analysis considering only irrigation development and natural resources management costs and benefits.

The economic analysis is very conservative in that anticipated economic multiplier benefits were not included in the analysis owing to methodological difficulty in quantifying the benefits. However, several studies have confirmed that projects that raise agricultural productivity can have a significant impact on local prices, wages, and rents in addition to directly affecting farmers, especially in rural areas of Africa. Price changes, in turn, transmit project impacts to others within the local economy. For instance, an analysis of the local economy-wide impacts of rice irrigation projects in the Morogoro region of Tanzania indicates that these irrigation projects can generate important indirect impacts within the region. Although the production of rice increases by 4.45 billion TZS, the effect of the intervention on the value of total output in the local economy, once all local general equilibrium effects are taken into account, was 7.9 billion TZS, which is 80 percent higher than the increases in rice value⁵³. During 1960s and 1970s, governments heavily invested in major irrigation projects in the expectation that these investments would transform the regional economies in which the projects such as the SVIP are located. Thus, the omission of the indirect benefits of the SVIP would understate the true economic returns of the project.

Key assumptions

⁵³ Mateusz Filipiński. 2013. Evaluating the Local Economy-wide Impacts of Irrigation Projects. IFPRI Discussion Paper 01247.

- Standard conversion Factor (0.96)
- Conversion Factor: Skilled Labour (1)
- Conversion Factor: Unskilled Labour (0.5)
- Discount Rate (6%)
- VAT (16.5%)
- Contingencies (7.5%)
- Project Duration: 40 years
- Phase I Implementation period: 6 years
- Disbursement build-up or implementation schedule: First year (3.3%), second year (8.1%), third year (16.2%), fourth year (23.5%), fifth year (23.4%), and sixth year (25.5%)
- Implementation of Phase II begins immediately after completion of Phase I
- O&M cost=1.5% of the direct project costs
- Without project benefits for Phase I is estimated to be US\$1.49 million per year
- Without project benefits for Phase II is estimated to be US\$2.57 million per year

9.1.2 Estimation of benefits

Crop production

Several crops were evaluated for their suitability to grow in the Lower Shire Valley based on climate and soil considerations, market potential, profitability, and readily availability of support services⁵⁴. The analysis identified several tropical and temperate crops that can grow well in the lower Shire Valley during summer, winter or all year-round (Table 46). Table 46 summarizes the results of gross margin analysis carried out to assess the viability of the crops, which are considered suitable, from an agronomic perspective, for growing in the lower Shire Valley. The list includes several high value crops, which are capable of realizing much higher returns such as citrus, mangoes, tomatoes, baby corn, sweet corn, and chilies. However, these crops were either dropped or gradually incorporated into the cropping pattern to allow for the development of downstream industries that are required to manage the logistics related to the packaging, marketing, and, or processing of these crops. For example, the type of tomatoes proposed for the project area requires a processing factory to be established first. The same applies for the cassava crop. It is envisaged that as scheme development progresses some of these crops will be included in the cropping mix.

⁵⁴ Agricultural Development Planning Strategy (Final Report)

Table 46 Gross margin estimates and ranking of suitable crops

No.	Crop	Average yield (kg/ha)	Av. Price (US\$/kg)	Gross margin (US\$/ha)	Include/exclude from cropping programme
1	Tomatoes	45,000	0.28	7,683.17	To be introduced gradually after investments in processing technology
2	Sweet corn	50,000	0.15	6,493.35	To be introduced gradually after investments in packing, storage, freight facilities
3	Green maize	45,000	0.16	6,449.76	To be introduced gradually after investments in packing, storage, freight facilities
4	Sugar cane	120,300	0.07	3,320.62	Included
5	Cassava (wet)	30,000	0.10	3,002.31	Excluded – needs storage and processing facilities
6	Baby corn	11000	0.30	1,983.65	To be introduced gradually after investments in packing, storage, freight facilities
7	Rice (polished)	2,500	0.75	1,871.19	Excluded –no suitable rotation crop, high water requirement
8	Beans (dry)	2,500	1.04	1,657.97	Included
9	Pigeon peas	2,500	0.75	1,500.50	Included – for rotation purposes and to meet the national aspirations
10	Cassava (dry)	10,000	0.15	1,316.19	Excluded – needs processing and storage facilities
11	Cotton	4,000	0.45	1,223.43	Included
12	Chillies	1,500	0.97	2,234.8	To be introduced gradually after investments in processing technology
13	Rice (unpolished)	3,500	0.45	826.41	Excluded –no suitable rotation crop, high water requirement
14	Groundnuts(shelled)	2,500	0.75	752.72	Excluded –not suited to the soils of the area
15	Soya beans	3,100	0.28	337.85	Included
16	Maize (seed, irrigated)	3,500	0.37	264.01	Excluded - viability of seed
17	Maize (grain, irrigated)	5,000	0.24	196.64	Included -food security, political and social reasons
18	Sorghum	5,000	0.18	166.20	Excluded – markets
19	Groundnuts(unshelled)	4,170	0.30	166.01	Excluded – not suited to the soils of the area
20	Wheat	4,000	0.27	108.69	Excluded - yield, quality
21	Cow peas	2,000	0.21	97.16	Excluded - marketing not clear
22	Sesame	1,100	0.27	64.16	Excluded - marketing not clear

Nine crops were selected from the list of 22 crops evaluated. The crops selected are those that are best suited to the agronomic conditions of the Shire Valley, have reasonably high gross

margin, have readily available market either in Malawi or in the region, and are easily handled, transported and stored without elaborate transformation or investment in processing and storage facilities beyond those that already exist in the SVIP area.

A representative cropping pattern (differentiated by seasons) and farm model has been developed based on the selected crops (Table 47 and Table 49). It must be emphasized that an economically optimal crop mix will emerge overtime in response to evolving market opportunities and as farmers gain the experiences and skills needed to manage complex crop enterprises.

A 500 ha-farm units shall be established in the new irrigation areas of the lower shire valley. The model allocates 25 ha to food crop production to ensure household food security (Table 47) and 475 ha for commercial crop production. The commercial crop area is managed by a 250-member cooperative, while the food production plots are managed by individual households (i.e., 0.1ha per household). The key assumptions in constructing the farm model are:

- All lands cropped in both summer and winter hence 200 percent cropping intensity
- Perennial crops introduced in Year 6
- On citrus and mango orchards intercropping with bananas for first 4 years
- Introduction of perennials achieved by reducing area planted to annual crops
- Summer crops: cotton, pigeon peas and soya beans
- Winter crops: dry beans and maize
- Perennials: bananas, citrus and mangoes

Table 47 Crop combination for the food plot area

CROP	CROP AREA BY YEAR															
	%	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SUMMER:																
Maize	100	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
WINTER:																
Dry beans	50	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
Vegetables	50	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125

Source: PWC Report (2016)

COWI

Table 48 Crop combination for the commercial crop area

CROP	CROP AREA BY YEAR														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
BANANAS						47.5	47.5	47.5	33.3	19.0	19.0	19.0	19.0	19.0	19.0
CITRUS						19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
COTTON	157.7	157.7	157.7	157.7	157.7	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4
DRY BEANS	237.5	237.5	237.5	237.5	237.5	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0
MAIZE	237.5	237.5	237.5	237.5	237.5	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0
MANGOES						19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
PIGEON PEAS	158.7	158.7	158.7	158.7	158.7	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4
SOYA BEANS	158.7	158.7	158.7	158.7	158.7	146.3	146.3	146.3	146.3	146.3	146.3	146.3	146.3	146.3	146.3

Source: PWC Report (2016)

In addition to the new area to be developed, the project will also benefit the existing estate and out-growers sugarcane production through reducing cost of production in lieu of reduced energy and MOM costs. The project also stabilizes or enhances the productivity of sugarcane by ensuring the reliable supply of adequate irrigation water. It is assumed that following the shift from pumping based to gravity irrigation system, the yield of sugarcane increases by about 10 percent.

Livestock production

The Lower Shire Valley is one of areas in Malawi with a high livestock population (Table 49). In 2015 about 67 percent of the households kept livestock or poultry in the project area. Some of the households that do not own livestock depend on livestock keepers for wage employment, trade and service provision. The common types of livestock owned by households are cattle, goats, chickens, pigs, guinea fowl, ducks, rabbits, sheep, and pigeons. Table 49 shows a steady increase in the cattle population in the project area. In general, the growth in the major livestock species shows an upward trajectory.

Table 49 Livestock production in the lower Shire Valley

	2011	2012	2013	2014	2015
Cattle	142,805	146,235	165,859	180,512	184,914
Goats	279,765	312,534	352,612	387,533	414,661
Sheep	5,037	6,030	6,556	6,950	7,746
Pigs	95,017	104,363	120,909	132,831	135,541
Poultry	1,099,453	1,196,748	1,227,600	1,536,803	1,554,279
Others	5,609	10,405	12,046	9,191	9,997

While SVTP primarily aims at increasing the production of irrigated crops, it is envisaged that a 100-cowherd unit will be established at ten of the fifteen-500 ha cooperative farms in Phase I and 23 of the thirty-three 500 ha cooperative farms in Phase II to boost livestock production. This enables the cooperatives to utilize the huge biomass generated from irrigated crop production.

Income and expenditure analysis is performed for a prototype 100 cowherd based on 10-year herd build up and projections (Table 50). The results indicate that the investment yields a positive gross margin within just three years of initiating the investment. According to this analysis, an average gross margin of US\$8,402.4 can be realized from a 100-cowherd unit.

Table 50 Income and expenditure estimates for a 100-cowherd unit

Year	Revenues (US\$)	Expenditures (US\$)	Gross Margin (US\$)
1	0	2,450.2	(2,450.2)
2	0	3,408.6	(3,408.6)
3	0	4,284.5	(4,284.5)
4	13,959	5,281.5	8,677.5

5	11,435	5,713.9	5,720.6
6	13,811	6,219.4	7,591.1
7	15,741	6,593.2	9,147.9
8	15,890	6,847.0	9,042.5
9	16,187	6,979.7	9,206.8
10	16,484	7,053.4	9,430.1

Source: PMC (2016)

Aquaculture production

Currently, about 10,000 fishponds exist in Malawi as a whole and are owned by 6,000 smallholder farmers.⁵⁵ Introducing a fish farm to the cooperatives provides additional protein rich food for its members in addition to a steady source of cash income for its members. An enterprise budget analysis was done for ten ponds of 1000 square meter each (Table 51). According to the PWC analysis, a gross margin per hectare of about US\$23,830 is achievable.

Table 51 Enterprise budget for fish farm

Description	Quantity	Unit price	Cost /pond	Number of ponds	Total (USD)
Capital investment:					
Labor	45.0	30.8	1,384.7	10	13,846.5
Pipes and bends	4.0	11.5	46.2	10	461.6
Cement	4.0	9.2	36.9	10	369.2
Wheel barrows	5.0	76.9	384.6	10	3,846.0
Shovels	10.0	12.3	123.1	10	1,231.0
Harvesting net	1.0	615.4	615.4	10	6,153.8
Sub-total	69.0		1,975.4		19,754.3
Production costs:					
Water	3,100.0		0.0	10	0.0
Fingerlings	6,000.0	0.02	120.0	10	1,200.0
Lime	3.0	30.8	92.3	10	923.1
manure	3,000.0	0.01	30.0	10	300.0
Feed	1,000.0	0.4	380.0	10	3,800.0
Labor	6.0	30.8	184.6	10	1,846.2
Sub-total	13,109.0		806.9		8,069.3
Harvesting:					
Labor	1.0	3.1	3.1	10	30.8
Ice	100.0	0.2	18.0	10	180.0
Transport	20.0	1.2	23.0	10	230.0
Sub-total	121.0		44.1		440.8
Revenue:					
Sales	1,400.0	2.3	3,234.0	10.0	32,340.0
Gross margin/ha					23,829.9

Source: PWC (2016)

⁵⁵ GoM, 2016

Flood protection benefits

Shire Valley is prone to flooding which is largely generated by gross mismanagement of the environment in the upper catchments of the Shire River and its numerous tributaries. Thus, in addition to its vulnerability to droughts, SVIP area is also prone to flood disasters, with serious repercussions on crop production and loss of life and damage to property.

The methodology for assessing the benefits of flood alleviation combines an assessment of the hazard, in terms of the probability of future floods to be averted, and a vulnerability assessment in terms of the damage that would be caused by those floods and therefore the economic saving to be gained by their reduction. Estimation of damage or loss probability curve is a major step in any flood mitigation benefit estimation exercise. In the present case, this was achieved through the following steps.

Step1: Establishing the relationship between different flood events and inundation area. This data was obtained from the hydrological analysis presented in the technical feasibility report provided by consultants and is depicted in Figure 21 for the whole project area.

Figure 21 The relationship between flood return period and inundation area

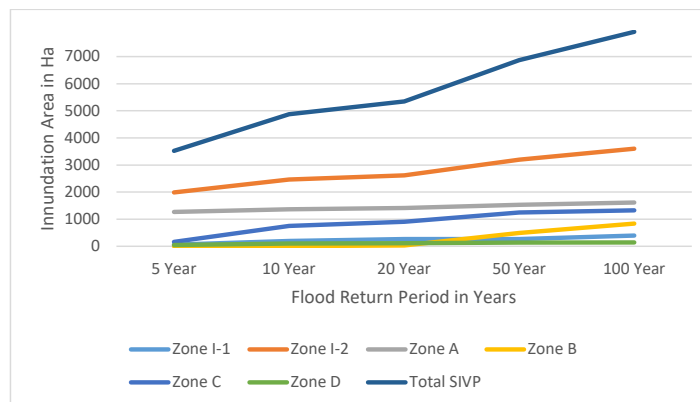


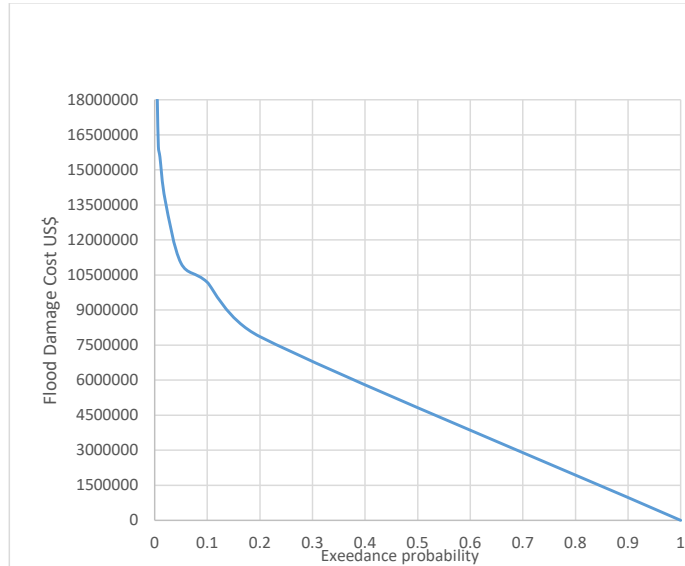
Figure 21 depicts that Zone I-2, Zone A, and Zone C are the most flood damage prone areas.

Step 2: Determination of the land use pattern of the inundated area, the economic sectors affected, and the extent of possible damage. The extent of damage for the key identified economic activities was obtained from actual losses documented in the project area for the 2015 flood event. The project area was affected by heavy floods between January and February 2015. A total of 19,060 ha of cropping area was affected. The crops that were affected include maize, millet, rice, sorghum, groundnuts, and cotton. The extent of damage to the crops ranged from 75 percent to 100 percent production loss for the affected areas. The floods also affected livestock production where a total of 450 cattle, 9,216 goats, 44 sheep, 1,639 pigs, and 69,760 chickens died among other livestock species⁵⁶. Thus, the flood damage loss was estimated based on lost crop and livestock production. The total value of livestock lost is estimated to be US\$1.65 million. The total number of households affected by the floods was 70,416.

⁵⁶ Source: 2014/2015 SVADD Third Round APES Report.

Step 3: Involved the determination of the loss probability curve as shown in Figure 22.

Figure 22 The Loss Probability Curve



The total Annual Average Damage (AAD) cost is the area under the curve in Figure 22 above. However, the averted damage cost is a sub-set of this total, the magnitude of which is determined by the adopted design standard. In the present case the adopted design standard is chosen to be the flood return period of one in ten years with exceedance probability of 0.1. Different methods can be used to calculate the area under the loss-probability curve⁵⁷. Here we adopted numerical integration method, which is based on the Trapezoidal Rule. The AAD cost without the project is calculated to be about US\$5,266,055. Due to the project implementation, this damage cost is reduced to just only US\$688,176. Thus, the annual damage cost avoided due to the project is about US\$4,577,880.

Water supply benefits

The limited available public water supply systems developed by Malawian government and NGOs are malfunctioning for various reasons and are accessible to the population of the project area only to a limited extent. Seven of the 15 public water supply points were salty. Women spend about 40 minute to 2 hours to fetch water from Shire River. Others get water from one of the public taps, where waiting times were reported to be up to 6 hours, since the pressure of the tap is very low and people fetch water in large quantities at a time.

⁵⁷ According to Olsen et al. 2015(Comparing Methods of Calculating Expected Annual Damage in Urban Pluvial Flood Risk Assessments); the choice of method by which the AAD is calculated appears to be of minor importance.

At least 15,000 people in 2,776 households are expected to benefit from the SVIP water supply scheme. A conservative estimate show that these households in total lose about 2,700 hours per day or 123,000 working days of 8 hours per year. It is assumed that this time loss can be reduced by 50 percent to 61,500 days per year due to SVIP water supply scheme. Such time savings will particularly allow girls to attend school regularly. In monetary terms, these benefits would amount to some US\$30,000 per annum. The social and health benefits could be even higher. Curtailing visits to river may significantly reduce exposure to bilharzia, which appears to be a rather common disease in the area. Moreover, due to access to improved water sources, households avoid water treatment costs such application of sterilizing liquid and boiling water using expensive purchased charcoal.

Power Saving benefits

The shift from pumping based irrigation system to gravity-based system at Illovo estate and its associated out-grower schemes reduces the level of energy consumption. Currently, the peak power demand is about 23MW, whereas annual energy consumption in 2016 was about 87GWh. Of the total 23MW peak demand, 6MW is for factory, 3MW is for domestic, and 15MW is for agriculture (mainly for pumping). Out of the 15MW allocated to agriculture, about 10MW is used to boost overhead irrigation (i.e., dragline and center pivot), which may still be required even after the implementation of the project in case water is not supplied with sufficient pressure to drive the overhead irrigation system. In this scenario, the amount of energy that may be freed due to the implementation of the SVIP is about 3.7MW during the hot season and 2.9MW during the cold season. However, if irrigation water were supplied at sufficient pressure to drive overhead irrigation systems the whole 15MW used for irrigation would be freed-up.

In this analysis, the economic value of the 15MW energy released is estimated taking into consideration the fact that Malawi has one of the most severely constrained power sectors in sub-Saharan Africa. The country is characterized by energy-deficient economy with growing demand. Therefore, it is reasonable to assume that the 15MW energy conserved due to SVIP can avoid additional generation. Thus, avoided cost of generation is the main benefit of energy conservation.

In an expanding energy sector, like that of Malawi, avoided generation depends on avoided capacity additions. Therefore, some knowledge on the most likely energy expansion plan of Malawi is critical to the accuracy of benefit estimation. The short to medium-term energy expansion plan of Malawi differentiated by source is presented in Table 52. The vast majority of Malawi's energy development plan is hydro based. The weighted average generation cost is US\$0.24/kWh, which is used to value the 15MW avoided generation capacity. Thus, the estimated annual value of avoided generation cost is US\$23,202,152.5. This result serves as a justification for including Illovo Estate into the project.

Table 52 Short to medium term energy development plans of Malawi

Item	Alternative energy sources					
	Coal	Wind on-shore	Solar PV	Hydro	Geothermal	Biomass

Energy Capacity (MW)	300	150	120	910	NA	NA
Annual Energy (Million kWh)	1955.0	977.5	782.0	5930.1	NA	NA
Generation cost (Million US\$/MW)	0.61	1.29	2.57	2.65	4.03	4.04
Generation cost (US\$/kWh)	0.07	0.15	0.29	0.3	0.46	0.46

Source:

Benefits of Natural Resources Management

The Natural Resources Management component of the project provides multiple benefits including reduced land degradation and soil loss, biodiversity conservation, enhanced ecotourism, sustainable supply of biofuels, and reductions in GHG emissions. These benefits are difficult to quantify and value. However, it is estimated that the Natural Resources Management interventions result in total mitigation of 9.855 MtCO₂-eq over 15 years period starting from the third year of project implementation, which is equivalent to total economic benefit of US\$32,521,500. The average annual economic benefit is US\$2,168,100.

The project is also expected to generate significant emission reduction benefits due to land use changes in the irrigation command area and switching of irrigation system from pumping based system to gravity system. These changes result in a reduction of emissions by 668,874 tCO₂-eq over 60-year period⁵⁸. This equivalent to annual emission savings of 11, 148 tCO₂-eq. The economic value the emission savings is estimated to be US\$736,046.7 per year.

9.1.3 Costs

The financial and economic costs of the project differentiated by phases are shown in Table 53. The total financial resources required to develop 29,050 ha new irrigation area and convert the irrigation system of the existing 14,320 ha from pump-based to gravity-fed irrigation system is US\$589.9 million in two phases at an average cost of US\$13,591 per hectare.

The total financial cost of Phase I is US\$275.72 million, which will be used to develop 11,535 ha new irrigation area and supply water to 10,745 ha existing irrigation area; of which US\$230.61 million is exclusively for developing irrigation. Therefore, per ha development cost for phase I is US\$10,351. In phase II, 17,515 ha new irrigation area will be developed and an existing 3,575ha irrigated area will be supplied with water with a total financial outlay of US\$309.3 million (pre-feasibility study estimate).

The financial costs were converted to economic costs by removing taxes, duties, price contingencies; and valuing skilled and unskilled labor using their opportunity costs. The economic costs of the project are US\$215.15 million, US\$279.11 million, and US\$494.26 million respectively for Phase I, Phase II and Phase I plus Phase II.

Table 53 Financial and economic costs for Phase I

Cost categories	Financial cost (US\$ Million)			Economic Cost (US\$ Million)		
	Local	Foreign	Total	Local	Foreign	Total

⁵⁸Taken from the SVIP GHG Appraisal Draft Report

Irrigation Service Provision	25.48	98.36	123.84	4.70	98.36	206.13
Land tenure governance and investment	2.07	6.23	8.30	0.66	6.23	6.89
Natural Resources Management	1.09	4.04	5.12	0.16	4.04	4.19
Agricultural Development and Commercialization	18.46	65.61	84.07	4.41	65.61	70.02
Project Management and M&E	4.66	16.36	21.02	2.93	16.65	19.57
Physical contingency	2.77	10.93	13.7	0.48	10.93	11.41
Price Contingency	4.37	15.31	19.67	-	-	-
Total	58.89	216.83	275.72	13.33	201.81	215.15

The financial and economic costs of the irrigation component of phase I was calculated by excluding non-relevant costs from the estimated total cost of phase I (Table 54). The excluded costs include the costs of joint infrastructure for Phase I and Phase II such as intake structure and feeder canals. The joint costs were allocated to Phase I and Phase II based on the share of irrigation area.

Table 54 Financial and economic costs for irrigation component, Phase I

	Costs	Financial Cost US\$	Economic Cost (US\$)
A	Cost of safeguards for Phase II	828,142	625,200
	Detailed design for Phase II	2,868,718	2,213,416
	Baseline survey for Phase II	273,314	208,400
	Share of cost of joint infrastructure for Phase II	28,356,150	27,221,904
	Subtotal-Phase II costs included in Phase I	32,326,324	30,268,920
B	Cost of flood protection	6,329,027	4,774,689
	Cost of water supply	866,031	666,880
	Cost of Natural Resources Management	5,588,000	4,192,018
	Sub-total-Other costs	12,783,058	9,633,587
C	Total costs not relevant to irrigation component of Phase I (A+B)	45,109,382	39,902,507
D	Total Cost of the Project Phase I	27572000	215,146,000
E	Cost of Phase I irrigation component (D-C)	230,610,618	175,243,493

9.1.4 Results of the economic analysis

The detailed results of the economic analysis for various scenarios of project formulations are presented in Table 55. The main thrust of the project is to enhance the productivity and production of crop and livestock production through phased development of irrigated agriculture in the lower shire valley. The project also has additional components including flood protection, domestic water supply, livestock and aquaculture production. The project entails complementary benefits including energy conservation and GHG emission reduction benefits. The analysis recursively evaluated the marginal contribution of each sub-component or complementary benefits of the project.

The main conclusions of the analysis are presented as follows:

- Considering only the costs and benefits associated with irrigated crop production, the NPV is US\$114.04 million with IRR of 10.21 percent (**Scenario 1**),
- When the benefits and cost of crop production, livestock production, aquaculture production, flood protection, domestic water supply, and Natural Resources Management are considered the NPV of the project substantially increases to US\$170.88 million with IRR of 12.12 percent (**Scenario 2**),
- Addition of energy saving and GHGs emission reduction benefits due to land use and irrigation system change to the overall project costs and benefits significantly enhances the returns to the project. In this case, the NPV jumps to US\$413.35 million with IRR of 19.12 percent (**Scenario 3**),
- When Phase I and Phase II project costs and benefits are considered, the NPV is US\$478.35 million with IRR of 15.32 percent (Scenario 4), and
- When only the costs and benefits of irrigation development and natural resources management are considered, the NPV is US\$128.45 million with IRR of 10.8% (Scenario 5).

Overall, the project is economically viable given the assumed discount rate of 6 percent.

Table 55 Results of the economic Analysis

Year	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
1	(7,273,035)	(7,590,944)	(7,590,944)	(7,590,944)	(7,411,372)
2	(15,684,723)	(16,465,044)	(16,465,044)	(16,465,044)	(16,024,276)
3	(29,879,446)	(31,440,087)	(31,440,087)	(31,440,087)	(30,558,553)
4	(42,672,221)	(42,768,014)	(42,768,014)	(42,768,014)	(41,489,245)
5	(42,496,977)	(42,583,137)	(42,583,137)	(42,583,137)	(41,309,810)
6	(46,177,091)	(46,465,555)	(46,465,555)	(46,465,555)	(45,077,955)
7	(3,621,219)	3,154,761	27,092,960	15,312,254	(1,453,119)
8	19,627,733	26,403,713	50,341,913	25,163,815	21,795,833
9	22,320,989	29,096,969	53,035,168	5,248,972	24,489,089
10	24,478,128	31,254,108	55,192,307	(12,969,088)	26,646,228
11	24,672,557	31,448,537	55,386,736	(12,495,547)	26,840,657
12	23,997,446	30,773,425	54,711,625	(19,032,017)	26,165,546
13	19,020,432	25,796,411	49,734,611	70,729,651	21,188,532
14	26,805,109	33,581,089	57,519,288	78,514,329	28,973,209
15	26,910,123	33,686,102	57,624,302	83,200,293	29,078,223
16	26,364,576	33,140,556	57,078,755	82,654,747	28,532,676
17	25,580,887	32,356,867	56,295,066	81,806,625	27,748,987
18	26,648,274	33,424,254	57,362,453	73,416,989	28,816,374
19	27,592,887	32,200,767	56,138,966	86,858,434	27,592,887
20	28,809,253	33,417,133	57,355,332	88,276,207	28,809,253
21	29,828,385	34,436,265	58,374,465	88,259,880	29,828,385
22	30,452,847	35,060,727	58,998,927	87,397,242	30,452,847
23	31,234,897	35,842,777	59,780,976	90,196,108	31,234,897

Year	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
24	31,741,722	36,349,601	60,287,801	92,487,767	31,741,722
25	32,320,949	36,928,829	60,867,029	95,365,304	32,320,949
26	32,610,563	37,218,443	61,156,643	97,580,555	32,610,563
27	32,827,774	37,435,654	61,373,853	98,977,679	32,827,774
28	32,827,774	37,435,654	61,373,853	100,455,353	32,827,774
29	32,827,774	37,435,654	61,373,853	101,412,991	32,827,774
30	32,827,774	37,435,654	61,373,853	102,507,435	32,827,774
31	32,827,774	37,435,654	61,373,853	103,054,657	32,827,774
32	32,827,774	37,435,654	61,373,853	103,465,074	32,827,774
33	33,328,421	37,936,300	61,874,500	103,965,721	33,328,421
34	33,829,067	38,436,947	62,375,147	104,466,367	33,829,067
35	34,329,714	38,937,594	62,875,793	104,967,014	34,329,714
36	34,830,361	39,438,241	63,376,440	105,467,661	34,830,361
37	35,331,008	39,938,887	63,877,087	105,968,308	35,331,008
38	35,831,654	40,439,534	64,377,734	106,468,954	35,831,654
39	36,332,301	40,940,181	64,878,380	106,969,601	36,332,301
40	36,832,948	41,440,828	65,379,027	107,470,248	36,832,948
41-46	-	-	-	42,091,221	-
NPV	114,044,124	170,882,931	413,352,296	478,349,083	128,454,297
IRR(%)	10%	12%	19%	15%	11%
B/C	1.72	2.03	3.49	2.38	1.80

9.1.5 Sensitivity Analysis

The sensitivity analysis was performed with a focus on Phase I and the irrigated crop production component of the project. Emphasis was given to crop production component because it comprises significant proportion of the investment cost of the project and often faced with numerous challenges. Scenario 1 was selected as the baseline scenario for the most conservative estimates as other scenarios display higher NPV, B/C and IRR. Three main factors were considered in the sensitivity analysis. These are: (i) cropping pattern or choice of crop mix, (ii) degree of realization of the planned new net irrigated area, and (iii) cropping intensity. Cropping pattern or the choice of crop mix defines whether the irrigation scheme is oriented towards smallholder food production or towards commercial production based on high value crops. In the smallholder oriented cropping pattern, predominantly maize is produced in rotation with pulses. While in the commercial production orientation scenario three crops with the highest calculated gross margins, namely tomatoes, sweet corn, and green mealies were added to the cropping mix in the baseline scenario by replacing crops with lower gross margins. Note that these crops require investments in processing technology, packaging, storage, and freight facilities. Assumptions regarding the realization of the planned net irrigated area is considered for sensitivity analysis based on the fact irrigation projects do not always fully realize the planned irrigation development area. It must be noted that in SVIP investment decisions for SVTP-II are dependent on good progress regarding connections in the SVIP-I area.

Cropping intensity is considered for analysis because one of the main rationale for investing in

irrigated agriculture is to enhance land productivity through improving cropping intensity and yield.

The results of the sensitivity analysis are shown in Table 56. It shows that the return to the project is highly sensitive to the degree of realization of the planned new irrigation area and the choice of crop mix.

Table 56 Results of sensitivity analysis for Phase I

Risk factors	Assumptions	Indicators		
		NPV (million US\$)	B/C	IRR (%)
Cropping Intensity: (% reduction from baseline value)	37.5%	47.86	1.30	7.97%
	25%	69.92	1.44	8.88%
	12.5%	91.98	1.58	9.5%
	Baseline value	114.04	1.72	10.21%
Degree of realization of planned new net irrigated area	50% of the plan	-9.96	0.94	5.54%
	75% of the plan	52.04	1.33	8.11%
	85% of the plan	76.84	1.49	8.99%
	Baseline value	114.04	1.72	10.21%
Cropping pattern: best profitable crops	Smallholder orientation	82.29	1.52	9.14%
	Commercial Orientation	684.77	5.33	24.4%
	Baseline value	114.04	1.72	10.21%

9.1.6 Financial Analysis

Several crops were evaluated for their suitability to grow in lower shire valley under irrigation conditions. A comprehensive evaluation criteria including profitability criterion were used to select crop and livestock enterprises that fit irrigated farming system in the lower shire valley⁵⁹. Summaries of the gross margins of the selected most suitable crop and livestock enterprises are presented in Table 57. Maize was included in the crop mix for food security reason despite its relative low profitability. Soya beans was also considered for crop rotation and nutrition reasons.

High value perennial crops are gradually introduced in the crop mix as farmers obtain hands-on experience in irrigated agriculture and market opportunities develop. The existing trade and market policies to contain domestic prices, exchange rate misalignment, poor price transmission between domestic and international market owing to inadequate infrastructure may depress producer prices and disincentivize irrigators.

Table 57 Enterprise gross margin summaries (US\$/ha)

Year 1	Year 2	Year 3	Year 4	Year5	Year 6	Year7	Year 8	Year 9	Year10
Enterprise: Bananas									
-3,025.7	5,616.3	5,616.3	5,616.3	5,616.3	5,616.3	5,616.3	5,616.3	5,616.3	5,616.3

⁵⁹ PWC Report (2016)

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Enterprise: Citrus									
-1,199.3	-933.9	-923.6	1,377.9	2,564.7	3,941.5	5,597.2	8,192.6	10,657.8	12,095.8
Enterprise: Cotton									
1,124.9	1,173.4	1,223.4	1,223.4	1,223.4	1,223.4	1,223.4	1,223.4	1,223.4	1,223.4
Enterprise: Dry Beans									
815.3	1,022.7	1,230.1	1,230.1	1,230.1	1,230.1	1,230.1	1,230.1	1,230.1	1,230.1
Enterprise: Pigeon Peas									
1,150.7	1,329.0	1,500.5	1,500.5	1,500.5	1,500.5	1,500.5	1,500.5	1,500.5	1,500.5
Enterprise: Maize									
-20.0	96.4	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7
Enterprise: Mangoes									
-1,207.8	-1,057.2	-765.0	-409.1	383.2	2,034.9	3,059.3	3,915.1	4,341.5	4,675.3
Enterprise: Soya beans									
185.1	254.7	337.9	337.9	337.9	337.9	337.9	337.9	337.9	337.9
Enterprise: Livestock									
-2,450.2	-3,408.6	-4,284.5	8,677.5	5,720.6	7,591.1	9,147.9	9,042.5	9,206.8	9,430.1
Enterprise: Aquaculture									
23,829.9	23,829.9	23,829.9	23,829.9	23,829.9	23,829.9	23,829.9	23,829.9	23,829.9	23,829.9

Source: PWC Report (2016)

To enhance the utilization of farm technologies and realize economies of scale in production, marketing and value addition activities such as processing, the farmers will be organized into a 500 ha farm Units or cooperatives. Fifteen such farm units shall be established in the first phase of the project. In the second phase, thirty-five 500 ha-farm units will be organized. The profitability of these farm units was assessed and the results are depicted in Table 58. These cooperatives are expected to make capital expenditure to the tune of US\$387,000.

Table 58 Cash Flow and Net profit per 500 ha Farm Unit

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Net Revenues or expenses (thousand US\$)										
Crops	578.2	702.1	827.3	827.3	827.3	1,127.2	1,178.1	1,243.7	1,218.6	1,172.2
Livestock	-2.5	-3.4	-4.3	8.7	5.7	7.6	9.1	9.0	9.2	9.4
Aqua-culture	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
Deprecia-tion	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9
Overheads	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
Net profits	459.9	582.8	707.1	720.1	717.1	1,019.0	1,071.4	1,136.9	1,112.0	1,065.8

The profitability analysis was performed based on the following financing assumptions:

- Bank finance for 50 percent of capital costs at 10 percent real rate of interest,
- Repayment for capital amortized over 8 years,
- Project grant contribution at 50 percent for capital equipment,
- Payment for capital loan is made from year 2 onwards,

- Bank finance for 50 percent of variable and overhead costs in year one at 12 percent real rate interest,
- Bank finance for 100 percent of variable and overhead costs in subsequent years at 12 percent real rate interest,
- Repayment for variable costs made from deduction from crop sales, and
- Crop yields reflecting gradual improvement from year one year four as farmers gain experience.

The results of the profitability analysis shows that the farm or the cooperative registers a profit of US\$459,887 in its first year of operation. The profit grows to over a million dollar beginning the six year of the farms operation due to gradual improvements in crop yield and incorporation of high value perennial crops into the farm.

9.1.7 Analysis of impact on household income and poverty

The overarching Malawian government objective, as indeed the case for most governments of Sub-Saharan Africa, is to improve livelihoods and income, and reduce poverty; especially in rural areas⁶⁰. The level of poverty in the target population is worse than that of the national and regional figures⁶¹.

Overall, 50.7 percent of the population of Malawi was poor in 2011. The corresponding estimate for target population of Phase I of the project is 81.6 percent. Poverty level is exceptionally high in all of the SVIP areas, except in specific areas⁶² where Illovo Company is located. In these specific areas the incidence of poverty ranges from 42 percent to 50 percent, perhaps due to access to irrigated agriculture and the influence of Illovo estate.

In Malawi, the mean per capita expenditure was MK56,548 in 2011. Inequality in income is stark. The poorest 20 percent spend only MK15,161 per person, while the riches 20 percent spend on average about MK140,458. In the project area, the mean per capita expenditure ranges from MK14,788 to MK35,896; about 65.7 percent to 68 percent of which is spent on food.

What is the likely impact of the project on income and poverty level of the target population? The project beneficiary households are expected to earn income from the 0.1 ha individual plots allotted to them and dividends from cooperatively managed farm. According to the analysis presented in the preceding sections, a household is expected to generate income in the range of US\$204 to US\$216 from the 0.1 ha individually operated plots and receive dividends in the range of US\$1,840 to US\$4,263 per annum. Conservatively, a beneficiary household earns on average about US\$2,044 per year, which is equivalent to MK1,481,900⁶³ (see Table 59).

Table 59 Estimated income of beneficiary households with and without the project

No	Indicators	Value
1	Average income per HH per year with project (MK)	1,481,900

⁶⁰ See MGDS

⁶¹ For details see IHS3 2011 and the Draft Socio-economic Baseline Report, 2016

⁶³ Exchange rate: US\$1=MK725

2	Average per capita income per year with project (MK)	344,628
3	Average income per HH per year in Phase I project area without the Project	71,164.0
4	Average income per Capita per year in Phase I project area without the project	16,550.0
5	Average per Capita income per year: Malawi (MK)	56,548.0
6	Urban Average Per capita income: Malawi (MK)	72,469.0
7	Rural Average per capita income: Malawi (MK)	33,103.0
8	Malawi poverty line (MK per Capita per year)	37,002.0
9	Average per capita income for the poorest 20% (MK)	15,161.0
10	Average per capita income for the richest 20% (MK)	140,458.0

A closer look at the information contained in Table 59 reveals the following insights:

- The project increases the level of income of beneficiary households by about 20 times from its current level,
- The mean per capita income of beneficiaries even surpasses that of the richest 20 percent, and
- The per capita income of beneficiaries is about 9 times the Malawian poverty line and is about 68.5 percent of the international poverty line of US\$1.9 per day.

Thus, it can be safely concluded that the majority of the project beneficiary HHs could be lifted out of poverty.

9.2 Gender and Youth

9.2.1 Gender and Youth Profile

9.2.1.1 Gender equality index for Malawi

Malawi has a low human development, ranking at 170 out of 186 countries on the Human Development Index. In terms of gender, the country ranks 124th on the Gender Inequality Index (GEI), with a value of 0.57, reflecting high levels of gender inequalities in reproductive health, empowerment and economic activity. The African Development Bank has ranked Malawi at 72.8% on the gender equality index, which is amongst the top five countries in Africa that are doing best on gender equality, together with South Africa, Rwanda, Namibia and Mauritius. The GEI highlights the barriers to women's full participation in Africa's development, and provides policymakers, and those advocating policy change, with a robust source of data to understand the links between gender equality and development⁶⁴.

Despite the high ranking, women are marginalised in many spheres of social, economic and decision-making positions. The situation has also been complicated by the fact that Malawi has not met Millennium Development Goal (MDG) 2, for universal primary education, MDG 3 on gender equality and women's empowerment⁶⁵ and MDG 5 on improving maternal health⁶⁶.

⁶⁴ African Development Bank, 2015. Empowering African Women: An Agenda for Action: Africa Gender Equality Index, 2015

⁶⁵ 2010 Malawi Millennium Development Goals Report

⁶⁶ GoM, 2014, Ministry of Gender, Children and Community Development, Draft National Plan of Action to Combat Gender-Based Violence in Malawi, 2014 – 2020, Private Bag 330, Lilongwe 3

The SADC uses the SADC Gender and Development Index (SGDI) as well as Citizen Score Card (CSC) to measure progress in productive resources, employment and the economy. The SGDI measures economic decision-making; female to male unemployment rate; female share of non-agricultural paid labour and the length of maternity leave. According to the SADC Gender Barometer of 2015, Malawi's SGDI was at 61%, which was the lowest but one in SADC.

In 2008, the total population in Malawi was 13,066,320, out of which 6,365,771 (49%) were males and 6,700,549 (51%) were females. The population grew from 9,933,868 in 1998 to 13,066,320 in 2008, representing an increase of 32% (NSO, 2008) over a period of 50 years. At regional level, the results show that the Southern Region has the highest population of 5,876,784 (45%), followed by Central Region, 5,491,034 (42%) and Northern Region, 1,698,502 (13%). The youth (10-35 years) form the largest age group of the Malawi population; with more than 40% persons aged 10 to 35 years. About 48% of the population is younger than 19 years old. Within the TAs in the SVIP area, the proportion of people younger than 20 years was 56% in 2008. Only 14% was 40 years or older. Of the total population of Malawi, 5.1% lived in the two southern districts of Chikwawa and Nsanje.

The population growth rate for Malawi during the inter-censal period 1998 - 2008 was 2.8% per annum as compared to 2.0% during the inter-censal period 1987-1998. About 48% of the total population is above 18 years old and the rest below 18 years. The population of Chikwawa and Nsanje districts combined is 12% of the population of the Southern Region.

9.2.1.2 Education and literacy

Although women are the majority of the population (51%), they are marginalized in economic and social spheres. Literacy levels of women are considerably lower than for men. Nationally, 65.4% of the population aged 15 years and above are literate. However, there are gender differences, with 57.2% of women compared to 74.4% of men above 15 years old being literate.

Adolescent girls ages 15 to 19 are 10 times more likely to be married than adolescent boys. Early marriage puts young girls at risk of early childbearing and birth complications, prevents them from completing school, and limits their economic opportunities. Completion of secondary education is low among young adults ages 20 to 24, particularly for girls. Those in the wealthiest income level have the highest completion rates. Students who stay in school longer tend to delay marriage, have smaller families and more economic opportunities, and are better informed about health-related behaviours. (PRB, 2014)

A project baseline study by the Ministry of Gender in 2012, showed that 56% of female respondents had no formal education compared to 44% of their male counterparts⁶⁷. The same trend is noted for qualifications at Junior Certificate of Education (JCE), Malawi School Certificate of Education (MSCE) and non-university diploma levels. The MSCE level has a particularly large discrepancy between male respondents (76%) and female respondents (24%). Literacy rates for Chikwawa and Nsanje are both far below the national average at 48.6% and 45.5% respectively. (GoM, 2012).

Within the SVIP area, 35% of the household interviewed is not able to read or write and 20% never went to school. The illiteracy rate of 74% of the female household heads is far higher

⁶⁷GoM, 2012, Baseline study for the GEWE Project, Ministry of Gender and Community Development

than the 27% of the male household heads. The illiteracy rate is slightly better among household heads of 35 years and younger, especially for men (60% illiterate) and less for men (27% illiterate). Very few attended junior and senior secondary school, especially of the women, and hardly anyone attained a higher education. The rates found in the household survey in the SVIP area are far higher than the national rates both for the literacy rates and the highest level of education obtained. Table 60 below provides the results of the SVIP Household Survey.

Table 60 Literacy rates and highest level of education attained by household heads within the SVIP area

Illiteracy - highest level of education	Total SVIP	Female HHH			Male HHH
		Total	35+	19-35	Total
Is NOT able to read or write	35%	74%	82%	60%	27%
Is able to read or write	65%	26%	18%	40%	73%
Total	100%	100%	100%	100%	100%
Never been to school	19%	47%	59%	25%	13%
Junior primary school	27%	29%	27%	33%	27%
Senior primary school	32%	17%	9%	32%	35%
Junior secondary school	9%	2%	3%	2%	10%
Senior secondary school	11%	4%	3%	6%	13%
Higher education	1%	1%	0%	2%	1%
Total	100%	100%	100%	100%	100%

Source: SVIP Household Survey, 2015

DHS 2010 reported that women with no education are the least likely to be the main decision makers (31%) and that the proportion of decision-makers increases with each level of education to 48% of women with more than a secondary education. A very worrying statistic is that one in every five Malawians aged 15 years and above is reported to have never attended school. Again there are gender differences. A higher proportion of females of this age group (28%) has never been to school compared to their male counterparts (14%). Within the SVIP area 47% of the female headed households never attended school. By place of residence, only 7% of people in urban areas have never been to school compared to 24% of people in rural areas. Literacy is described as the ability to read and write with understanding in any language (GoM, 2012). According to stakeholder interviews, illiteracy levels in the two districts are a root causes of poverty. Stakeholders confirmed that illiterate women are less likely to know the size of their farms, the type and amount of inputs to use in their crops, the costs of their production and the prices their produce and also the profits of their farming business. Illiterate farmers are less likely to keep their farm records, therefore find it difficult to sustainably managing their farming as a business.

Unlike women, who are mostly illiterate, the youths are the most literate age groups in Malawi, with 82% being able to read and write, with more boys (87%) compared to girls (77%) being literate. The high literacy rate is an opportunity which programmes can take advantage of to involve youths, especially out of school youths, in entrepreneurship, with slightly more males (86.6%) than females (77%) being literate. While youths have many challenges they also offer

an opportunity to get dividends from the youth population bulge because the youth are willing to take risks, utilise scientific based farming technologies besides that they are also energetic. In this regard the main issues that the Shire Valley Irrigation Project can focus on are youth unemployment; reducing HIV and AIDS and STIs, because although Malawi as a country has registered a significant reduction in HIV and AIDS prevalence most of the new infections are occurring in the youth. The SVIP may also build youth reliance by reducing youth poverty and vulnerability through addressing the problem of inadequate technical and vocational training centres in the project area.

9.2.1.3 Decision-making

National level

The participation of women in decision in decision-making processes is generally low in Malawi. According to the 2015 SADC Gender Barometer, 17% of Members of Parliament in Malawi are women, compared to 15% who are in Cabinet and 11% who are councillors. (SADC, 2015)⁶⁸. Malawi had a female President for two years between 2012 and 2014 but she lost elections in 2014. By then Malawi had been the only country in SADC to have a female president, according to SADC Gender Barometer. Women face a number of challenges in attaining political leadership positions: these include lack of resources to campaign, bias against women by political parties, negative norms and attitudes against women who are leaders and in some cases, they are not allowed to joint political parties.

Decentralised level

At the decentralised levels, only 11% out of the 586 Councillors are women, which is again very low⁶⁹. At the local, an important position in decision-making is the position of the District Commissioner. So far, there are 28 districts in Malawi and very few of them are headed by a female District Commissioners.

At the regional level in SADC, all 13 SADC countries with elected local government have failed to reach the 50% target for decision-making positions between men and women. Only two countries (Namibia 42% and Lesotho 49%) are a single digit point away from the target (SADC, Gender Barometer, 2015). In terms of the ratio of membership of women in agricultural cooperatives, the percentage is rather low⁷⁰. Data on decision-making positions in agricultural cooperatives is not readily available. However, a recent midterm review of the Royal Norwegian Embassy supported Malawi Livelihood programs found a 46% of female

⁶⁸ Gender Links 2015, SADC Gender Protocol Country reports and IPU last accessed 12 June 2015.

⁶⁹ Gender Links 2015, SADC Gender Protocol Country reports and IPU last accessed 12 June 2015.

⁷⁰ Prakash, D, 2003, Rural Women, Food Security And Agricultural Cooperatives, ICA-Japan Agricoops Management Training Project for Asia

leadership positions in agricultural institutions (LTS International, 2016)⁷¹, which is 4% less than the SADC target of 50%. In Phata Irrigation Scheme in Malawi, which will also be covered under the SVIP, 42% of the members are women and in the Kasinthula Irrigation Scheme 34% of the farmer members are women. The figures are below the 50% target set nationally for the 50:50 campaign.

Participation of women and youths in institutions which govern the water sector is critical, but often limiting (Unknown Author, 2006)⁷². The predominant type of organization to manage water resources are water users associations (WUAs). According to the World Bank, the participation of water users in WUAs is normally linked to the ownership of the land. Because few women formally own land and their literacy levels are low, their participation and representation in WUAs are normally low. In Nsanje, there are 52 irrigation schemes and only two of them have been registered as WUAs. According to the National Youth Council, youths may also not participate because most of them are less interested in agricultural production activities, which are associated with WUAs. (National Youth Council, 2014)

Household level

The ability of women to make decisions at household level is an important aspect of women empowerment (GoM, 2012). At the farm level, managing an irrigated farm means making effective decisions at the right time. How decisions on, for example, what crops to grow, where to grow, how much land to allocate to irrigation etc. are made relates to a number of factors, but principally to who within the household is responsible for what decisions. However, women's decision-making at household level is limited. Often women are only allowed to make decisions on small and daily purchases for household needs. Decisions on large investments related purchases and important issues affecting the household are made by men.

The DHS 2010 provides evidence of these facts, where it is found that 44% of married women reported that it was their husbands who mainly made the decisions for their health care. Sixty-nine percent reported that it was their husbands who mainly decided on major household purchases (economic assets). Forty-six percent of the women reported that their husbands made decisions on purchases for daily household needs (reproductive assets) and 32% of married women report that their husbands decide on visits to their own family or relatives. Women in urban areas (29 %) are more likely than women in rural areas (18%) to participate in household decision-making.

Results from the SVIP based field study also found that men generally dominated decision-making at household level, in most aspects of household decision-making. Married women made fewer decisions on their own compared with female headed households, while children generally did not make decision on most household activities, implying that there is need for capacity building for mainstreaming gender and youth at household level. For example, decisions on how to use income earned by male members of the household were made by adult

⁷¹ LTS International and Centre for Development Management (CDM), 2016, Final Report, Midterm Review of the Malawi Livelihood Programme, Case no. 1600141, Submitted to the Norwegian Agency for Development Cooperation (NORAD) by LTSM Chitukuko Ltd

⁷² Author not indicated in the reference

male (55.7%), adult female (14.2%), jointly between adult male and adult females (29.2%) and youths (0.2%). Decisions on how to use income earned by female members of the household were made generally mainly by adult female (36.3%), although adult males had a significant say (25.4%) on how such money was used. Children do not take part in such decision-making. Decisions about what crops to grow are made by adult males (44.4%), followed by joint decision-making between adult males and adult females (35.5%) and adult females (19.7%), indicating that men still dominate in selection of crops grown at household level. Decisions on whether to participate in the SVIP, whether to sell crops and where to sell also showed same percentages. Women participate far less in decision-making on whether to let out or rent in land, as these decisions were made primarily by male members of the household (51.3%), and only 16.9% of respondents reported that female members of the household made such decisions. Joint decision-making was only at 31%, which implies that the SVIP will have to implement affirmative actions to empower women in terms of land related decisions. Even in female headed households, 15% of respondents reported that men made such decisions.

Various stakeholders interviewed in Chikwawa and Nsanje collaborated the findings of the household survey and reported that in the two districts, the gender situation is not different from what literature has reported above. Stakeholders reported that due to cultural, socio-economic and political factors, women have limited decision-making powers at household and community level. Although, the two districts have matrilineal societies, decisions on land and land transactions are often made by men and not by the women. Understanding how authority and responsibilities are distributed between men and women at community and household level is therefore very important in interventions that seek to target specific members of the household with services, such as training, and technologies, such as drip irrigation. Without such understanding, some of the targeted beneficiaries may not be able to participate in the planned activity because of social restrictions imposed by family members. The SVIP will need to include in its training programmes, issues of gender and decision-making at household level, including how to distribute resources equitably between household members, to create space for better participation of women (especially those involved in the scheme) in household decision-making.

Land tenure

Land and water are amongst the most important natural resources for livelihoods in Malawi. According to stakeholders consulted, the dominant land tenure system in Chikwawa and Nsanje, is customary land. However, the area has some private land, especially leased land under Illovo and Kasinthula Cane Growers Trust. There is also public land which includes Lengwe National Park, Majete and Mwabvi Game Reserves. Although all land in Malawi is vested in the President in trust for the people of Malawi, the actual administration is delegated to line ministries and institutions. However, customary land administration is done by traditional leaders following long standing but unwritten traditional rules and norms. Such customary practices are often respected by the people concerned. Under customary setting, the land belongs to the chief, hence the title “*Gogo Chalo*” literally meaning “grand-father of the land”.

Consultations with chiefs indicated that that when land has been allocated, the individual who has been assisted gives a token to the chief, locally known as “*chiponda m’thengo*”, normally paid in cash. The *Chiponda m’thengo* can be in kind or cash, but the quantity and the amount

of money are not prescribed and are dependent on what the beneficiary of the land allocation process can afford. Chiponda mthengo practice was reported to be barrier for women and youth who cannot afford it to access land to use it for irrigation and other purposes. In terms of allocation of land amongst clan members, the head of the clan is responsible for allocating land to his/her relatives. Hence it is also important that heads of clans are also sensitised on gender so that they distribute land to male and female members of the household equitably. For more information on land tenure reference is made to the Land Tenure Diagnostic and Allocation and Consolidation Strategy.

Table 61 Marriage types and land ownership in Malawi

Main features	Nthengwa	Chikamwini	Chitengwa	Hybrid/Neutral
<i>Definition</i>	Patrilineal	Matrilineal	Matrilineal	Neutral
<i>Exchange of payments</i>	Lobola to the woman's family	None	A gift called Chiongo to the woman's family	None
<i>Land and property inheritance rights</i>	Man's line, woman has rights on her father's home	Woman's line, with her brothers having most powers on ownership	Woman's line, with her brothers having most powers on ownership	Man's line, woman has rights on her father's home
<i>Marital residence</i>	Man's village (virilocal): woman moves to the man's village	Woman's village (Uxorilocal): man moves to the woman's village	Man's village, upon death of the man. The women returns to her village	Neutral village
<i>Ownership of children</i>	Man's line, children take up surnames of the man	Woman's line but children take on fathers' clan names as well as surnames	Woman's line but children take on fathers' clan names as well as surnames	Man's line, children take up surnames of the man

Source: Constructed from stakeholder interviews

Stakeholders reported that irrigated and rain-fed land is the main source of livelihoods for many rural households in Chikwawa and Nsanje. Dependence on the Shire River for irrigation is quite high and those households with land along the Shire River are likely to be better-off than those who do not. Often, households without either land or access to water do not participate in irrigation activities and stakeholders recommended that any irrigation model that SVIP developed should ensure that even those without land but living within the programme area should be included in the programme. Women, especially female headed households do have less access to land, than men, hence they need special attention.

In Chikwawa, the dominant marital system used is the matrilineal system also called chikamwini while in Nsanje it is Nthengwa (patrilineal). In both districts, there are marriages that are negotiated based on chitengwa. Chitengwa is a matrilineal marriage system that has adopted elements of a patrilineal system such as a woman moving to the man's village. The distinguishing features of matrilineal *chikamwini* system of marriage is that residence is uxirilocal, the wife's village is the matrimonial home, and no *lobola* is paid for the wife. Inheritance of property passes through the female line. Land belongs to the clan and its inheritance passes through female offspring. Women have custodial ownership of land. Children belong to the woman and her brothers. A woman's children inherit her brother's

property. Upon death of a man the wife and children are undisturbed in terms of residence and land use. When a wife dies the man returns to his village. (Ngwira, 2002).

Resettlement

Many communities in the proposed SVIP area have had negative experiences with resettlement. Most of such experiences came from the establishment of SUCOMA (now Illovo) in the 1960s, when large chunks of customary land were leased out by the Malawi Government. Since then Illovo has been acquiring more land, to the discontent of local communities. In recent years new companies are emerging and also acquiring land. These include Kasinthula Cane growers, Crown, Press Cane, Sanguwa and others.

Establishment of companies such as Illovo, meant that people were forced out of their land and had to resettle elsewhere. While in the 1960s the number of affected people might have been few due to the lower population, here has been a substantive growth in population in recent years, with later resettlement affecting more people. Many stakeholders consulted said that the process of land acquisition was fraudulent and that the compensation paid was a mockery. People's perception is that if resettlement is for the benefit of the majority and only affects a few individuals, e.g. for constructing the canal, most people would accept if duly compensated.

Another important experience on resettlement in the Lower Shire has been the efforts of the Government to resettle people prone to annual flooding. Efforts to resettle people in the flood prone areas have been resisted for the past 30 years due to many factors including loss of power by chiefs, fear of loss of fertile land and livelihoods by the resettling communities, fear of loss of land by the receiving communities and general lack of basic infrastructure such as schools, water sources, toilets, housing, etc., in the new areas. Because of this, government and non-governmental organizations have perpetually faced challenges in their poverty reduction efforts.

9.2.1.4 Access to economic assets, credit and finance

Assets

The SVIP baseline household survey (Table 62) showed that the gender equality index on asset ownership of high value productive assets was lower for female headed than for male headed households. The opposite is the case for lower value reproductive assets.

Table 62 Asset ownership by gender

Household asset	Male headed household	Female headed households	Total	Gender equality index (FHH as a proportion of MHH)
High value productive assets				
Radio	43%	21%	39%	0.5
Cell Phone	55%	26%	50%	0.5

Household asset	Male headed household	Female headed households	Total	Gender equality index (FHH as a proportion of MHH)
Push Bicycle	72%	39%	67%	0.5
Iron Sheets	40%	32%	39%	0.8
Small Livestock (Goat)	32%	24%	31%	0.8
Large Livestock (Cattle)	12%	5%	11%	0.4
Treadle Pump	2%	1%	2%	0.5
Average	37%	21%	34%	0.6
Low value reproductive assets				
Dining Table	19%	11%	18%	0.6
Bed	20%	11%	19%	0.6
Mattress	16%	13%	15%	0.8
Plates/Basin/Pots	89%	86%	89%	1.0
Panga	73%	43%	68%	0.6
Hoe	92%	96%	93%	1.0
Axe	50%	46%	50%	0.9
Chairs	38%	22%	35%	0.6
Average	47%	40%	46%	0.7

Source: SVIP Household Survey, 2015

Access to financial services and credit

In Malawi, access to financial services, especially credit is a luxury for poor people. The COWI/SVIP baseline survey found that only 4.2% of respondents had obtained a loan in the past year (2014/2015). The percentage of those who had obtained a loan was lower for the youths (2.9%) than the adults (4.8%), although overall access to loans was very poor. Fewer female headed households (3.6%) accessed loans than male headed households (7.1%). Many other studies have reported that the most common barriers for accessing credit include, but not limited to, high interest rates, short repayment periods and requirements for collateral and past experience in business. A baseline survey for the Millennium Challenge Account in the middle Shire found that other people were afraid of getting loans for fear of losing their collateral which included land (LTS International, 2012). Although the data are not gender disaggregated, Table 63 below does provide valuable information on the reasons why 86.5% of people in Malawi, 95.1% in Chikawa and 88.4% in Nsanje do not apply for a loan. Due to low uptake on commercial loans, most enterprises do not use formal credit sources such as banks to finance their businesses.

Only 8.9% of female headed households in the SVIP impact areas had a bank account compared to 15.9% of male headed households. This also explains why access to financial products such as loans is quite poor. The Integrated household survey of 2012 showed that own savings from agriculture constituted the main source of initial capital for enterprises in both female and male headed households at 28% and 34% respectively. Female headed households rely more on informal lenders than male headed households, thereby subjecting women to harsh lending conditions and putting them at risk of sexual violence. About 8% of enterprises

in female headed households relied on loans from family or friends for initial financing as opposed to 4% in male headed households (NSO, 2012).

In addition to the above constraints, businesses owned by women, including those run by cooperatives, have challenges in accessing markets, raw materials and operating capital. Due to high levels of illiteracy amongst women, they are not able to access market information, business loans and negotiate better prices on the market. Poor infrastructure, such as roads, electricity and communication limit the ability of rural cooperatives and individual business run by women, to access markets and better prices.

Table 63 Percentage of main reasons for not applying for a loan by area

Reasons for not applying for a loan	Malawi	Chikwawa	Nsanje
No need	21.2 %	7.0 %	7.9 %
Believed would be refused	15.7 %	16.7 %	19.8 %
Too expensive	12.2 %	18.7 %	18.5 %
Too much trouble for what it's worth	14.5 %	15.3 %	14.0 %
Inadequate collateral	3.5 %	14.8 %	14.0 %
Do not like to be in debt	10.3 %	8.4 %	7.7 %
Do not know any lender	21.8 %	18.8 %	19.3 %
Others	1.0 %	0.4 %	1.0 %

Source: GoM/NSO, 2012, Integrated Household Survey

Stakeholder interviews confirmed that access to financial services is a strong barrier to women and youth empowerment. Chikwawa district has some formal financial institutions such as banks, but their lending conditions and interests are not conducive to poor people. Most of these banks target Illovo Sugar Company and its employees, hence they operate from Nchalo as opposed to Chikwawa boma, which is the district head-quarters. It is well documented that access to bank loans is a luxury to poor people in Malawi. Hence most poor people, especially women and youths depend on own capital and other informal sources of capital. Nsanje District has only two formal banks (MSB and Opportunity Bank), but both of them do not have agricultural related financing windows. Businesses owned by women are less likely to be registered by government authorities compared to those operated by men. This, therefore, makes women less likely to access credit from formal banks as they would not have certificates of registration. The limited access to credit and finance means that the SVIP will have to develop a sustainable financing mechanism to enable smallholder farmers, especially women and youth, invest in irrigation, value addition or other SMEs associated with the programme.

9.2.1.5 Agriculture and the economy

Malawi's economy is primarily agro-based, with agriculture contributing about 35-40% of the foreign exchange earnings. Agriculture is by far the dominant sector of the economy, employing some 85% of the labour force. The sector accounts for about 80% of Malawian exports. Agriculture contributes about 38% of GDP. About 85% of Malawi's population live in rural areas with limited access to basic social services such as health, education and transport infrastructure.

Generally, in Malawi, including in Nsanje and Chikwawa District, women also spend considerably less time than men on income-generating activities, but spend more time on reproductive and unpaid work, such as at funerals, church services, political rallies, making them more dependent on men for income. Male headed households are more likely to operate off-farm enterprises (22%) than female headed households (15%). The top three main sources of income for households in the area are crop production (50.9%), casual labour /ganyu (17.5%), permanent employment (7.8%) and income generating activities (6.7%).

Although the Lower Shire is known to be a livestock producing belt, it only accounted for 1% as the main source of income for households⁷³. More (27.8%) female headed households depended on ganyu (26.2%) than male headed households (15.3%). In addition, fewer female headed households (46.2%) depended on crop production as a source of income compared to their male counterparts (51.2%), which indicate that female headed households may be more vulnerable and not able to access agricultural inputs to support crop production. More female headed households (11.3%) were likely to engage in income generating activities (businesses) than male headed households (5.5%), possibly to cope with food shortages which come as a result of being less dependent on agricultural production. Fewer female headed households (2.4%) depended on formal employment as a source of income compared to male headed households (9.2%), which confirms limited economic empowerment for women. Fewer youths (below 35 years old) depended on agriculture (41.6%) than the older ones (56.0%). Yet more youths depended on ganyu (19.4%) compared to the older ones (16.5%). In Malawi, among employed adolescents ages 15 to 19, 2 in 3 work in the agricultural sector; 17% work in manual labour; and 14% work in sales. When adolescents enter the labour force, they are often unable to continue their education, preventing them from building the skills necessary for meaningful employment. (PRB, 2014)⁷⁴

Other studies such as the MDHS 2010 found that 76% of currently married women were employed in the year preceding the survey compared to 98% of married men. The report found that a higher proportion of married women are not paid for their work (42% versus 29%, respectively) compared with the male counterparts. Slightly more married women are likely to receive in-kind payment for their employment; 3% for married women compared with 2% for married men. In the two districts, it was reported that even when women earn their own income, the husband is likely to decide on how to use that income. When income is jointly earned, such as income from sales of crop or general agricultural produce, men still make most of if not all the decision regarding how to use the income earned. The DHS found that only 37% of women decide for themselves how their earnings are used, while 21% of women made joint decisions with their husbands. In Malawi, including in the SVIP area, women earn less than men, with 73% married women reporting that they earn less than their husbands, only 10% of women report they earn more than their husbands.

9.2.1.6 Agricultural labour

Labour is the major input in most of the agricultural activities in Malawi (GoM, 2012) as well as in the SVIP impact area. The third integrated household survey showed that 94% of the

⁷³ Data in this paragraph are from the SVIP household survey 2015

⁷⁴ Population Reference Bureau and Malawi Ministry of Finance and Economic Planning and Development, 2014, Malawi Youth Data Sheet, 2014

cultivated plots used women to provide labour while a quarter of the cultivated plots reported to have used children in cultivating their plots. Only 23% reported to have hired their labour input. Women made up 48% of the global agricultural workforce in 2000 by the Food and Agriculture Organization's (FAO's) estimate. (FAO, 2001)⁷⁵. In Malawi, this proportion is 80% (GoM, 2012), although data from the integrated household survey suggest that women can provide of up to 94% of agricultural labour, as indicated above. This statistic shows that women's labour plays a fundamental role in agriculture and in particular in irrigated agriculture. However, a number of serious problems are associated with women and agricultural labour in Malawi:

- In Phata Irrigation Scheme, 42% of the members are women and in the Kasinthula Irrigation Scheme 34% of the farmer members are women. The figures are below the 50% target set nationally for the 50:50 campaign.
- It has been reported that while a husband and wife may work equally on the farm, the man enjoys more benefits, especially income from the produce sold. The man takes control of all income from crop sales. This was confirmed by stakeholders interviewed in the SVIP impact area.
- Women are generally not able to irrigate at night owing to security concerns and during the day may face other time limitations. This reduces their productivity.
- It has been reported that when women are owners of the farm and have adequate resources to manage it, their productivity tends to be higher than or at least equal to that of men.
- Most extension services target men, because most extension workers are male and may not be available to women farmers when needed.

9.2.1.7 Access to water

As has been indicated earlier on, access to water is an important priority of water policies in Malawi. In Malawi, 87% of the households have access to improved drinking water sources (NSO, 2015). Improved drinking water sources refer to piped water, tube well/borehole, protected dug well or protected spring but the majority (62%) use tube well or borehole or a water point as the source of drinking water. Less than ten percent (8.6%) have a piped water sourced in their dwelling, plot or yard. Twelve percent of the population use a public tap or a stand pipe as the source of drinking water. Urban residents had more access to improved drinking water sources (97%) than their rural counterparts (86%) (NSO, 2015)⁷⁶.

UNFPA (2002) estimated that women in many developing countries walk an average of 6 kilometres a day to collect water. In Chikwawa and Nsanje, women who live far from the Shire have serious water problems because most streams dry up during the dry season due to extreme

⁷⁵ Food and Agriculture Organization of the United Nations (FAO). 2001. Irrigation Sector Guide. Socioeconomic Gender Analysis Programme (SEAGA). Rome: FAO.

⁷⁶ NSO, 2015, Welfare Monitoring Survey 2014

hot temperatures. The availability of clean water close to home saves women's and girls' time, which can be spent on other productive and human development activities, such as crop production and education (IFAD 2007). Stakeholders have proposed that the SVIP will need to ensure that apart for supplying water for irrigation, the programme supplies water for domestic purposes close to homes, so that women do not travel long distances to fetch water. The time saved, may then be used for irrigation purposes.

Lessons learnt elsewhere show that water projects should be designed to address women's and men's domestic and productive water needs. To date, many single-sector projects have been planned, for either irrigation or domestic water supply. Multiple-use needs and requirements were overlooked, which caused particular difficulties in rural areas. To meet this challenge, there is need to ensure that the technology used should also be appropriate to specific needs. For example, in many rural areas in Malawi water for domestic use is difficult to access and a project that introduces irrigation should expect communities to use irrigation water for domestic uses, including drinking. Therefore, the SVIP project will need to introduce water treatment technologies and measures to ensure the availability of safe drinking water. In addition, such schemes need to include common water points where women and girls can wash utensils and chat to share challenges, experiences and plans for supporting their households. This is important socially because women have limited spaces for learning, networking and joint planning, compared to men, who meet in many other places. Potentially, these women's meeting points can become important social groups to advocate for women's issues in agriculture and community development.

9.2.1.8 Poverty

Almost half of the population is poor (50.7%), with 25% being ultra-poor (GoM, 2012). Of the 25%, 15% are ultra-poor with labour while the remaining 10% are ultra-poor without labour. The ultra without labour cannot directly participate in irrigation, if the criteria for participation includes labour availability. Therefore, other mechanism of support such as social cash transfers and other forms of subsidies should be examined. The ultra-poor with labour may be able to participate if labour is considered as the main criteria for participation, otherwise the SVIP will need to develop interventions that are appropriate for all poverty groups.

The Southern region, where the SVIP will be implemented, has the largest poverty rate (63%), implying that three out of five people live in poverty in the rural areas of the Southern region. The Northern region has the second highest proportion of poor people (60%). The Central region has the lowest proportion (49%) of poor people (GoM, 2012). About 49% of the people in male-headed households are poor and 57% of people in female-headed households (GoM, 2012). Poverty rates by male and female headship are much higher in rural areas than in urban areas. Specifically, 55% of people in male-headed households in rural areas are poor, compared to 63% of people who reside in female-headed. Nearly one in every five people in male and female headed households based in urban areas is poor compared to two in every four people being poor in rural areas. Table 64 below shows that the population of Chikwawa and Nsanje districts is very poor with the average of the two districts being much higher than the national average.

Table 64 Poverty Incidence and share of population distribution by background characteristics, Malawi 2011

	Poverty ⁷⁷	Ultra-poverty	Population	Poor	Ultra-poor
	% population	% population	%	%	%
Malawi	50.7	24.5	100	100	100
Urban	17.3	4.3	15.2	5.2	2.7
Rural	56.6	28.1	84.8	94.8	97.3
Region					
Northern	54.3	25.6	13.1	14	13.7
Central	44.5	18.9	42.6	37.4	32.9
Southern	55.5	29.5	44.3	48.6	53.4
District					
Chikwawa	81.6	59	3.3	5.3	8
Nsanje	81.2	56	1.8	2.9	4.1

Source: *Integrated Household Survey 3, Table 13.3*

Using the Progress out of Poverty Index (PBM definition), the household survey conducted in the SVIP impact area found that 58.7% of households were likely to be living below the old poverty line of \$1.25/day, which is higher than the national average of 50.7%, with 55.8% and 62.0% respectively for Phase 1 (Chikwawa) and Phase 2 (Nsanje) respectively. Not surprising, more women and female headed households (61.4%) were likely to live below the poverty line compared with male headed households (58.1%). According to key informant interviews and focus group discussions, the main causes of poverty in Chikwawa and Nsanje districts, is adverse weather conditions characterized by unreliable rains, floods extreme hot weather, affect agricultural production resulting into persistent hunger and poverty.

9.2.1.9 Food and income security

Chikwawa and Nsanje are traditionally vulnerable to climatic shock especially floods, dry spells and droughts. When these shocks happen, it is women and children that mostly bear the biggest burden, as they are still expected by the society to fetch food, firewood and water for the household. The SVIP baseline survey reported that on average the staple food harvested by female headed households lasted fewer months (4.2 months after harvest) compared to that of male headed households (6.1 months after). This resulted into women, female headed households and other vulnerable groups facing high level of food insecurity in the impact area as early from August/September each year. Targeting women, female headed households and youths with irrigation therefore can strengthen their resilience, which was confirmed by Traditional Authorities interviewed who reported that farmers that participate in smallholder sugar production are often less poor than those not involved, indicating a huge potential for irrigation to reduce poverty. In terms of cash income, the SVIP reported that

⁷⁷ Poverty are the percentage of the population that are poor. This includes the ultra-poor.

households headed by young female heads (below 35 years old) were more likely (63.5%) to live below the poverty line than their male counterparts (54.2%) who made MK 53,300 per annum. The youth headed households made about MK 88,500 per annum which was higher than the above 35 group who made MK 67,900 per annum. Male headed households had an average of 1.8 economically active members in the household compared to 1.5 in female headed households, implying that female headed household had limited capacity to earn or generate income for their households.

9.3 Health and Safety

The action plan concerns impacts that are related to the first phase of the irrigation project and mainly aims at activities that are not related to the contractor. The project mitigation and compensation package cannot solve all problems that exist in the study area (and that do not worsen due to the project). In fact, many health actions require the interventions of stakeholders that are not necessarily related to the project and would require commitments from the government.

a) Bilharzia

In the framework of the project, and this ESMP, focus can be paid to bilharzia as this disease is directly related to irrigation schemes and its prevalence will increase due to the project. The significance of the increase of cases of bilharzia is expected to be moderate.

Several measures must be implemented to fight bilharzia:

- Sensitization and education by the health sector shall be repeated frequently for many years in order to have a result. Sensitization for the use of latrines for defecation, or at least defecation away from houses, paths and water pools, could bring improvement.
- Treatment of patients by oral praziquantel; systematic mass treatment with praziquantel must be repeated yearly and extended to all people.
- Microscopic diagnosis to confirm the cause of the symptoms for urinal and intestinal schistosomiasis shall be strongly reinforced from the current situation.

Measures to reduce the occurrence of bilharzia as well as other project related issues can be mitigated by conducting sensitisation meetings at villages and schools on:

- Health and safety regarding work and the presence of machinery.
- The use of the canal (regarding bilharzia).
- Posters shall be made on these topics and distributed and distributed to schools, health facilities and other frequented places.

Health specialists in the area will be trained in detecting intestinal schistosomiasis. The SVTP shall request local health workers to carry out a vast sensitization campaign in the project area and will have the posters designed and printed. The first campaign will take place prior to the start of construction, but the campaigns will be repeated regularly.

The occurrence of bilharzia shall be recorded at health facilities and be reported regularly as part of their regular reporting. The change in the occurrence of intestinal schistosomiasis per

year will be the indicator. Table 65 shows the budget for mitigating bilharzia that is included in the ESMP.

Table 65 Estimated cost for mitigating bilharzia

		Annual costs USD	For 5 years USD
1	The cost of a single praziquantel tablet is about 0.08 USD and an average treatment is estimated to cost about 0.2 to 0.3 USD (WHO, 2016). For the estimated population of 500,000 of Chikwawa District the total annual costs are about 100,000 to 150,000 USD ⁷⁸ .	100,000	500,000
2	Microscopes (10)	5,000	
3	Local health specialists to conduct the sensitization campaigns – 2 for 2 months	4,000	
4	Capacity development of health facility staff on the latest methods to detect bilharzia	5,000	
5	Sensitization materials production – e.g. posters, radio programmes.	5,000	
	TOTAL USD	519,000	

b) Increased incidence of HIV/AIDS

A moderate negative impact is the increased risk for spreading HIV/AIDS. Often, the migrant workers are mainly men who leave their family behind. They may approach local women to satisfy their sexual needs and thus increase the risk for spreading HIV/AIDS. The sensitisation campaigns should, therefore, include sessions on HIV/AIDS and its risks. The existing HIV/AIDS testing and treatment facilities may be sufficient as there were many programmes addressing HIV/AIDS. This should be investigated during the RAP preparation phase and measures budgeted in the RAP if this might not be the case.

c) Drowning in the canal

Another health and safety impact that is expected to increase with the project is drowning due to the presence of the main canal. The significance of this impact is considered major. The mitigation measures will include:

- Health workers will conduct sensitisation meetings at primary schools to warn the children of the dangers of the canal. Posters and other information materials will be distributed at the schools and at other publicly assessable places.
- Large concrete stairs shall be built at each village crossed by a main canal. The primary purpose of the stairs is to allow people to access the water without danger. These stairs shall be large enough so that people can use these for fetching water and

⁷⁸ The government might apply for free praziquantel tablets through the WHO website.

washing clothes, whilst others may be used for watering cattle and other animals.

The exact position of the steps in the village shall be decided in conjunction with the villagers during the RAP preparation and included in the RAP. The steps should not be built on both sides of the canal at the same location as this might invite people to use the steps as crossings.

- To reduce the risk of drowning a fixed hard plastic ladder shall be placed on both sides of the canal at 500 meter intervals along the whole length of the main canals. Fixed ladders shall be installed at night storages as well.

The incidence of drowning shall be reported to the scheme operator and reported as part of his/her regular reporting. The indicator is the number of people (disaggregated by gender and adult/children) per year and the change over time.

The fixed ladders and steps will be included in the technical design and the costs in the construction budget.

9.4 Socio-Economic Impacts

In addition, to the socio-economic impacts mentioned in other reports, such as the Gender and Youth Strategy Study, and other reports, the following socio-economic impacts have been identified in the ESIA and ESMP:

d) **Moderate impact due to the workers influx**

The local authorities and TAs should be aware of the risks of worker influx within the project area and its surrounding areas and encroachment in the park especially as some of its western edges are already occupied by settlements. For example, the Mwabvi Wildlife Reserve and Elephant Marches are close enough to the project area to be encroached with settlements and its natural resources depleted by taking away wood and building materials. The mitigating measure is to employ two extra rangers. The costs are included in the ESMP and not reflected in this RPF.

On the other hand, there is also a positive impact of workers' influx as they will stimulate the local economic when purchasing their daily needs, renting houses, etc.

e) **Minor positive impact from increased job opportunities** as the project will require skilled and unskilled labour.

During the construction period some of the PAPs may be able to find a job with one of the companies constructing the irrigation scheme or any of the other organisations that provide services to the project. After construction some people may be engaged to carry out the operation and maintenance of the scheme or be part of the management of the scheme. To increase the changes the RAP may include training for the PAPs that may be of use for the construction company or other organisation.

The contractor could be stimulated to employ the local workforce and to more women. It could be considered that the construction contract stipulates the minimum percentage of days of local men and woman to be employed during the construction period. Non-compliance with this contract clause could trigger penalty in the form of reduced payment to the contractor. Training could be provided to the local employees as part of the contract or

provided by the SVTP as part of the support package⁷⁹. This will provide PAPs with a source of livelihood during the construction period and thus mitigate the negative impact of loss of revenue from their land.

The RAP could further include preparation and the incorporation of eligibility for priority in employment, together with an official mechanism for providing names to the construction contractor or other supporting organisations and for follow-up to track the number of PAPs employment (disaggregated by gender, skilled/unskilled work, number of working days for each category per specified period of time).

f) **Moderate increase in wildlife-human conflict.**

The Elephant Marsh is at stake when it comes to wildlife-human conflicts. Hippopotamus and crocodiles are currently the most conflictual animals and the situation will worsen with the project. Any conflicts will be dealt with in the usual way or by the Grievance Redress Committees.

⁷⁹ There are good experiences in the road sector with including a compulsory percentage of working days for women and men in unskilled and skilled positions, including training in the Bill of Quantities and including a penalty for non-compliance.

10 Preparation and Implementation of the RAP

Land will be required for the infrastructure of the irrigation scheme. Further, the preparation of the irrigation blocks will require time during which the farmers might not be able to cultivate their land and thus earn an income. These activities will generate impacts under OP 4.12. Given that the design of the branch canals and associated infrastructures are not complete and therefore the exact impact of the project is not fully known this Resettlement Policy Framework (RPF) has been prepared. The RPF, however, includes detailed information and data on the sections of the canals for which the preliminary design is ready (the main canal) and will be the basis for preparing the project investments specific RAPs. This RPF sets out the procedures for the development of more detailed RAPs for those investments and associated facilities that have an impact on land, assets, and livelihoods. The RPF ensures that any possible adverse impacts are addressed through appropriate mitigation measures, in particular, against potential impoverishment risks.

The detailed design of the project-supported irrigation blocks will be the result of an extensive participatory approach that is expected to take 2-3 years. While the general footprint of the project's irrigation canals and command areas is mostly already known, the specific people to be compensated or otherwise assisted under the project will only be known when the final design is completed of the canal and other irrigation works. Accordingly, this Resettlement Policy Framework (RPF) has been prepared, which sets out the procedures for the development of more detailed RAPs for those investments and associated facilities that have a known, specific impact on land, assets, and livelihoods. This RPF seeks to ensure that any possible adverse impacts will be addressed through appropriate social mitigation measures, particularly to avoid any potential impoverishment of Project-affected people. Preparation of this RPF included carrying out a variety of socioeconomic studies, including one on land tenure. For planning and budgeting purposes, the RPF made estimates on anticipated number of PAPs, types of losses, based on preliminary designs and anticipated project activities. These will need to be confirmed and updated during RAP formulation.

There will be two main types of RAPs developed, one or more for the main canal and related infrastructure (according to progression of the work and for each of the villages split by the infrastructure) and one for each of the irrigation block development. For the main infrastructure, these will be done as soon as detailed design is finalized. These RAPs will include mitigation measures deemed necessary for villages split by canals (e.g. bridges and lumpsum for other activities communities prioritize). For the irrigation blocks RAP a socioeconomic studies, census and asset survey, will be done for all the irrigation blocks at block level and discussed by Group Village level as well to accommodate those who opt out. These will be done as part of the group formation processes and will be prepared prior to changes in land ownership (year 3&4 of the project). The entitlement matrix will include all potential cases of losses that may arise from technical design and group formation choices made for the blocks and take into account the high incidence of poverty.

One master RAP could be prepared in which the details for each of the separate RAPs can be filled.

10.1 Preparing the Resettlement Action Plans

The SVIP RAPs Team will prepare the RAPs in line with this RPF and in close consultation with the District Executive Committee (DEC), the local authority and communities.

Public consultations and participation will give the PAPs the opportunity to raise their concerns or to comment on the situation at the proposed site for new resettlement sites (in terms of appropriateness of the location, required services) to negotiate on compensation and to contribute to conflict resolution prior to commencement of the project. In essence the RAP for the SVIP will include the following aspects:

1. Introduction
 - a. Description of the project
 - b. Objectives of the resettlement plan
2. Policy and framework for resettlement
3. Resettlement principles and objectives (copied from this RPF)
4. Baseline, including a land tenure and land use inventory
5. Eligibility criteria and determination eligible persons for compensation
6. Valuation of and compensation for losses
7. Implementation
 - a. Communication and Information
 - b. Community participation/consultation
 - c. Site selection for resettlement
 - d. Procedures for physical relocation
 - e. Grievance redress mechanisms
 - f. Organizational Responsibilities
 - g. Organizational Procedures for Delivery of Entitlements
 - h. Crosscutting issues
8. Budget and budget assumptions
9. Implementation schedule
10. Monitoring, evaluation and reporting

The prepared RAP will first be validated at community level where a workshop shall be organised and the salient points from the RAP shall be presented and discussed. Adjustments will be made where necessary. Once accepted, the affected Traditional Authorities will sign off. At District Executive Committee level a Validation Committee comprising Director of Development and Planning, District Lands Officer, Responsible Traditional Authority, District Irrigation Officer, District Environmental Officer and Civil Society Organisation representative will review the RAPs and make recommendations to DC for endorsement as is or with amendments. The committee may co-opt any other person with pre-requisite skills to enable a better understanding of the issues.

At national level, the Commissioner for Lands will approve the RAPs based on recommendations from technical experts in the ministry and other stakeholders such as Ministry of Agriculture and Department of Environmental Affairs (DEA). After the approval at national level, the RAPs will be submitted to the World Bank review and clearance. After the RAPs has been duly approved it will be implemented in a manner describe below.

10.2 Eligibility of PAPs for Resettlement Compensation

The following categories of PAPs will be eligible for resettlement compensation under this RAP. PAPs will be those whose;

- Agricultural, residential, or commercial land is in part or in total affected (temporarily/permanently);
- Houses and other structures are in part or in total affected (temporarily/permanently);
- Businesses or source of income (e.g. employment) are affected (temporarily/permanently);
- Crops (annual/perennial) and trees are affected by the Project;
- Source of income (renters of land, tenants or squatters) is disrupted;
- Access to a resource which contributes to their source of livelihood is affected.

10.3 Organisation of the RAPs Preparation and Implementation

The coordination of the implementation of the SVIP will be the responsibility of the SVIP Implementation Unit that will house experts for providing support and guidance as well as monitoring progress and quality. Assessment of the capacity showed that the GoM may not have sufficient qualified staff to conduct the preparation and implementation of the RAPs. Therefore, this activity will be delegated to a professional team anchored in the SVIP Implementation Unit that will work closely together with the District who will remain the ultimate responsible. The RAPs Team will also work closely with all stakeholders, in particular the communities, traditional authorities and government officials.

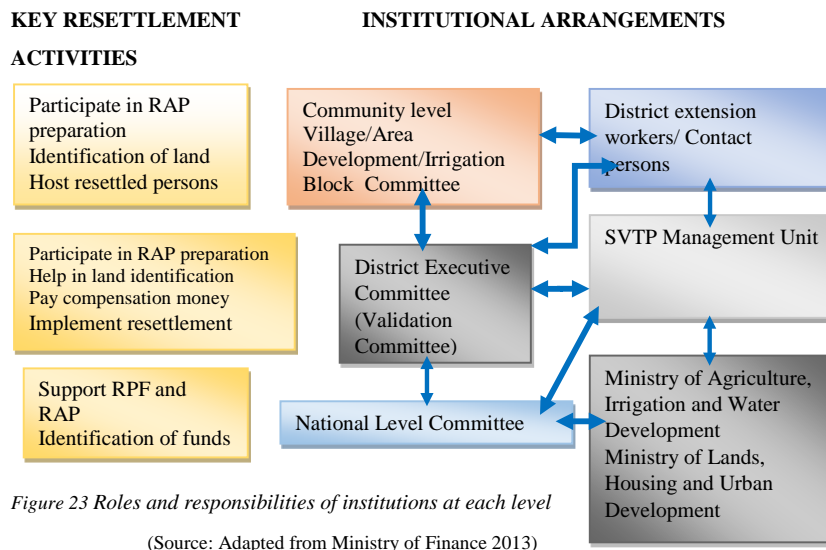
The crosscutting issues of gender, youth, illiteracy, vulnerable people and poverty will be mainstreamed throughout the implementation of the SVIP in the RAPs and all activities undertaken. An organisation specialised in addressing these crosscutting issues will be engaged and be responsible for the recruitment of the community contact persons and that their capacity is developed, and ensuring that crosscutting issues are mainstreamed in all processes and

procedures. The organisation will further be responsible for developing the capacity on crosscutting issues of the SVIP Implementation Unit staff, GRM and other committee members, agri-business unit committees and staff, and for monitoring crosscutting issues.

Stakeholders will be part of the RAPs preparation and implementation process and therefore all key stakeholder groups are represented in the various committees and other dialogue and decision making bodies. The SVIP Information Office will provide a crucial role in the provision of updated information, creating awareness and receiving comments, suggestions and grievances from the stakeholders, especially the PAPs. This office will be responsible for:

- The preparation and distribution of information material.
- Receiving and recording comments, suggestions and grievances from PAPs and other stakeholders and reporting on those.
- Keeping records of the grievances received and their status. A regularly updated list of grievances and the status of addressing these grievances will be published in the SVIP Information Office and regularly communicated to all stakeholders, the various GRM committees, contact persons, SVIP Implementation Unit, etc. The Grievance Redress Process is described in section 10.9.
- Organising and facilitating meetings to create awareness, provide information, etc. in close coordination with the SVIP Implementation Unit, District Officials and MoAIWD.

In the course of implementing the RAP, four main key institutions will be involved, i.e. the communities (Village/Area Development Committee), District Authority, the SVIP management (Coordination Unit), and the MoAIWD. Their relationships are shown in the diagram in Figure below. These will be supported by the experts in the SVIP Implementation Unit.



However, one of the lessons learnt with implementing RAPs in Malawi is that implementation by a professional team is faster and raises less complaints. Therefore, a professional team will be engaged that will work closely together with the District officials, Commissioner for Lands, the TAs, the Communities and the PAPs to prepare and implement the RAPs.

10.4 Roles and Responsibilities

In the course of implementing the RAP for the SVIP will work close together with communities, local authority and national ministries, each playing specific roles. Their roles and responsibilities are summarized in Table 66 below. The roles and responsibilities in connection with the RAPs is already described in section 10.3 above. The exact tasks of each of these levels and the professional team will be defined during the development of the RAPs.

Table 66 Roles and Responsibilities of Institutions at Different Levels

Community level (GVH and TA)	Local Authority level	National level
<ul style="list-style-type: none"> • Ascertain that claimants are within the project area • Participate in the consultative process for the development of the RAP • Witness payment of compensation money to PAPs • Identify land for resettlement or assimilation of PAPs within existing villages • Help with the integration of resettled persons • Help in conflict resolution • Assist in monitoring implementation of resettlement plan • For the RAPs for irrigation blocks, the communities will use a participatory process to identify which farmers will lose income in the process of preparing the irrigation blocks. 	<ul style="list-style-type: none"> • Participate in development of the RAP • Help in land identification and acquisition • Monitor payment of compensation money to PAPs • Coordinate provision of social amenities • Monitor and evaluate implementation of the resettlement plan. 	<ul style="list-style-type: none"> • Set guidelines on resettlement process • Approval of RAPs • Ensure compliance with Malawi's policies and legal framework and development partners' operational guidelines • Ensure complementarity of development initiatives • Monitor and evaluate implementation of the resettlement plan

Effective implementation of the RAP will depend on the identified institutions being able to perform their duties diligently. However, there are shortfalls at all levels. At community level there is a lack of experience with regulated resettlement, thus they will be unable to do the screening and determination of negative impacts of resettlement to the PAPs. At local authority

level the issues revolve around inadequate staffing and lack of appropriate skills for valuation of land and assets. Therefore a professional team will be hired and attached to the SVIP Implementation Unit to prepare and implement the RAPs and conduct the valuation of lost assets and livelihoods, in accordance with Malawi laws. There is also a need to train grievance redress committees, customary land tribunals and district land tribunals as well as customary land committees. The SVIP will meet the cost of such training as untrained manpower will hamper implementation of the project itself. The Capacity Assessment and Development Plan contains the training development plan.

SVTP will recruit a qualified firm that will be in charge of providing technical support to the MoLHUD, PMT, District, traditional authorities and farmer organizations. The Ministry should be involved in the recruitment of these experts. The consultancy will last six years to cover the different stages of preparation and implementation of the SVTP, starting at the same time as the irrigation infrastructure works.

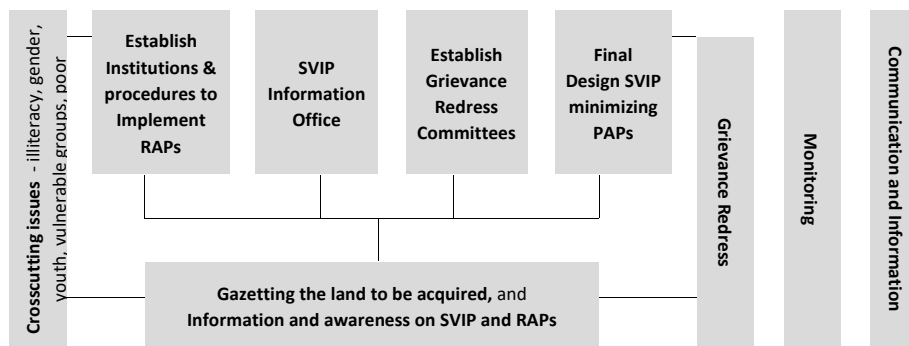
Experts of the firm and local valuers will accompany the firm in charge of the canal construction to identify all the PAPs and the expected losses due to the development of the irrigation infrastructures. The design of RAP will include recommendations to set up the necessary financial and concertation mechanisms that will be used to compensate the PAPs with cash or/and land where they will be resettled. This consultancy will also support the provision of fair compensations for farmer who will lose part or the entire harvest during the development of the irrigation blocks at cooperative level.

10.5 The Implementation Process for the Infrastructure RAPs

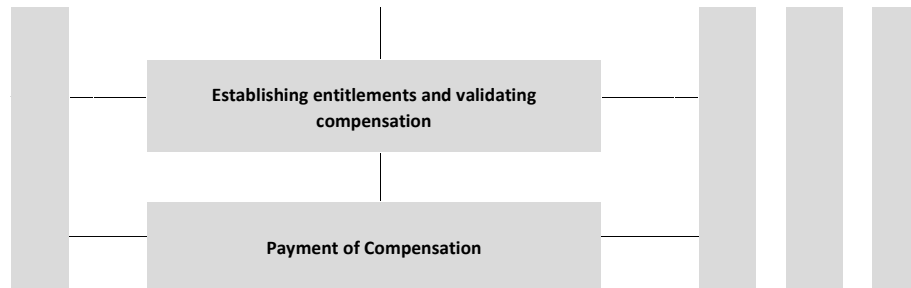
The implementation process can be broken down in four main steps plus five crosscutting issues. The implementation process for the RAPs for the irrigation blocks is slightly different and therefore described in a separate section 9.6 below. The crosscutting issues and grievance redress mechanism are the same for both main type of RAPs for the infrastructure and irrigation blocks. These are described in section 10.7, 10.8, and 10.9 below.

Figure 24 below provides a schematic overview of the implementation process for the infrastructure.

Figure 24 Implementation Process of the RAPs for the infrastructure



RESETTLEMENT POLICY FRAMEWORK



10.5.1 Step 1: Preparation phase

In this step the following main activities will take place:

- Establish the institutional set-up for the preparation and implementation of the RAPs (including the Validation Team) and the GRM. This will include data collection of all that is required for preparing the RAPs, such as verification of private leases, etc.
- Identify the contact persons within the communities and develop their capacity.
- Establish and staff the SVIP Information Office.
- Develop the capacity and train the members of the various committees that are established.
- Develop the procedures, work plan and time schedule for implementing the RAPs, in which are mainstreamed communication and information, gender, youth, poverty, vulnerable people, and people living with HIV/AIDs. These will include the eligibility criteria (see also section 10.2). The process will include identifying alternative land within or outside the village for those losing land.
- Decide how compensation will be paid. The socio-economic survey found that a large number of households do not have a bank account. During the preparation phase it has to be investigated whether paying through the existing banks is possible. It should be investigated whether banks are willing to provide banking services, for example through mobile banking units so people can go to the bank on well advertised days at locations close to the PAPs. PAPs may either be required to open a bank account, or receive a cheque made out to the PAP⁸⁰.
- Set the cut-off date. All affected persons irrespective of their status or whether they have formal titles, legal rights or not, will be eligible for some kind of assistance if they occupied the land before the entitlement cut-off date.

⁸⁰ Existing agri-business such as Phata and Kasinthula strongly advocate their members to have a bank account. Phata made a special arrangement with a local bank to provide a mobile banking unit at the time the profits of the cooperative are paid (twice per year). Those who could not be persuaded to open a bank account are paid in cash. Experience shows that with every payment more members open bank accounts.

- Finalise and approve the final design for construction of the SVIP. The technical design will define the exact alignment of the canal route and its branch canals, the night storage ponds and other SVIP infrastructure. This information is required to establish the entitlements and subsequently the budget for the RAPs. The location of the canal route other SVIP infrastructure may still vary slightly at the time of construction when unforeseen circumstances occur. Those changes will be minimal and the RAPs will describe how these will be dealt with when they occur. The final design should continue to minimize the number of PAPs affected by the infrastructure.
- Mitigate the negative impact of PAPs whose livelihood is affected.
- The construction contracts should stipulate the minimum percentage of days of local men and woman to be employed during the construction period. See section 9.4 for more information. The RAP could further include preparation and the incorporation of eligibility for priority in employment, together with an official mechanism for providing names to the construction contractor or other supporting organisations and for follow-up to track the number of PAPs employment (disaggregated by gender, skilled/unskilled work, number of working days for each category per specified period of time).

10.5.2 Step 2: Gazetting the Land to be Acquired, Cut-Off Dates, and Communication and Information on the SVIP and RAPs.

10.5.2.1 Gazetting the Land to be Acquired and Cut-Off date

In accordance with the Lands Acquisition Act 1971, the notice that compulsory acquired land will be required has to be gazetted prior to the land inventory.

The cut-off date of each of the RAPs has to be published widely and include places that are frequented by the PAPs, e.g. markets, religious institutions, etc. The printed materials should be designed in such a way that illiterate people can understand the messages from the images used. In addition, the information should be announced at especially organised stakeholders' meetings, at public meetings, in village committee meetings, at religious gatherings, in radio and TV programmes.

10.5.2.2 Communication and Information

Although communication and information is a crosscutting issues that will be mainstreamed throughout the implementation process and procedures of the RAPs, it is also a separate step because it is crucial for the smooth implementation of the RAPs. The SVIP Implementation Unit will be overall responsible for communication. Therefore the SVIP Implementation Unit will include communication expertise and will operate an SVIP Information Office.

In this phase, the PAPs will receive information on the SVIP implementation phase and on the RAP process and entitlements as well as the RAPs implementation structure, cut-off dates, the GRM and the contact persons within the communities. An Information Leaflet on the outline of the SVIP implementation process and general and the RAPs in particular will be prepared and widely distributed. The information leaflet will include names, contact

details and location of the (crosscutting issues) contact persons, the GRMs, the SVIP Information Office and the SVIP Implementation Unit. The Information leaflet will be produced in English and Chichewa and include images making the content understanding for the illiterate. Information campaigns will be conducted in all RAP areas. As RAPs are implemented at different times several information campaigns will be held, at least one in each of the area covered by a specific RAP.

An important message will be that land disputes have to be solved prior to valuing the land and the cut-off date for establishing compensation entitlements and addressing complaints related to resettlement. No construction will occur on land until the affected PAPs have been resettled

10.5.3 Step 3: Establishing and Validating Compensation Entitlements

The main activities in this step is conducting the census/inventory of the areas required for the SVIP infrastructure, screening and validating the applications for compensation.

10.5.3.1 Census of the area required for the SVIP infrastructure

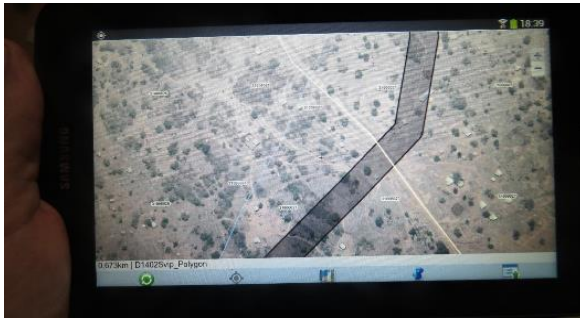
The main activities in this steps are conducting a detailed census or inventory of the areas affected by the SVIP infrastructure, such as the main canal routes, the main branch canals, the night storage ponds and other land areas required.

The inventory of parcels will comply with government regulations for registering land and be carried out in close cooperation with District authorities, traditional authorities and communities to create a common understanding of the registered boundaries and recorded information. Portable tablets will be used with a GPS facility on which detailed orthophotos are installed showing the location of the SVIP infrastructure. The extension and delimitation of the affected parcels will be digitized and recorded on the spot together with information about parcel owner, land use, buildings, access, etc. With the registration it will be possible to get an overview of the number of parcels with the type of crops, so it can be estimated how much compensation should be expected for both land required permanently and temporarily for construction purposes.

The recording of the parcels will be carried out by a qualified mapping team equipped with a tablet with a GPS and on which a mobile GIS program is installed. An example is shown in below.

Figure 25 Example of canal alignment overlaid on orthophotos installed on a tablet

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Apart from recording the boundaries of each of the parcels and plots, the inventory will collect the following information:

- > Village name, group village name and TA name
- > Owner of parcel/plot
- > Customary owned/rented/community owned/Private lease
- > Name of tenant and renting period
- > Conflicts
- > Land use (Crop/Forest/Grazing/Settlement/Graveyard/Not Used)
- > Crop type
- > Fruit trees and other large trees
- > Total land holding size of the land owner

For the buildings within the buffer zone the following data will be collected:

- > Village name, Group Village Name and TA name
- > Building type (residential/commercial/community)
- > Name of Household head
- > Household size
- > Number of rooms
- > Construction materials (Wall/Roof/Floor)

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- > Dependent buildings (Bath/kitchen/storage/animal house/pen)
- > Borehole/water point
- > Utility connections

In case a parcel of land is used for more than one land use, information of each of the plots in the parcel of land will be recorded separately.

Results of the inventory of the areas required for the SVIP infrastructure will be made available at the Group Village Office, the SVIP Information Office, the SVIP Implementation Unit and other easily accessible public places. PAPs will be able to provide comments and suggest amendments for a specific period of time after publication of the information, e.g. one month. Thereafter, the maps and information will be approved by the TA, the Village Executive Development Committees and ultimately by the District.

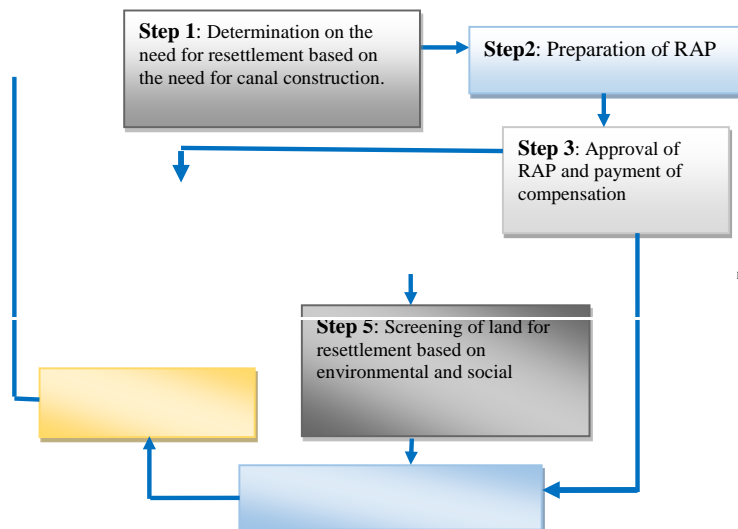
Throughout the process the PAPs will have the opportunity to express any grievance through the GRM Committees or another already existing establishment, such as the TA, etc.as described in the GRM as summarized in section 10.9 below. During the census the cut-off date will be clearly communicated to the PAPs. The cut-off date will coincide with the end of the census and asset survey after which any new construction, arrival of persons into the resettlement area, etc. on PAPs plots(s) will not be compensated. Each individual RAP may need its own cut-off date depending on when the census/asset surveys are being conducted and when the land will be required for the construction of the SVIP infrastructure.

10.5.3.2 The Screening Process for SVIP Infrastructure

Resettlement screening process for the SVIP infrastructure will consist of a series of appraisal activities prior to approval of the implementation of the RAPs. The purpose would be to identify potential resettlement impacts. The objectives of this screening process are:

- To guide implementing agencies in identification of appropriate alternative land within communities and or land for acquisition for resettlement;
- To guide communities in identifying measures for addressing resettlement issues
- To monitor measures for addressing the social impacts from resettlement.

Figure 26 below outlines a diagrammatic flow of the proposed resettlement screening process



RESETTLEMENT POLICY FRAMEWORK

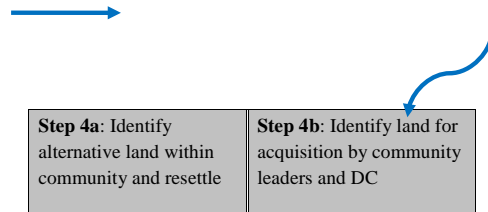


Figure 26 Diagrammatic flow of screening process for SVIP infrastructure

(Source: Adapted from Ministry of Finance, 2013)

For the SVIP to be implemented, main and branch canals have to be constructed. Current customary land has to be acquired and become public land. The displaced persons will be assisted by chiefs to find alternative land within the communities for house construction as most of them will be given land in irrigation blocks or they have to be resettled elsewhere if they do not want to participate in irrigation. Thus the need to prepare a resettlement action plan is imperative.

It should also be noted part of the main canal passes through Majete Game Reserve in Phase 1 and Lengwe National Park in Phase 2 for about one and thirteen kilometres respectively. Since this is already public land, the need of land acquisition does not arise. However, since the two facilities are being managed by African Parks under concession agreement with the GoM, the concessionaire, may claim compensation for loss of revenue due reduction of tourists during the construction phase of the canal. The environmental and social consideration and mitigation measures are included in the Environmental and Social Management Plan and budget.

Once the RAPs have been prepared through a consultative process, traditional leaders and the DC's office will identify suitable land for resettlement of displaced persons. This can be within the communities, in which case no formal land acquisition will be required. The other option is through government led process of land identification and acquisition. This may take longer and is also costly. The latter would trigger Step 5 activities to ensure that the land to be acquired is free from encumbrances and that the resettlement itself does not lead to negative environmental and social impacts. Therefore, acquisition of land will be dependent on favourable environmental and social screening outcome. Once land has been acquired PAPs will be paid their compensation entitlements and resettle in the new areas.

10.5.3.3 Validating and Establishing Type and Amount for Compensation

Chapters 5.4, 7, and 8 discuss in detail how to establish type and amount of compensation entitlements for project affected persons; Section 5.2 deals with validation of losses for purposes of transparency and fairness.

10.5.4 Step 4: Payment of Compensation

Once valuation of land and asset losses has been finalized, the valuation is validated by the project affected persons and DEC in sequence. The RAPs Team at the SVIP Implementation Unit will be meeting with the affected persons, officials from the DC's office and members of the valuation team. The role of the valuation team would be to respond to questions and clarify issues where necessary. The meetings will be held at GVH level. After the PAPs have accepted the compensation packages, they will individually sign acceptance form (Annex 4). In case some PAPs are not satisfied with the valuation of their properties will the RAPs Team arrange a re-valuation within the shortest time possible in the presence of the affected person/s, representative from the DC's office, traditional leaders and, civil society that are part of the GRM Committee. The accepted compensation packages will then be reviewed and approved by the District Executive Committee. The SVIP Implementation Unit will pay the approved compensation packages to the PAPs.

The process of payment of compensations has to be done within two months of the valuation cut-off date to reduce risks of delaying the start of construction of the project as this cannot start until all compensation dues are paid in full. The period between the valuation/cut-off date and payment should not exceed six months otherwise the amounts will be adjusted for inflation or price increases after six months. The PAP will complain through the Grievance Redress Committees (see also section 10.9) but is free to use any other form to lodge his complaints such as the formal courts, which are normally the last resort to settle differences. The recommended procedures for the GoM to deliver compensation to project affected people are as follows:

(a) Delivery of compensation based on official valuations.

Agreed compensation sums of money for PAPs shall be disbursed by the DC in liaison with the SVIP Implementation Unit who will effect payment to affected persons through a bank. Local village/group headmen, traditional authority and local assembly shall maintain records of displaced persons, their claims and entitlements. After payment of such sums, the assembly shall document the name(s) of the displaced persons, the amount of compensation and the records of how the compensation was arrived at. Upon receipt of compensation money the PAP will sign Receipt of compensation money Form (Annex 5). A copy of such records shall be made available to the MoAIWD, Mo LHUD, SVIP Implementation Unit, local chiefs and SVIP Information Office.

(b) Delivery of compensation based on values arbitrated by formal courts.

Where some people appeal to formal courts or otherwise for review of the compensation packages and the courts/grievance redress committee make a determination on what compensation money should be, the figure pronounced by the

courts/grievance redress committee shall be paid to the project affected people who had appealed.

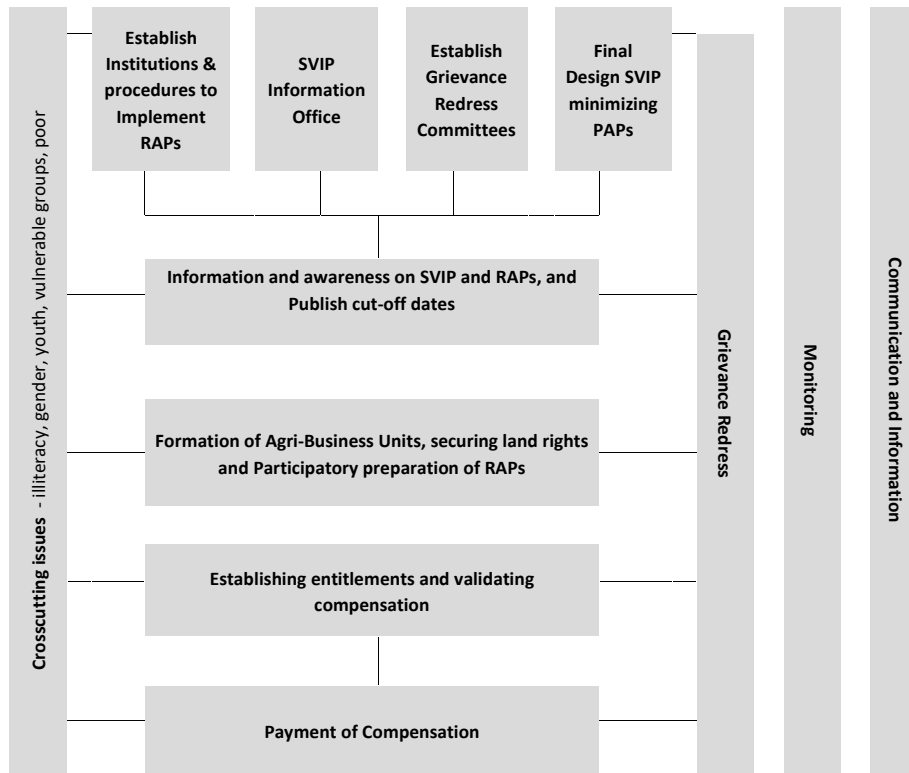
It should be noted that if project affected persons have objections to land acquisition and resettlement, they should present their objections to the Grievance Redress Committees in writing within 30 working days after the public notice.

10.6 Implementation Process for the RAPs for Irrigation Blocks

This section describes the implementation process for the RAPs for the irrigation blocks. The steps required for implementing the irrigation block RAPs are similar to those for the infrastructure. As with the infrastructure, the RAP implementation process for the irrigation blocks can be broken down in four main steps plus five crosscutting issues. The crosscutting issues and the grievance redress mechanism are the same for both type of RAPs for the infrastructure and irrigation blocks. See sections 10.7, 10.8, and 10.9 below

Figure 27 below provides a schematic overview of the implementation process for the irrigation blocks.

Figure 27 Implementation Process of the RAPs for irrigation blocks



10.6.1 Step 1: Preparation phase for irrigation blocks

In this step the following main activities will take place:

- Establish the institutional set-up for the preparation and implementation of the RAPs (including the Validation Team) and the GRM. This will include data collection of all that is required for preparing the RAPs, such as verification of private leases, etc.
- Identify the contact persons within the communities and develop their capacity.
- Establish and staff the SVIP Information Office.
- Develop the capacity and train the members of the various committees that are established.
- Develop the procedures, work plan and time schedule for implementing the RAPs, in which are mainstreamed communication and information, gender, youth, poverty,

vulnerable people, and people living with HIV/AIDS. These will include the eligibility criteria (see also section 10.2). The process will include identifying alternative land within or outside the village for those losing land.

- Decide how compensation will be paid. The socio-economic survey found that a large number of households do not have a bank account. During the preparation phase it has to be investigated whether paying through the existing banks is possible. It should be investigated whether banks are willing to provide banking services, for example through mobile banking units so people can go to the bank on well advertised days at locations close to the PAPs. PAPs may either be required to open a bank account, or receive a cheque made out to the PAP⁸¹.
- Set the cut-off date. All affected persons irrespective of their status or whether they have formal titles, legal rights or not, will be eligible for some kind of assistance if they occupied the land before the entitlement cut-off date.
- Finalise and approve the final design for construction of the SVIP. The technical design will define the exact location of the irrigation blocks of the irrigation scheme. This information is required to establish the entitlements and subsequently the budget for the RAPs. The location of the irrigation blocks may still vary slightly at the time of construction when unforeseen circumstances occur. Those changes will be minimal and the RAPs will describe how these will be dealt with when they occur. The final design should continue to minimize the number of PAPs affected by the infrastructure.
- Mitigate the negative impact of PAPs whose livelihood is affected.
- The contractor could be stimulated to employ the local workforce and to more women. It could be considered that the construction contract stipulates the minimum percentage of days of local men and woman to be employed during the construction period. Non-compliance with this contract clause could trigger penalty in the form of reduced payment to the contractor. Training could be provided to the local employees as part of the contract or provided by the SVTP as part of the support package⁸². This will provide PAPs with a source of livelihood during the construction period and thus mitigate the negative impact of loss of revenue from their land.

⁸¹ Existing agri-business such as Phata and Kasinthula strongly advocate their members to have a bank account. Phata made a special arrangement with a local bank to provide a mobile banking unit at the time the profits of the cooperative are paid (twice per year). Those who could not be persuaded to open a bank account are paid in cash. Experience shows that with every payment more members open bank accounts.

⁸² There are good experiences in the road sector with including a compulsory percentage of working days for women and men in unskilled and skilled positions, including training in the Bill of Quantities and including a penalty for non-compliance.

10.6.2 Step 2 Communication and Information on the SVIP and RAPs, Publishing Cut-Off Dates

10.6.2.1 Communication and Information

Although communication and information is a crosscutting issues that will be mainstreamed throughout the implementation process and procedures of the RAPs, it is also a separate step because it is crucial for the smooth implementation of the RAPs. The SVIP Implementation Unit will be overall responsible for communication. Therefore the SVIP Implementation Unit will include communication expertise and will operate an SVIP Information Office.

In this phase, the PAPs will receive information on the SVIP implementation phase and on the RAP process and entitlements as well as the RAPs implementation structure, cut-off dates, the GRM and the contact persons within the communities. An Information Leaflet on the outline of the SVIP implementation process and general and the RAPs in particular will be prepared and widely distributed. The information leaflet will include names, contact details and location of the (crosscutting issues) contact persons, the GRMs, the SVIP Information Office and the SVIP Implementation Unit. The Information leaflet will be produced in English and Chichewa and include images making the content understanding for the illiterate. Information campaigns will be conducted in all RAP areas. As RAPs are implemented at different times several information campaigns will be held, at least one in each of the area covered by a specific RAP.

Detailed Communication and Provision of Information on the proposed SVIP investments and alternative farm models will be the first intervention providing initial orientation for potential participants in Agri-Business Units. The implications, costs and potential benefits as well as the risks of irrigation farming will be presented and discussed in detail with potential participants. Issues pertaining to commercial agriculture to be discussed will include farm investment decisions, farm organization, crops, livestock, fisheries/aquaculture, potential markets, land tenure implications and cost of water. This will be undertaken by a service provider over a period of 6 months as soon as possible after project start-up. There is a strong linkage between the initial communication and organization processes and future agriculture development support under component 3, as farm decisions will influence identification of early adopters, organization of blocks and those who opt out or require additional time for decision-making.

Information on the benefits of the SVP and an economic and financial analysis can be found in section 9.1. An important message will be that the farmer is decision to participate in the irrigation project is voluntary. Therefore, the farmer has to be informed about the options, the conditions and the benefits so she/he can make an informed decision. Another important message is that land disputes have to be solved prior to registering the land and the cut-off date for establishing compensation entitlements and addressing related complaints.

10.6.2.2 Publishing Cut-Off date

Irrigation blocks may be constructed at different times as per construction schedule. Therefore the cut-off dates for submitting claims may be different. The cut-off date for

submitting claims for losses incurred due to the construction of each of the irrigation blocks has to be published widely, and include the committees formed to establish the agri-business units as well as places that are frequented by the PAPs.

10.6.3 Step 3: Formation of Agri-Business Units and Participatory Preparation of RAPs for each Irrigation Block

10.6.3.1 Formation of Agri-Business Units

One of the first activities in establishing an agri-business unit is to form an organisational structure with management committees for specific areas and, in most cases, an executive committee⁸³. Initially a temporary committee is usually installed that will hold discussions with the potential member farmers in each area. Thereafter area committees are elected, from which executive members are identified (through election or otherwise as decided). The executive committee will be the main entry point for the SVTP management and others to contact the agri-business unit, provide information to, etc.

The farmers' group will be supported in formation of its legally registered Agri-business Unit with proper registration and ownership of the land tenure for the farm area. They will receive intensive support from a specialized service provider, assisted by officers from the Ministry of Lands and the Department of Co-operatives, over a two-year period to achieve this outcome. Once this building block for land consolidation and commercial farm formation is achieved, the project will provide for alternative development pathways, recognizing the need for flexibility and a demand-driven approach. All are based on the principle of commercial agriculture on consolidated land. Four possible pathways⁸⁴ (Figure 28) with varied challenges and likelihoods of success were identified based on local and regional experience. These are:

- a) **Pathway 1 – Agri-business managers:** The cooperative is owned by the farmers who contribute their shares individually in proportion to their land holdings in the group customary estate. The cooperative employs a commercial agribusiness management company (or individuals) and farms the estate as a single enterprise under cane or commodity crops (e.g. Phata Cooperative). The owners would be able to provide paid labour services on the farm if they have the relevant skills, and would be able to farm 0.1 ha of irrigated land individually. They would be paid a dividend or profit share according to their respective shareholding.
- b) **Pathway 2 – Smallholder agri-business⁸⁵:** The cooperative devolves individual land ownership/use rights to specific plots with individual ownership on the new scheme, based on percentage shareholding. The cooperative oversees a WUA comprising land-

⁸³ The executive committee may have another name as well. What is referred to here is the highest committee established by the potential members of the agri-business unit.

⁸⁴ See report entitled "Analysis of Land Tenure Options and Potential Land Consolidation Arrangements within the Development of the Shire Valley Irrigation Project-Malawi", S Norfolk and J Denison 2017.

⁸⁵ This has strong similarities to the irrigation management approach that evolved in the IRLADP programme in Malawi where transfer of small and medium schemes was given effect by establishing rental rights to plots on schemes (with irrigation water services and plot administration facilitated by the WUA). The model is in principle the same as the Office du Niger in Senegal, a widely referenced transformative smallholder project (100,000 ha).

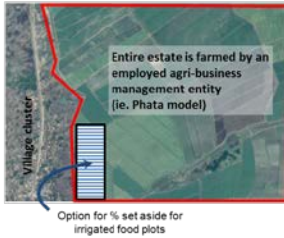
holding members within the block. Here, individuals do not rent but farm on their own plots, with the specific expectation that a natural process of farm consolidation into larger business units will follow, as less-interested or less-successful farmers exit voluntarily (through rental or transfer). The co-op administers land-exchange.

- c) **Pathway 3 - Leased farms (mixed model):** The cooperative acts as a facilitator/enabler and leases portions of the customary estate to members, to outside individuals and/or agri-business companies to generate revenue. The cooperative function is one of land administration and irrigation water service provision in the block. The cooperative owners would receive payment of net revenue pro-rata to their shareholding. The cooperative would facilitate the formation of a WUA within the farm area.
- d) **Pathway 4 – Joint-Venture (JV) Enterprises:** The cooperative establishes a contract-partnership arrangement (typically a JV) with an agribusiness entity that covers all farm production for the supply of commodity or industrial crops (e.g. Kama-PressCane JV for ethanol). The cooperative owners would receive payment of net revenue from the JV pro-rata to their shareholding.

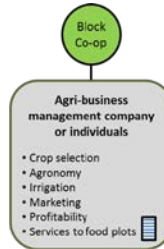
Figure 28 Four Possible Pathways for the Formation of Agri-Business Units

RESETTLEMENT POLICY FRAMEWORK

Pathway 1: Agri-business Managers



Management model	Cooperative employs a commercial agribusiness company (eg. Phata), or individual agricultural managers.
Farm enterprise types	Entire estate farmed as a single agricultural enterprise (excepting food plots).
Irrigation technology	<ul style="list-style-type: none"> • Pivots likely preferred for operational simplicity but limits flexibility for Pathway 2 in future. • Surface irrigation also practical.
Food plots	Option for individual allocations of irrigated food plots, serviced by the co-operative estate (0.04-0.2 ha)



Pathway 2: Smallholder agri-business



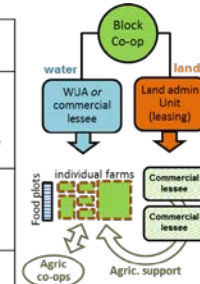
Management model	Cooperative is a facilitative organisation ensuring effective land-leasing and water-service provision.
Farm enterprise types	Many individual agric enterprises with farm size expansion & economy of scale through internal leasing as needed (2-10ha business farms)
Irrigation technology	<ul style="list-style-type: none"> • Surface irrigation with individual upgrade (sprinkler/drip) in future. • Pivots unsuited as will force group collaboration, and not allow individual enterprises.
Food plots	Option for individual allocations of irrigated food plots, serviced by the co-operative estate (0.04-0.2 ha)



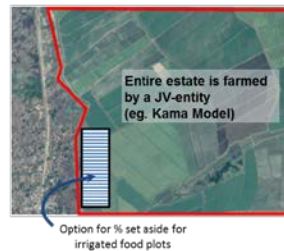
Pathway 3: Leased farms (mixed model)



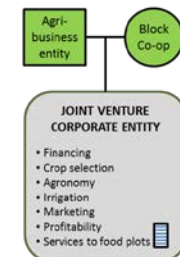
Management model	Cooperative is a facilitative organisation ensuring effective land-leasing and water-service provision.
Farm enterprise types	<ul style="list-style-type: none"> • Block leases to commercial agri-business entities as 'anchor' tenants/possible service providers. • Individual agric enterprises with farm expansion & economy of scale through leasing (2-10ha farms)
Irrigation technology	<ul style="list-style-type: none"> • Surface irrigation for individual farms (can upgrade later). • Pivots well suited for block leases, but will limit reversal to individual farms.
Food plots	Option for individual allocations of irrigated food plots, serviced by the co-operative estate (0.04-0.2 ha)



Pathway 4: Joint-Venture Enterprise



Management model	Cooperative (land & water equity) forms a JV with a commercial agribusiness company (cash & processing/marketing equity)
Farm enterprise types	Entire estate farmed by the JV company as a single agricultural enterprise (excepting food plots).
Irrigation technology	<ul style="list-style-type: none"> • Pivots likely preferred for operational simplicity but limits flexibility for Pathway 2 in future. • Surface irrigation also practical.
Food plots	Option for individual allocations of irrigated food plots, serviced by the co-operative estate (0.04-0.2 ha)



Extensive consultations with the existing smallholders in the Shire Valley have demonstrated a strong preference for Pathway 1, based on the successful Phata Co-operative model operating in the area. However, the other models would be offered as alternative pathways, with the

advantages, disadvantages and implications of each model being fully discussed and analysed in consultation with prospective co-operative members prior to a decision being made. It is possible that more than one model may be used, based on the needs and demands of the smallholder owners. In some cases, especially for Pathway 2, this may have some implications for physical scheme design and investment. During implementation, the models being used may be modified and improved based on the application for the first farming organizations. From a land consolidation perspective, the starting point in any of these four pathways remains the same: the documented consolidation of individual/family holdings into a single land holding unit, with internal administration and by-laws.

For more information on the establishment of agri-business units reference is made to the Project Appraisal Document of the Shire Valley Transformation Project and the Land Tenure Diagnostic, Allocation and Consolidation Strategy.

10.6.3.2 Participatory Preparation of RAPs in each Irrigation Block

The RAP will be prepared by the Executive Committee of the agri-business unit with assistance from the SVTP hired experts. The process to reallocate land requires an extensive communication and consultation with the farmers concerned. Farmers need to be informed of the construction process and the requirements for participation. From the onset it has to be made clear that participation in the agri-business unit is voluntary and what the entitlement package is when opting out.

The consultation and information process need to be organised at an early stage. Initially it may be initiated by the TAs with the assistance of the SVTP staff but it is advisable that at an early stage farmers elect a temporary committees in each village representing the potential farmers in the area. The executive committee will be elected from the various groups as well as decided by the farmers. Usually one or more members of the village committees are elected to the executive committee. The responsibility for communication, consultation and information will be allocated specifically to one member of the executive and each of the group committees.

Several meetings will be held to discuss ideas, pass information and take decisions on critical issues, such as:

- What are the eligibility criteria for participation.
- How will land be measured and transferred into shares?
- If a member does not want to participate, what process will be followed?
- Set the area for the agri-business unit by getting information on the area that can be irrigated and decided what surrounding land will be included in their agri-business unit.
- Decide the type of legal registration for the agri-business, e.g. cooperative, trust, one of the types of company, etc.
- How to implement the RAP within their agri-business unit.

Members of the SVTP Management Team will be present at those meetings and providing information on issues such as the SVTP, the irrigation lay-out and project area, the RAP, the

benefits, and any other issues that may arise. Some of the information could be provided by members of the Phata Sugar Outgrowers Cooperative or KAMA who have recent experience in establishing agri-business units.

10.6.4 Step 4: Establishing and Validating Compensation Entitlements

The main activities in this step is conducting the census/inventory of the areas required for the SVIP infrastructure, screening and validating the applications for compensation. The inventory. To establish the eligibility for compensation under the RAP, the (temporary) executive committee of the agri-business unit can assist in:

- Listing the participating farmers and identify whose land is affected and listing those who are not willing to participate. Farmers opting out will be compensated in cash based on the value of irrigated land and for the loss of produce, structures etc. on their land as described in chapters 5, 6, and 8. Experiences so far show that there are very few or no farmers opting out, but the RAP should provide for cases that may occur.
- At the time when the land is measured, other information required to establish the possible compensation can be collected as well, such the information on the produce and the structures on the land, access to grazing land and natural resources, access to drinking water, etc. (see section 10.5.3.1). It will be agreed with the committee responsible for resettlement who will participate in the measuring of land and collecting of additional information of the farmers that want to participate and those opting out, if any.

The SVTP management unit will have to provide the information on the location of the irrigation block and the period in which the land to be irrigated is not accessible. The Resettlement Committee could then work out the compensation entitlements together with the Executive Committee of the agri-business unit.

Results of the inventory of the areas required for the SVIP infrastructure will be made available at the office of the Executive Committee, and at other places, such as the Group Village Office, the SVIP Information Office, the SVIP Implementation Unit and other easily accessible public places. PAPs will be able to provide comments and suggest amendments for a specific period of time after publication of the information, e.g. one month. Thereafter, the maps and information will be approved by the Executive Committee and other members of the registration team (representatives from the TA, the Village Executive Development Committees and District).

Throughout the process the PAPs will have the opportunity to express any grievance through the GRM Committees or another already existing establishment, such as the TA, etc. as described in the GRM report and in brief in section 10.9 below. During the census the cut-off date for submitting objections will be clearly communicated to the PAPs. The cut-off date will coincide with the end of the census and asset survey after which any new construction, arrival of persons into the area, etc. on PAPs plots(s) will not be compensated. New arrivals should not be accommodated and should be actively discouraged from moving in by local authorities and communities, project staff, etc, through information dissemination about cutoff date and eligibility. Each individual RAP may need its own cut-off date depending on

when the census/asset surveys are being conducted and when the land will be required for the construction of the SVIP infrastructure.

10.6.4.1 Land Rights and Safeguards

From a land rights perspective, the starting point for all 4 potential development pathways remains the same: the giving up of the family/individual customary holdings and their consolidation into a single, legally registered land holding unit over which the cooperative entity holds secure tenure and sufficient powers for management and administration of the land. In the process land rights are exchanged for a stake into the legally registered agribusiness unit. In similar fashion, there is a common point of departure in respect to the need to clearly identify and safeguard the rights of the current occupants of the targeted areas. The model for cooperative establishment, through the association of the current occupants into a single corporate entity, envisages that shares in this entity are distributed on a pro rata basis per the amount of land that each owner ‘contributes’ to a consolidated block. Hence the need to establish a transparent, legitimate and legal process for mapping and identifying these land holdings. The new Malawian legal framework for land provides the tools and the institutional framework for this work to be undertaken, and there are an increasing number of regional processes that have generated learning and best practice examples in this regard.

It is expected that the new land laws will be effective by project effectiveness. The individual rights to land can be secured best through the new laws by registering the names and entitlements of each farmer in a customary estate. The constitutions and by-laws of the legal entity in whose name the customary estate is registered, will stipulate the entitlement of each farmer that brought land into the legal entity. In addition, the constitution and by-laws will stipulate the entitlements to land and/or compensation in case the legal entity is dissolved or does not take of as envisaged.

In case the new laws are not yet in place, land can be registered in the name of the legal entity formed by the participating farmers under the existing laws. This will provide the legal ownership of the land by the legal entity. The constitution and by-laws will stipulate the entitlements to land and/or compensation in case the legal entity is dissolved or does not take of as envisaged.

The oversight of this initial process to identify existing boundaries & land holdings will be overseen by the new local institutions created by the Customary Land Act (CLA); this will be an important part of providing guarantees for protecting current land holders’ rights, prior to the consolidation of these parcels into blocks⁸⁶. The process should culminate in parcel maps and adjudication records of these pre-existing holdings, duly confirmed and legitimated through public hearings at local level.

The adjudication process in respect to the individual/household parcels will be carried out in terms of the new legal framework, up to the point of final adjudication and the lodging of these

⁸⁶ Note that the Baseline Report from COWI states “Results show that the majority of the participants in the FGD are of the opinion that the government and traditional authority should be involved in the reallocation process. The females generally have more faith in the village committees than males who have more faith in the traditional authority and chiefs.”

maps and records with the TLMA, in accordance with s39(4) of the CLA. Instead of then formally certifying and registering all these separate customary estates at the District Land Registry, the 'group of persons' (as defined in the Act) that are affected by the consolidation of their parcels into a single block can then apply to the Customary Land Committee (CLC) to be adjudicated a single customary estate. This is permitted by operation of s43(1)(b).

This is the preferred option, since it allows the customary estate to be certified and registered as a single block in the name of the 'group of persons' (as an unincorporated entity), whilst maintaining the original adjudication map and record of all the separate individual/HH parcels. This record can be maintained at TLMA level and lodged with the District Registrar at the time of registration of the single customary estate. In this way, the status quo ante can always be identified and used as an agreed basis for remedial actions if a partnership, or indeed the cooperative venture itself, fails.

The CLA further provides for various forms of dispositions in respect to customary estates. Section 25(1), for example, allows for the creation of "customary estate leases" governed by the Registered Land Act (RLA). These instruments make it possible for the original holders, as an unincorporated group holding the consolidated customary estate, to then establish a long-term leasehold agreement with the cooperative that is formed to manage the area.⁸⁷

The CLA also provides for "customary estate sub-leases", making it possible also for the cooperative to then provide sub-leases to specific users (as envisaged within Pathway 3). Leases to members, as envisaged in Pathway 4, would also be a possibility (with rental amounts linked to water use rather than land use, for example), but there would also be an option for this internal allocation to members to be effected through a process that did not amount to formal leaseholds.

Approaching the consolidation process in this way means that there will be a historical and legal record of the pre-existing rights and a clear and transparent basis for the calculation of shareholdings within the cooperatives. This establishes baselines for the calculation of dividend payments, or for the rights to access percentages of the net irrigable land available within the scheme if Pathway 2 or 3 are in operation. It also provides a safeguard in the case of dissolution of the cooperative as an entity. In this event, the lease would be terminated and the land would revert to being held under a single customary estate by the 'group of persons', as an unincorporated group. The original records from the adjudication process could then be used to re-allocate individual customary estates to the members of the group.

A further issue is the extent to which transactions involving land access can take place between members, and between members and non-members, particularly within the context of Pathways 2 & 3. Under this scenario, it is preferable that these transactions are permitted to take place, allowing people to exit or enter the scheme and maintaining an efficient level of use.

There is no legal impediment to this, given the CLA's allowance for the creation of "customary estate sub-leases", and it would therefore be possible for the cooperative to establish this

⁸⁷ Outright sale of the customary estate is also envisaged within the CLA, if all those named on the Certificate provide their written consent. Section 79(1) of the RLA clearly also allows for such dispositions to be effected with or without consideration, meaning that the cooperative would not be necessarily required to pay for the land in question.

facility on behalf of the members. The member would hold a “customary estate sub-lease” for the portion of land which they are entitled to use, and could create a further sub-lease to transfer this use right to another member or non-member. It may be desirable for the cooperative to mediate this process, rather than this being left to private arrangements between members/non-members, and the extent to which these transactions would be permitted can be regulated for in the by-laws of the cooperative.

A final issue in respect to the proposed mechanisms to address land issues relates to the possible refusal of an existing land holder to join their land into a consolidated irrigation block. Responses from the public consultation process indicate that most people felt that in such cases the holders should either rent out their land to those willing to participate (36%) or sell their land (41%) (COWI Baseline Report). This will be effected by facilitating land swaps between non-participants and landholders in the vicinity that would like to be included in the venture. Any land provided to non-participants under this scenario would then be adjudicated and registered to them as a customary estate, whilst the previous owner would become a member of the group of persons holding the consolidated estate.

In case the irrigation project does not take off or the commercial agricultural based enterprise is not viable, the land based rights of the participants have to be described in the constitution and by-laws of the agri-business unit. For more information on the securing of land rights under the newly adopted land laws that are expected to be effective by June 2017 and the existing land laws reference is made to section 3.5 above.

10.6.4.2 Legal Road Map for the Implementation of the New Customary Land Law within the SVTP Context

The most appropriate and legally sound route for ensuring the proper identification, adjudication and formal transfer of existing occupier rights to a corporate entity, which would become the holder of a customary estate over a consolidated block of land, is to:

- a) Identify the areas destined to be consolidated into irrigation blocks through participatory processes at GV level, with the subsequent registration of the resulting plans at the TLMA;
- b) Use s38(1) or s42(1) of the CLA to establish that a process of area adjudication be applied to a series of “defined portion[s] of land” that correspond to the gross areas required for each irrigation block;
- c) Undertake the adjudication exercise in terms of Part VI of the CLA;
- d) Provisionally adjudicate that the individual occupants are entitled to grants of customary estates over specific portions of land in terms of s43(1)(a), which would become a final adjudication record and form part of the register of the TLMA after the conclusion of any appeals processes;
- e) Define the ‘groups of persons’ affected by an irrigation block and request, in their name, that the CLC adjudicate to them a single customary estate over the land needed;
- f) Issue a “Certificate of Customary Estate” to that group of persons (s23(3), CLA) and register this with the District Land Registrar, annexed with the appropriate details from the final record and maps from the adjudication process;

- g) Prepare leases that transfer use and control over the customary estates to the cooperative entities, to be approved by the CLC and the TA, including potentially the formal waiver of the prohibition on transfers imposed by s28(3)(b);
- h) Register these customary estate leases in terms of the Registered Land Act (RLA, as amended), based on written consents provided by the relevant CLCs (s12(3), RLA).

The GoM still need to put in place some regulatory instruments to permit the processes described here to be undertaken on a firm legal basis. These are the subject of a Letter of Sector Policy issued by the GoM, and include:

- a) Publication and promulgation of the relevant Acts in the Government Gazette, setting an effective date for each law.
- b) Development of regulations for the establishment and operationalisation of the National Register of Traditional Land Management Areas (TLMAs), as required by s3(6) of the Customary Land Act (CLA), and the District Land Registries;
- c) Promulgation of procedures for the certification of the TLMAs in terms of s3(2) of the CLA;
- d) Formal conferring of powers necessary to undertake all adjudication activities, as envisaged under Part VI of the CLA, upon the Customary Land Committees (CLCs) of the TLMA areas falling within the geographical area of the SVIP Phase 1, in terms of s3(3)(b) of the CLA;
- e) Publication of a Ministerial Order, in terms of s7 of the CLA, setting out the procedures to be followed by the CLCs within the SVIP Phase 1 area in the implementation of the adjudication processes;
- f) Publication of a Ministerial Order, in terms of s75(1) of the Land Surveys Act (LSA), establishing survey standards and instruments to be used during the adjudication of land holdings within the SVIP Phase 1 area, with clear stipulations that the use of general boundaries can apply in all adjudication work and that precision levels for the surveying or identification of such boundaries should not be required to be less than 2.5m;
- g) Ministerial clarification on the precise application of s40 of the LSA (regulating the competency to perform surveys) in the context of the SVIP Phase I implementation, such that the systematic survey work required as part of the adjudication of household or individual customary estates within the SVTP can be carried out by teams of appropriately-trained enumerators that may not necessarily hold formal surveying qualifications.

10.6.4.3 The Screening Process for Irrigation Blocks

Resettlement screening process for the irrigation blocks will consist of a series of appraisal activities prior to approval of the implementation of the RAPs. The purpose would be to identify potential resettlement impacts. The objectives of this screening process are:

- To guide implementing agencies in identification of appropriate alternative land within communities and or land for acquisition for resettlement;
- To guide communities in identifying measures for addressing resettlement issues
- To monitor measures for addressing the social impacts from resettlement.

Figure 29 below outlines a diagrammatic flow of the proposed resettlement screening process

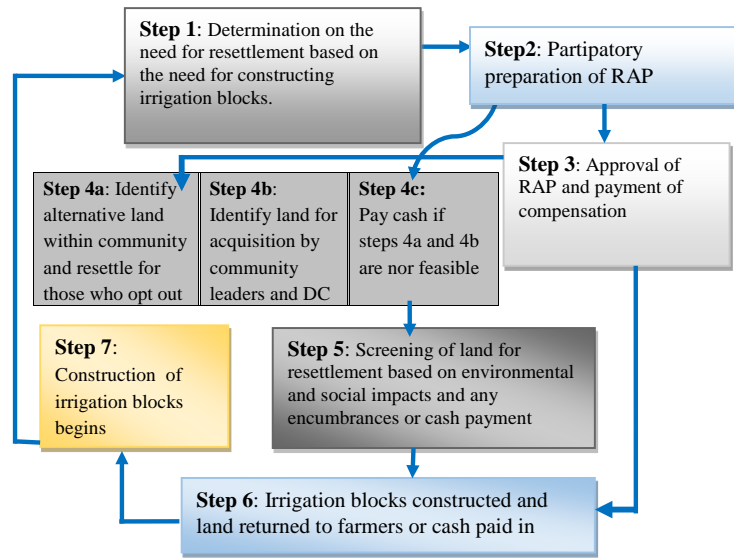


Figure 29 Diagrammatic flow of screening process for irrigation blocks

(Source: Adapted from Ministry of Finance, 2013)

Once the RAPs have been prepared through a consultative process, traditional leaders and the DC's office will identify suitable land for resettlement of those opting out of the agri-business units, or when not feasible, pay cash compensation. The alternative land can be within the communities, in which case no formal land acquisition will be required. The other option is through government led process of land identification and acquisition. This may take longer and is also costly. The latter would trigger Step 5 activities to ensure that the land to be acquired is free from encumbrances and that the resettlement itself does not lead to negative environmental and social impacts. Therefore, acquisition of land will be dependent on favourable environmental and social screening outcome. Once land has been acquired PAPs will be paid their compensation entitlements and resettle in the new areas.

10.6.4.4 Validating and Establishing Type and Amount for Compensation

Chapters 5.4, 7, and 8 discuss in detail how to establish type and amount of compensation entitlements for project affected persons; Section 5.2 deals with validation of losses for purposes of transparency and fairness.

10.6.5 Step 4: Payment of Compensation

This process is the same as described in section 10.5.4. The only slight variation is that the main compensation will be paid for temporary loss of access to their land.

10.7 Crosscutting – Gender, Youth, Illiteracy, Vulnerable Groups, Poor

The project is designed for smallholder farming communities in the targeted area, an area of extreme poverty and the most disaster prone in the country. Communities will benefit through improved productivity, improved farm organization, production and marketing support and services. Beyond productivity, the project has other social functions, such as water supply to Chikwawa boma, and support for livelihoods through community engagement in the management of conservation areas. A number of studies have been completed, including a socio-economic baseline study, a Land Tenure Diagnostic, a Gender and Youth study, a Communication study/strategy, and a political economy analysis to identify and plan for the full range of social impacts that a project of this size and scope could have in a poor, rural area with well-identified vulnerabilities. With its strong focus on gender and youth and on multiple use systems, as well as the embedding in the overall land use plan, it is considered that benefits will be spread in the community. Financial structuring of the project is cognizant of the level of poverty of beneficiaries, such that poverty should not be a reason to opt out of farm development. If carefully implemented the SVTP can be an engine for broad-based growth. There are limits to the areas that can be economically irrigated and clear communication will be important with villages whose farms cannot be served by the canal. As intensification in agriculture has many multipliers in job creation it will have a further stabilizing effect on the local economy and society.

The program will focus on the participation of women and female-headed households and youth in the program. The program developed a Gender and Youth Strategy, which amongst others highlights⁸⁸ that (i) literacy and education rates of women are considerably lower than those of men, especially of the population above 35 years of age; (ii) access to and control over land and revenues from production is dominated by adult males over 35, also in matrilineal societies; (iii) women are less empowered to attain their rights in society; (iv) while access to finance is problematic for all poor, this is worse for female-headed households; and (v) participation of women and youths in institutions which govern the water sector is often limited. Because few women formally own land and their literacy levels are low, their participation and representation in WUAs are normally low. The strategy includes a number of activities, including (i) ensuring gender aspects are included in all ToRs, ii) staff are sensitized, iii) communication activities and consultation processes genuinely focus on issues relevant to women and youth, iv) ensure that all M&E and other data collection instruments collect gender and youth disaggregated data, v) ensure that women, youth and vulnerable groups are represented and actively participate in consultations and in management entities, vi) ensure that all PAPs are gender, age and poverty defined, vii) ensure that land tenure administration is safeguarded against male capture and encourage where possible joint registration in name of husband and wife and ensure that women also enjoy de facto

⁸⁸ See also section 9.2 and chapter 4

equality in access to land and shares in farm enterprises – also encourage partial transfer to youths, viii) ensure that grievance redress mechanism provides gender safe space, ix) actively promote safe multiple uses of irrigation water including for household uses, x) encourage young adult employment during construction and afterwards, xi) through social mobilization empower women and youths to actively partake in various organizations, committees and institutions to be set up under the program, xii) independently monitor gender impacts of the program as well as vulnerability trends and adjust programs as necessary.

10.7.1 Objective of the Gender and Youth Strategy

The purpose of the Gender and Youth Strategy is to enhance development effectiveness of the project by: (i) identifying project specific gender and youth dimensions and (ii) mainstreaming measures in the project planning and implementation to ensure gender and youth equity, sensitivity and inclusiveness.

10.7.2 Addressing Gender and Youth Issues

The activities identified cover both Phase 1 and 2 of the SVIP. In order to address the issues identified, the strategy has identified priority actions and implementers, both internal and external stakeholders will play critical roles in ensuring that these gender and youth guidelines and activities are implemented. The recommended activities include, amongst others:

Land redistribution & resettlement

- Ensure that women and youth are involved so that they also benefit from the employment created, where feasible.
- Ensure gender sensitive resettlement in terms of targeting, compensation and provision of services to new locations.
- Include measures, such as specific indicators, approaches, empowerment, etc. to ensure that both genders, youth and the poor benefit and are treated equally with all others in the land re-allocation and resettlement and not deprived as is often the case.
- Provide social safeguards to protect women and girls from being sexually abused

Irrigation scheme management

- Ensure gender, youth and poverty criteria apply in the compilation irrigation management bodies and that each group is empowered and capable to attain their rights.

Water management

- Gender, youth and poverty is mainstreamed in all implementation mechanisms of the SVIP.

- Address the multi-purpose water needs in the design of the SVIP, e.g. to include water supply for domestic, livestock and commercial purposes, and inclusion of all groups in the management of the water supplies.

Monitoring and evaluation

Gender, youth and poverty sensitive indicators for monitoring results and impact.

Include gender, youth and poverty in all terms of references, staff requirements.

Collect disaggregated data on gender, youth and poverty and apply appropriate approaches.

Coordination

- Ensure both genders, youth and the poor are represented and have a voice in consultations and decision-making bodies.

10.7.3 Roles and Responsibilities for Implementation Gender and Youth Issues

The strategy has proposed that at national level, the Ministry of Agriculture, Water and Irrigation Development and Irrigation (MoAIWD), will provide overall policy and technical guidance for the design and implementation of the programme. It will ensure that such guidance incorporates gender issues that have been identified and included in this strategy. The Ministry will ensure that planners involved in the project have requisite gender analysis skills and utilise gender lens in designing the scheme. The Ministry will work closely with the Ministry of Gender, Community Development and Children Affairs to ensure that gender issues are implemented and reported in a coordinated way.

At district level, the District Executive Committee will appoint a SVIP committee, which will oversee implementation of the gender and youth interventions as prioritised in the strategy.

At community level, water management entities created through the SVIP will ensure that a certain minimum percentage of women and youths are involved and benefit from the programme equally with men. They will implement affirmative actions on areas where gender gaps are identified.

Contractors and consultants will ensure that women, youth and other vulnerable groups are consulted regularly through systematic processes and their views reflected in irrigation designs and specifications.

10.8 Crosscutting: Communication and Information

Continuous communication and provision of information on the RPF, its processes, procedures, ways to get information and raise grievances, information on progress, etc. need to be communicated continuously. The SVIP Implementation Unit will be overall responsible for the communication. An SVIP Information Office will be operational and instrumental in providing information and obtaining suggestions and grievances as well as providing information on the progress, e.g. on the RPF valuations and payments, grievances and the status of handling each grievance. Communication will be crucial for the implementation of

the SVIP, not only for the RPF but also the reallocation of land, establishing and developing capacity of the agri-business units, etc.

Information will be disseminated in meetings and gatherings, through the established channels of local government, traditional leaders, farmers' groups, women's groups, etc. as described in the SVIP Communication Strategy.

Communication and crosscutting issues will be included in all: 1) Terms of Reference; 3) Required reporting, and; 3) Indicators for monitoring progress, outcomes and results. The SVIP Implementation Unit will include an expert in communication as well as an expert in the crosscutting issues of gender, vulnerable groups, poverty and illiteracy.

10.9 Grievance Redress Mechanism (GRM)

The purpose of the Grievance Redress Mechanism is to give the PAPs an opportunity to express their grievances on resettlement or any other issue related to the project and have these addressed throughout the process. As such the GRM process will cover not only resettlement & asset compensation issues, but also will be the vehicle for addressing all other project grievances, including those related to construction activities and contractor behavior, as well as operations phase grievances. It is important to have one overarching project GRM, and this is the document where grievance redress mechanisms are described. The process for grievance redress will be the same for all project grievances. The PAPs have to have an opportunity to express their grievances on resettlement or any other issue related to the project and have these addressed throughout the process. The reasons for establishing the project GRM and its implementation are described in the GRM report. This section presents a brief description.

People adversely affected (or about to be affected) by a development project will raise their grievances and dissatisfactions about actual or perceived impacts in order to find a satisfactory solution. Similarly, people affected by the SVIP may have complaints during project implementation. Consultations with stakeholders conducted under the CCPLTRPF learnt that communities are worried about losing their land to the government and private investors. Communities would also like to be assured that there are mechanisms to ensure that canals do not aggravate the flooding situation. Livestock farmers are worried about losing grazing land to irrigation, and of losing access to water for their livestock. People are also worried about losing their assets, such as houses, trees and other livelihoods due to the construction of canals and other SVIP activities. Some people complain about canals and irrigation schemes reducing access to social services, while others may be dissatisfied with how land has been allocated. Women, youth and children may complain about limited access to benefits from the irrigation project, while people with disabilities, people living with HIV (PLHIV) and the elderly may complain about discrimination in terms of participation in project activities. Project affected persons (PAPs) should be able to raise their grievances, given an adequate hearing, and satisfactory solutions should be found that mutually benefit both the PAPs and the project. It is equally important that PAPs have access to legitimate, reliable, transparent, and efficient institutional mechanisms that are responsive to their complaints.

10.9.1 Objective of the GRM

The objective of the SVIP grievance redress mechanism is to solve disputes at the earliest possible time, which will be in the interest of all parties concerned and therefore, it implicitly encourages resolution of conflicts at the lowest level possible, in an amicable and participatory way. The SVIP GRM intends to provide clarity and predictability on how complaints will be received, assessed, sorted, resolved, and monitored. Specific activities are described for each of these steps.

10.9.2 Principles of the GRM

The principles guiding the SVIP GRM's procedures have been adapted from lessons learnt and documented by the World Bank from its funded projects⁸⁹ and incorporate the Voluntary Guidelines of the FAO as a means to channel citizen feedback to the SVIP programme enabling improved project outcomes for the people. The following principles provide a framework by which the SVIP performance will be measured and evaluated:

- **Human dignity:** recognizing the inherent dignity and the equal and inalienable human rights of all individuals.
- **Non-discrimination:** no one should be subject to discrimination under law and policies as well as in practice.
- **Equity and justice:** recognizing that equality between individuals may require acknowledging differences between individuals, and taking positive action, including empowerment, in order to promote equitable tenure rights and access to land, fisheries and forests, for all, women and men, youth and vulnerable and traditionally marginalized people, within the national context.
- **Gender equality:** Ensure the equal right of women and men to the enjoyment of all human rights, while acknowledging differences between women and men and taking specific measures aimed at accelerating de facto equality when necessary. States should ensure that women and girls have equal tenure rights and access to land, fisheries and forests independent of their civil and marital status.
- **Accountability:** holding individuals and committees responsible for their actions and decisions according to the principles of the rule of law.
- **Accessibility:** the SVIP GRM will be accessible to everybody who would like to submit a complaint and will provide assistance to those who face barriers, such as language, literacy, awareness, cost, or fear of reprisal. The SVIP GRM has been designed such that it is closest to the project affected persons (PAPs) so that many PAPs can approach it easily with their diverse concerns. The SVIP GRM will not discriminate anybody on the basis of sex, age, health status, marital status, religion, race, political affiliation or tribe.
- **Predictability:** the SVIP offers a clear procedure with time frames for each stage and clarity on the types of results it can and cannot deliver.

⁸⁹<http://www.forestcarbonpartnership.org/sites/fcp/files/Documents/tagged/GRM%20Manual%201.2.pdf>

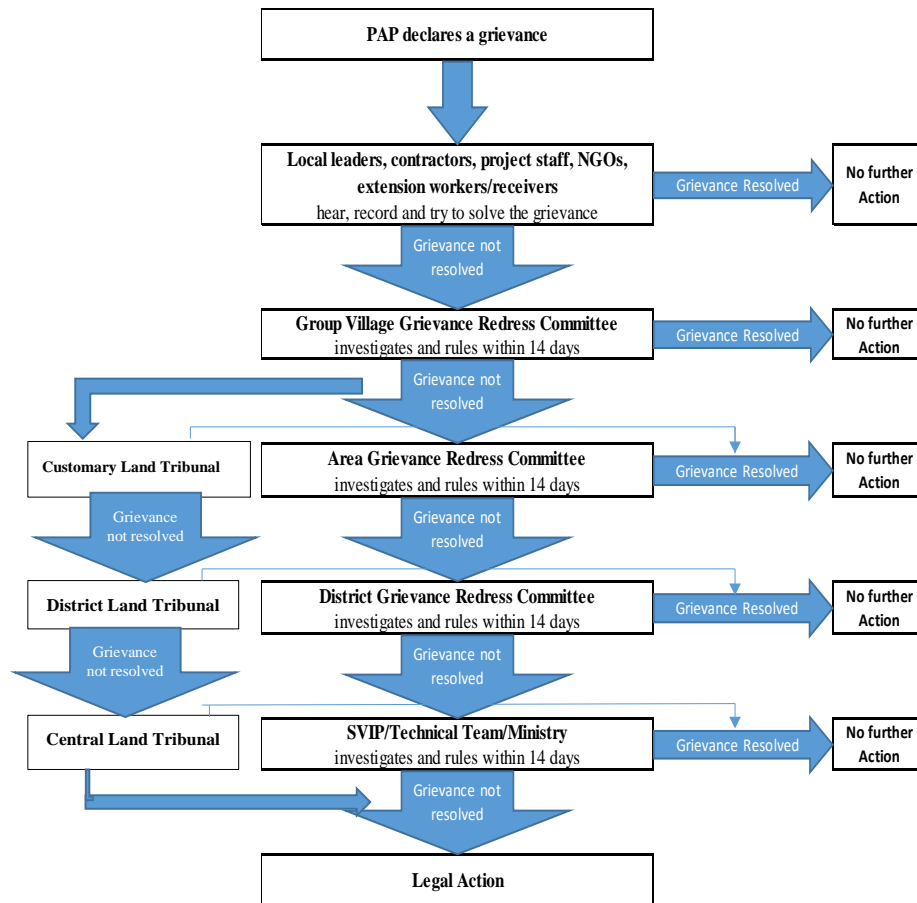
- **Fairness:** the SVIP procedures will be as fair as possible, especially in terms of access to information and opportunities for meaningful participation in the final decision.
- **Rule of Law:** the outcomes of the SVIP GRM is consistent with the Malawi Constitution, laws and international standards on human rights. The SVIP GRM does not restrict access to other redress mechanisms that the communities and other PAP have access to or decide to access.
- **Transparency:** the SVIP GRM's procedures and outcomes will be widely publicizing in applicable languages and in formats accessible to all. The GRM has been developed in a participatory way, with stakeholders' views obtained through a thorough consultative process.
- **Capability:** the SVIP will invest in appropriate capacities in the areas of technical, human and financial resources to deal with the issues at stake.
- **Feedback:** in addition to grievance redress, the SVIP serves as a means to channel citizen feedback to the SVIP programme to enable it improve project outcomes for the people.

10.9.3 Overview of the GRM

At every stage of the GRM, there will be somebody dedicate to handle and record complaints. The first step for a projected affected person who has a complaint is to notify their Local Leader, extension worker and/or project staff (MSV International, Inc. USA and Ruo Consultants Ltd, Malawi (2015). Efforts will be made to resolve the issue at that point. If the PAP is not satisfied, then the complaint will be entered into the GRM system. These will record and try to solve the case, but if this is not successful, the case will be referred to the Group Village Grievance Redress Committee (GVGRC) to determine the validity of claims. If valid, the Local Leaders will notify the complainant and s/he will be assisted. If the complainant's claim is rejected, unsolved or not resolved satisfactorily, the matter shall be brought before the Area Grievance Redress Committee (AGRC) and subsequently before the District Grievance Redress Committee for settlement. Thereafter, the case can be presented to the MoAIWD/PTT. Figure 30 below provides an overview of the SVIP GRM.

It clear from the set-up of land tribunals that the lowest grievance mechanism as promoted by the new land Act is the Customary Land Committee. This means that all land related grievances will be addressed by the CLC. However, because the CLC will operate at Traditional Authority level, it will be difficult for villagers to access and use the system. To address, this gap, the SVIP will be operating at group village level (VGRC) and will address land issues as well. But if the complaint is not satisfied, then they can appeal to the CLC, instead of the AGRC, for all land related complaints. The VGRC will be trained on land related issues by the CLC. This approach, will ensure that two GRMs complement each other and increase access and use by the communities, especially women and other vulnerable groups, who may not have resources to access CLC at Traditional Authority level.

Figure 30: The proposed SVIP Grievance Redress Mechanism

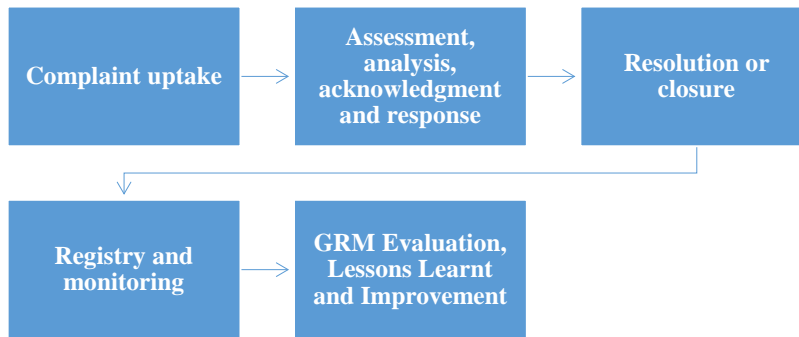


10.9.4 GRM Process and Procedures

The GRM process consists of five stages, i.e. i) Complaints uptake, ii) Complaint assessment, acknowledgement and response, iii) Resolution or closure and iv) Registry and monitoring, and v) Evaluation of the GRM⁹⁰, will be used to manage grievances for the project (World Bank, 2014). These stages are explained below. The forms can be found in Appendix 7.

⁹⁰ The World Bank 2014 does not include this stage, but it has been added because of the necessity to evaluate the project GRM as part of project management and document lessons learnt, successes and challenges to inform future projects.

Figure 31 Grievance Redress Process



Source, Authors, adapted from the four-stage grievance mechanism recommended by World Bank, 2014.

Stage 1: Complaint uptake

SVIP Project staff, contractors and consultants have the primary role in resolving complaints as part of their day to day activities when interacting with community members. Project staff, contractors and consultants will receive complaints from PAPs in a number of ways, as explained in the table below. Project staff, contractors and consultants will ensure disputes are resolved at the earliest possible time, which will be in the interest of all parties concerned, and thus implicitly reduce the number of cases referred to the statutory or formal legal system. If the person receiving the complaint has a conflict of interest⁹¹, he/she should declare this and excuse him/herself. The uptake should, in such a case, be done by a different officer. Land related grievances will be addressed by the SVIP GRM, but when the VGRC is not able to address a land related grievance or the complainant is not satisfied with the conclusion of the grievance, they can lodge it to the Customary Land Tribunal, which is at Traditional Authority level. After a referral is made to the CLT, the complaint exits the SVIP GRM and joins the grievance mechanism set by the new Land Act.

Table 67: Complaints uptake

Complaint uptake channel	Specific contacts for the SVIP
i. Verbally to SVIP officials, contractors or consultants	To be included
ii. Traditional Leaders, including VHs, GVHs and TAs	To be included
iii. Village/Area Development Committee members	To be included
iv. Councillors	To be included

⁹¹ Such being a relation or being involved in the complaint itself

Complaint uptake channel	Specific contacts for the SVIP
v. Non-Governmental Organisations' staff working in the area	CADECOM, NICE, WOLREC, Christian AID, NAPHAM, Evangelical Association of Malawi, and others
vi. District Council staff, including relevant extension workers at community level	To be included
vii. Irrigation Scheme management and staff	To be included
viii. SVIP Information Office	To be included
ix. Phone or SMS	To be included
x. Email	To be included
xi. Webpage	To be included
xii. Social media	To be included

The SVIP will publicise the GRM to the general public and provide PAPs and the general public, information on the various channels to submit complaints. Once received, complaints will be assigned a number that will help the complainant track progress. Where possible, complainants will be handed a receipt (see Annex 11) and a flyer that describes the SVIP GRM procedures, which will be read to the complaint at their request. At the time of acknowledgement, the complainant needs to be provided with the following information:

- Grievance number to facilitate monitoring and reminders by complainants.
- Expected time of redress (Prescribed maximum time limit for completion of redress at each level is 14 days).
- If not addressed within the expected time, action to be taken by complainant.
- If the grievance is not redressed within the expected time, the complainant should be provided with the following information by the person responsible for receiving the grievances: 1) Information on reasons for delay, 2) updated expected time of redress and, 3) if not addressed within expected time, action to be taken by complainant.

The project emphasizes the recording of complaints and responses and will maintain a publicly accessible grievance register to enable tracking the grievances reported and how these are addressed.

Stage 2: Assessment, Analysis, Acknowledgment and Response

The SVIP encourages an immediate resolution of the grievances without undermining the human rights of the PAP to seek redress in the formal legal system. However, the SVIP acknowledges that all grievance cannot be addressed on the spot. Complaints that cannot be resolved immediately will be remitted to the Group Village Grievance Redress Committee (GVGRC), an independent multi-disciplinary committee which will be formed in each GVH

affected by the SVIP. The GVGRC will receive the complaint as a referral and will take a maximum of 7 days to assess the complaint and provide a written response to the complainant, acknowledging receipt and detailing the next steps it will take. Options are that the complaint:

- Falls under the mandate of GVGRC and resolution can be offered immediately according to the request made by the complainant. The response will describe how and when the resolution will be provided by GVGRC, who will implement the decision and the name and contact information of the staff member responsible for it.
- Falls under the mandate of GVGRC, but various options for resolution can be considered and/or extraordinary resources are required. The VGRC will invite the complainant to a meeting to discuss these options.
- Does not or partially falls under the mandate of GVGRC. The response will refer the complaint to the appropriate body (e.g. Complaints related to resettlement will be forwarded to the Resettlement Committee), which will continue communications with the complainant.

Stage 3: Resolution or Closure

Where there is an agreement between the complainant and the contractor, consultant or SVIP project staff on how the complaint will be resolved, a grievance resolution agreement minute (GRAM) will be drafted and signed by all parties (See Appendix 2). After implementation of the agreement, a grievance resolution implementation (GRIM) minute (see Appendix 3) will be signed stating that the complaint has been resolved. The GRIM will record what specific actions have been taken/implemented to resolve the complaint. Where an agreement has not been reached, the complainant will be offered the option of taking the complaint to the next level GRM until the MoAIWD/PTT level. The next step could be seeking redress through courts or other mechanisms available in Malawi. All supporting documents of meetings needed to achieve resolution should be part of the file related to the complaint.

Stage 4: Registry and Monitoring

All complaints received will be entered into a publicly accessible recording system that will allow complaints to be tracked and monitored. The complaints registry will be kept by the Communication Officer at the SVIP Information Office. An overview of the complaints received and resolved will be kept in a data base but can be provided upon request by the SVIP GRU. The registry will present a database showing:

- Type of complaints received
- Number of days it has taken to resolve a complaint at each stage
- Number of complaints received.
- Number and % of complaints that have reached agreement.
- Number and % of complaints that have been resolved.
- Number and % of complaints that have gone for legal or independent mediation
- Number and % of complaints that have not reached agreement.

The database will also show the type of issues and geographic areas most complaints circle around. The information provided by the registry will assist the project team to improve the mechanism and better understand and address the social impacts of the project.

Stage 5: GRM Evaluation, Lessons Learnt and Improvement

The GRM will be subject to review and evaluation as is the SVIP with clear terms of reference. The purpose of the evaluation of the GRM will be to assess its effectiveness, whether the GRM principles are observed, identify lessons learnt, successes and challenges, etc. to improve the GRM. The SVIP will allocate a GRM expert in the evaluation/review team.

10.9.5 GRM Roles and Responsibilities

The SVIP Project will be responsible for the operation of this GRM. A contact person for the GRM will be appointed. The main responsibilities of the contact person will include maintaining the grievance redress process, including the procedures; registration of complaints; capacity building of the grievance committee (s); outreach and external communications; tracking performance and monthly reporting.

The Grievance Committees will be composed of a mix of people. The main criteria for selecting members of GRC is that they should be trusted people in the community, with no history of corruption and abuse of public trust. Politicians should not be included in the GRC. The following Table 68 presents the proposed composition of GRCs in the SVIP at the village, area, and district level.

Table 68 Proposed Composition of the Grievance Redress Committees

GRC	Operational level	Members
Group Village Grievance Redress Committee	Group Village Headman/Woman	<ul style="list-style-type: none"> • Group Village Head • Member of Cooperative • One representative from each village, • CSO extension worker representative • Religious leader representative
Area Grievance Redress Committee	Traditional Authority level	<ul style="list-style-type: none"> • Chairpersons of GVGRC • Traditional Authority • CSO extension worker representative • Religious leader representative • Member from the Community Victim Support Unit
District Grievance Redress Committee	District level (one for Chikwawa and one for Nsanje)	<ul style="list-style-type: none"> • SVIP representative • Judiciary representative • Ministry of Land • NICE representative • District Labour Office • District Director of Planning

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GRC	Operational level	Members
		<ul style="list-style-type: none">• District Director of Youth• WOLREC representative• Representatives of all ADCs involved in the project• District Community Development Office• District Social Welfare Office• District Director of Finance

At the MoAIWD/PTT level, the Grievance Redress Committee will consist of the PTT members and, in addition, representatives of the MoAIWD and Ministry of Lands

At the MoAIWD/PTT level, the Grievance Redress Committee will consist of the PTT members and, in addition, representatives of the MoAIWD and Ministry of Lands. The GRM implementers, drawn from different stakeholder groups (including government, NGOs, District Councils, Traditional Leaders, Contractors, Project implementation teams, GRM committee, etc.) may have the specific and essential skills and capacity to engage in an effective grievance resolution process. Therefore, it is important that such GRM implementers be provided with adequate orientation and training on grievance resolution. Such capacity building training will start immediately after setting up the GRM. The subject matter for such training/orientation programs will include the following:

- Procedures on receiving, registering, and sorting grievances;
- Conduct of initial grievance assessments;
- Effective communication, negotiation, and facilitation skills;
- Management of the grievance redress process;
- Roles, monitoring performance of staff dealing with complaints, and providing incentives;
- Creating awareness of the usefulness of a GRM as an important source of feedback;
- Gender and youth;
- Problem solving; dispute resolution; and decision making; and their respective parameters, standards, and techniques; and
- Documentation and reporting, including the use of "customer feedback" as part of an ongoing organizational learning process for the implementing agency.

10.9.6 Monitoring and Evaluation

Monitoring of progress and outcomes/results is to take place continuously and the processes, procedures and implementation mechanisms to be adjusted if so required. The SVIP objectives, outputs, results and indicators will include the crosscutting issues of communication, gender, youth, illiteracy, vulnerable groups, and poor. Monitoring data will be disaggregated on these crosscutting issues where possible and assessed how these crosscutting issues and communication and information are addressed.

Progress reports will, among other, report on the progress on the crosscutting indicators and raise any issues that may arise regarding these. This may be positive lessons learned that could be replicated in other parts of the project or elsewhere and raising critical issues that need to be addressed.

Apart from the regular monitoring as part of the project implementation, an independent group of monitoring experts will be engaged by the MoAIWD to conduct the monitoring of the LTDACS, GRM and RPF as these are closely related.

Crosscutting issues will be included in the Terms of Reference, the required outputs and the monitoring team will include an expert in the crosscutting issues of gender, vulnerable groups, poverty and illiteracy as well as in communication. Where relevant, compliance with addressing crosscutting issues will be a requirement for contract payment.

A number of the higher level objectives will be realized during SVTP-II and SVTP-III. These

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relate to increases in crop yield and cropping intensity, sustainable irrigation fee recovery rates, rate of profitability of the Smallholder Owned Commercial Farm Enterprises (SOCFEs) per ha and per unit of capital employed, cost of production as percentage of revenue, and wage labor increases. For the first project SVTP-I the PDO level results indicators are⁹²:

⁹² Taken from the PAD but with addition of specific monitoring indicators for the RPF shown in italics.

Table 69 Monitoring Indicators

Indicator Name	Core	Unit of measure	Baseline	End target	Frequency	Data source/ methodology	Responsibility for data collection
Project Development Indicators							
Area provided with new/improved irrigation or drainage services ⁹³	√	Ha	0	15,500	Bi-annually	Project Progress Reports	PMT (MoAIWD) and M&E consultant
Area provided with improved irrigation or drainage services	√	Ha	0	10,500	Bi-annually	Project Progress Reports	PMT (MoAIWD) and M&E consultant
Area provided with new irrigation or drainage services ⁹⁴	√	Ha	0	5,000	Bi-annually	Project Progress Reports	PMT (MoAIWD) and M&E consultant
Number of SOCFE established with formal land tenure		No.	0	10	Bi-annually	Project Progress Reports	PMT (MoAIWD) and M&E consultant
Conservation area brought under improved management regime ⁹⁵		Ha	0	273,637	Bi-annually	Project Progress Reports	DNPW and M&E consultant
Direct project beneficiaries ⁹⁶		No.	0		Bi-annually	Project Progress	DNPW and M&E consultant

⁹³ This indicator measures the total area of land provided with irrigation and drainage services under the project, including in (i) the area provided with new irrigation and drainage services, and (ii) the area provided with improved irrigation and drainage services, expressed in hectare (ha).

⁹⁴ This refers to area fully equipped including on-farm equipment under SVTP-I. The target for area served with bulk water supply under SVTP-I is 10,000 ha. The remaining 5,000 ha will be equipped at the start of SVTP-II and all preparatory processes are included in SVTP-I.

⁹⁵ Conservation area brought under improved management regime in area ha: Elephant Marsh 60,000, New Lengwe 77,700, Majete 70,000, Matandwe 28,464, Mwabvi 37,473. TOTAL 273,637 ha

⁹⁶ Direct beneficiaries are people or groups who directly derive benefits from an intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection).

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Indicator Name	Core	Unit of measure	Baseline	End target	Frequency	Data source/ methodology	Responsibility for data collection
						Reports	
Female beneficiaries ⁹⁷		%	0	50%	Bi-annually	Project Progress Reports	DNPW and M&E consultant
Immediate Results Indicators							
Land use and land tenure plans which include irrigation, developed and approved by village committees and Traditional Authorities		No.	0	5	Bi-annually	Project Progress Reports	PMT and M&E consultant
Number of SOCFEs with financing plans developed and approved		No.	0	12	Bi-annually	Project Progress Reports	PMT and M&E consultant
Management Effectiveness Tracker Tool Scores for conservation areas ⁹⁸		No.	185	377	Bi-annually	Project Progress Reports	PMT and M&E consultant

⁹⁷ Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator is calculated as a percentage.

⁹⁸ The METT measures progress in management effectiveness at particular protected area sites over time. It is a simple, cheap and flexible tool that can give a quick overview of the effectiveness of protected area management without requiring expensive consultants or taking up too much time for managers, rangers or others responsible for governance. The METT is a qualitative assessment and relies on the judgement and honesty of the assessors. It addresses changes over time at a single site. It provides information about how well management is being carried out (the processes and outputs of management). It is successfully in use in Malawi under ongoing GEF programs. The aggregate score:

	Project Start-up (2018)	Midterm (2021)	Project Completion (2023)
Elephant Marsh	18	49	73
New Lengwe	13	48	68
Majete WR	88	91	94
Matandwe FR	36	59	70
Mwabvi WR	30	59	72
TOTAL	185	306	377

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Indicator Name	Core	Unit of measure	Baseline	End target	Frequency	Data source/ methodology	Responsibility for data collection
Grievances responded to and satisfactorily resolved in relation to the delivery of project benefits according to standards		No.	0	80	Bi-annually	Project Progress Reports	PMT and M&E consultant
Grievances responded to separately of: 1) Poor, 2) Women, 3) Youth, 4) Other vulnerable groups		%	0	Percent ⁹⁹ : a) 64 b) 50 c) 40 d) 5	Bi-annually	Project Progress Reports	PMT and M&E consultant
The number of people who have received their compensation as per RAP, of which in time		No. of hh/ people	0	As per RAPs Total & Total in time	Bi-annually	Project Progress Reports	PMT and M&E consultant

More detailed indicators will be developed in the RAPs. Table 71 below provides the suggested indicators for inclusion in the RAPs. Note that all the data on these indicators have to be disaggregated to adult female, adult male, youth female and youth male households, as well as poor and non-poor and other vulnerable groups.

Table 70 Indicators suggested for inclusion in RAPs¹⁰⁰

Type of resettlement losses	Compensation entitlement	Monitoring indicators	Monitoring authorities	Means of verifications	Frequency of monitoring
Loss of or	Land replacement	Hectares of land replacement in irrigation blocks	District Executive Committee	Records with local GVH,	Quarterly

⁹⁹ These percentages are taken from the Socio-Economic Baseline Survey

¹⁰⁰ Note that all the data on these indicators have to be disaggregated to adult female, adult male, youth female and youth male households, as well as poor and non-poor and other vulnerable groups.

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Type of resettlement losses	Compensation entitlement	Monitoring indicators	Monitoring authorities	Means of verifications	Frequency of monitoring
Impact on land	Cash compensation in lieu of land	Hectares of replacement land outside irrigation blocks. Cash paid Number of people compensated.	Traditional Authority (TA)	VDC and DEC.	
Loss of or impact on residential structures	Cash compensation Replacement residential structure	Cash compensation. Number of replacement residential structures constructed Number structures compensated. Number of people compensated.	District Executive Committee Traditional Authority (TA)	Records with local GVH, VDC and DEC.	Quarterly
Loss of or impact on business structures	Cash compensation Replacement business structure	Cash paid Number of replacement business structures constructed Number of structures compensated. Number of people compensated.	District Executive Committee Traditional Authority (TA)	Records with local GVH, VDC and DEC.	Quarterly
Loss of or impact on vending/hawking	Replacement of structure if applicable Full cash compensation	Number of structures constructed Cash paid Number of vendors compensated	District Executive Committee Traditional Authority (TA)	Records with local GVH, VDC and DEC	Quarterly
Loss of or impact on accommodation rentals	Cash compensation	Cash paid Number accommodation units compensated.	District Executive Committee Traditional Authority (TA)	Records with local GVH, VDC and DEC.	Quarterly

RESETTLEMENT POLICY FRAMEWORK

Type of resettlement losses	Compensation entitlement	Monitoring indicators	Monitoring authorities	Means of verifications	Frequency of monitoring
Loss of or impact on crops	Cash compensation	Kilogrammes per type of crops compensated. Cash paid Number of people compensated	District Executive Committee Traditional Authority (TA)	Records with local GVH, VDC and DEC.	Quarterly
Loss of or impact on forest trees	Cash compensation	Number of trees compensated. Cash paid Number of people compensated	District Executive Committee Traditional Authority (TA)	Records with local GVH, VDC and DEC.	Quarterly
Loss of or impact on fruit trees	Cash compensation	Cash paid Number of fruit trees compensated. Number of people compensated	District Executive Committee Traditional Authority (TA)	Records with local GVH, VDC and DEC.	Quarterly
Loss of or impact on communal grazing land	Communal grazing land replacement Provide improved pasture managed areas Move animals to areas outside irrigation.	Availability of alternative communal grazing land Number of improved pasture areas Number of areas away from the irrigation scheme	District Executive Committee Traditional Authority (TA)	Records with local GVH, VDC and DEC.	Quarterly
Blockages to access to natural resources	Alternative access routes	Functional alternative routes to natural resources.	District Executive Committee Traditional Authority (TA)	Records with local GVH, VDC and DEC.	Quarterly
Blockage of pathways	Provision of alternative	Number of functional alternative footpaths/pathways	District Executive Committee	Records with local GVH,	Quarterly

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Type of resettlement losses	Compensation entitlement	Monitoring indicators	Monitoring authorities	Means of verifications	Frequency of monitoring
ys/foot paths	pathways/footpaths		Traditional Authority (TA)	VDC and DEC.	
Loss of or impact on public facilities	Cash compensation	Number of structures/sites. Cash paid	District Executive Committee Traditional Authority (TA)	Records with local GVH, VDC and DEC.	Quarterly

10.10 Implementation Schedule for Resettlement Action Plan

The RAP will include implementation time frame timeframe that will be discussed and agreed by the PAPs and other relevant stakeholders. All payments and other compensation measures will have to be effected before starting the implementing the SVIP.

The overall preparation of the RAPs could start before the start of construction and needs to be completed before any construction activities begin in project areas with PAPs. The exact area required for the SVIP infrastructure can only be finalised after the final design has been approved detailing the exact alignment of the canal routes, location of the night storage ponds and other infrastructure related to the SVIP. Therefore the RAP and construction calendars must be carefully sequenced and coordinated. Resettlement may need to occur in phases and be aligned with the sequencing of the construction phases.

10.11 Piloting the Establishment the New Land Related Laws

During the consultancy process it has been discussed with WB/FAO whether SVIP could be used as a pilot project for the implementation of the new Land Acts, with the establishment of new Land Committees and definition of Traditional Land Management Areas (TMLA's) within the SVIP area.

In September 2016 the first four new land laws, among them the Customary Land Act, were assented to by the President, (the Acts are more detailed described in chapter 2.3) and although the procedures and regulations are not yet in place, the SVIP project will create a good opportunity for the MoLHUD to investigate the various issues related to the definition of the TLMA's and Land Tribunals and the establishment of Local Land Committees at Group Village level. Once these are in place the establishment of Customary Estates can be piloted, that will form the legal entities for the individual agri-business units within SVIP.

The land allocation strategy should be combined with the implementation of the new Land Acts to secure the rights of the landholders. Although there is a positive response among the smallholders to establishing farmer's cooperatives within the SVIP project area, it is important to convey the message that the individual smallholders shall not lose their right to their land. They will have to exchange their current parcels for a share in an organisational structure, where they will work together with the other farmers and share the benefits.

The new Customary Land Act describes how the rights can be secured by registering a Customary Estate within a Traditional Land Management Area. Such a Customary Estate can consist of a parcel of land with farmers registered as shareholders in the cooperative.

The possibility of obtaining an individual customary lease has only recently been included in the new laws and it is therefore important to clarify during the establishment of the irrigation scheme organisation how the shares will be defined and secured. If the shares of the cooperative or a similar organisational entity are in proportion of what the farmers originally had and the allocation is without any physical definition on the ground (which is not the case

for example at the Phata outgrowers), it will be difficult for the shareholders to apply for an individual lease for their share. This process will require a survey, demarcation and registration of the individual parcel.

In the situations where the share is physically identifiable on the ground, the individual shareholder can get an individual lease for the share and will be able to sell it or subdivide it. However, it will be a time-consuming and costly process to demarcate and survey all these individual parcels, and a solution can be to secure the rights with a lease of the whole irrigation scheme as one Customary Estate. At a later stage the individual parcels can be surveyed and given leases. Implementation of the new land laws in Chikwawa together with implementation of SVIP, will need coordination and support of the MoLHUD and the Local Government on various issues:

- a. Setting up new local committees at Group Village Level, and staffing the required district level institutions
- b. Designing and formally approving the registration forms and other forms that may be needed under the new legal framework
- c. Demarcating the 5 Traditional Land Management Areas (TLMA), which will first require clarification of the methodology to be used. If registration of the TLMA lease is under the title system (Land Registration Act) then the land could be defined with general boundaries, delineated on a suitable scale map, and a detailed cadastral survey would not be necessary.
- d. Obtaining from the Land Commissioner a Certificate of Customary Land for each TLMA.
- e. Verification of existing land holdings through an informal survey.
- f. Participatory land use plan at GV level.
- g. Land holding consolidation into a customary estate (several options, tenancy in common, in form of trust).
- h. Once land consolidation is completed, systematic process of registering the resulting family/household/individual parcels, outside of the commercial block but within the GV boundary, as private customary estates.

10.12 Capacity Development

At present the Ministry of Lands, Housing and Urban Development is responsible for the approval of the RPFs and RAPs and the District is responsible for the implementation of the RAPs. The first phase of the SVIP is located within the District of Chikwawa, who is therefore responsible for the implementation of the resettlement process. The capacity assessment showed that staffing levels are low and individual capacities require strengthening. One of the lessons learnt with implementing RAPs in Malawi is that implementation by a professional team is faster and raises less complaints. Therefore, a professional team will be engaged that will work closely together with the District officials, the TAs, the Communities and the PAPs to prepare and implement the RAPs.

The Terms of Reference of the RAPs Team at the SVIP Implementation Unit will include expertise in communication and information, and will address crosscutting issues such as gender, youth and illiteracy. In the latter the RAPs team will be assisted by the organisation that will be recruited specifically to address the crosscutting issues not only of the RAPs but also throughout the implementation of the SVIP.

Tender documents for the infrastructural works will include specific clauses to train staff on communication, gender and youth, inclusion of all groups (e.g. vulnerable groups, illiteracy, the poor), HIV/AIDS as well as addressing gender, e.g. by specifying the minimum percentage of women and local community members to be employed. Adherence to the clauses will be monitored and subject to penalties.

Capacity development will be a combination of formal training with action training. The formal training will be conducted at the start of the process and therefore whenever necessary. The learning whilst doing will be conducted through group and individual meetings.

The RAPs Team will identify contact persons within each community, develop their capacity on the processes and procedures of the RAPs and GRM as well as communication and crosscutting issues. The community contact persons will also receive information on the SVIP, its objectives, the overall technical design and lay-out, the implementation plan and its organisation and management. After the formal training, the RAPs team will conduct regular meetings with the contact persons to monitor their progress, provide information on the overall progress of the SVIP and the RAPs, share best practices, and address any issues arising. The latter will ensure that issues are addressed at an early stage before these become a major issue. The regular meetings will thus function as training whilst doing apart from sharing communication and information. District staff will participate in the meetings and thus be kept up to date of the progress.

Identification and valuation of the entitlements for compensation will be implemented by the RAPs team with the participation of District officials, TAs and Communities. Prior to the field investigations those conducting the identification and valuation of the entitlements for compensation will follow a training that will include communication, GRM and crosscutting issues.

11 Estimated Compensation Budget for Phase 1

This chapter presents the budget and budget assumptions for the preparation and implementation of the RAPs as well as the estimated compensation for losses. The budget has been divided into a budget for compensation of losses, for RAP preparation and implementation, for capacity development in connection with the RAPs, for the Grievance Redress Mechanism, and a budget for communication and crosscutting issues.

The total estimated budget is shown in Table 72 below. Details are described in the remainder of this chapter.

Table 71 Total estimated RPF budget

	Budget line	USD
1	Compensation of losses	5,984,314
2	RAP capacity development	83,000
3	Monitoring	33,000
	Contingencies 20%	1,220,063
	Total	7,320,377

11.1 Budget for Compensation of Losses

11.1.1 Budget Assumptions

The following budget assumptions were used in calculating the budget:

- The quantity of estimated losses is based on the detailed survey of the land canal area presented in this document and as provided by the TFS consultant in October 2016.
- Additional land is required for the main branches into the irrigated areas and for night storage. The land area required for these infrastructures is based upon information of the TFS consultant. The quantity of losses within this area is based on a review of the orthophotos for the buildings. The bases of the calculations of the other losses is the detailed survey of the canal route, whereby the same proportions of losses are used.
- The unit value for a hectare of land is estimated by taking the present value of Phata Cooperative sugarcane gross margin per ha for 3 years, i.e. 2012/2013, 2013/2014, 2014/2015 and includes the preparation of land for cultivation.
- However, valuation principals and methods shall apply accordingly.
- The value of private land takes into account the remaining lease loss value.

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- It is assumed that crops will be harvested before the land is permanently acquired and no compensation for perennial crops is required. This might not be possible in all areas and therefore, one third of the area under crop is budgeted for compensation.
- The replacement costs for buildings includes ancillary buildings, such as toilets, bathrooms, stores, kitchens.
- Compensation for use of land during construction phase is the value of land times the bank lending rate (34%) for four years. The value of the land is the average of the values for one hectare obtained in the focus group discussions in August/September 2016.
- The value of one hectare of forest including replacement costs to a forest of similar maturity is obtained from the District of Chikwawa.
- The exchange rate used is USD 1 = MK 720.7271 (October 31, 2016)
- Temporary loss of grazing land and unused land compensation is based on the price to rent land for four years. A lump sum is added for loss of grazing on crop residue and public places, like road sides, etc. that will not be available any longer permanently due to infrastructure including the irrigation blocks and temporarily due to construction activities.
- Compensation to the game reserve is for information on the construction works (benefits, environmental measures taken), resources to attract visitors also during the construction of the intake, e.g. improvement of the park roads, advertisement. This budget is not reflected here but is part of the budget to implement the ESMP.
- Settlements affected by the main canal route will receive compensation to implement safety measures to reduce impact of the canal, such as restricting access to the canal, conducting awareness raising on the dangers of the canal and to take any other measures reducing the impact of the canal (e.g. adding/moving school buildings so fewer children have to cross the canal).
- Settlements split by the main canal will receive compensation to implement safety measures to reduce the impact of the canal. The larger amount will allow to implement measures to improve the movement of the canal to cover the canal, etc. The RAPs prepared for the infrastructure will include all measurements and compensation entitlements of the villages split by the canal.
- The budget for environmental measures is covered in the Environmental and Social Management Plan. This includes the mitigating measures for the archaeological and other sites. During the field surveys no special points of interest were registered apart from graveyards. The design has been adjusted to avoid graveyards and it is assumed that the ongoing technical design will avoid the graveyard areas mapped during the field studies.
- It is assumed that loss of access is taken into account in the technical design and that sufficient bridges will be constructed to maintain access from the one side of the canal to the other at the location of all the current roads and footpaths.

- The SVIP Project will be responsible for the operation of this GRM. A contact person for the GRM will be appointed. The main responsibilities of the contact person will include maintaining the grievance redress process, including the procedures; registration of complaints; capacity building of the grievance committee (s); outreach and external communications; tracking performance and monthly reporting. It has been estimated that the GRM will require about \$1,122,000.

11.1.2 Budget Calculations Compensation

The total estimated compensation budget for the implementation of the RAPs based on the assumptions described in the above section 11.1 for both the permanent and temporary losses is close to 16 million USD. As mentioned in the assumptions the budget excludes costs for preparing and supporting the implementation of the RAPs. These costs are incorporated in the budget for the service provider to be hired under component 2.1 and thus these costs are fully integrated in program implementation arrangements. More details on the costs calculations can be found in Appendix 9.

Table 72 Budget for Compensation Losses of PAPs in USD

No	Type of Loss	USD		
		Total	Permanent Loss	Temporary Loss
1	Permanent loss of land to infrastructure			
	Customary land - allocated	1,896,000	1,896,000	
	Customary land - communal	352,000	352,000	
	Private land	110,000	110,000	
	Government land	0		
	<i>Total land</i>	<i>2,358,000</i>	<i>2,358,000</i>	
2	Crops	264,264	36,036	228,228
3	Forest	273,000	240,000	33,000
4	Grazing	18,000	11,750	6,250
5	Not used	13,250		13,250
6	Trees	37,400	24,300	13,100
8	Settlements			
	Settlement with canal in outskirts	420,000	350,000	70,000
	Settlement divided by canal	360,000	300,000	60,000
9	Buildings	240,400	156,260	84,140
10	Loss of agricultural production during construction of irrigation blocks until water flows	2,000,000		2,000,000
	TOTAL	5,984,314	3,476,346	2,507,968

11.2 Budget for RAP Preparation and Implementation

GRM, communication, RAP development and implementation support tasks will all be integrated within the functions of the PMT (Project Management Team – like a “PIU”) with strong support from a service provider (consultancy services) who will integrate these tasks with community engagement, land tenure support to local government and local communities, and communication, in a holistic support program for the duration of the SVTP-I project. Therefore, no budget is included in the RPF.

11.3 Budget for Capacity Development RAPs

The Resettlement Action Plans (RAPs) will be prepared as soon as the technical design is finalised for each of the construction contracts, and if the contracts is implemented in phases, for each of the phases of the contract requiring land over time. The implementation has to be completed before the start of construction. Only compensation for the lack of access to the farming land in the irrigated areas will be paid after the start of the construction as per separate RAP or RAPs.

The grievance redress mechanism and reallocation of land are part of the resettlement process. Separate budgets for those are included in sections 11.4 and 11.5.11.4 below. The budget for awareness and community meetings is included in the budget for communication and crosscutting issues in section 11.5 below.

The estimated costs of the capacity development for the RAPs is shown in Table 74 below:

Table 73 Estimated costs for Capacity Development in relation to the RAPs

	Capacity development item	Quantity	No of months	Unit costs	Total USD
1	Establishment and training of committees to establish the value of lost and affected assets and entitlement to compensation.	1	1	15,000	15,000
3	Monthly meetings with community contact persons ¹⁰¹ and other stakeholders that will be used to train on common issues	3	12	500	18,000
4	Field inspections, monitoring and advisory services, bi-monthly by a team of 2-4 experts	12		10,000	50,000
	Total				83,000

¹⁰¹ The recruitment and capacity development of community contact persons is included in section 11.5 below.

11.4 Budget for the Grievance Redress Mechanism

It is internationally recommended that a GRM should have a realistic budget that will sufficiently cover the costs of its operations such as staffing, awareness campaigns, capacity-building training, infrastructure and support services, field inspections, meetings, documentation and supplies (Centre for Poverty Analysis, CEPA, 2009). Based on this framework, it has been estimated that the GRM will require about \$1,122,000.

The cost calculations should be based on operating the GRM for 5 years and include maintaining a small office in Malawi. Given that the GRM will be implemented as part of project activities, it is expected that the costs would be lower due to economies of scale. Resources to cover the operational costs of the GRM will come from the SVIP project. However, GRM, communication, RAP development and implementation support tasks will all be integrated within the functions of the PMT (Project Management Team – like a “PIU”) with strong support from a service provider (consultancy services) who will integrate these tasks with community engagement, land tenure support to local government and local communities, and communication, in a holistic support program for the duration of the SVTP-I project.

Experience shows that several risks are attached to voluntary work, especially with regard to grievance redress. Grievance Redress Committee members will have to deal with cases that involve financial benefits for the complainant. If the committee members are to conduct their work voluntarily, the temptation to accept and rule in favour of the highest ‘informal payment’ is high. Also motivation may be quite low as preference is given to income generating activities rather than voluntary work. It are especially the poor, the vulnerable and women who generally have less income and therefore cannot afford to pay (sufficiently) informally. It is suggested that a budget for payment of the grievance redress committee members is included in the final RAPs. A budget for implementing the GRM is included in the GRM report.

11.5 Budget for Communication, Crosscutting Issues and Monitoring

The SVIP Information Office has to be established together with the SVIP Implementation Unit and be operational throughout the implementation that is estimated to take five years. Similarly, crosscutting issues have to be mainstreamed and addressed throughout the implementation period and expertise established within the SVIP Project Implementation Unit as soon as this unit is established and be operational throughout the project implementation period.

GRM, communication, RAP development and implementation support tasks will all be integrated within the functions of the PMT (Project Management Team – like a “PIU”) with strong support from a service provider (consultancy services) who will integrate these tasks with community engagement, land tenure support to local government and local communities, and communication, in a holistic support program for the duration of the SVTP-I project. Therefore, no budget is included in this RPF.

The community contact persons will not only be for communication and crosscutting issues but also providing information and support on grievance redress, and resettlement.

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Integrated monitoring visits will be conducted on communication, crosscutting issues, establishment of agri-business units, grievance redress, resettlement, and pooling of land. At the end of the monitoring visits the lessons learned will be disseminated.

Table 74 Estimated budget for Monitoring

	Quantity	No of months	Unit costs	Total USD
Field inspections, monitoring and advisory services, bi-monthly by a team of 2-4 experts for the first two years, quarterly for another two years and twice in the fifth and last year	22		15,000	33,000
Total				33,000

11.6 Budget for Majete Game Reserve and Cultural Heritage Sites (part of ESMP)

The budget for the Majete Game Reserve is not included in the overall RPF budget but is reflected in the ESMP.

11.6.1 Cultural Heritage

Budget Assumptions:

- The initial monitoring of land transformation activities during construction in Phase 1 is estimated to take 4 expert months (2 2 archaeologists from the Malawi Department of Antiquities)
- The contractor training and awareness raising programme is estimated to take 0.2 expert months (2 archaeologists from the Malawi Department of Antiquities)
- The rescue excavation of archaeological sites is estimated take a total of two expert months from archaeologists from the Malawi Department of Antiquities.

The total budget for 6.2 expert months is estimated at USD 10,000.

Appendix 1 List of Main Canal Registrations

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Plotid	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
1-0-1	Majete		Majete Game Rese	Game Reserve			9,9	
1-1-1	Maganga	1	Maganga and bwal	Forest		0	1,93	In hands of chiefs Maga
1-2-1	Maganga		Namaleta thom	Not used		0	1,6	
1-2-2	Maganga	1		Not used		0	3,14	In hands of chiefs Maga
1-3-1	Maganga		Magness Chimbam	Not used		0	1	With so many natural tre
1-3-2	Maganga		Dorothy Baibulo	Not used		0	0,13	With few natural trees
1-3-3	Maganga	1		Not used		0	1,11	In hands of chiefs Maga
1-3-4	Maganga	2	Liwonde Padoko	Forest		0	1,06	Private lease, with many
1-3-5	Maganga		Thaundi Maliama	Grazing		0	0,72	With so many natural tre
1-3-6	Maganga		Thyoka Frackson	Grazing		0	0,69	With so many natural tre
1-3-7	Maganga		Thaundi Maliama	Grazing		0	0,91	With so many natural tre
1-3-8	Maganga		Thaundi Maliama	Grazing		0	0,05	With few natural trees
1-3-9	Maganga		Hopper	Not used		0	3,46	With so many natural tre
1-4-1	Majete		Majete Game Rese	Game Reserve		0	5,05	Game Reserve
2-1-1	Bwalo		John loudon	Forest		0	0,91	Its a forest
2-1-2	Bwalo		Mrs ndadzera	Grazing		0	1,86	Its a personal farm has
2-1-3	Bwalo		Ida chalumphira	Forest		0	0,64	Forest
2-1-4	Bwalo		Ester eniliko	Forest		0	0,81	Forest
2-1-5	Bwalo		Judo mideo	Forest		0	0,53	Forest
2-1-6a	Bwalo		Besina bestala	Forest		0	0,51	Forest
2-1-6b	Bwalo		Besina bestala	Crop	Sorghum	0	0,82	
2-1-7	Bwalo		Rashid stonken	Crop	Sorghum	5	0,4	
2-1-8	Bwalo		Nelio jenala	Forest		0	0,64	Forest
2-1-9	Bwalo		Nasingon kanjoka	Forest		0	0,27	Forest
2-1-10	Bwalo		Watson amos	Forest		0	0,57	Forest
2-1-11	Bwalo		Wyson nkosa	Forest		0	0,94	Forest
2-1-12	Bwalo		Elube amosi	Forest		0	2,27	
2-1-12b	Bwalo		Elube amosi	Crop	Sorghum	0	0,45	
3-3-1	Misengo		Alufeyo Chagwamb	Not used		0	1,97	With so many natural tre
3-3-2	Misengo		Henry Julio	Not used		0	1,93	With so many natural tre
3-3-3	Misengo		Germany Kachere	Not used		0	0,5	With some natural trees
3-3-4a	Misengo		Mazibukhu Zalira	Not used		0	0,34	With some natural trees
3-3-4b	Misengo		Mazibukhu Zalira	Crop	Sorghum	0	0,67	With some natural trees
3-3-5	Misengo		Namayiye Amasi	Not used		0	0,98	With so many natural tre
3-3-6	Misengo		Albert ziyambo	Crop	Sorghum	0	0,47	With few natural trees
3-3-7a	Misengo		Suzana Thomu	Crop	Sorghum	0	0,1	
3-3-7b	Misengo		Suzana Thomu	Not used		0	0,49	With some natural trees
3-3-8	Misengo		Egilly Medson	Not used		0	0,4	With so many natural tre
3-3-9	Misengo		Jacqueline Saidi	Not used		0	0,63	With some natural trees
3-3-10	Misengo		Malita Million	Not used		0	0,89	With some natural trees
3-3-11	Misengo	2	Amadi Daso	Grazing		0	9,21	Cattle farm (privately lea
4-2-1	Njereza		Billy limbisoni	Crop	Sorghum	0	0,46	
4-3-1a	Njereza		Magnet Bank	Not used		0	0,6	With many natural trees
4-3-1b	Njereza		Magnet Bank	Crop	Sorghum	0	0,13	

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Plotid	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
4-3-2a	Njereza		Oliva Kakondwa	Not used		0	0,39	With some natural trees
4-3-2b	Njereza		Oliva Kakondwa	Crop	Sorghum	0	0,25	
4-3-3a	Njereza		Frazer Kumbukira	Crop	Sorghum	0	0,24	
4-3-3b	Njereza		Frazer Kumbukira	Not used		0	0,66	
4-3-4	Njereza		Funuel Tinala	Crop	Cotton	0	0,67	
4-3-5	Njereza		Osward Dison	Crop	Cotton	0	0,68	and sorghum
4-3-6	Njereza		Frazer Kumbukira	Not used		0	0,18	With some natural trees
4-3-7	Njereza		Maston Faera	Crop	Sorghum	0	0,75	With few natural trees
4-3-8	Njereza		Gostino Mokani	Not used		0	0,7	With some natural trees
4-3-9	Njereza	2	Amadi Daso	Grazing		0	6,35	Cattle farm (privately leased)
4-4-1	Njereza		Mika Penifodi	Crop	Maize	0	0,35	
5-1-1a	Mwalija		White sam	Crop	Sorghum	0	0,34	
5-1-1b	Mwalija		White sam	Forest		0	0,87	Its a forest
5-2-1	Mwalija		Hadwell chibumbi	Not used		0	0,87	
5-2-2	Mwalija		Donasiyano chitim	Crop	Maize	0	1,72	
5-2-3	Mwalija		Mikitala liyenda	Crop	Sorghum	0	0,2	
5-3-1a	Mwalija		Adriano Game	Crop	Sorghum	0	0,24	
5-3-1b	Mwalija		Adriano Game	Not used		0	0,37	With so many natural trees
5-3-2	Mwalija		Unknown	Not used		0	0,89	With so many natural trees
5-4-1	Mwalija		Gustino Mokani	Not used		0	1,25	With some natural trees
5-4-2	Mwalija		Everson Dausi	Crop	Maize	0	0,87	Plot has natural trees
6-2-1	Sekera/Chipula		Saini hauseni	Not used		0	0,22	
6-2-3	Sekera/Chipula		Monica kam'bwem	Crop	Sorghum	0	0,54	
6-2-4	Sekera/Chipula		Luneya Lufandika	Crop	Sorghum	0	0,33	
6-2-5	Sekera/Chipula		Witman kabwazi	Crop	Cotton	0	0,83	
6-2-6	Sekera/Chipula		Goodson Chipula	Crop	Sorghum	0	1,12	
6-2-7	Sekera/Chipula		Tonnex Goodson	Crop	Sorghum	0	0,37	
6-4-1	Sekera/Chipula		White Divason	Crop	Sorghum	0	0,2	
6-4-2	Sekera/Chipula		Jack Ziweto	Crop	Sorghum	0	0,8	Partly used. Plants Sorghum
6-4-3	Sekera/Chipula		Unknown	Not used		0	0,29	
6-4-3	Sekera/Chipula		Michael Mosteni	Not used		0	2,58	
6-4-4	Sekera/Chipula		Sevelina Lufandika	Not used		0	1,04	
6-4-5	Sekera/Chipula		Machion Sekera	Not used		0	1,23	
6-4-6	Sekera/Chipula		Arone Wadya	Not used		0	1,04	
6-4-6	Sekera/Chipula		Paul Gonagona	Crop	Sorghum	0	0,56	
6-4-7	Sekera/Chipula		Mr mwalija	Crop	Sorghum	0	0,43	
7-1-1	Ling'awa		Mr panyale	Forest		0	0,92	Its a forests area
7-1-2	Ling'awa		Mr phepa	Forest		0	0,3	Forest
7-1-3	Ling'awa		John phepo	Forest		0	0,93	Its a forest
7-1-4	Ling'awa		Stephano mokani	Crop	Sorghum	0	1,08	He also grows maize and
7-1-5	Ling'awa		Denister & Mofart	Forest		0	1	It's a forest
7-3-1	Ling'awa	1	Denister Kasisi	Not used		0	0,22	With some natural trees
7-3-2	Ling'awa		Fagesi Blasi	Not used		0	0,24	With some natural trees
7-3-3	Ling'awa		Gresson Isaac & m	Not used		0	0,28	With some natural trees
7-3-4	Ling'awa	1	Denister Kasisi	Forest		0	0,76	With phingo trees & other
7-3-5	Ling'awa		Edmond Hanna	Not used		0	0,61	With some natural trees

RESETTLEMENT POLICY FRAMEWORK

Plotid	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
7-4-1	Ling'awa		Kajasi	Not used		0	0,31	With some natural trees
7-4-2	Ling'awa		Isaac Nandolo	Not used		0	0,05	With some natural trees
7-4-3	Ling'awa		Mrs bello	Not used		0	1,29	With some natural trees
9-1-1	Chikhambi 2		Bitiya mielemba	Crop	Cotton	5	1,05	
9-1-2	Chikhambi 2		Patricia lambiton	Crop	Sorghum	1	0,04	
9-1-3	Chikhambi 2		Yamikan josephi	Crop	Cotton	1	0,08	
9-1-4a	Chikhambi 2		Yamikan josephi	Crop	Sorghum	0	0,64	
9-1-4b	Chikhambi 2		Sydney chimkango	Not used		0	0,69	With some natural trees
9-1-5a	Chikhambi 2		Sydney chimkango	Not used		0	0,28	With some natural trees
9-1-5b	Chikhambi 2		Robert chibisa	Crop	Cotton	0	0,11	
9-1-6	Chikhambi 2		Alise ginger	Not used		0	0,6	With so many natural tre
9-1-7	Chikhambi 2		Garry	Not used		0	1,15	With so many natural tre
9-2-1	Chikhambi 2		Chiyembekeso sad	Crop	Cotton	1	0,86	
9-2-2	Chikhambi 2		Rosina kabitchi	Crop	Cotton	3	0,84	
9-2-3	Chikhambi 2		Brazio semu	Crop	Maize	0	0,63	
9-2-4	Chikhambi 2		Ruth Patrick	Crop	Cotton	0	1,05	Cotton, sorghum
9-3-1	Chikhambi 2		Nachilenje Ganifol	Crop	Sorghum	4	0,62	With 3 Nimu trees
9-3-2	Chikhambi 2		Esnart Kanza	Crop	Sorghum	0	0,04	
9-3-3	Chikhambi 2		Roman Gale	Crop	Sorghum	0	0,13	
9-3-4	Chikhambi 2		Ruben Sadya	Crop	Maize	2	0,55	He also grow sorghum
9-3-5	Chikhambi 2		Luton Kenison	Crop	Cotton	0	0,04	
9-3-6	Chikhambi 2		Mai Delia	Crop	Sorghum	4	0,54	With some big natural t
9-3-7	Chikhambi 2		Alice Jinja	Crop	Sorghum	0	0,31	One big Nimu tree
9-3-8	Chikhambi 2		James Mbauleni	Not used		0	1,91	With so many natural tre
9-3-9	Chikhambi 2		Trainford Saikonde	Crop	Sorghum	0	0,31	
9-3-10	Chikhambi 2		Timothy Mwabwera	Crop	Sorghum	1	0,25	
9-3-11	Chikhambi 2		Gwanda Njunja	Not used		0	0,97	With so many natural tre
9-4-1	Chikhambi 2		Wilson Mwabwera	Crop	Cotton	3	0,51	3 Nkina trees, and Sorgh
9-4-1	Chikhambi 2		Nofasi Nkhwazi	Not used		0	1,29	Natural trees
9-4-2	Chikhambi 2		Annie Mwabwera	Not used		0	0,34	
9-4-2	Chikhambi 2		Sivelia masamba	Not used		0	0,61	Natural trees
9-4-3	Chikhambi 2		Enock Tembo	Crop	Cotton	0	0,59	nclude Beans, cotton, m
9-4-5	Chikhambi 2		Joseph jullius	Crop	Cotton	0	0,67	
9-5-01	Chikhambi 2		Kindson Thomas	Forest		0	0,58	Many trees. It's a forest
9-5-02	Chikhambi 2		Hardwork vumbwe	Forest		0	0,61	Hilly area
9-5-03	Chikhambi 2		Molson Luciano	Forest		0	0,78	There are 6 trees ntondc
11-2-1	Fombe		Kelius Julias	Settlement Area		6	0,13	Plot used as football grc
11-4-1	Fombe			Settlement Area		10	0,15	Has 10 trees and is plan
11-4-2	Fombe		Mattias silimao	Settlement Area		3	0,3	Plot is used for making t
12-2-12	Chikalumpha			Not used		5	0,66	
12-2-2	Chikalumpha		Eric Nsando	Crop	vegetabl	0	0,26	
12-2-3	Chikalumpha		Orace welomanje	Not used		0	0,08	With few trees
12-3-1	Chikalumpha		Epuo Mbasunga	Settlement Area		0	0,31	With few trees
12-3-2	Chikalumpha		Lameck Katsabola	Settlement Area		0	0,61	
12-3-3	Chikalumpha		Lameck Katsabola	Settlement Area		0	0,18	With few stones
12-3-4	Chikalumpha		Mandiseni Ngirand	Settlement Area		0	0,25	With few trees

RESETTLEMENT POLICY FRAMEWORK

PlotId	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
12-3-6	Chikalumpha		Mpota Katsabola	Settlement Area		0	0,28	With few trees
12-3-7	Chikalumpha		Kusedyo Fabiano	Settlement Area		0	0,3	With few trees & a rocky
12-3-8	Chikalumpha		Willard Mpatula	Settlement Area		0	0,98	With so many small nat
12-3-9	Chikalumpha		Zatha Robert	Not used		0	0,7	With some natural trees
12-3-10	Chikalumpha		Samson Frank	Not used		0	0,42	With some natural trees
12-4-1	Chikalumpha		Liness Namila	Not used		0	0,05	
12-4-4	Chikalumpha		Zatha Robert	Not used		0	0,16	
12-4-1 b	Chikalumpha		Liness Namila	Not used		0	0,56	
12-4-4b	Chikalumpha		Mandiseni Ngalan	Not used		0	0,99	
13-1-1	Nyamphota		Andisen steven	Not used		0	0,48	Not used
13-1-2	Nyamphota		Christopher dick	Not used		0	0,42	Not used
13-1-3	Nyamphota		Subiya George	Not used		0	0,62	Not used
13-1-4	Nyamphota		Demister nota	Not used		0	0,53	Not used
13-1-5	Nyamphota		Agness doris	Not used		0	0,6	Not used
13-1-6	Nyamphota		Elias kanyato	Not used		0	0,31	Not used
13-1-7	Nyamphota		Wisbon nyamphota	Not used		0	0,34	Not used
13-1-8	Nyamphota		Magret masaza	Not used		0	0,46	Not used
13-1-9	Nyamphota		Chrissy jimu	Not used		0	0,23	Not used
13-3-1	Nyamphota		Olesi welomanje	Grazing		0	0,16	With so many natural tre
13-3-2	Nyamphota		George Nyamphota	Not used		0	0,74	
13-3-1b	Nyamphota		Olesi welomanje	Grazing		0	1,55	Farm with some natural
13-3-2b	Nyamphota		George Nyamphota	Not used		0	0,68	With some natural trees
13-4-1	Nyamphota		George Nyamphota	Grazing		0	1,62	Cattle farm
13-4-2	Nyamphota		Linkson Magaleta	Not used		0	0,32	Land is not in use
13-4-3	Nyamphota		Magaleta Lingson	Not used		0	0,45	
13-4-4	Nyamphota		Marko Malela	Not used		0	0,48	
14-1-1	Supuni		Lenard jeke	Crop	Sorghum	0	0,4	
14-1-2	Supuni		Ernest sandram	Crop	Maize	0	0,09	Sorghum
14-1-3	Supuni		Alesi belio	Crop	Sorghum	0	0,08	Maize
14-1-4	Supuni		Patrick kabichi	Crop	Sorghum	0	0,58	Maize, groundnuts
14-1-5	Supuni		Maria daniel	Crop	Sorghum	0	0,58	Maize
14-1-6	Supuni		Menala lore	Crop	Sorghum	0	0,03	
14-1-7	Supuni		Thomas mulivi	Not used		0	0,81	Not used
14-1-8	Supuni		Esani mulinyo	Not used		0	0,36	Not used
14-1-9	Supuni		Gilbert mulivi	Forest		0	0,11	Forest
14-1-10	Supuni		Tobias josephy	Crop	Cotton	0	0,29	
14-1-11	Supuni		Rosalia mulivi	Not used		0	0,2	Not used
14-1-12	Supuni		Noliano bila	Not used		0	0,24	Not used
14-1-14	Supuni		Madalitso pasulan	Not used		0	1,16	Not used
14-1-15	Supuni		Mike sipuni	Not used		0	1,09	Not used
14-1-16	Supuni		Yohane tiki and lut	Not used		0	0,66	Not used
14-1-17	Supuni		Lovemore tiki and r	Not used		0	0,57	Not used
14-1-18	Supuni		Najere tiki and ma	Not used		0	0,42	Not used
14-1-19	Supuni		Chimwaza tiki and	Not used		0	0,75	Not used
14-1-20	Supuni		Bazwell semu	Settlement Area		0	0,19	
14-1-21	Supuni	1		Settlement Area		0	0,33	Football ground

RESETTLEMENT POLICY FRAMEWORK

Plotid	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
14-1-23	Supuni		Maliko milias	Settlement Area		0	0,09	Not used
14-1-24	Supuni		Petrol tchuzi	Crop	Sorghum	0	0,53	7 masau trees
14-1-25	Supuni		Mary petrol	Crop	Sorghum	3	0,78	
14-1-26	Supuni		Selia wistedi	Crop	Cotton	4	0,4	
14-1-27	Supuni		Ganizani silimao	Crop	Cotton	0	0,2	
14-1-29	Supuni		Mr kamba	Grazing		0	0,69	Cattle farm
14-1-36	Supuni		Clement billa	Forest		0	0,62	Forest
14-1-37	Supuni		Laston bauleni	Forest		0	0,19	Forest
14-1-30	Supuni		Grace ndayera	Not used		0	0,48	Not used
14-1-35	Supuni		Samson billa	Forest		0	0,3	Forest
14-1-34	Supuni		Aubrey billa & Ofer	Forest		0	0,55	Forest
14-2-1	Supuni		Tinason & nevason	Crop	Maize	2	1,33	Sorghum
14-2-2	Supuni		Sikinala chang'amb	Crop	Maize	4	0,81	Sorghum
14-2-3	Supuni		Chaile laifosi	Crop	Maize	0	0,35	Sorghum, pigeon peas, g
14-2-4	Supuni		Mary suliya	Crop	Sorghum	5	0,82	Maize and groundnuts a
14-2-5	Supuni		Magret luwivi	Crop	Sorghum	2	0,15	Maize
14-2-6	Supuni		Peter mulivi	Crop	Maize	0	0,23	Sorghum, groundnuts ar
14-2-7	Supuni		Alfred mulivi	Crop	Sorghum	7	0,28	
14-2-8	Supuni		Rute namacha	Crop	Maize	6	0,96	Also cultivates Sorghum,
14-2-9	Supuni		Yonas chimalizeni	Crop	Sorghum	3	0,28	
14-2-10	Supuni		Raphael chimalize	Crop	Sorghum	0	0,08	
14-2-11	Supuni		Manda makiseni	Crop	Maize	0	0,19	
14-2-12	Supuni		Sarah green	Not used		5	0,66	
14-2-13	Supuni		Zeka cross	Crop	Sorghum	0	0,66	
14-2-14	Supuni		Zondani Salikucheg	Crop	Maize	0	1,23	
14-2-15	Supuni		Willard magombo	Crop	Sorghum	0	0,31	
14-2-15	Supuni		Lewis goligo	Crop	Maize	0	0,12	
14-2-16	Supuni		James dunga	Crop	Sorghum	7	0,5	
14-2-17	Supuni		Pilosi yakobe	Crop	Sorghum	5	0,56	
14-2-18	Supuni		Mofolo yakobe	Crop	Sorghum	8	0,78	
14-2-19	Supuni		Tiyesere sindi, Mod	Crop	Sorghum	0	0,37	
14-2-20	Supuni		Giliselila mchenga	Crop	Sorghum	6	0,67	
14-2-21	Supuni		Austin champion	Crop	Cotton	7	0,86	
14-2-22	Supuni		Eliya sungana	Not used		5	1,14	
14-2-24	Supuni		Daffrain failosi	Crop	Sorghum	3	0,69	
14-2-25	Supuni		Clemence bila, Sos	Crop	Sorghum	5	1,24	
14-2-26	Supuni		Andrade banda	Crop	Sorghum	0	0,27	
14-2-27	Supuni		Malizani prover	Not used		0	0,12	
14-2-28	Supuni		Harrison nk haya ar	Not used		0	0,43	
14-2-29	Supuni		Skotch Msona, Beu	Crop	Sorghum	0	0,37	
14-2-30	Supuni		Laston bauleni	Grazing		0	0,64	With several trees
14-2-31	Supuni		Manes supuni, Mo	Grazing		0	0,43	With several trees
14-2-32	Supuni		Ledson laston	Not used		0	0,66	
14-3-2	Supuni		Agnes Gauti	Crop	Cotton	3	0,56	Maize and Sorghum are
14-3-1	Supuni		Sophia Michael	Crop	Cotton	3	0,29	with lots of small phing
14-3-3	Supuni		Rute Vanodi	Crop	Cotton	1	0,08	Maize is also grown hen

RESETTLEMENT POLICY FRAMEWORK

PlotId	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
14-3-5	Supuni	1	Lyton Chodzi	Not used		0	0,31	With a lots of small phi
14-3-6	Supuni		Michael Kabitchi	Not used		0	0,7	With a lots of small phi
14-3-7	Supuni		Kenesi Suliya	Crop	Sorghum	0	0,66	
14-3-9	Supuni		Salikuchepa Manji	Crop	Sorghum	0	0,9	
14-3-11	Supuni		Laston Mbauleni	Crop	Sorghum	0	0,15	With few natural trees
14-3-11	Supuni		Geoffrey Mchenga	Crop	Sorghum	0	0,55	Sorghum & ground nuts
14-3-12	Supuni		Isaac Geoffrey	Crop	Sorghum	0	0,17	
14-3-13	Supuni		Grace Ndayera	Settlement Area		0	0,66	With 6 masau trees plus
14-3-14	Supuni		Cecilia Paulo Bong	Crop	Maize	0	0,23	Plants maize, sorghum a
14-3-15	Supuni		Lydia Mpinga	Crop	Maize	0	1,18	
14-3-16	Supuni		Finasi Lapozo	Crop	Sorghum	0	0,21	With some natural trees
14-3-17	Supuni		Tinason Mayilosi	Settlement Area		0	0,38	With 4 big mfula trees
14-3-18	Supuni		Geoffrey Mchenga	Settlement Area		0	0,29	With some shrubs
14-3-19	Supuni		Neverson Mayilosi	Settlement Area		0	0,18	With some natural trees
14-3-20	Supuni		Zondani Salikuchepa	Settlement Area		0	0,15	With some rocks
14-3-21	Supuni		Agnes Njanji	Settlement Area		0	0,08	With few rocks
14-3-22	Supuni		Obedi miliyasi	Settlement Area		0	0,11	With 1 big tree
14-3-23	Supuni		Piseni Mbewe	Settlement Area		0	0,09	With few rocks
14-3-24	Supuni		Laston Supuni	Settlement Area		0	0,16	With sangowa trees
14-3-25	Supuni		Willy Tchampiyo	Settlement Area		0	0,13	With some sangowa tre
14-3-26	Supuni		Jimmy saulo	Settlement Area		0	0,07	With 3 Nimu trees
14-3-27	Supuni		Laston Mbauleni	Settlement Area		0	0,68	With many natural tree
14-3-28	Supuni		Grolia mabande	Settlement Area		0	0,29	With so many natural tre
14-3-29	Supuni		Nabiyeni Supuni	Settlement Area		0	0,17	With so many natural tre
14-3-30	Supuni		Lucious Nzeru	Not used		2	0,35	With so many natural tre
14-3-31	Supuni		Lanjesi sinoyo	Grazing		0	0,09	
14-4-1	Supuni		Khole Jailos Adini	Crop	Sorghum	0	0,75	Also Maize
14-4-2	Supuni		Ganizani Sandram	Crop	Maize	0	0,85	Nandolo, groundnuts, Sc
14-4-3	Supuni		Mischeck Sandram	Crop	Maize	0	0,29	Sorghum, cotton, Nand
14-4-4	Supuni		Magetsi Sandram	Crop	Maize	0	0,11	Sorghum, cotton
14-4-5	Supuni		Elis Lapukeni	Crop	Sorghum	0	0,31	Sorghum, millet,
14-4-5	Supuni		Samuel Sandram	Crop	Sorghum	0	0,55	Sorghum, cotton, maize
14-4-6	Supuni		Tchuzi Chavi	Crop	Sorghum	0	0,13	Cotton and Sorghum
14-4-7	Supuni		Nowa Tchuzi	Crop	Sorghum	0	0,36	Cotton and Sorghum
14-4-8	Supuni		Frank Kandiyero	Crop	Sorghum	0	0,22	Plants Sorghum
14-4-9	Supuni		Belio singano	Crop	Sorghum	0	0,2	Sorghum and cotton
14-4-10	Supuni		Amos Batisoni	Crop	Cotton	0	0,26	
14-4-11	Supuni		Steven Belio, Nelio	Crop	Cotton	0	0,21	
14-4-12	Supuni	1	Love Luwichi	Crop	Cotton	0	0,14	
14-4-13	Supuni		Master Luwichi	Crop	Cotton	0	0,2	
14-4-14	Supuni		Felesio singano	Crop	Cotton	0	0,18	
14-4-15	Supuni		Eric Batson	Crop	Cotton	0	0,27	
14-4-16	Supuni		Noel Failosi	Crop	Cotton	0	0,26	
14-4-17	Supuni		Emeti Jombo	Crop	Sorghum	0	0,29	Cotton, Sorghum
14-4-18	Supuni		Olan Miliasi	Settlement Area		0	0,04	
14-4-19	Supuni		Dafien Failosi	Settlement Area		0	0,04	

RESETTLEMENT POLICY FRAMEWORK

Plotid	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
14-4-21	Supuni		Agnes njanje	Crop	Sorghum	0	0,51	
14-4-22	Supuni		Sophia njanje	Crop	Sorghum	0	0,03	
14-4-24	Supuni		Moses sande	Crop	Sorghum	0	0,72	Sorghum and Millet
14-4-25	Supuni		Yohane mooses	Crop	Sorghum	0	0,45	
14-4-26	Supuni		Shadreck Chaya	Crop	Sorghum	0	1,37	
14-4-27	Supuni		Mayi andrade	Crop	Cotton	0	0,34	
14-4-28	Supuni		Mayi andrade 2	Not used		0	0,09	
14-4-29	Supuni		Mayi andrade 3	Not used		0	0,28	
14-4-30	Supuni		Marko andrade	Not used		0	0,23	
14-4-31	Supuni		Petulo andrade	Not used		0	0,01	
14-4-32	Supuni		Staford kasikasi	Crop	Cotton	0	0,37	Cotton
14-4-33	Supuni		Ground	Not used		0	0,05	
14-4-34	Supuni		Yona Champion an	Crop	Cotton	0	0,35	Sorghum, cotton
14-4-35	Supuni		Agnes billa	Not used		0	0,56	
14-4-36	Supuni		Anjella laston	Not used		0	0,41	
14-4-37	Supuni		Wyson milias, Mar	Crop	Sorghum	0	0,86	
14-4-38	Supuni		Langesi sinoya	Grazing		0	0,16	Livestock farm
14-4-39	Supuni			Not used		0	1,55	
14-5-2	Supuni		Felistus tchuzi	Not used		0	0,07	2 big trees
14-5-4	Supuni		Mandevu	Not used		0	0,21	Shrubs
14-5-5	Supuni		Sukali	Not used		0	0,24	Shrubs
18-1-1	Thuboyi		Steven lumbe	Forest		0	1,77	Forest
18-1-2	Thuboyi		Felistus mofolo	Forest		0	0,69	Forest
18-1-3	Thuboyi		Morris nyagazi	Settlement Area		0	0,49	Sorghum
18-1-4	Thuboyi		Sellina john	Settlement Area		0	0,34	Forest
18-1-5	Thuboyi		Lizard john	Settlement Area		0	0,24	Forest
18-1-6	Thuboyi		Chrissy petrol	Settlement Area		0	0,41	Settlement
18-2-1	Thuboyi		Zee mailos	Not used		0	0,48	
18-2-2	Thuboyi		Marko ephraim	Not used		3	0,57	
18-2-3	Thuboyi		Thomas banda	Crop	Sorghum	0	0,43	
18-3-1	Thuboyi		Kamba farm	Grazing		0	0,91	Cattle farm with many trees
18-3-3	Thuboyi		Gresan Misomali	Crop	Sorghum	0	0,23	
18-3-4	Thuboyi		Yohane William	Settlement Area		0	0,3	With 4 natural trees
18-3-5	Thuboyi		Sayinodi Gezani	Settlement Area		0	0,4	With 5 natural trees
18-3-6	Thuboyi		Evason Moda	Settlement Area		0	0,24	With some trees
18-3-7	Thuboyi		George Thapuleni	Settlement Area		0	0,08	With some trees
18-3-8	Thuboyi	1	Hakisile kakuluwo	Settlement Area		0	0,11	With some trees
18-3-9	Thuboyi		Thenesi Mayibeki	Settlement Area		0	0,16	With some trees
18-4-1	Thuboyi		Madalitso Nankhu	Not used		0	0,47	
18-4-2	Thuboyi		Tobias stonken	Crop	Sorghum	0	0,17	Sorghum and cotton
18-4-3	Thuboyi		George Michael	Not used		0	0,63	
19-2-1	Mkanoyza		Henry Steven	Not used		0	0,54	Area With natural trees
19-2-2	Mkanoyza		Nesi nkadzula	Not used		0	0,54	With several natural trees
19-2-3	Mkanoyza		Hopeson nduna	Not used		0	0,71	With several natural trees
19-2-4	Mkanoyza		Sambanya da ben	Crop	Sorghum	0	0,29	
19-2-6	Mkanoyza		Rogers evason	Crop	Maize	0	0,1	

RESETTLEMENT POLICY FRAMEWORK

Plotid	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
19-2-7	Mkanoyza		Rabson kwenje	Crop	Maize	0	0,13	
19-2-8	Mkanoyza		Evason chibalam	Crop	Maize	0	0,02	
19-2-9	Mkanoyza		Yohane machokola	Not used		0	0,04	
19-2-11	Mkanoyza		Robert msasi	Crop	Maize	0	0,04	
19-2-12	Mkanoyza		Felia janero	Crop	Maize	0	0,14	
19-2-13	Mkanoyza		Givinala gulumba	Crop	Maize	0	0,27	
19-2-14	Mkanoyza		Evason chibalam	Not used		0	0,05	
19-2-14	Mkanoyza		Gerrard zimveka	Crop	Maize	0	0,04	
19-2-15	Mkanoyza		Sartday zhanelo	Crop	Sorghum	0	0,34	
19-2-16	Mkanoyza		Victoria lernad	Crop	Sorghum	0	0,13	
19-2-5a	Mkanoyza		George nnonde	Crop	Sorghum	0	0,39	
19-2-5b	Mkanoyza		Gerrard phofo	Crop	Maize	0	0,09	Various vegetables are
19-3-1	Mkanoyza		Luciano Lupenga	Crop	Rice	0	0,17	
19-3-2	Mkanoyza		Mary Thauzeni	Crop	Rice	0	0,04	
19-3-3	Mkanoyza		Mwana wa Goba	Crop	Rice	0	0,05	
19-3-4	Mkanoyza	1	Lemi Steven Mkany	Not used		0	0,72	With some natural trees
19-3-6	Mkanoyza		Lendson Guta	Crop	Rice	0	0,08	
19-3-7	Mkanoyza		Magret Lemi Ndago	Not used		0	0,4	With some natural trees
19-3-8	Mkanoyza		Maria Lemi	Not used		0	0,53	With some natural trees
19-3-9	Mkanoyza		Catherine Milinyu	Crop	Rice	0	0,06	
19-3-10	Mkanoyza		Maliko Thauzeni	Crop	Rice	0	0,08	
19-3-11	Mkanoyza		Tsong'otho Ndaon	Not used		0	0,06	With some natural trees
19-3-12	Mkanoyza		Demiford Chigona	Not used		0	1,29	With so many natural tre
19-3-13	Mkanoyza		Nabiyeni Zifunamb	Crop	Maize	4	0,84	With some natural trees
19-3-14	Mkanoyza		Noah Deniford	Crop	Pigeon P	0	0,05	
19-3-15	Mkanoyza		Chrispin paketi	Crop	Pigeon P	0	0,17	With some natural trees
19-3-16	Mkanoyza	1	Delifa mponya	Crop	Sorghum	0	0,2	With some trees
19-3-18	Mkanoyza		Basikolo	Crop	Maize	0	0,39	
19-3-23b	Mkanoyza		Nyati family	Not used		0	0,13	With so many natural tre
19-3-24b	Mkanoyza		Dan steven	Not used		0	0,25	With so many natural tre
19-4-32	Mkanoyza		Mavuto scova	Crop	Sorghum	0	0,22	Cotton
22-1-1	Ndakwera		Frank namatcheren	Crop	Sorghum	0	0,32	Cotton
22-1-2	Ndakwera		Righton jasi	Crop	Sorghum	0	0,43	Cotton
22-1-3	Ndakwera		Robert layiford	Crop	Sorghum	0	0,45	Cotton
22-1-4	Ndakwera		Sam mankhwala	Not used		0	0,48	
22-1-5	Ndakwera		Sophia savuta	Not used		0	0,11	
22-1-6	Ndakwera		Luka mtunduwa	Crop	Sorghum	0	0,34	Cotton
22-1-6	Ndakwera		Manuel Chingaipe	Crop	Sorghum	0	0,07	
22-1-7	Ndakwera		Veronica dyton	Not used		0	0,1	
22-1-8	Ndakwera		Omex big number	Crop	Sorghum	0	0,43	Cotton
22-1-9	Ndakwera		Aroon jambo	Crop	Sorghum	0	0,44	Cotton
22-1-9	Ndakwera		Luciano chikaphon	Crop	Sorghum	0	0,58	Cotton
22-1-10	Ndakwera		Jonas underson	Crop	Sorghum	0	0,1	Cotton
22-1-11	Ndakwera		Frank jasi	Crop	Sorghum	0	0,53	Cotton
22-1-13	Ndakwera		Mofolo frank	Crop	Sorghum	0	0,08	Cotton
22-1-14	Ndakwera		Yohane simao	Crop	Sorghum	0	0,13	Cotton

RESETTLEMENT POLICY FRAMEWORK

PlotId	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
22-1-15	Ndakwera		Aliyena bokosi	Crop	Sorghum	0	0,03	Cotton
22-1-16	Ndakwera		Paul gustino	Crop	Sorghum	0	0,4	Cotton
22-1-17	Ndakwera		Stellia wilson	Crop	Sorghum	0	0,31	Cotton
22-1-17	Ndakwera		Harry kachiya	Crop	Sorghum	0	0,84	
22-1-17	Ndakwera		Gambuleni mponya	Crop	Sorghum	0	1,25	Cotton
22-1-18	Ndakwera		Benford simoko	Crop	Sorghum	0	0,49	
22-1-18	Ndakwera		Lendson Guta	Crop	Sorghum	0	0,02	
22-1-19	Ndakwera		Mr kabwemba	Crop	Sorghum	0	0,19	Cotton
22-1-20	Ndakwera		Dorifa mponya	Crop	Sorghum	0	0,81	Cotton
22-1-21	Ndakwera		Nesi fusani	Crop	Sorghum	0	0,55	Cotton
22-1-23	Ndakwera		Tomas mapepa	Crop	Sorghum	0	0,05	
22-1-24	Ndakwera		Alfred shuga	Crop	Sorghum	0	0,83	Cotton
22-1-24	Ndakwera		Eunice Christopher	Crop	Sorghum	0	0,2	Cotton
22-1-25	Ndakwera		George chafa	Not used		0	0,14	
22-1-44	Ndakwera		Madalitso manja	Not used		0	0,6	
22-1-50	Ndakwera		David betchani	Not used		0	0,19	
22-2-17	Ndakwera		Falumesi juma	Crop	Sorghum	0	0,79	
22-2-18	Ndakwera		Maviko gora	Crop	Sorghum	0	0,07	
22-2-20	Ndakwera		Lyford anderson	Crop	Cotton	0	0,33	
22-2-21	Ndakwera		Darech mmanja	Crop	Sorghum	0	0,05	
22-2-22	Ndakwera		Victoria chibuto	Crop	Sorghum	0	0,18	
22-2-23	Ndakwera		Catherine kadzinje	Crop	Sorghum	0	0,12	
22-2-23	Ndakwera		Catherine kadzinje	Not used		0	0,62	
22-2-24	Ndakwera		Ephraim Carlos	Crop	Sorghum	0	0,1	
22-2-25	Ndakwera		Timothy lapozo	Crop	Sorghum	0	0,18	
22-2-26	Ndakwera		Fagres nyaulombo	Crop	Sorghum	0	0,12	
22-2-27	Ndakwera		Sophia malamulo	Crop	Sorghum	0	0,26	
22-2-28	Ndakwera		Timothy lapozo	Crop	Sorghum	0	0,12	
22-2-29	Ndakwera		Peterson sugar	Not used		0	0,77	With several natural trees
22-2-30	Ndakwera		David Anderson	Crop	Sorghum	0	1,13	
22-2-32	Ndakwera		Phalesi namizula	Crop	Sorghum	0	0,58	
22-2-33	Ndakwera		Dan steven	Crop	Sorghum	0	0,47	
22-2-34	Ndakwera			Crop	Sorghum	0	0,27	
22-2-35	Ndakwera		Lynos magalasi	Crop	Sorghum	0	0,04	
22-2-36	Ndakwera		Med eric	Not used		0	0,51	
22-2-37	Ndakwera		Martius mzekeya	Crop	Sorghum	0	0,07	
22-2-27b	Ndakwera		Sophia malamulo	Crop	Sorghum	0	0,32	
22-2-28b	Ndakwera		Timothy lapozo	Crop	Sorghum	0	0,05	
22-3-1	Ndakwera		Anderson Office	Crop	Sorghum	0	0,54	With some natural trees
22-3-2	Ndakwera		Walterson Antonyo	Crop	Cotton	0	1,18	
22-3-3	Ndakwera		Brazio Richard	Crop	Cotton	1	0,14	
22-3-4	Mlangeni		Solomon Malunga	Crop	Cotton	2	0,29	
22-3-6	Ndakwera		Enifa Lyson	Crop	Cotton	4	0,14	
22-3-7	Ndakwera		Grace Mlawu	Crop	Cotton	6	0,25	
22-3-8	Ndakwera		Midya Phinifolo	Crop	Cotton	3	0,14	With some natural trees
22-3-10	Ndakwera		Luwisi Scorchi	Not used		0	0,46	

RESETTLEMENT POLICY FRAMEWORK

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22-3-12	Ndakwera		Mickson Fanta	Not used		0	0,65	
22-3-13	Ndakwera		Sophia Mwanenga	Crop	Cotton	0	0,65	
22-3-15	Ndakwera		Mrs vanizakhu	Crop	Cotton	0	0,6	Sorghum
22-3-16	Ndakwera		Edward thakadzu	Crop	Cotton	0	0,26	
22-3-17	Ndakwera		Mideo thakadzu	Crop	Cotton	0	0,08	
22-3-18	Ndakwera		Luaness mideo	Crop	Cotton	0	0,24	
22-3-19	Ndakwera		Oliva Bima	Crop	Sorghum	0	0,37	
22-3-20	Ndakwera		Moreen Tembo	Crop	Sorghum	0	0,38	
22-3-21	Ndakwera		Zeka m'bwebwa	Crop	Cotton	0	0,95	Cotton and Sorghum
22-3-21	Ndakwera		Dinalesi Ndakwera	Crop	Sorghum	0	0,35	
22-3-22	Ndakwera		Bonface chigona	Crop	Sorghum	1	0,16	
22-3-22	Ndakwera		Kalonga Thomas	Crop	Sorghum	0	0,61	
22-3-23	Ndakwera		London Malengo	Crop	Cotton	5	1,01	
22-3-23	Ndakwera		Grace Sambachulu	Crop	Sorghum	0	0,4	
22-3-24	Ndakwera		Geoffrey Mafunga	Crop	Sorghum	0	0,36	Cotton and Sorghum
22-3-24	Ndakwera		Joyce mwanengwa	Crop	Cotton	10	1,01	
22-3-25	Ndakwera		Batina wine	Not used		0	0,07	
22-3-35	Ndakwera		Samson Billiati	Crop	Sorghum	0	0,71	
22-3-36	Ndakwera		Wisted Fombe	Crop	Sorghum	0	0,16	
22-3-37	Ndakwera		Ndakwera	Not used		0	0,15	Trees and Shrubs
22-3-11b	Ndakwera		Eric Semu	Not used		0	0,48	
22-3-3b	Ndakwera		Brazio Richard	Forest		0	0,15	With so many natural tre
22-3-4b	Ndakwera		Solomon Malunga	Not used		0	0,11	
22-3-5b	Ndakwera		Patrick Chinyama	Not used		0	0,33	
22-3-7b	Ndakwera		Grace Mlawu	Not used		0	0,38	
22-3-8b	Ndakwera		Midya Phinifolo	Not used		0	0,58	
22-3-9b	Ndakwera		Francis Muntiyani	Not used		0	0,36	
22-4-1	Ndakwera		Malita wine	Crop	Sorghum	0	0,62	Millet
22-4-2	Ndakwera		Mischeck matchang	Crop	Sorghum	0	0,08	
22-4-3	Ndakwera		Robert Masasi	Crop	Sorghum	0	0,09	
22-4-4	Ndakwera		Richard lawrence	Crop	Cotton	0	0,64	
22-4-5	Ndakwera		Wyson kampila	Crop	Sorghum	0	0,3	Cotton
22-4-6	Ndakwera		Foster kandiyado	Not used		0	0,22	
22-4-7	Ndakwera		Stelia Thomas	Crop	Sorghum	0	0,01	
22-4-8	Ndakwera		Bazwell moses	Crop	Sorghum	0	0,67	Cotton and Sorghum
22-4-10	Ndakwera		Stephano number1	Crop	Sorghum	0	0,24	
22-4-11	Ndakwera		Modesta phaundi	Crop	Sorghum	0	0,11	
22-4-12	Ndakwera		Modesta Paundi	Not used		0	0,42	
22-4-16	Ndakwera		George singano	Crop	Sorghum	0	0,28	
22-4-17	Ndakwera		Symiton zyanelo	Crop	Sorghum	0	0,55	
22-4-18	Ndakwera		Maxten zyanelo	Crop	Sorghum		0,32	Cotton and Sorghum
22-4-19	Ndakwera		Hopeson nduna	Crop	Sorghum	0	0,05	
22-4-23	Ndakwera		Mackson mwanen	Crop	Sorghum	0	1,03	Cotton and Sorghum
22-4-25	Ndakwera		Henry diloni	Crop	Sorghum	0	0,52	Cotton and Sorghum
22-4-27	Ndakwera		Neliyati bamusi	Crop	Sorghum	0	0,19	Cotton and Sorghum
22-4-28	Ndakwera		Konala mwanengwa	Crop	Sorghum	0	0,25	Cotton and Sorghum

RESETTLEMENT POLICY FRAMEWORK

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22-4-29	Ndakwera		Pyman lobo	Crop	Sorghum	0	0,18	Cotton and Sorghum
22-4-29	Ndakwera		Amos mwaneyenga	Crop	Sorghum	0	0,74	Cotton and Sorghum
22-4-33	Ndakwera		Alan bamusi	Crop	Sorghum	0	0,13	Cotton and Sorghum
22-4-34	Ndakwera		Charles bamusi	Crop	Cotton	0	0,05	
22-4-37	Ndakwera		Ronald Likaka	Crop	Sorghum	0	0,57	Sorghum and cotton
22-4-38	Ndakwera		Masamba zigeni	Crop	Sorghum	0	0,36	
22-4-39	Ndakwera		Flyton Edward	Crop	Sorghum	0	0,43	
22-4-40	Ndakwera		Elufe kambewa	Crop	Sorghum	0	0,42	
22-4-50	Ndakwera		Steria Solomon	Crop	Sorghum	0	0,71	
22-4-51	Ndakwera		Solomon kundiona	Crop	Sorghum	0	0,54	
22-4-52	Ndakwera		Steria Solomon	Crop	Sorghum	0	0,08	
22-4-26A	Ndakwera		Esther bamusi	Crop	Sorghum	0	0,23	Cotton and Sorghum
22-4-26B	Ndakwera		Joliji chintsana	Crop	Sorghum	0	0,32	Cotton and Sorghum
22-4-26C	Ndakwera		Mr Matiki	Crop	Sorghum	0	1,28	Cotton and Sorghum
22-5-1	Ndakwera		Sofina stenala	Not used			0,27	Shrubs and trees
22-5-2	Ndakwera		Charles zalera	Not used		0	0,21	Shrubs and trees
22-5-3	Ndakwera		Yohane Simowa	Not used		0	0,16	
22-5-3	Ndakwera		Danger Mpinganjira	Not used		0	0,18	Shrubs amd trees
22-5-6	Ndakwera		Patrick Dironi	Not used		0	0,1	Trees and Shrubs
22-5-7	Ndakwera		Danken Chaleka	Not used		0	0,1	with natural trees
22-5-12	Ndakwera		Ellison Mkweza	Not used		0	0,29	Shrubs
22-5-15	Ndakwera		Sta-mary jeremia	Not used		0	0,17	
22-5-16	Ndakwera		Christopher yonasi	Not used		0	0,59	Shrubs and Trees
22-5-18	Ndakwera		Malita Sandram	Not used		0	0,26	
22-5-19	Ndakwera		George chitsanya	Not used		0	0,32	
22-5-21	Ndakwera		Fagres schotch	Not used		0	0,12	Shrubs and trees
22-5-22	Ndakwera		Oliver capital	Not used		0	0,13	Shrubs
22-5-23	Ndakwera		Cristina Dickson	Not used		0	0,25	natural trees and shrubs
22-5-24	Ndakwera		Thomas khokeni	Not used		0	0,07	with so main trees and :
22-5-26	Ndakwera		Lemson nkuzi	Not used		0	0,19	shrubs and trees
22-5-26	Ndakwera		David misasi	Not used		0	0,26	Shrubs
22-5-27	Ndakwera		Casto kulinga man	Not used		0	0,2	Shrubs
22-5-28	Ndakwera		Gideon Kuleti	Not used		0	0,37	Shrubs
22-5-29	Ndakwera		Trouble Nkhuku	Not used		0	0,53	
22-5-30	Ndakwera		Edwin Chilembwe	Not used		0	0,14	
22-5-31	Ndakwera		Oscar gidson	Not used		0	0,13	
22-5-33	Ndakwera		Foneti Kuleti	Not used		0	0,32	
22-5-34	Ndakwera		Yowani Kuleti	Not used		0	0,15	
22-5-40	Ndakwera		Romano khupa	Crop	Sorghum	0	0,59	Maize, cotton
22-5-41	Ndakwera		Wilson tchapu	Crop	Cotton	0	0,07	Sorghum, maize
22-5-42	Ndakwera		Tobias zakeyu	Crop	Cotton	0	0,02	Sorghum
23-2-2	Mlangeni		Emet garazio	Crop	Cotton	0	0,34	Cotton & sorghum
23-2-15	Mlangeni		Joe kamizola	Not used		0	0,2	
23-4-4	Mlangeni		Kelofasi makaniko	Crop	Sorghum	0	0,87	Cotton & sorghum
23-4-5	Mlangeni		Flyton ndakwera	Crop	Sorghum	0	0,09	
23-4-6	Mlangeni		Melo makaniko	Crop	Sorghum	0	0,61	Sorghum, cotton and Ma

RESETTLEMENT POLICY FRAMEWORK

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23-4-7	Mlangeni		Alekanjelo bizilom	Crop	Sorghum	0	0,02	Cotton & sorghum
23-4-11	Mlangeni		Galaziyo lokomeni	Not used		0	0,55	Sorghum, cotton and 3 m
27-1-2	Zyuda 2		Magnet jo	Crop	Sweet Pe	0	0,16	
27-1-3	Zyuda 2		Masautso tembo	Settlement Area		0	1,02	
27-1-4	Zyuda 2		Magret paiva	Settlement Area		5	0,1	
27-1-5	Zyuda 2		Simon vashiko	Settlement Area		0	0,19	
27-1-6	Zyuda 2		Lucius thesa	Settlement Area		0	0,02	
27-1-7	Zyuda 2		Laiford mailosi	Settlement Area		0	0,55	
27-1-8	Zyuda 2		Petrol fungulani	Crop	Sorghum	0	0,13	
27-1-9	Zyuda 2		Tina lenard mandu	Crop	Sorghum	0	0,15	
27-1-10	Zyuda 2		Fanita seti	Crop	Sorghum	0	0,14	
27-1-11	Zyuda 2		Mattias finiasi	Crop	Sorghum	0	0,39	Sorghum
27-1-12	Zyuda 2		Finias ironi	Crop	Cotton	0	0,42	Cotton
27-1-13	Zyuda 2		Samson antonio	Crop	Cotton	0	0,38	Cotton
27-1-14	Zyuda 2		Gift beniford	Crop	Cotton	0	0,46	Sorghum
27-1-15	Zyuda 2		Maxeni lingstoni	Crop	Cotton	0	0,48	Sorghum
27-1-16	Zyuda 2		Friday tembo	Crop	Maize	0	0,45	Cotton, sorghum
27-1-17	Zyuda 2		Edson simbi	Crop	Cotton	0	0,08	
27-1-18	Zyuda 2		Mary fred	Crop	Cotton	0	0,45	
27-3-1	Zyuda 2		Dyson Chitsulo	Crop	Cotton	0	0,49	
27-3-2	Zyuda 2		Nancy Paundi	Crop	Cotton	0	0,51	Cotton, sorghum
27-3-3	Zyuda 2		Patrick Ndasanyika	Crop	Sorghum	15	0,82	Cotton, sorghum
27-3-4	Zyuda 2		Misheck George	Crop	Sorghum	0	0,48	
27-3-5	Zyuda 2			Crop	Sorghum	0	0,72	
27-3-6	Zyuda 2		Feston Faera	Crop	Sorghum	0	0,41	
27-3-7	Zyuda 2			Crop	Sorghum	0	0,58	
28-2-1	GVH Jailos		Orttis magaleta	Crop	Sorghum	0	0,19	
28-2-1	GVH Jailos		Unknown	Crop	Sorghum	0	0,5	Sorghum, Cotton and Mil
28-2-2	GVH Jailos		Gracian tembo	Crop	Sorghum	0	0,14	
28-2-2	GVH Jailos		Alice mbeso	Crop	Sorghum	0	0,2	
28-2-3	GVH Jailos		Aliyaness fatchi	Settlement Area		0	0,5	
28-2-3	GVH Jailos		Falles sakalani	Crop	Sorghum	0	0,31	
28-2-4	GVH Jailos		Agness kampaliro	Crop	Sorghum	0	0,15	
28-2-5	GVH Jailos		Ntchimika nota	Crop	Maize	0	0,36	
28-2-6	GVH Jailos		Guta hetason	Crop	Maize	0	0,18	
28-2-7	GVH Jailos	1	Chazunzika	Crop	Maize	0	0,41	
28-2-8	GVH Jailos		Yohane donasiyand	Not used		0	0,07	
28-2-9	GVH Jailos		Dorica selemani	Not used		0	0,09	
28-2-11	GVH Jailos		Thomas Kampila	Settlement Area		0	0,23	
28-2-12	GVH Jailos		Arnold & Alfred Mte	Settlement Area		0	0,07	
28-2-14	GVH Jailos		Linly thole	Settlement Area		0	0,16	
28-3-1	GVH Jailos		Elufy Chalimba	Not used		0	0,79	With some natural trees
28-3-2	GVH Jailos	1	Starnkiyo Chalimba	Not used		0	0,31	With some natural trees
28-3-3	GVH Jailos		Manuel Saliva	Not used		0	0,5	With some natural trees
28-3-4	GVH Jailos		Bizweck Eliasi	Not used		0	1,24	Used by Illovo to get gra
28-4-1	GVH Jailos		Oliver bauseni	Crop	Rice	0	0,31	and Maize and Sorghum

RESETTLEMENT POLICY FRAMEWORK

Plotid	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
28-4-2	GVH Jailos		Malita chimbuto	Crop	Rice	0	0,49	Maize and Sorghum
28-4-3	GVH Jailos		Dicki mhango	Crop	Cotton	0	0,22	
28-4-5	GVH Jailos		Montifoti katiyo	Crop	Maize	0	0,26	Maize and cotton
28-4-6	GVH Jailos		Tchimika Patrick	Crop	Rice	0	0,37	Rice, cotton and Maize
28-4-7	GVH Jailos		Patrick chimombo	Not used		0	0,14	Owner wants to build a
28-4-8	GVH Jailos		Bruno nyati	Not used		0	0,39	Planning to build a house
28-4-9	GVH Jailos		Mathias galaziyo	Crop	Rice	0	0,05	Sorghum and cotton
28-4-9	GVH Jailos		Stelia kalidozo	Settlement Area			0,13	Planning to build a house
28-4-10	GVH Jailos		Peterson falakeza	Crop	Rice	0	0,22	Rice, Sorghum
28-4-11	GVH Jailos		Kamangila bizweck	Settlement Area		0	0,15	
28-4-12	GVH Jailos		Mandala lino	Settlement Area		0	0,57	
28-4-12	GVH Jailos		Guta lapozo	Settlement Area		0	0,03	
28-4-13	GVH Jailos		Brian chasuka	Settlement Area		0	0,15	
28-4-14	GVH Jailos		Joseph gama	Settlement Area		0	0,47	Owner is planning to bu
28-4-15	GVH Jailos		Brian chasuka	Settlement Area		25	0,22	25 Mfungo tree's at the c
28-4-15	GVH Jailos		Henderson kodobo	Settlement Area		0	0,11	
30-3-1	Fombe 2			Settlement Area		0	0,38	
30-3-1	Fombe 2		Petro Dausi	Settlement Area		6	0,09	Plot used for making bri
30-3-2	Fombe 2		Veronica Chaleka	Not used		10	0,07	Veronica Chaleka
30-3-2	Fombe 2		Veronica Chaleka	Not used		0	0,13	With few trees
30-3-3	Fombe 2		Francis Fabiano	Grazing		0	0,8	For grazing
32-2-1	Semu		Naliyera foreman	Not used		0	0,58	Its a forest area
32-2-1	Semu		Elesina white	Grazing		0	0,89	With natural trees
32-2-2	Semu	1		Not used		0	0,96	It's a hilly area
32-2-3	Semu		Nelson luiz	Not used		0	3,4	The land is idle, they pr
32-2-4	Semu		Stephano male	Grazing		0	1,37	With natural trees
33-1-1	Kapendekali		Patrick thomas	Crop	Sorghum	2	0,67	
33-1-2	Kapendekali		Lobe manyengo	Crop	Sorghum	2	0,37	Fula trees
33-1-3	Kapendekali		Limited manyengo	Crop	Sorghum	3	0,16	
33-1-4	Kapendekali		Mrs bello	Crop	Sorghum	15	0,62	It's a crop area with alot
33-2-1	Kapendekali		Sinoya kasukusa	Crop	Sorghum	2	0,42	
33-2-2	Kapendekali		Robbe twadya	Crop	Sorghum	3	0,46	
33-2-3	Kapendekali		Medison robbe	Crop	Sorghum	5	0,26	
33-3-1	Kapendekali		Nelly Foreman	Grazing		0	0,55	With small tress
33-3-2	Kapendekali		Ephraim Ngirazi	Crop	Sorghum	0	0,51	With few shrubs
33-3-3	Kapendekali		Peter Simon	Grazing		0	0,13	With few natural trees
33-3-4	Kapendekali		Batson Nyakwawa	Crop	Sorghum	0	1,29	With few shrubs
33-3-4	Kapendekali		Julius Jimu	Grazing		0	0,63	With some natural tree
33-3-5	Kapendekali	1		Grazing		0	0,1	With some trees
33-3-5	Kapendekali		Lucia Deyasi	Grazing		0	0,97	With some trees & natu
33-3-6	Kapendekali		Saopa sinoya	Crop	Sorghum	0	0,86	With some few trees
33-3-7	Kapendekali		Nachilenje Ganifol	Crop	Sorghum	5	0,36	Some other natural 6 tre
33-3-8	Kapendekali		Nachilenje Ganifol	Crop	Sorghum	1	0,24	With some medium tree
33-3-9	Kapendekali		Nachilenje Ganifol	Crop	Sorghum	2	0,57	With 3 natural trees
33-4-1	Kapendekali		Nachilenje Ganifol	Crop	Cotton	6	0,32	Plot has 5 masau trees a
33-4-1	Kapendekali		Esther Kanyenze	Grazing		0	0,62	Natural trees

RESETTLEMENT POLICY FRAMEWORK

Plotid	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
34-2-1	Chikhambi 1		Fabiano paudeni	Grazing		0	2,54	It's a hilly area, with sev
34-3-1	Chikhambi 1		Christopher Khumb	Grazing		0	0,51	With few natural trees
36-2-2	Mbenderana		Masoatengeni	Not used		0	3,57	It's a farm area
36-3-1	Mbenderana		Anga Kaunda	Crop	Sorghum	0	0,48	
36-3-2	Mbenderana		Everes Kaunda	Crop	Sorghum	0	0,35	
36-3-3	Mbenderana		Balisen Kaunda	Grazing		0	0,59	With some natural trees
36-3-4	Mbenderana		Samson Mphero	Grazing		0	0,13	With some natural trees
36-3-5	Mbenderana		Secilia Zande	Crop	Cotton	0	0,44	
36-3-6	Mbenderana		Ellen Zobio Jackson	Crop	Sorghum	0	0,18	
36-3-7	Mbenderana		L. Matekenya	Grazing		0	0,78	With some natural trees
36-3-8	Mbenderana		Samson Mphero	Not used		0	0,25	With some natural trees
36-3-9a	Mbenderana		Mai Kapulani	Not used		0	0,48	
36-3-9a	Mbenderana		Mai Kapulani	Not used		0	0,42	With some natural trees
36-3-10	Mbenderana		Saiwala	Grazing		0	2,85	Leased for cattle farmi
36-3-17	Mbenderana		Samson Mphero	Not used		0	0,52	With some natural trees
36-3-11	Mbenderana		Samson mphero	Not used		0	0,23	With some natural trees
36-3-12	Mbenderana		Samson mphero	Not used		0	1,22	With some natural trees
36-3-13	Mbenderana		Elisabeth. Mpotazi	Not used		0	1,25	With so many natural tre
36-3-14	Mbenderana	1	Samson mphero	Not used		0	0,98	With some natural trees
36-3-16	Mbenderana		Ted zande	Not used		2	0,82	With few natural trees
36-3-17	Mbenderana		Mai Nankumba	Not used		0	0,41	With few natural trees
37-3-1	Polova		Manuel Lamposi	Not used		0	0,53	With some shrubs & nat
37-3-2	Polova		Kefasi Wilson	Not used		0	0,85	With some shrubs, natu
37-3-3	Polova		Mrs. Chigwa	grazing		0	0,73	cattle farm with lots of t
37-3-4	Polova		Kefasi Wilson	Crop	Cotton	0	0,65	Cotton
37-3-5	Polova		Kefasi Wilson	Not used		0	1,21	With over many thorn tre
37-3-6	Polova		Maliko Lamposi	Not used		0	0,55	With some shrubs & nat
39-1-1	Molongeni/Tomali		Ziveka kambwani	Settlement Area		0	0,38	It's a forest
39-1-2	Molongeni	1		Settlement Area		0	0,8	Used to be a deep tank i
39-1-3	Molongeni/Tomali		Joseph thom	Settlement Area		0	0,17	Not used
39-1-4	Molongeni/Tomali		Doreen lankeni	Settlement Area		0	0,13	
39-2-1	Molongeni/Tomali			Forest		0	0,65	With several trees
39-2-2	Molongeni/Tomali		Matiki lamba	Crop	Sorghum	5	0,2	
39-2-3	Molongeni/Tomali		Vito mviza	Crop	Sorghum	0	0,14	
39-2-4	Molongeni/Tomali		Katiyo ntchimika	Crop	Sorghum	0	0,37	
39-2-5	Molongeni/Tomali		Hariet odrick	Crop	Sorghum	0	1,1	
39-3-1	Molongeni/Tomali		Grace Manduwi	settlement Area		0	0,09	With some shrubs
39-3-1	Molongeni/Tomali			settlement Area		0	0,91	With some natural trees
39-3-2	Molongeni/Tomali		Jonathan Magalasi	settlement Area		0	0,3	With some natural trees
39-3-2	Molongeni/Tomali		Edina Ngozi	Crop	Sorghum	0	0,14	With some shrubs
39-3-3	Molongeni	1		Settlement Area		0	0,23	With some natural trees
39-3-3	Molongeni/Tomali		Batson Thomas	Settlement Area		0	0,07	Of Nimu trees
39-3-4	Molongeni/Tomali		Philip Andrea	Settlement Area		0	0,15	With some natural trees
39-3-4	Molongeni/Tomali			Settlement Area		0	0,12	With some Nimu trees
39-3-5	Molongeni	1		graveyard		0	0,7	Graveyard
39-3-5	Molongeni/Tomali		Elida Eliot	Settlement Area		0	0,16	With some natural trees

RESETTLEMENT POLICY FRAMEWORK

Plotid	Village name	Community: 1 Private Lease: 2	Privately Owned	Land use	Main Crop	No. Large trees	Areas (has)	Remark
39-3-6	Molongeni	1	Enifa Short	Settlement Area		0	0,16	With Nimu trees
39-3-6	Molongeni/Tomali		Tobiasi kambwani	Not used		0	0,23	With so many natural trees
39-3-7	Molongeni/Tomali			Settlement Area		0	0,17	With some natural trees
39-3-8	Molongeni	1		graveyard		0	0,69	Graveyard
39-3-8	Molongeni/Tomali		Edina Ngozi	Not used		0	0,24	With some natural trees
39-4-1	Molongeni/Tomali		Peter Rafaelo	Not used		0	0,05	
39-4-2	Molongeni/Tomali		Jonathan kupheka	Not used		0	0,57	
39-4-3	Molongeni/Tomali		Matines jimu	Not used		0	0,93	
39-4-4	Molongeni/Tomali		Medison jimu	Not used		0	1,76	
39-4-5	Molongeni/Tomali		Nowa	Not used		0	1,78	
40-3-1	Tizola		Staford smart	Not used		0	0,34	
40-3-2	Tizola	1	Stellia John	Not used		0	0,51	With some natural trees
40-3-3	Tizola		Overson mose	Not used		0	0,18	With some natural trees
40-3-4	Tizola		Martias John	Not used		0	0,17	With some natural trees
40-3-5	Tizola		Rute kasikasi	Not used		0	0,14	With some natural trees
40-3-6	Tizola		Pezali Khonje	Not used		0	0,13	With some natural trees
40-3-7	Tizola	1	Emmanuel Fabiano	Grazing		0	1,93	Cattle farm
41-1-11	Mvula		Harold fryton	Crop	Cotton	0	0,06	
41-1-14	Mvula		Joseph pasteni	Crop	Cotton	0	0,42	
41-1-18	Mvula		Grace Thom	Crop	Cotton	0	0,21	
41-1-19	Mvula		Mercy mtalika	Crop	Sorghum	0	0,33	
41-1-20	Mvula		Mr Harold flytoni	Not used		0	0,52	
41-1-20	Mvula		Gladys logasiyano	Crop	Sorghum	0	0,47	
41-1-12b	Mvula		Mattias silimao	Crop	Cotton	0	0,53	
41-2-1	Mvula		Oralia Thomas	Not used		0	0,24	
41-2-1	Mvula		Nchinja Joseph	Crop	Sorghum	0	0,2	
41-2-2	Mvula		Stamele nersto	Not used		0	0,11	
41-2-3	Mvula		Mdachimwa dange	Not used		0	0,25	With several natural trees
41-2-4	Mvula		Mafunga john	Forest		0	0,14	Forest area
41-2-5	Mvula		Lankern silimao	Forest		0	0,61	Forest area
41-2-6	Mvula		Harold molande	Forest		0	0,18	Forest area
41-2-7	Mvula		Stiveria nyale	Forest		0	0,32	Forest area
41-2-8	Mvula		Molande lino	Not used		0	0,09	With several natural trees
41-2-9	Mvula		Magret miliki	Crop	Cotton	0	0,18	
41-3-1	Mvula		John mvula	Not used		0	0,07	
41-3-3	Mvula		Bruno Gasiyano & L	Not used		0	0,38	
41-3-4	Mvula		Karonga Thomas	Not used		0	0,15	
41-4-5	Mvula		Staziyo lino	Forest		0	0,05	
41-4-6	Mvula		Chrissy lino	Forest		0	0,13	
41-5-3	Mvula			Not used		0	0,23	Shrubs

Appendix 2 Outline for the Resettlement Action Plan

This Resettlement Action Plan outline is based on WB OP4.12 and will benefit from some information contained in this RPF

- 1. Introduction**
 - a. Description of the project
 - b. Objectives of the resettlement plan
- 2. Policy and Legal framework for resettlement** looking at GOM's instruments and the WB OP4.12 guidelines. Establish gap where they exist and how they can be addressed
- 3. Resettlement principles and objectives (copied from this RPF)** including Potential impacts of the resettlement and minimization mechanisms
- 4. Baseline Inventory** to characterize PAPs in terms of the nature and extent of their being impacted; magnitude of expected loss (total or partial) and extent of displacement (physical or economic) and identify vulnerable groups who may need special provisions.
 - a. **Including a land tenure and land use inventory** to establish land ownership/use rights (and loss thereof), conflicts which might arise and loss of social networks and social support systems as a result of implementing the project
- 5. Eligibility criteria and determination eligible persons for compensation**
- 6. Valuation of and compensation for losses** for livelihoods restoration and improvements
- 7. Implementation Mechanism**
 - a. **Community participation/consultation** will help in identifying/verifying PAPs and their association to type and magnitude of asset loss; should involve incoming and host communities to ensure integration, openness and minimize conflicts and where these arise have conflict resolution mechanisms in place.
 - b. **Site selection for resettlement**, ideally this will be a joint responsibility between traditional leaders and District Commissioners taking into account the views of host communities
 - c. **Procedures for physical relocation**, what support will be provided to the relocating PAPs in what manner (physical transportation means or cash) and after resettlement what support will be provided to enhance restoration of PAPs' livelihoods?
 - d. **Grievance redress mechanisms**
 - e. **Organizational Responsibilities**

- f. Organizational Procedures for Delivery of Entitlements** who will effect payment of compensation to PAP and in what manner?
 - g. Communication and Information**
 - h. Capacity Building, Training and Awareness Raising**
- 8. Budget and budget assumptions** – identify all cost items and cost them in a manner which ensure that values may be true for a while. Include contingency factor as percentage of overall budget to allow for inflation of compensation, building material, etc. costs as well as other unanticipated expenses. Include costs for livelihood restoration measures.
 - 9. Implementation schedule**, develop a realistic RAP implementation schedule bearing in mind that construction cannot start unless all compensation dues are full paid and PAPs have vacated the land. Linkages between resettlement activities and construction timetable need to be clearly spelled out, including risks or contingencies for potential delays.
 - 10. Monitoring, evaluation and reporting** to be done by an implementation agency but occasionally by an independent entity to ensure objectivity.

Appendix 3 Resettlement Screening Form



Government of Republic of Malawi

MINISTRY OF AGRICULTURE, IRRIGATION AND WATER DEVELOPMENT SHIRE VALLEY IRRIGATION PROJECT

GUIDELINES FOR THE EVALUATION:

The evaluator to undertake the assignment during field visit of the site
 The evaluator to undertake the assignment after prior briefing of the exercise.
 The form to be completed by consensus of at least three people.

Name of Irrigation Block	Estimated cost
Project Location Group Village Head: Traditional Authority: District:	Project Objectives
Land Tenure Status Customary/Public/Leasehold/Freehold	Proposed Main Project Activities
Details of the Evaluator Name Signature Position	Date of Appraisal

	SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING				
		Appraisal of Impacts		Specific cause of impact	Evaluation of Impacts	
		No	Yes		Low	High
1.0	SCREENING CRITERIA FOR PROPOSED SITE OF IRRIGATION BLOCK					
	<i>Will implementation of the irrigation project within proposed site generate the following socio-economic impacts?</i>					
1.1	Loss of or impacts on private land/gardens					
1.2	Loss of or impacts on private residential premises					
1.3	Loss of or impacts on private commercial premises					
1.4	Loss of or impacts on crops for a person/persons					
1.5	Loss of or impacts on forest trees for a person/persons					
1.5	Loss of or impacts on fruit trees for a person/persons					
1.6	Eviction of squatters					
1.7	Eviction of vendors					
1.8	Loss of or impacts on rental accommodation					
1.9	Closure/blockage of public footpath/road					
1.10	Blockage of pathways for livestock					
1.11	Loss of or impacts on grazing land					
1.12	Loss of or impacts on cultural sites – graveyards, ritual sites					
1.13	Loss of or impacts on public facilities – church, borehole, water kiosks,					
1.14	Loss of or impacts on access to public water resources					
1.15	Loss of or impacts on access to natural resources					

Appendix 4 Acceptance of Valuation of Affected Property Form



Government of Republic of Malawi

MINISTRY OF AGRICULTURE, IRRIGATION AND WATER DEVELOPMENT SHIRE VALLEY IRRIGATION PROJECT

Name and picture of PAP	Village Headman	Group Village Headman	District
<p>I hereby accept with the valuation of my property affected by the Shire Valley Irrigation Project as listed below. I undertake that once I receive full compensation of my affected property, I shall vacate/surrender the affected property in a manner prescribed by the SVIP and shall not lay any claim to it.</p>			
Type of Property	Number Affected Property	Rate per Property (MK)	Value (MK)
Total Value of Property			
Signature of PAP	Witness (GH or GVH)	Signature of Valuation/SVIP Official	
Date:			

Appendix 5 Receipt of Compensation Money of Affected Property Form



Government of Republic of Malawi

MINISTRY OF AGRICULTURE, IRRIGATION AND WATER DEVELOPMENT SHIRE VALLEY IRRIGATION PROJECT

Name and picture of PAP	Village Headman	Group Village Headman	District
<p>I hereby acknowledge receipt the sum of..... (MK) as full compensation of my property affected by the Shire Valley Irrigation Project. I undertake to vacate/surrender the affected property in a manner to be prescribed by the SVIP and shall not lay any claim to it.</p>			
Signature of PAP	Witness (GH/GVH/TA)	Signature of Paying Officer and official stamp	

Appendix 6 Receipt/Summary Complaint



Government of Republic of Malawi

MINISTRY OF AGRICULTURE, IRRIGATION AND WATER DEVELOPMENT SHIRE VALLEY IRRIGATION PROJECT

RECEIVING DETAILS		COMPLAINANT DETAILS	
Received on (date)		Complainant's full name	
Received time		Complainant's ID #:	
Tracking #		Complainant's address:	
Received by: phone / fax / email /note /verbally		Complainant's phone # (home/cell) IF ANY	
Received and processed by (full name)		Complainant's email:	
SUMMARY OF THE COMPLAINT			
Name Receiver		Name complainant	
Signature of Receiver		Complainant's Signature:	
Date			

Appendix 7 Grievance Redress Mechanism Forms

Form 1 GRM: Receipt/Summary of Complaint

RECEIVING DETAILS		COMPLAINANT DETAILS	
Received on (date)		Complainant's full name	
Received time		Complainant's ID #:	
Tracking #		Complainant's address:	
Received by: phone / fax / email /note /verbally		Complainant's phone # (home/cell) IF ANY	
Received and processed by (full name)		Complainant's email:	
SUMMARY OF THE COMPLAINT			
Name Receiver		Name complainant	
Signature of Receiver		Complainant's Signature:	
Date			

Form 2 GRM: Grievance Resolution Agreement Minute
(GRAM)¹⁰²

DEFENDANT DETAILS		COMPLAINANT DETAILS	
Full name		Full name	
ID #:		ID #:	
Address:		Address:	
Phone # (home/cell) IF ANY		Phone # (home/cell) IF ANY	
Email:		Email:	
Date of complaint resolution			
Complaint Tracking #			
SUMMARY OF RESOLUTION			
Name Defended		Name Complainant	
Signature of defendant		Complainant's Signature:	
Date		Date	
Name Witness		Name Witness	
Signature of defendant		Complainant's Signature:	
Date		Date	

¹⁰²To be signed only after the grievance resolution agreement has been reached between parties

Form 3 GRM: Grievance Resolution Implementation
Minute (GRIM)¹⁰³

DEFENDANT DETAILS		COMPLAINANT DETAILS	
Full name		Full name	
ID #:		ID #:	
Address:		Address:	
Phone # (home/cell) IF ANY		Phone # (home/cell) IF ANY	
Email:		Email:	
Date of complaint resolution			
Complaint Tracking #			
SUMMARY OF RESOLUTION IMPLEMENTATION			
Name Defended		Name Complainant	
Signature of defendant		Complainant's Signature:	
Date		Date	
Name Witness		Name Witness	
Signature of defendant		Complainant's Signature:	
Date		Date	

¹⁰³ To be signed only after the grievance resolution agreement has been implemented.

Appendix 8 Document List

1. FAO (2012), Voluntary Guidelines on the Responsible Tenure of Land, Fishery and Forests in the Context of National Food Security, Rome
2. <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/10000009-EN-BANK-GROUP-INVOLUNTARY-RESETTLEMENT-POLICY.PDF>
3. Government of Malawi (2011), Malawi Growth and Development Strategy II 2011-2016
4. Malawi Government (2013), Water Resources Act, Department of Water
5. Government of Malawi (2002), **Malawi National Land Policy**, Ministry of Lands, Physical Planning and Surveys.
6. Government of Malawi (1997) **Forestry Act**. Ministry of Forestry, Fisheries and Environmental Affairs
7. Government of Malawi (1995), **The Constitution of Republic of Malawi**.
8. Malawi Government (1991) The Monuments and Relics Act Department of Antiquities
9. Malawi Government (2016) Customary Land Act, Department of Land and Valuation
10. Government of Malawi (2016), **Physical Planning Act**, Department of Physical Planning.
11. Government of Malawi (1967), **Land Acquisition Act**. Department of Lands and Valuation
12. Government of Malawi (2016), **Land Act**. Department of Lands and Valuation.
13. MCA Malawi Power System Studies; Resettlement Policy Framework Final Draft August 20, 2010;
14. Ministry of Finance, MASAF 4, Resettlement Policy Framework, September, 2013
15. Ministry of Agriculture, Irrigation and Water Development, Environmental and Social Impact Assessment (ESIA) for the Shire Valley Irrigation Project (SVIP) Draft Baseline Report, BRL, March 18th 2016

16. Ministry of Agriculture, Irrigation and Water Development, Environmental and Social Impact Assessment for Rehabilitation and Raising of Kamuzu Dam
1Resettlement Action Plan, Nemos June 2015
17. Ministry of Agriculture, Irrigation and Water Development, Environmental and Social Impact Assessment, Diamphwe Multipurpose Dam and Associated Structures, Environmental and Social Impact Assessment and Resettlement Action Plan Vol. 2Resttlement Action Plan, SMEC May 2016
18. Ministry of Lands, Housing and Urban Development, National Resettlement Policy, March 2016
19. Republic of Malawi, PRIDE – Programme for Rural Irrigation Development, Resettlement Action Plan, Final version, September 2015.
20. World Bank Group (2004) **Resettlement Resource Book**, Washington
21. Small Holders Maize Economy in Malawi.
<http://www.faceofmalawi.com/2011/05/the-malawi-smallholder-farmer-maize-economy-is-farm-input-subsidy-enough/>
22. Mango Technical Specification for Trees of Hope Project. Clinton Development Initiative. June 2011
23. Timber value chain analysis for Viphya Plantation. Malawi Forest Governance Learning Group. July 2009

Appendix 9 Budget Details for the Compensation Budget Phase 1

No	Type of Loss for main SVIP infrastructure	Unit		USD	USD
			Quantity	Unit value	Permanent
Permanent loss					
1	Permanent loss of land to infrastructure				
	Customary land - allocated	ha	237	8,000	1,896,000
	Customary land - communal	ha	44	8,000	352,000
	Private land	ha	11	10,000	110,000
	Government land		10		
	<i>Total land</i>		<i>302</i>		<i>2,358,000</i>
2	Crops (Permanent - one third of 107 ha)	ha	36	1,001	36,036
3	Forest	ha	20	3,000	240,000
4	Grazing	ha	35	250	8,750
	Grazing on crop residue and on public land	lumpsum			3,000
5	Not used	ha	98		
6	Trees	number	243	100	24,300
8	Settlements				
	Settlement with canal in outskirts	Number	7	50,000	350,000
	Settlement divided by canal	Number	3	100,000	300,000
9	Buildings	Each	130	1,202	156,260
10	Loss of agricultural production during construction of irrigation blocks until water flows	lumpsum			
	TOTAL				3,476,346

No	Type of Loss in Agri-Business Units	Unit		USD	USD
			Quantity	Unit value	Total
			Temporary loss		
1	Permanent loss of land to infrastructure				
	Customary land - allocated	ha	127		
	Customary land - communal	ha	24		
	Private land	ha	6		
	Government land		5		
	<i>Total land</i>		<i>162</i>		
2	Crops (Permanent - one third of 107 ha)	ha	57	1,001	228,228
3	Forest	ha	11	3,000	33,000
4	Grazing	ha	19	250	4,750
	Grazing on crop residue and on public land	lumpsum			1,500
5	Not used	ha	53	250	13,250
6	Trees	number	131	100	13,100
8	Settlements		10		
	Settlement with canal in outskirts	Number	7	10,000	70,000
	Settlement divided by canal	Number	3	20,000	60,000
9	Buildings	Each	70	1,202	84,140
10	Loss of agricultural production during construction of irrigation blocks until water flows	lumpsum			2,000,000
	TOTAL				2,507,968

Appendix 10 Land Allocation and Consolidation Strategy

The Land Allocation and Consolidation Strategy is the second part of the Land Tenure Diagnostic, Allocation and Consolidation Strategy.

10 Land Allocation and Consolidation Strategy

10.1 Introduction

The current landholding patterns in the SVIP reveals that, on average, each farmer has 3 to 4 separate parcels of 0,58 Hectares in size and a total holding of 1,99 Ha. Typically, each of these parcels has different agricultural characteristics such as soils, drainage and fertility. In some villages, one parcel may be located next to the Shire River and liable to regular flooding. The fragmentation of holdings and separation of parcels is usually a result of original traditional authority allocations to distribute fertile and less fertile land equally among community members. This strategy also promotes agricultural diversification and so mitigates against the livelihood risk of single crop failures. Farm fragmentation, however, is often viewed as a constraint to improved agricultural productivity because of the spatial distribution of fields and distances in between, which is also an impediment to mechanisation and intensification of use.

10.2 Agricultural Policies and Strategies

Prior to current policies and strategies for agriculture, Malawi pursued agricultural development through expansion of the estate sector (farming leasehold land) for export of tobacco, tea and sugar. The estate sub-sector grew at an average of 17 percent per annum over the period 1964-1977, while the smallholder sub-sector, focused on food production, especially maize, grew at an average rate of 3 percent per annum.¹⁰⁴ A bias toward the estate sector resulted in customary land being annexed from smallholders.

The earlier emphasis on estates waned and the current Malawi's Growth and Development Strategy (MGDS) 2011-2016 emphasis agriculture with food security as the foremost of nine key priority areas. The focus for agriculture is to increase productivity and diversification while moving away from a dependence on rain-fed cultivation.¹⁰⁵

Land is a sub-theme in the MGDS, which highlights the re-allocation of land to poor households largely through the Community Based Rural Land Development Project (CBRLDP), among other initiatives. The major challenge is increased demand for land, as it becomes scarcer. Other challenges include low institutional capacity, poor land practices, and insufficient public awareness on land laws.

Table 77 below shows the goals, expected outcomes and key strategies for agriculture, food security and land in the MGDS.

¹⁰⁴ ASWAp p15

¹⁰⁵ MGDS II p74

Table 75: MGDS Agriculture and food security

Agriculture	Food security	Land
The goal is to increase agriculture productivity and diversification	The goal is to ensure sustained availability and accessibility of food to all Malawians at all times at affordable prices	The goal is to ensure equitable access to land and tenure security; efficient management and administration system; and ecologically balanced use of land and land-based resources
<p>The medium-term expected outcomes include:</p> <ul style="list-style-type: none"> › Increased smallholder farmers output per unit area; › Increased agricultural diversification; › Increased production of high value agricultural commodities including cotton, wheat and macadamia nuts for exports; › Improved agricultural research, technology generation and dissemination; › Increased livestock and fish production; › Reduced land degradation 	<p>The medium term expected outcomes include:</p> <ul style="list-style-type: none"> › Food self-sufficiency at household and national levels; › Increased and sustained food availability and accessibility; › Enhanced agricultural risk management 	<p>Medium term expected outcomes:</p> <ul style="list-style-type: none"> › Improved equitable access to land and tenure security; › Improved land planning, ecologically balanced land use and management; and › Improved provision of geospatial information.
<p>Key strategies include:</p> <ul style="list-style-type: none"> › Providing effective extension services; › Strengthening linkages of farmers to input and output markets; › Enhancing livestock and fisheries productivity; › Promoting appropriate technology development, transfer and absorption; › Improving access to inputs; › Promoting contract farming arrangements; › Promoting irrigation farming; › Promoting production of non-traditional crops; 	<p>Key strategies include:</p> <ul style="list-style-type: none"> › Improving the functioning of agricultural markets; › Ensuring an effective early warning system; › Promoting income generating activities; › Increasing national food storage capacity; › Promoting dietary diversification › Improving agricultural market systems; › Improving coordination and management of food aid and imports; › Implementing policies to reduce dependency on food aid 	<p>Key strategies include:</p> <ul style="list-style-type: none"> › Promoting land ownership and title registration; › Providing physical development planning standards, management guidelines and legal framework; › Decentralizing land administration and management functions; › Developing a geospatial database and establishing a national Spatial Data Centre; › Preparing a National Spatial Framework for Strategic Physical Development Planning and Management;

<ul style="list-style-type: none"> > Improving agricultural production for both domestic and export markets; > Strengthening farmer institutions; > Promoting soil and water conservation techniques. 	<ul style="list-style-type: none"> > Strengthening and scaling-up market based risk management initiatives; > Reducing post-harvest losses; > Strengthen PPPs in agriculture > Providing technical and regulatory services; 	<ul style="list-style-type: none"> > Raising public awareness on land related laws, policies, and procedures; and > Developing mechanism for widespread dissemination of geographic information and digital mapping services
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The National Agricultural Policy (NAP) 2010-2016 highlights the importance of agriculture to the economy of Malawi, identifying that smallholders contribute 70% and the estate sector only 30%, but that with smallholder comprising 90% of agricultural land, productivity is lower. The policy attributes this to small and fragmented holdings with yields lower than the estate sector. Policy actions to achieve the agricultural policy objective in land resource management include, among other things:

- > To balance land requirements for different land uses according to land suitability and capability, while regulating competing land demands for different sectors such as biofuels development;
- > Designate, through a consultative process, with land users, the best use of land for optimal socio-economic development;
- > Strengthen coordination amongst stakeholders involved in land resource management issues and build the capacity of coordinating institutions such as the Department of Lands.

Implementation of the MGDS and NAP incorporated a sector wide approach to agricultural development. The Malawi Agricultural Sector Wide Approach (ASWAp) identified small land holding sizes and fragmentation among the key constraints to agriculture.

One of the three focus areas of the ASWAp is land and water management, which is also a

Box 4: Malawi Agricultural Sector Wide Approach (p25)

The methods of cultivation on these small land holdings among smallholder farmers remain traditional and non-mechanised. Several studies in Malawi have shown a positive relationship between technology adoption (e.g. fertilizer use) and land sizes among smallholder farmers. There have been several government efforts promoting the adoption of fertilizers, hybrid varieties and modern methods of farming and the provision of price incentives through progressive market reforms. However, due to partly diminishing land holdings the supply response has remained weak. At current market prices for inputs and outputs, adoption of higher productivity technologies is simply impossible for the poor given their low purchasing power.

pillar in the Comprehensive African Agricultural Development Programme, an initiative under the New Partnership for Africa's Development (NEPAD) to which Malawi is a

member. "The overall thrust of the ASWAp is the widespread introduction of profitable farming options to the poor [based on the] evidence...that, as farmers rise out of poverty, so they diversify."¹⁰⁶ None of the key actions in the ASWAp mention consolidating of landholding because this is expected to be a natural result of the adoption of new cultivation and production systems. However, as a cross cutting issue, there is an action to develop and implement awareness and advocacy programmes against agricultural property grabbing including land.¹⁰⁷

Between 2004 and 2011 the Government implemented the Community Based Rural Land Development Project (CBRLDP) with the support of the World Bank sought to start addressing emerging social conflicts related to unequal access to land by piloting a government assisted, community-driven land transfer programme to benefit 15,000 poor small-scale farmers.¹⁰⁸ In addition, with complementary programme measures it were expected to increase and sustain agricultural production by these farmers on their new, consolidated, landholdings. Project design built on lessons from past Government experience with the redistribution of land bought from private estates, and the need to develop a more peaceful and sustainable land redistribution process that is transparent, voluntary, legal, and resource-supported. The World Bank considered project implementation to be satisfactory but the following issues affected project achievements:

- › Inconsistent land policy decisions, such as non-implementation of new and revised laws and regulations.
- › Availability of land: Poor land policy decisions led to reduced land availability and increased land prices for the Project.
- › Weak capacities of the land administration services: The Project provided training and equipment but capacity in surveying and registration are still low and remain a critical constraint to land reform and potential scaling-up.
- › Monitoring and Evaluation (M&E) deficiencies.

¹⁰⁶ ASWAp p13

¹⁰⁷ *Ibid* p48

¹⁰⁸ World Bank 2012. Community Based Rural Land Development Project: Implementation Completion And Results Report

The project results report highlights some social issues that any future land reform project should mitigate (see box 5).

Box 5: CBRLDP social issues (p11)

There were no major negative social impacts and conflicts as a result of relocations to newly acquired farms. The settlement approach involved purchase of farms from willing sellers and voluntary settlement of beneficiaries. All the land acquired by the beneficiaries was bought from voluntary sellers. Former estate workers had not been forced to leave the acquired farms and, in cases where they had expressed a desire to join the Project, they were subjected to eligibility criteria and allowed to join the Project. In some cases, estate owners gave away part of the estate to surrounding communities before selling. A few disputes between beneficiary groups and surrounding communities erupted over boundaries. Some surrounding communities did not initially recognize estate boundaries. The absence of beacons to mark estate boundaries exacerbated the problem as local communities took advantage of the situation. There were also disputes between the beneficiary groups and estate owners whereby some estate owners came back to claim part of the land or some trees on the already paid for land. Activities were undertaken to mitigate emerging social issues such as disputes over farm boundaries and inequitable sharing of farm land, including demarcation of estates into 2 ha land parcels; reaffirmation of estate boundaries; replacement of beacons; training in conflict management; and development of guidelines for sharing vacated land.

10.3 Experiences with Land Consolidation in Malawi

As mentioned earlier in 0, agricultural strategies during the 60s, 70s and 80s promoted acquiring and expropriating customary tenure land for conversion to public leasehold for the expansion of estates and export-led commercial agricultural growth. Then in the 90s and 00s, a greater emphasis on smallholder farming and food security emerged. The Community Based Rural Land Development Project (CBRLDP) is one example of land reform that acquired and subdivided large farms for distribution in 2.2 Hectares into consolidated landholdings sufficient for one family's subsistence and livelihood needs.

Other initiatives to consolidate landholdings into more productive farm units are not commonplace; this excludes instances where chiefs have allocated customary land to individuals or companies, sometimes without the agreement and to the detriment of the local community.¹⁰⁹ This customary land is then converted to public land and a leased issued, for example, for sugarcane production.

Given the limited amount of unused land available for allocation, the expansion of commercial agriculture in many areas has led to the creation of outgrowers' schemes. There are several of such schemes operating in the SVIP area, all established in collaboration with the local sugarcane companies Illovo and PressCane. Kasinthula Cane Growers Association and Phata Sugar Cooperative are the two biggest schemes. A third outgrowers scheme KAMA was established in 2015 and has made the first irrigation design and are now seeking funds to hopefully start operating in 2017.

11.6.2 Kasinthula Cane Growers Association

¹⁰⁹ Institute for Poverty, Land and Agrarian Studies, 2015. Land Governance In Malawi: Lessons From Large-Scale Acquisitions

Established in 1996 from a smallholder rice scheme on land leased from government, the scheme has expanded in four phases from its initial 309 hectares and 103 farmers to 1.340 hectares and 762 farmers today cultivating mainly sugarcane but also food crops such as rice and maize.

Originally, the land was held under customary tenure, but when the rice production started on the first 96 hectares, the tenure was converted to public land, using section 27(1) of the Land Act, and then leased as a whole by the government to the trustees of the scheme. Sugarcane production needed a larger area of land that required adding adjoining customary land in new leases using a similar legal procedure. The lessee (leaseholder) is now the cane growers association rather than the trustees of the scheme, although the lease for the remaining phases have still not been granted.

The conversion to sugar cane cultivation subsumed most of the existing rice farmers and landholders in the adjoining customary lands. A small number who opposed the conversion lost their rice parcels for which they reportedly did not receive compensation "because the land was public and not theirs" but retained other fields elsewhere in the village. Each farmer in the scheme was allocated 3 hectares – half for sugarcane and half for food crops – in a single demarcated parcel. The third phase of expansion into adjoining customary lands reduced the allocations to 2 hectares "due to the high demand for land" and the fourth phase, which commenced in 2014 using an EU grant, further reduced each allocation to 1 hectare. The use of pivot irrigation systems for these last two phases means that parcels are triangular-shaped and only sugar can be cultivated.

Each expansion phase incorporated adjoining farmers on customary land, who if they were found after measurement and recording to cultivate 2 hectares but were only being allocated 1 hectare of irrigated land, were not directly compensated for their loss but instead could nominate another person to be allocated 1 hectare, which would usually be an immediate family member. Compensation has never been paid because there has never been any resettlement and, according to members of the association, there is widespread support and demand for participation in the irrigation scheme. In these sugar-only expansion areas, land has been set aside between the pivots and other areas for food crop cultivate and livestock grazing. Many farmers continue to cultivate food crops on existing fields outside the scheme and most livestock is kept close to the homestead in the surrounding settlement areas. "Excess land" in the customary areas incorporated by each expansion phase has enabled farmers to retain sufficient land for subsistence cultivation.

Although the land within the Kasinthula sugar scheme still only has a leasehold title by the cane growers association for the original 96 hectares, the traditional authorities no longer have any direct role in land-related matters within the scheme as a whole. This includes the resolution of disputes, done now by the association themselves. And with customary law diminished, the cane growers association have incorporated into their constitution and rules a provision for the compulsory nomination by members of a next of kin and heir for succession of their land. This information is held in confidence, but the nominee must be a person who is a member of the customary group, village or traditional community area. There have been inheritance disputes but the association will always transfer the land of the deceased registered member to the nominated heir notwithstanding that this may be contrary to local customary law.

According to members of the executive committee of the association, the gender balance of registered member farmers is now 60% men and 40% women. The joint holding of land, by two people such as by spouses, is not permitted by the constitution and rules of the scheme. Because each farmer is merely a member of the association and the land is held by the association under lease(s) and notwithstanding the farmers cultivate a specific and identifiable parcel, they are not legal owners of their parcels, and the farmers are requesting greater security of tenure.

11.6.3 Phata Sugar Cooperative

The relative success of the Kasinthula irrigation scheme, prompted farmers in Phata village to develop a similar scheme. With the support of their traditional authorities, the Phata farmers decided to pool their land into a cooperative with a constitution and rules similar to Kasinthula but not the same. They also pooled their land after first measuring the size of each holding, resolving any disputes, and registering the farmer who then became a member of the scheme, but Phata did not subdivide it into separate pieces or plots but instead would cultivate it collectively as one farm using pivot irrigation systems in a cooperative (registered under the Cooperative Act of 2012).

To be a member of the scheme each farmer was initially asked to contribute a minimum of 1 hectare of land. Farmers with less than this should amalgamate or consolidate their landholdings. This proved problematic, so smaller landholdings were then allowed and given a corresponding fraction of a membership share. Each member would be allocated shares according to the size of the landholding each contributed. All the land within the irrigated area was previously cultivated, unlike Kasinthula.

Dissenters were apparently few in number and through a programme of advocacy and education, all landholders within the first phase area agreed to participate and contribute their land. Therefore there was no resettlement or compensation paid. Phase 2 is currently in the planning stage and land is measured and farmers registered; disputes are being resolved; reportedly, there is universal support for the expansion.

As in Kasinthula, farmers are required (compulsory) to nominate next of kin, not one but two successive heirs. This allows for the succession of a spouse before succession of children. In this way a surviving spouse, not local to the area, can remain a member or beneficiary of the cooperative for life whereupon the land shares would pass to heirs in accordance with local custom. Of course, nominations are restricted to family or community members, just as transfers are similarly restricted. However, subdivision of shares for transmission or transfer to multiple heirs is permitted. Individual sale of shares is not permitted and if a member wishes to dispose of their share other than to a family or community member, they can only do so to the cooperative. The share is then distributed among all remaining members.

All member farmers are expected to contribute their labour to sugar cultivation although the cooperative does employ labour who may be members or locals to the village for specialist tasks, such as cane cutting, security, for example. Members may substitute their labour by employing others. The land in between the irrigation pivots is collectively cultivated with food crops, and farmers reap what they contribute to production. There is limited grazing land within the irrigated area and farmers keep most of their livestock elsewhere or close to their homesteads. Farmers may also have parcels elsewhere, such as close to the river, which is the typical landholding pattern in the Shire Valley.

Today, 60% of the 378 farmers are men and 40% women according to the chairperson of the executive committee. Phata and Kasinthula both benefit from EU grants for development or expansion.

11.6.4 KAMA Cane Growers Cooperative Society Limited

KAMA is an abbreviation of the two Traditional Authorities Katunga and Maseya and was legally registered as KAMA Sugar Cane Cooperative Society Limited in September 2015. The objective of KAMA is to obtain income for a better life and food security by addressing climate change through irrigation.

Farmers used to grow rain-fed cotton and millet, but did not produce enough due to irregular rainfall and changing temperatures (too high and/or too low). The smallholder farmers were looking for irrigation when PressCane approached first the TA and then the GVHs. Farmers have agreed to sell sugarcane to PressCane for the production of ethanol and that 10% of the irrigated land can be used for food crops.

Organization

At the Group Village level 17 Business Units have been established consisting of the members of the Cooperative. The Business Units have been in existence for a long time and were used when growing cotton. The same land used for growing cotton is now going to be used for growing sugarcane. Each Business Unit is governed by the Business Unit Committee consisting of elected members, 50% women and 50% men.

Each of the 17 Business Units have elected one member into the Executive Committee. Each Business Unit have executives responsible for finance, communication, farm management, etc. 5 of the Executive Committee members are female and 12 male.

The KAMA Sugar Cane Cooperative was legally registered in September 2015 and the first annual meeting will be held in December 2016.

Membership and Shares

Criteria for being a member of the KAMA Sugar Cane Cooperative:

1. Being a farmer and having land within the project area
2. Paying a registration fee of MK 1000
3. Buy shares in the Kama Cooperative for MK 1000 each. One person can have a maximum of 20% of the shares only.

Shares are based on the size of the land within the project area. Land is valued at MK 5000 per hectare which equals 5 shares. Shares are registered in the name of the household head, which can be the husband or the wife based on who looks after the farm. The household head can decide to register some land to others (e.g. son, daughter) to be registered in their own right. The one in whose name the share is registered may nominate one to three persons who will inherit the shares in sequence. The shares will then be registered in the name of the person who has been identified as the one who inherits. This can be the wife, husband, son,

daughter, etc. Shares are registered in one name only to avoid the negative effects of their cultural beliefs.

Establishment and Management

The total area to be irrigated within the 17 GV's is planned to be 6,000 hectares.

CODA has been engaged to conduct a survey and to design the infrastructure for 2,216 hectares for phase I using a grant from the European Union (EU) of €297,000, which PressCane has helped to obtain. Identification and GPS referencing has been concluded in the first area that is planned to be irrigated, covering 2,216 hectares in 5 planned irrigation schemes. Of the total area 2,000 hectares will be under sugarcane production and 216 hectares is set aside for food crops.

This first phase covers over 2,000 member farmers within 15 GVs. The design is made with primarily irrigation by centre pivots and with water being pumped from the Shire River, but the financing of the construction and organisation activities are not yet in place.

KAMA anticipates that each member will obtain a lease of their future parcels in accordance with the new Customary Land Acts. This will help to maintain ownership of the land and farmers are at liberty to sell land. They are working with the Ministry of Lands on how to get this organized.

KAMA plans hiring a professional manager to manage the farm and to train the members in management. Eventually, after training, farmers' members plan to do part of the management themselves. KAMA is planning to contract out the preparation of the farm, the construction of the electricity supply, the construction of the irrigation canals and infrastructure.

KAMA members will have priority in being employed by the contractors to do the work. The next priority for employment are the members of the surrounding communities.

Being employed by a contractor during the preparation phase is a mitigation measure to bridge the period between the current crop productions to income from sugarcane.

Each member of the cooperative will get a share in the food crops area and can decide for her/himself what to grow. Extension advice is expected on what crop is best to grow.

11.6.5 Difference between Kasinthula, Phata and KAMA schemes

On land issues, there are some notable differences between the out grower schemes:

- › The first phase of Kasinthula is situated on public land originally leased to the rice outgrowers' association, so this small part has a lease of 96 hectares, but the later phases were established on customary land and has not yet been secured by a lease.
- › Kasinthula covers around 1,800 hectares now in equal shares for each phase, while the shares of the Phata scheme are depending on the size of the original parcels of land brought into the cooperative. Phata covers around 800 hectares including the second phase.
- › The KAMA scheme will be much bigger, up to 6,000 hectares when both phases are realized. The sizes of shares are not finally decided upon yet.

- › Phata is established on customary land. However, to "improve their tenure security and to secure mortgage finance" Phata applied for a lease in 2012, and are considering re-applying after their original application was lost by the Ministry of Lands, Housing and Urban Development. Notwithstanding, Phata have developed the first phase and have paid three dividends from profits made so far and are planning the next phase extension, all on customary land tenure.
- › KAMA is on customary land as well, and is also planning to apply for a lease under the newly passed land laws.
- › Phata and KAMA, sited on customary land retains a role for traditional authorities, not in the management of the scheme but for the customary practice of dispute resolution. Chiefs and village heads have no role in Kasinthula.
- › Kasinthula did not consolidate any lands as existing holdings were retained and cultivated for sugar or other irrigated crops, whereas in Phata all existing parcels were consolidated into one large farm. The same principle as Phata is going to be used for KAMA.
- › As a more recent scheme, Phata had to deal with instances where farmers had rented out all or part of their lands to landless farmers. Phata permits these rental agreements to continue and keeps a record of them, so that, for example the renter contributes labour and receives his or her portion of the dividend minus the rent. Kasinthula does not accommodate land rentals and therefore anyone renting at the inception of the scheme would lose access to the land.

11.6.6 Similarities between the Schemes

On land issues, the similarities are:

- › A large majority of farmers who occupied the land that is now part of both operative schemes were and are supportive. For the KAMA scheme all farmers have expressed their interest to be part of the scheme.
- › Farmer groups are well organised with high degree of participation; major decisions are taken at meetings of all farmers.
- › Little if any resettlement took place, as all farmers directly affected by the scheme agreed and participated. This is planned to be carried out the same way for KAMA.

11.6.7 Phata as a role-model

The Phata outgrowers scheme has been chosen as a role-model for the organisation of the future agri-business organisations related to the SVIP project. There has been several reasons for this, one of the primary is a very good organisation, capacity building and internal communication. It has been important from the start to get everyone to understand the principles of working together and establish a commercial farm, which have benefitted all the shareholders. A comprehensive information and training program has been part of the

scheme from the beginning, resulting in a high degree of participation and commitment from the individual shareholders.

It has been important for the Executive Committee that Phata has not only been focused on the commercial farming. The subsistence agriculture has a high priority with establishment of common fruit orchards, vegetable produce fields and fish ponds. The products are distributed internally at low prices to the shareholders where any excess products are sold at normal prices outside the scheme. This can both give the shareholders an additional income and help them to obtain a reasonable supply of food.

Another important parameter is the organisation of the work needed for both the commercial and the subsistence farming. The stakeholders in the Phata scheme have received shares of the total area corresponding to the size of their original parcel sizes. They no longer have a physical piece of land, which they can identify as their own, and the agricultural activities is handled centrally by a professional management. This results in an efficient and uniform agricultural production with a higher yield. The shareholders are obliged to contribute with a certain amount of work in the commercial production, but they have an option to employ others to do their share of the work. No matter what, all the participants will still be paid a proportional share of the total profit. As a whole, this agricultural organisation has raised the living conditions for the whole community.

Phata is securing the rights of the participants internally by appointment of a next of kin for each shareholder. It secures that the share will retain with the family in the case of death. The share can also be divided between several heirs within the family. The formal securement of rights has until now been done by an application for a corporative lease for the whole of Phata, since this has been the best way to do it under the old Registered Land Act. This has had the disadvantage that the individual farmer lost the right to sell his share outside the cooperative. With the new Land Acts it will be possible to register a similar organisation as a Traditional Land Management Area, and the farmers will be registered as owners of their individual shares in the same way as if they were owners of a private parcel.

11.6.8 Other Irrigation and Outgrowers' Schemes

Nchalo Sugar Cane Grower Association

Apart from these outgrowers organizations a group called Nchalo Sugar Cane Grower Association (NSCGA) is working in the SVIP area. The group is working from their headquarter in Nchalo and have recently established an irrigation scheme of 200 hectares in Jombo, south of Nchalo in phase 2. The association is not geographically limited to a certain area, it has established a sub-group in Ndakwera in phase 1, Zone A and has plans for further irrigation throughout the Chikwawa District.

The NSCGA is registered as a company and not as an association, and among the other outgrowers the general impression is that NSCGA is more focused on making a profit for the company than helping the smallholders to better living conditions through irrigation.

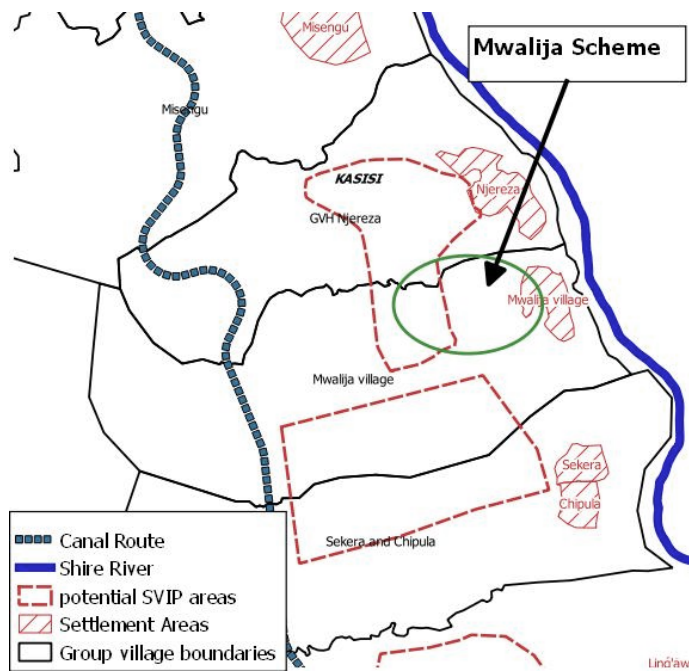
Mwalija Irrigation Scheme

Mwalija Irrigation Scheme in Kasisi just south of the Majete Game Reserve was established by the help of MoAIWD in 2004 with 100 hectares, but due to lack of maintenance and

capacity building the scheme quickly deteriorated and was down to 16 active members in the beginning of 2016. Recently an EU funded project has taken over the project and are planning to construct two smaller dams and a reservoir to enable 400 families in Mwalija and Njereza to irrigate 95 hectares.

The project is running until 2019 and from the map below it looks like this project will be combined with SVIP at a certain stage, since it is located close to the canal and in relation to areas that have been identified as potential additional irrigation areas for the SVIP.

Figure 32 Mwalija Scheme

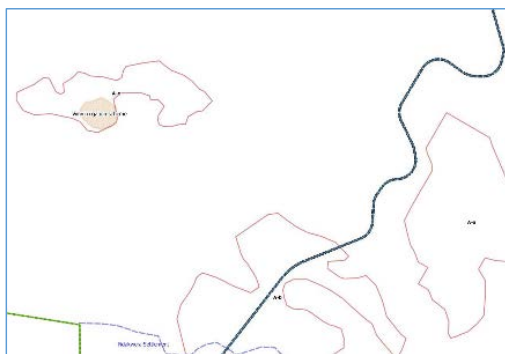


Vimvi irrigation scheme

A small irrigation scheme was encountered in GV Patalao in the TA Chapananga in Zone A-e. It is a community run scheme with solar panel driven water pumps. The area is around 29 hectares with each member having a 0.1 hectare share. The main production in the scheme is maize.

Figure 33 shows the location of the scheme.

Figure 33 Vimvi irrigation scheme



10.4 Principles for Land Consolidation

The concerns expressed earlier in the MGDS and the ASWAp relates very much to problems found within the SVIP area. The need for a better use of land to obtain a higher productivity, the general scarcity of land which affects the coming generations and the need for securing the rights to the land. The possibility of irrigation will not automatically lead to a higher productivity and a higher standard of living if the individual farmers continue to grow subsistence crops like before without any organized plan. Therefore a kind of organisation of the farmers is needed to enter into an irrigation scheme, where the use of water can be controlled in relation to the type of crop to grow.

10.4.1 Principle 1: Limited Resettlement

Other programs like the CBRLDP has focused on sustaining the local farmers and giving them better opportunities by the purchase of private estates and relocating a whole community to a new area, where they can continue to be smallholders with individual parcels.

This is not a feasible approach within the SVIP, the guiding principle is that there shall be as little relocation as possible, and the present community structures shall be maintained. That also means that the farmers who have to give up the land for the building of the canal or any other structure related hereto, shall be resettled and be given a similar land within the same community. This principle can be difficult to follow, given the fact that all farmland already has been allocated to the smallholder farmers and there normally is no land available for new settlements. It is a growing problem when the next generation has to start a farm and can only get it if the existing landholdings are subdivided into smaller parcels.

A solution is to organize the total amount of land within an irrigation block including the land needed for the infrastructure in one scheme, and let all the farmers received a percentage share of the whole scheme corresponding to the percentage of land they have contributed with.

10.4.2 Principle 2: Irrigation Scheme Model Based on Local Experience

When looking at the ways of establishing organisations that will be able to manage the proposed irrigation schemes, it is obvious to use some of the organizational structures already implemented and accepted within the area like the outgrowers' schemes instead of introducing new unproved systems.

In relation to the land consolidation and resettlement issues, it is also important to emphasize that the establishment of the outgrowers' schemes has been done practically without any resettlement of the farmers affected by the infrastructure or the reorganisation of the land.

For Phata the farmers with land within the scheme came to be members of the cooperative with a share related to the size of their original parcels, but the people continued to live in the villages as none of the habitational areas were touched. The original crop area was 400 hectares, but Phata sugar cane production area is only on 300 has, as the remaining 100 has is used for the infrastructure (roads, canals, buildings) as well as food crops, woodlots and fish ponds for the member farmers.

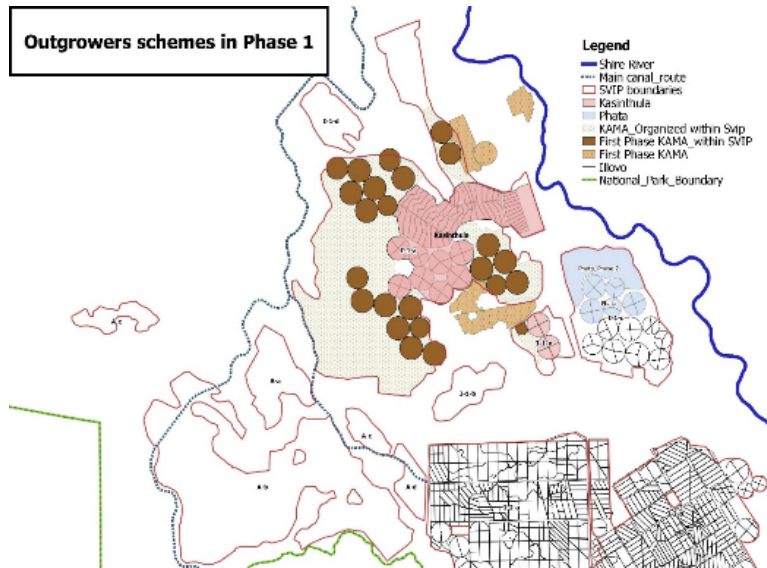
For Kasinthula the picture was a bit different. Also here no settlement areas were touched, and the village and the traditional authorities' structures were maintained. But here the farmers entered the various phases of the scheme with a fixed share (of 1-3 hectares depending on the phase), and they could identify their individual new irrigated parcels after the reallocation of the land. Thus they could keep their individual working attitudes towards the parcels in the irrigation scheme as opposed to Phata, where a person could not identify the results of his or hers individual effort.

The aforementioned outgrowers' schemes play a significant role within the Shire Valley Irrigation Project. Of the total area of 26,000 hectares in phase 1, around 14,000 hectares are customary land. Already organized within the customary land are the outgrowers schemes of Kasinthula with 1,800 has and Phata which is in the process of implementing a second phase, bringing the total area of commercial crops up to 800 has.

In addition to those, the newly organized cooperative KAMA of 6,000 hectares will have approximately 4,500 hectares within the SVIP area. KAMA is still in a very preliminary phase, a feasibility study and a detailed design has been made for phase 1, but no actual earthwork has been initiated. The important issue is that the organisation has been formed with Business Units, Executive Committee and Constitution/By-laws.

This means that around half of the customary land within phase 1 already have established organizations with fixed structures and executive committees, as can be seen from the following Figure 34.

Figure 34 Coverage Outgrowers schemes, phase 1



All smallholder farmers within the SVIP phase 1 know about the Kasinthula, Phata and KAMA schemes, and during the various community meetings and with other stakeholders, there has always been questions related to the possibilities of being engaged in similar outgrowers and irrigation activities, because the results from these existing schemes clearly have given the participants better living conditions with less risk of being exposed to famines caused by drought or flooding.

Especially the first phase of the Phata cooperative has shown very good results, and Phata is now establishing a second phase with 350 hectares. The KAMA cooperative has used the experiences from Phata when establishing their constitution with an elected Executive Committee, and includes the principles of size of shares in the cooperative based on the amount of land the individual farmers and how to work the land as a whole.

Taking into account that the cooperatives also are securing the right to the land by applying for a lease for the cooperative and have established detailed regulations regarding family ownership and transfer of the shares, the Phata and KAMA cooperatives are obvious models for the organization of irrigation schemes within SVIP. The results of the stakeholders' consultations show a clear preference for the Phata/KAMA based model of farmer organisation, which is also an indication of the high level of acceptance of this known model.

10.4.3 Principle 3: Secure the Land Rights of the Participating Farmers

As described above in section 0 the land tenure within the existing irrigation schemes varies from private lease to continue working on customary land. Both the existing and the newly

passed land laws provide options for securing land rights but the rights are stronger under the new land laws. There are three options for securing land rights of the participating farmers:

- 1 Obtaining a lease of the land in the name of the legal entity (e.g. cooperative) under the current laws and securing the land rights of the individual farmer in the constitution and by-laws of the legal entity.
- 2 Establishing a customary estate in the name of the legal entity of the agri-business area and securing the land rights of the individual farmer in the constitution and by-laws of the legal entity. This can be done after the Traditional Land Management Area has been established.
- 3 Each individual farmer obtains the legal right to his/her piece of land and then rents out his/her land to the legal agri-business entity. The process is very time consuming because it takes time to survey and legally register the rights of each individual farmer after the establishment of the Traditional Land Management Areas.

The second option of establishing customary estates in the name of the legal agri-business area entity is preferred for various reasons. Firstly, the advantages of pooling the land together in one customary estate strengthens the common understanding of the farmers that they are managing a common farm in the interest of all. Farmers no longer identify with their original piece of land which makes it easier to take decisions on the use and management of the land. Yet, in case the agri-business unit fails, the farmer is entitled to a portion of the land in relation to his/her share in the agri-business unit that will be allocated as stipulated in the constitution and by-laws of the legal agri-business unit entity. Several criteria may apply as decided by the farmers when establishing their agri-business unit and customary estates, e.g. the fertility of the land, proximity to their house, relation to their share, etc. This forms an excellent opportunity for the MoLHUD to pilot the implementation of the new land laws in an irrigation project.

10.5 Implementing the Land Allocation and Consolidation Strategy

The process of establishing legal entities and obtaining the legal tenure of the land consists of three main steps: 1) Preparation, 2) Information and Awareness Raising, and 3) Support the establishment of legal Agri-Business Units and obtaining the legal tenure of the land. In addition, there are four supporting activities that need to be conducted continuously throughout the whole process period. These are: 1) Addressing crosscutting issues of gender, youth, vulnerable people, illiteracy and the poor, 2) Monitoring progress and results and adjusting the process when found necessary, 3) Grievance Redress Mechanism, and 4) Communication.

Figure 35 below provides a schematic overview of the process.

Figure 35 Process to implement Land Allocation and Consolidation Strategy

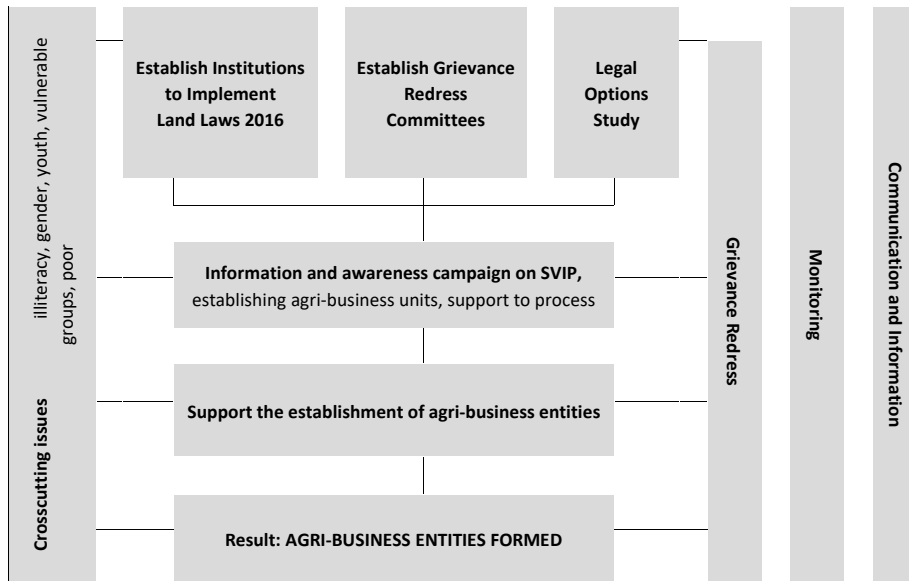


Figure 35 above shows the processes related to the implementation of the Land Allocation and Consolidation Strategy. For the implementation the following activities have to be carried out:

10.5 1 STEP 1: PREPARATION¹¹⁰

The following activities will be implemented concurrently:

- > Establishing and capacitating the legal structures for implementation of the new land laws, including:
 - > Traditional Land Management Areas at the 5 TAs that form part of Phase 1.
 - > Land Tribunals at TA level in the 5 TAs that form part of Phase 1.
 - > Group Village Land Committees.
 - > Land clerks at GV level.
 - > District staff for land registration and addressing land issues.

¹¹⁰ The capacitation includes training on gender and inclusion of vulnerable groups, youth and the illiterate

- › Establishing includes electing the committees and recruiting the staff and developing their capacity.
- › Establishing and capacitating the Grievance Redress Committees at Group Village, TA and District Level.
- › Establishing and capacitating contact persons for the illiterate, youth and vulnerable groups and on gender issues.
- › Legal Options Study for farm organizations including the pros and cons of each legal option, such as:
 - › Registering Customary Estate as jointly owned or as individual parcels.
 - › The period of registration.
 - › How land rights for the participating farmers can be secured if the legal organization collapses.
 - › Crosscutting issues of gender, illiteracy, youth and vulnerable groups.
- › Establishing a Communication Structure, Processes and Procedures

10.5.2 STEP 2: INFORMATION AND AWARENESS CAMPAIGN

After the preparation an important step towards an implementation of the allocation and consolidation strategy is to create an awareness of the strategy, the implications and the benefits. It is important that the villagers get a clear understanding of how the irrigation project will affect them directly and indirectly and that the process is a voluntary process where no one is forced to be a part of the irrigation scheme, and feel that they cannot benefit from it. A series of awareness meetings have taken place already with participation of all the potentially affected Group Villages in phase 1. Members of the Phata Executive Committee participated in these meetings and presented the setup and structure of the Phata scheme, how they started the cooperative, and the benefits for the shareholders. The general reception were positive with a lot of questions and feedback, and it was important for communities to realize that the organisational setup for any future irrigation schemes were not some government theoretical invention but an already well-functioning scheme with a high degree of self-governing and independence.

- › Information and awareness raising which takes into account illiteracy, gender, youth and vulnerable groups on:
 - › The new land laws
 - › The need to create agri-business areas (commercial farms) with cut-off date and proposal to include those who lost land into the agri-business area organization
 - › Options for legal registration of the business area (from the legal options study)
 - › Options on how to pool the land into agri-business areas

- › Grievance Redress Mechanism
- › Contact persons for the illiterate, gender, youth and vulnerable groups issues
- › How to access support to create business areas
- › Commercial agricultural options and market information

10.5.3 STEP 3: SUPPORT THE CREATION OF AGRI-BUSINESS ENTITIES

- › Create agri-business areas mainly through process facilitation and support to:
 - › Mapping the agri-business areas
 - › Create legally registered agri-business areas
 - › Determine the land use of the agri-business area
 - › Establishing customary estates (or other land options)
 - › Establish farm management/engage professional farm managers

10.5.3.1 Define the Agri-Business Units within the SVIP

An important element in the process of establishing legal agri-business units is to identify the size and location of the irrigated areas from: 1) the Technical Feasibility Study, and 2) the group villages involved in each, so the farm sizes can correspond to the proposals in the Agricultural Study.

Figure 36 below shows the existing and potential irrigation schemes in SVIP phase 1. KAMA has recently concluded a feasibility study with a design of the first phase, consisting of around 2,000 hectares of land located within the GVs which are members of the KAMA association. As can be seen in the figure the irrigation is primarily planned as centre pivots, and although KAMAs financing of this first phase has not yet been secured, it can be expected that it will be operational before the main canal of the SVIP project is finalised. Therefore, the future irrigation schemes within SVIP phase 1 has to take this KAMA design into account.

Based on the topographical conditions and on the background described above the Technical Feasibility Study Consultant has proposed where the branch irrigation canals can be located and how the individual irrigation zones can be designed with internal furrow canals and with standard paddy fields with a dimension of 800 x 200 meters.

Phase 1 consists of a number irrigation zones which vary a lot in sizes from 179 hectares (zone a-c) to 7,183 hectares (zone I-1-a) and as such are very different from a standard regular agro business block of 500 hectares as proposed by the Agricultural Study Consultant and Figure 36 shows how a possible distribution of irrigation zones into irrigation schemes can be arranged, taking into account the branch canals, the existing irrigation schemes and the traditional authorities' structures. *Table 78* shows that phase 1 can be divided into 22

irrigation schemes with an average size of 441 hectares. Some of the smaller proposed irrigation schemes will most likely be combined into larger schemes, especially where they are located within the same group villages, but a more detailed definition of the individual irrigation schemes is too premature and will require a series of meetings with the involved GVHs and TAs to determine the organisational setup and structures.

Figure 36 Potential Irrigation Schemes in Phase 1

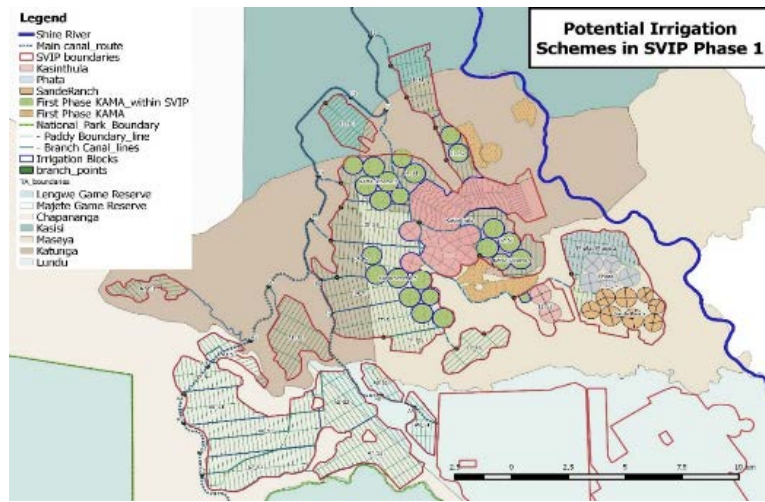


Table 76 Distribution of Irrigation Schemes /Agro business Areas in Phase 1

Zone	Branch Canal	Existing Scheme	area (has)	New Schemes	area (has)	TA	GVHs	Covered by existing organisation	Canal areas can be included	comments
I-1-a	I1	KAMA 2	122			Katunga	Salumenji, Mvula,Launji, Kantefa, Chinangwa	KAMA		KAMA Project, Phase 1,Scheme 2
I-1-a	I1			I1_S1	173	Katunga	Salumenji, Mvula,Launji, Kantefa, Chinangwa, Kabudula	KAMA	Branch canal	Can be combined with KAMA2
I-1-a	I1			I1_S2	444	Kasisi	Mbenderana, Chikhambi,		Branch canal	TA boundaries to be clarified
I-1-a	I2	Kasinthula	1622			Katunga, Maseya	Salumenji, Chinangwa, Biyasoni	Kasinthula		
I-1-a	I2	KAMA 4	438			Katunga	Paulosi,Isso	KAMA		KAMA Project, Phase 1,Scheme 4

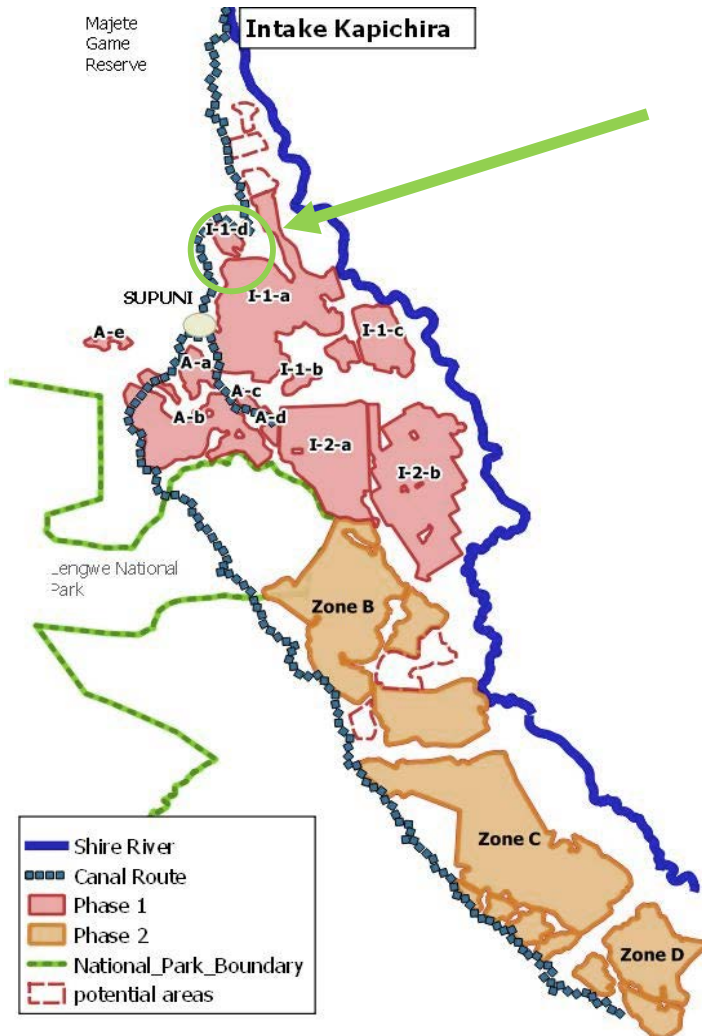
Zone	Branch Canal	Existing Scheme	area (has)	New Schemes	area (has)	TA	GVHs	Covered by existing organisation	Canal areas can be included	comments
I-1-a	I2			I2_S1	373	Katunga	Paulosi,Isso, Namatchuwa	KAMA	Branch canal	Can be combined with KAMA4
I-1-a	I4	KAMA 3	521			Katunga	Nedi, Nyamphota	KAMA		KAMA Project, Phase 1,Scheme 3
I-1-a	I4			I4_S1	335	Katunga	Nedi, Nyamphota	KAMA	Branch canal	Can be combined with KAMA 3
I-1-a	I5	KAMA 5	527			Maseya	Supuni, Molongeni, Mbande	KAMA		KAMA Project, Phase 1,Scheme 5
I-1-a	I5			I5_S1	626	Katunga, Maseya	Nedi, Nyamphota	KAMA	Branch canal	Scheme boundaries related to branch canals
I-1-a	I5			I5_S2	436	Katunga, Maseya	Supuni, Molongeni	KAMA	Supuni & Branch Canal	
I-1-a	I5			I6_S1	448	Katunga, Maseya	Supuni, Molongeni	KAMA	Supuni Canal	
I-1-a	I5			I7_S1	574	Katunga, Maseya	Supuni, Molongeni	KAMA	Supuni Canal	
I-1-a/ I-1-b	I5			I7_S2/ I7_S3	525	Maseya	Mbande, Andrea	KAMA	Branch canal	2 smaller areas of 172 & 353 has
I-1-c	I2	Phata 1+2	895			Maseya		PHATA		
I-1-c	I2	SANDE	750			Maseya		ILLOVO		
I-1-d	I3			I3_S1	386	Kasisi	Chikhambi, Fombe		Feeder Canal	
I-1-e	I2	Kasinthula	139			Maseya		Kasinthula		
I-1-e	I2			I2_S3	214	Maseya	Namatchuwa			Not planned
I-1-e	I2	KAMA4	18			Maseya		KAMA		
Zone I-1			5032		4534					
A-a	A1			A1_S1	596	Katunga	Supuni, Thuboyi		(Bangula Canal)	
A-b	A3			A3_S1	253	Chapananga	Mandrade, Mkanyozo		Bangula Canal	Can be combined to 1 scheme
A-b	A4			A4_S1	345	Chapananga	Ndakwera, Mkanyozo		Bangula Canal	
A-b	A5			A5_S1	439	Chapananga	Ndakwera, Mangulenje		Bangula Canal	
A-b	A6			A6_S1	913	Chapananga	Ndakwera		Bangula Canal	
A-b	A6			A6_S2	550	Chapananga, Lundu	Kampani		Branch canal	
A-b	A7			A7_S1	665	Chapananga	Ndakwera		Bangula Canal	
A-b	A7			A7_S2	770	Chapananga	Biliyati, Fote, Ingadzi,Jailos		Branch canal	
A-c	A8			A8_S1	183	Lundu	Zyuda, Jailos		Supuni Canal	Can be combined to 1 scheme
A-d	A9			A9_S1	233	Lundu	Tomali		Supuni Canal	
A-e	A2		29	A2_S1	210	Chapananga	Patalao, Chikanyenda		7.5 km branch not included	including exist. Wimwi scheme
ZONE A			29		5157					

Zone	Branch Canal	Existing Scheme	area (has)	New Schemes	area (has)	TA	GVHs	Covered by existing organisation	Canal areas can be included	comments	
I-2-a	Supuni	Ilovo	4686			Lundu				Ilovo	
I-2-b	Supuni	Ilovo	6578			Lundu				Ilovo	
Zone I-2			11264								
TOTAL Phase 1			16325	22	9691		26016	(Total Existing and new)			
Average New Irrigation schemes						441					

10.5.3.2 An Example of Land Allocation in an Agri-Business Unit

The principles described above for the new proposed irrigation blocks within SVIP can be exemplified by looking at the irrigation block I-1-d of 386 hectares which is located in the north-western part of phase 1, see Figure 37 below.

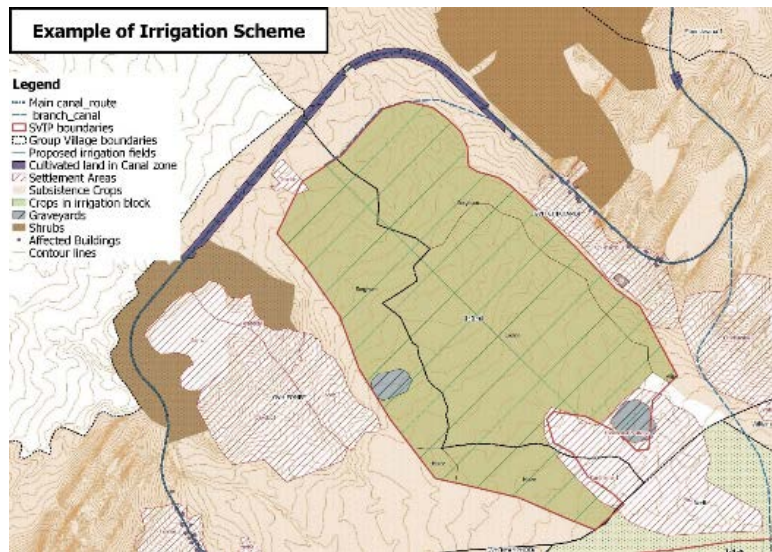
Figure 37 Irrigation Zones in SVIP



The irrigation block I-1-d as identified by the Technical Feasibility Consultant and can be seen more in details in Figure 38 below. The area is gently sloping from the north-western part down to the village of Kanthema. It is farmland predominantly with cotton, maize and sorghum divided into smaller individual parcels, which belong to the people in the nearby villages Chikhambi 2, Pendekali, Jakobo 1 and 2 and Kanthema 1 and 2.

The Main Canal alignment runs along the contour lines around a little hill north of Chikhambi 2 and then continues through the farmland north and northwest of the irrigation scheme with a branch canal going into the scheme, before it continues around the hill containing the villages of Semu and Pendekali. In the detailed land inventory for the main canal it was found that around 3 km of the canal zone was cultivated in a width of 60 metre (40 metre canal + 20 metre temporary land), covering around **16 hectares**, divided into 33 parcels. The remaining main canal adjacent to the irrigation block is not cultivated and consists mostly of shrubs and small trees. Between the canal and the proposed irrigation blocks there is a 250-300 m wide stretch of land of **70 hectares** also divided into several parcels used by the villagers. The total of these areas is around **86 hectares**.

Figure 38 Irrigation block in Zone I-1-d



The 6 villages surrounding this irrigation block, which belong to the 2 Group Villages Chikhambi and Fombe will very likely all have parcels in the area, and it will be obvious for them to identify it as an agribusiness area and agree with the two Group Village Headmen that the area belonging to farmers with parcels within the area will get registered as a Customary Estate under the new Customary Land Act.

It will be the farmers themselves, who will decide the extension of the Customary Estate and whether it shall include only the defined irrigation block or it shall include all the farmers who have cultivated areas close to the irrigation block. This could include the 16 hectares of land directly affected by the main canal, but could also include the additional 70 hectares

between the main canal and the irrigation block. It is not imperative that the land is irrigable, it could be used for grazing areas, common rainfed food crop areas or fruit orchards and in this way form a part of the Customary Estate and its various activities.

As earlier described the local land committees can also use some of the aforementioned areas between the irrigation block and the canal line.

There will also be people affected by the main canal structures, who not naturally belong to the villages that will be part of the irrigation scheme, as the figure above also shows. At the left side of the figure the canal goes around another village Semu, which most likely will not be part of the scheme. As the area here is identified as shrubs and not cultivated, there will be no obvious reason for including these landowners. They will be compensated either by cash or by reallocation of land in another area, if any unallocated land is available within the Group Village.

The same situation occurs, where the Main canal line curves around a hill north of the village Chikhambi 2. It is a hilly, rocky area and although the land is allocated to members of the villages, there is no cultivation of the land. As this land apparently is not important as the livelihood basis for the landowners, a cash compensation for the land could be an option instead of including them in the irrigation schemes.

10.5.4 ADDRESS CROSSCUTTING ISSUES (gender, youth, vulnerable groups, illiteracy, the poor)

Crosscutting issues will be mainstreamed into all project activities. For example:

- › All training curricula will include sessions on the crosscutting issues in which each issue is explained and ways to address the issues are learned.
- › All training materials will be gender, youth, vulnerable groups and poverty sensitive and provide ways and means to address each.
- › Contact persons will be identified, trained and supported throughout the process. The support will include providing back-up when required, providing the resources to implement their tasks, ensure the contact persons are aware of the project structures and procedures and have the required forms. In addition, they should receive an incentive/remuneration for their input.
- › Communication and information will be accessible to all, also those that are illiterate and without access mass communication media such as TV, newspaper and radio, Further, communication will be crosscutting issues sensitive and address crosscutting issues.

10.5.5 CONTINUOUS MONITORING

Monitoring of progress and outcomes/results is to take place continuously and the processes, procedures and implementation mechanisms to be adjusted if so required. An independent group of monitoring experts will be engaged to conduct the monitoring of the LTDACS, GRM and RPF as these are closely related. Reference is made to the RPF for more information on the monitoring. Monitoring data will be disaggregated on gender, youth, illiteracy, vulnerable groups and poverty where possible and assess how these crosscutting issues and communication and information are addressed.

10.5.6 GRIEVANCE REDRESS MECHANISM

The PAPs have to have an opportunity to express their grievances and have these addressed throughout the process. The PAPs have the option of using any of the existing channels for having their grievances addressed, but also the opportunity to use the project grievance redress mechanism (GRM). The reasons for establishing the project GRM and its implementation are described in the GRM.

10.5.7 COMMUNICATION AND INFORMATION

Continuous communication and provision of information on the proposed SVIP agri-business units and the investments needed for establishing these units. The communication will also focus on the agricultural issues and include costs and potential benefits as well as the risks. Apart from the land allocation and consolidation issues it is important to include handling of conflicts, farm investment decisions, farm organization, crops, livestock, fisheries/aquaculture, potential markets, potential resettlement and associated costs of compensation, and cost of water. These discussions are proposed to be handled by a service provider, supported by local government.

10.6 Critical Issues in the Land Allocation and Consolidation Process

This section presents the important steps in the land allocation process and the related risks:

- › The boundaries of the five Traditional Land Management Areas (TLMA's) affected by the first phase of SVIP have to be defined and demarcated. The procedures are not yet known, but it will require that a number of "conflicts" or uncertainties regarding the TA boundaries, which have been encountered in the land inventory, have to be clarified.
- › It is assumed that the newly passed Land Laws will be enacted and an effective date announced in time for the land allocation and consolidation process and/or that it can be worked out with the MoLHUD on how to pilot/implement the law in the SVIP. There is commitment from the MoLHUD so the risk is considered small.
- › The setting up of local Land Committees at Group Village level will also require a clarification of the number of GVs within the 5 TAs in SVIP area, and what areas they are covering. Officially only 13 GVs are gazetted and recognized by the local district government, but the list of GVs are quite outdated and the land inventory has revealed that the Traditional Authorities themselves recognizes more than 20 GVHs within SVIP.
- › Establishment of Grievance Redress Committees at the same GV level and at district level. The GRM must address all complaints from each person in the same way in an objective and fair manner without discrimination. This is a risk and a challenge that can be addressed through transparency and close monitoring as described in the GRM attached in appendix C
- › Awareness campaigns explaining the pros and cons of participating in the irrigation schemes, so the farmers understand that they will give up their present land parcels for shares in a cooperative (or other legal entity of their choice), where it will be necessary to

work together to obtain a higher and more secure living standard. The awareness campaign also have to emphasize that the farmers will maintain their rights to the land. It might be in form of a share of a cooperative or as an individual lease.

An important factor is how much land the communities want the irrigation schemes to include. Since the schemes are going to benefit all who have land and all who can and are willing to participate, the Group Village Heads or the new appointed Land Committees most likely will seek to include as many farmers as possible, if they have parcels within or close to the defined irrigation blocks. It will increase the living conditions for a greater part of the villages and reduce the possible tensions that could arise, if there were people benefitting inside and just outside the schemes.

With this structure any involuntary reallocation of land will be very unlikely because the people directly affected both by the main canal and the internal canal and road infrastructures will get a share in the cooperative relative to their original parcels in the same way as the farmers who has land directly placed on the new irrigated parcels.

Although the general feedback is positive, and everybody participating in the stakeholders' consultation have expressed interest in participation in the irrigation schemes, there may also be a few people, who do not want to be a member of the cooperative and want to continue cultivating their rain fed land as individuals. The Land Committees have to decide how to deal with these people, if their land is within the irrigation scheme. They can get fully compensated by cash, or it might be possible for the local Land committees to reallocate them to other land within the communities. Although there generally are no unallocated land available, it will in theory be possible to make a swap with the landowners outside the physical irrigation blocks who will get a share of the scheme.

As no settlements are located outside the village habitation areas, there will only be a need for actual resettlements of houses and their surroundings in the few cases where the canal line passes through a habitation area. This will happen in the villages of Supuni and Fombe, but in general these villages are not very densely populated with houses relatively far apart. It is therefore possible to locate the canal without many conflicts with the houses, and where it cannot be avoided, it will be possible for the GVH to identify a new location, where the affected family can construct a new house within the village.

10.7 Management of the Land Allocation and Consolidation Strategy

The management of the land allocation and consolidation strategy should be done in close collaboration with the implementation of the Agricultural Development Strategy, as the land allocation is closely related to the formation of the farmer's cooperatives or companies.

The proposed farmer commercial organizations (cooperatives/trust/companies) will each have formed interim committees, which have to deal with issues like:

- > Extension of participation in the irrigation scheme
- > Preparation of a land use plan
- > Discussion and agreement on land consolidation methods
- > Dealing with conflicts
- > Demarcation and survey

> Formal land right documents

This process is expected to take about two years, supported by specialist service providers. The service providers would each provide a Technical and Sociological team, working in close collaboration with a Public Support Team with officials from the Local Government. MoAIWD and MoLHUD and anchored to the Project Implementation Unit.

Apart from the local committees a Representative Farmers Coordinating Entity have to be formed. Such a body should deal with negotiations and control of the use of water for all the irrigation schemes. It is anticipated that at a later stage such a body could grow into a broader representative organization involving farmers' associations and participating processing, transport and market entities. This would then be an effective advocacy body for all participants involved in the SVIP project.

10.8 Piloting the New Land Acts

During the consultancy process it has been discussed with WB/FAO whether SVIP could be used as a pilot project for the implementation of the new Land Acts, with the establishment of new Land Committees and definition of Traditional Land Management Areas (TMLA's) within the SVIP area.

In September 2016 the first four new land laws, among them the Customary Land Act, were signed by the President, (the Acts are more detailed described in chapter 2.3) and although the procedures and regulations are not yet in place, the SVIP project will create a good opportunity for the MoLHUD to investigate the various issues related to the definition of the TLMA's and Land Tribunals and the establishment of Local Land Committees at Group Village level. Once these are in place the establishment of Customary Estates can be piloted, that will form the legal entities for the individual agri-business units within SVIP.

The land allocation strategy should be combined with the implementation of the new Land Acts to secure the rights of the landholders. Although there is a positive response among the smallholders to establishing farmer's cooperatives within the SVIP project area, it is important to convey the message that the individual smallholders shall not lose their right to their land. They will have to exchange their current parcels for a share in an organisational structure, where they will work together with the other farmers and share the benefits.

The new Customary Land Act describes how the rights can be secured by registering a Customary Estate within a Traditional Land Management Area. Such a Customary Estate can consist of a parcel of land with farmers registered as shareholders in the cooperative.

The possibility of obtaining an individual customary lease has only recently been included in the new laws and it is therefore important to clarify during the establishment of the irrigation scheme organisation how the shares will be defined and secured. If the shares of the cooperative or a similar organisational entity are in proportion of what the farmers originally had and the allocation is without any physical definition on the ground (which is not the case for example at the Phata outgrowers), it will be difficult for the shareholders to apply for an individual lease for their share. This process will require a survey, demarcation and registration of the individual parcel.

In the situations where the share is physically identifiable on the ground, the individual shareholder can get an individual lease for the share and will be able to sell it or subdivide it.

However, it will be a time-consuming and costly process to demarcate and survey all these individual parcels, and a solution can be to secure the rights with a lease of the whole irrigation scheme as one Customary Estate. At a later stage the individual parcels can be surveyed and given leases. Implementation of the new land laws in Chikwawa together with implementation of SVIP, will need coordination and support of the MoLHUD and the Local Government on various issues:

- i. Setting up new local committees at Group Village Level, and staffing the required district level institutions
- j. Designing and formally approving the registration forms and other forms that may be needed under the new legal framework
- k. Demarcating the 5 Traditional Land Management Areas (TLMA), which will first require clarification of the methodology to be used. If registration of the TLMA lease is under the title system (Land Registration Act) then the land could be defined with general boundaries, delineated on a suitable scale map, and a detailed cadastral survey would not be necessary.
- l. Obtaining from the Land Commissioner a Certificate of Customary Land for each TLMA.
- m. Verification of existing land holdings through an informal survey.
- n. Participatory land use plan at GV level.
- o. Land holding consolidation into a customary estate (several options, tenancy in common, in form of trust).
- p. Once land consolidation is completed, systematic process of registering the resulting family/household/individual parcels, outside of the commercial block but within the GV boundary, as private customary estates.

Appendix 11 Information Booklet SVIP