



Government of the Republic of Malawi

Ministry of Water Development and Irrigation
National Water Development Programme

Independent Environmental Impact Assessment for the Upgraded
Kamuzu Barrage

**Final Resettlement Action Plan
Volume 2 – Record of Consultation**



July 2013

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List of ESIA Documents

Volume 1: Main Report - ESIA

This is the “stand alone” main report addressing the environmental and social impact assessment of the Project and includes a summary of the Environmental and Social Management Plan (ESMP), which has been prepared as a separate document. The specialist reports in Volume 2: Annex to the Environmental and Social Impact Assessment (Annexe to the ESIA) need only be consulted if a reader wishes to follow-up the specialist studies undertaken to complete the ESIA.

Volume 2: Annex to Main Report

1. Fisheries Report
2. Assessment of Wildlife Impacts
3. Vegetation Assessment
4. Water Quality Assessment

Environmental and Social Management Plan (ESMP)

The ESMP is a stand-alone document, which addresses mitigation measures, monitoring and institutional arrangements for the environmental management of the Project. One part of the ESMP is the environmental monitoring program, which provides input to management decisions that may be taken during construction and operational phases. It provides the basis for evaluating the efficiency of mitigation and enhancement measures and suggests further actions that need to be taken to achieve the desired Project outcomes.

Resettlement Action Plan

The Resettlement Action Plan (RAP) is a separate report to support the ESIA. It identifies resettlement and compensation issues and provides a compensation framework. The findings and recommendations have been included in the Main ESIA.

Volume 1: Main Report - RAP

This is the main report addressing the legal and policy framework, entitlement framework, institutional and organisational framework, monitoring and evaluation, grievance procedures and costs related to Project resettlement / compensation.

Volume 2: Annex to the Resettlement Plan (this Report)

1. Record of Consultation

Abbreviations

ADC	Area Development Committee
AEC	Area Executive Committee
AICC	African Institute of Corporate Citizenship
AIDS	Acquired Immuno-Deficiency Syndrome
ARET	Agricultural Research and Extension Trust
BoQ	Bill of Quantities
BWB	Blantyre Water Board
CADECOM	Catholic Development Commission in Malawi
CARD	Churches Action in Relief and Development
CBO	Community Based Organisation
CEMP	Contractor Environmental Management Plan
CS	Construction Supervision
DC	District Commissioner
DDP	District Development Plan
DEC	District Executive Committee
DESC	District Environmental Sub-committee
EA	Environmental Assessment
EAD	Environmental Affairs Department (Malawi)
EIA	Environmental Impact Assessment
ESMP	Environmental and Social Management Plan
ESCOM	Electricity Supply Corporation of Malawi (Ltd)
FAQs	Frequently Asked Questions
FGD	Focus Group Discussion
GVH	Group Village Headman
HEP	Hydro-electric Project
HIV	Human Immunodeficiency Virus
HRWL	Highest Regulated Water Level
IAPs	Interested and Affected Parties
IDA	International Development Association (of the World Bank)
IUCN	International Union for Conservation of Nature
LMLC	Lake Malawi Level Control
M	metres
m ²	square metres
masl	metres above sea level
MCC	Millennium Challenge Corporation
MoWDI	Ministry of Water Development and Irrigation (formerly, Ministry of Agriculture, Irrigation and Water Development)
MS	Microsoft

MW	Mega Watt
MWK	Malawi Kwacha
NAPHAM	National Association of People Living with HIV Aids in Malawi
NGO	Non Governmental Organisation
NSO	National Statistical Office
NWDP	National Water Development Project
NWDP II	Second National Water Development Project
OD	Operational Directive of the World Bank
OP	Operational Policy of the World Bank
PAP	Project Affected Person
PDI	Participatory Development Initiative
PRA	Participatory Rural Appraisal
RP	Resettlement Plan
RPF	Resettlement Policy Framework
SE	Supervising Engineer
SEP	Socio-economic Profile
SIA	Social Impact Assessment
SME	Small and Medium Enterprise
SMEC	Snowy Mountains Engineering Corporation (Australia)
SRBMP	Shire River Basin Management Project
STA	Sub-Traditional Authority
STIs	Sexually Transmitted Infections
TA	Traditional Authority
TCE	Technical Committee on Environment
TCPC	Town and Country Planning Committee
ToR	Terms of Reference
VDC	Village Development Committee
VH	Village Headman
VPCC	Village Protection Civil Committee
WB	World Bank
WESM	Wildlife Environment Society of Malawi

1 Stakeholder Consultation

1.1 Introduction

Environmental and socio- economic impact assessment cannot give meaningful results if stakeholders both directly and indirectly affected, are not consulted. As part of the environmental and social impact assessment (ESIA) process and resettlement action plan a comprehensive stakeholder engagement program was developed and implemented, based on international best practice. The consultant and staff from MoWDI identified a range of individual stakeholders and stakeholder groups- from senior government to local community members. Those consulted included:

- People who are potentially affected by the Project, both those who are potential beneficiaries and/or those who are potentially disadvantaged;
- Officials from relevant ministries and government agencies;
- Officials from local administration- relevant bureaus and departments, municipalities and community associations
- Community members, including village leaders and women who are familiar with the local communities, the social and economic environment and sites of religious and/or cultural importance that may be affected by the Project;

The selection of districts that were consulted for the Project was based on proximity to the Shire River, Lake Malombe and Lake Malawi. The districts selected were Nsanje, Chikhwawa, Blantyre, Zomba, Balaka, Machinga (along the Shire River), Mangochi (Lake Malawi and Malombe) and Salima (Lake Malawi).

1.2 Objectives

The primary aim of the stakeholder consultation was to solicit public views and concerns on the project, explore ways of avoiding or minimising all concerns and to reach a consensus that all concerns have been adequately addressed. The approach was to encourage full participation in project implementation by national, district and local authorities and community stakeholders, from the commencement of the process. Furthermore the social impact assessment (SIA) process was to identify, in advance, the potential social consequences of the proposed project so that social issues of operational relevance inform project design. The SIA was guided by the following principles:

- Implementation as an integral part of project preparation and not as a freestanding operation.
- Identification of a range of relevant stakeholders so that their views can be taken into account in the final project design.
- Identification of the key social issues (constraints and opportunities) to be taken into account in project preparation.
- Full community participation to enhance (a) the legitimacy of the overall investigation; (b) the social development potentials of the Project; and (c) the capacity of affected persons to collaborate in the subsequent implementation of the Environmental and Social Management Plan (ESMP) and Resettlement Action Plan (RAP).
- Identification of appropriate participation, delivery, mitigation and impact management mechanisms and procedures for incorporation into the ESMP.

Key outcomes from the consultation have aided in the identification of potential impacts and development of mitigation measures as detailed in ESMP. Mitigation measures have been identified with community input.

This stakeholder consultation has further informed the RAP for the Kamuzu Barrage upgrading. Affected individuals that have been identified were requested to indicate their resettlement (where applicable) and compensation preferences, the outcomes of which are included within this report. The aim of public consultation for the RAP was to:

- Disseminate concepts for proposed project activities with a view to provoking project interest amongst the communities;

- Promote sense of ownership for the project and resettlement activities;
- Determine communities' willingness to contribute in kind towards the implementation of the project and;
- Determine community willingness to contribute towards long term maintenance of Project facilities.
- Report preparation will occur according to the standard outline/table of contents as detailed in OP 4.12 (Involuntary Resettlement) of the World Bank.

1.3 Stakeholder Consultation Methodology

The consultation methods for the consultation process varied depending on the stakeholder and the information sought. Generally, Participatory Rural Appraisal (PRA) methods were applied that allowed for a wider participation of stakeholders within a short period of time. The consultation methods included:

- Public and community meetings;
- Individual Consultation;
- Focus group discussions (5- 25) persons;
- Socio-economic household survey. A sample of households and other stakeholders directly affected by the Project (including upstream and downstream areas);
- Compensation and resettlement assessment and survey was completed for households and other groups such as tourist facility owners whose assets will be affected by the project.

This varied approach ensured that there was an open and interactive communication between stakeholders, that minority groups and women were fairly represented, and that there was a framework for effective disclosure to all relevant stakeholders.

Public consultation formed an integral part of the process used for gathering data, understanding community and individual preferences, selecting project alternatives, and designing viable and sustainable mitigation and compensation plans. It was included in the planning and design phases as well as during implementation. This included meetings with local government, which were held prior to field survey work being undertaken in order to brief relevant stakeholders about the project objectives and activities. Particular attention was paid to local attitudes towards the project; to compensation preferences and mitigation measures, as well as to the long-term monitoring of the project.

Additionally representatives of the relevant villages and interest groups were included in the operational activities of the social/resettlement surveys. This ensured local participation in the collection of data, as well as ensuring that local knowledge regarding land tenure, livelihood activities, gender etc. was appropriately included in the surveys.

1.3.1 Public and Community Meetings

A number of public and community meetings were held in order gain the opinions, concerns and suggestions from stakeholders including different communities in project affected districts and specific meetings with project affected persons in Liwonde. The meetings include one to present the terms of reference for the ESIA, town council meetings which had been organised by MoWDI located in Liwonde and community meetings organised and run by the Consultant. Community meetings had up to 400 participants attend to provide their opinions and find out about the Project.

Participants were provided with project information and these meetings were held in all 8 districts during October 2011 - April 2012. Outcomes are presented in **Table 6** (EIA Meeting), **Table 7** (Liwonde Town Council Meeting) and **Table 13** (Public meetings with communities) and the list of communities consulted is presented in **Table 1**.

Logistical arrangements and announcements were made well in advance to ensure wider attendance and participation of communities. Local assistants were used to help organise the meetings that were cleared through the authorities at village level.

1.3.2 Individual Consultation

Individual meetings were held with national and district level government officers as well as one business, Sucoma Sugar Plantation. These meetings included a Project briefing and provided an opportunity for stakeholders to raise their concerns and express their views and suggestions. This type of consultation has been undertaken from October 2011 - April 2012. A full list of stakeholders consulted is included in **Table 1**. Outcomes for the various stakeholders are presented in **Table 8** (National level stakeholders), **Table 9** (District/ Regional level stakeholders) and **Table 10** (Businesses).

1.3.3 Focus Group Meetings

Focus groups were used at the community level as a forum to achieve three main objectives:

- To facilitate the dissemination of information about Project activities;
- To provide an opportunity for stakeholders to ask questions or voice concerns; and
- To gather information/input from stakeholders based on their local experience and knowledge.

Fourty two (42) Focus group discussions were undertaken within all districts potentially affected by the project: Balaka, Blantyre, Chikhwawa, Machinga, Mangochi, Nsanje, Salima, and Zomba. Consultation was undertaken in October – November 2011. It included villages in along the Shire River, Lake Malombe and Lake Malawi. A copy of the focus group questions asked in included in **Appendix 1**.

The consultation involved district councils and representatives of village leaders, men, women and community based organisations. Within these FGD's a range of occupational groups were represented. A full list of the communities consulted is presented in **Table 1**, for consultation outcomes see **Table 11** (District Councils), **Table 14** (Village Chiefs), **Table 15** (Women), **Table 16** (Men), **Table 17** (CBO's) and **Table 18** (NGOs).

1.3.4 Socio- Economic Survey

The socio-economic household survey was conducted during October and November 2011 to capture the socio-economic profile of the people living in the vicinity of the Shire River and Lake Malombe and Malawi. The survey collected baseline information on the following topics:

- Household composition (age, gender, educational and employment status for each household member);
- Construction material of the house and details of assets;
- Access to health facilities and health status;
- Income and expenditure patterns;
- Agricultural and other economic activities;
- Access to and use of community services and facilities and natural resources; and
- Status of women.

A copy of the survey is included in **Appendix 2**.

The procedure for preparing the survey and identifying the households was as follows:

Phase 1: Formulation of the Survey Instrument (Socio-Economic Survey Questionnaire) and Pre- testing.

Phase 2: Identification of the Study Area and Formulation of Sampling Procedure/Methodology. This included the selection of districts, which was based on proximity to the Shire River, Lake Malombe and Lake Malawi. The districts selected were Nsanje, Chikhwawa, Blantyre, Zomba, Balaka, Machinga (along the Shire River), Mangochi (Lake Malawi and Malombe) and Salima (Lake Malawi). From this the villages were selected based on village listings at the district level. The villages were randomly selected from a listing of those that were along the Shire River or along Lakes Malombe and Malawi. From this households, were further randomly selected.

Phase 3: Recruitment and Training of Field Interviewers/Enumerators and Supervisors.

Phase 4: Actual Field Data Collection/Survey Work.

Phase 5: Data Entry and Data Analysis.

Phase 6: Report preparation on Socio-Economic Survey Findings

For this project 520 socio-economic household questionnaires were conducted in the 8 potentially project affected districts. Details of the number of surveys conducted in each village are in **Table 2**.

1.3.5 Compensation and Resettlement Assessment and Survey

The project affected persons (PAP) assessment and surveys were undertaken in February 2012 and revised in June 2013 and covered property that would be directly affected by construction works, either permanently or temporarily. The identification of the PAPs was based on the consultant's current designs and the likely structures (private and public) to be affected by construction, both permanently and temporarily. The assessment was undertaken in line with the requirements of the Government of Malawi draft Resettlement Policy Framework (RPF) for the Shire River Basin Management Project (SRBMP) and the World Bank Operational guidelines (OP 4.12) regarding involuntary resettlement. The consultation process included the following:

- Consultation with the design consultant prior to the administration of the questionnaire to verify the assets likely to be affected;
- Discussion with the District Commissioner and Town Council Executive Officer which aimed to facilitate the meeting with PAP's and to further clarify any outstanding issues on previous consultations (Outcomes in **Table 9**);
- Meeting with PAP's at the Liwonde Town Council Office to further discuss the implications of Upgrading the Kamuzu Barrage (Outcomes in **Table 12**);
- Meetings with the regional Lands Physical Planning Office to obtain more information on development and ownership of plots (**Table 9**);
- Administration of a household census for the people affected (See **Appendix 3** for the survey).

Nine households/businesses were originally surveyed in 2012 as PAP's with an additional eight identified in June 2013 as being affected, bringing the total households/businesses affected to seventeen (17); the households included small business owners, including those using a government owned shelter as a site for their business and the owners of the Shiri Lodge and Shire Camp. Of these, the two commercial properties will be permanently affected. Construction works will affect the other households temporarily. See **Table 3** for details of households affected. The remaining assets affected are all government owned.

Further assessment was undertaken to measure the size of the areas and assets impacted by the project sites- specifically the temporary work camp, permanent administration building, Shiri lodge, Shire Camp, government owned shelter and the locations of the weed collection points. See **Section 6** of the RAP for more information on potential impacts.

1.4 Stakeholders Consulted

The majority of stakeholder consultation was undertaken during October 2011- February 2012. A summary of the stakeholders engaged is provided in **Table 1**. Some photos of the meetings held are provided in **Appendix 4**.

TABLE 1. STAKEHOLDERS CONSULTED

Stakeholder Level	Consultation Type	Consulted Stakeholders
National Government Officials	Public Meetings	<ul style="list-style-type: none"> • Ministry of Agriculture, Irrigation, Water Development (Proponent) • Department of Environmental Affairs • National Water Development Board (NWDP) • Roads Authority • Department of National Parks and Wildlife

Stakeholder Level	Consultation Type	Consulted Stakeholders
	Individual Meetings	<ul style="list-style-type: none"> • Ministry of Agriculture and Food Security • Department of Surveys • Roads Fund • Ministry of Land and Housing • Department of Environmental Affairs
District/Regional Officials/Organisations	Public Meetings	<ul style="list-style-type: none"> • Southern Region Water Board • Liwonde National Park • Blantyre Water Board • Liwonde Town Council • Liwonde Town Planning Office • Environmental District Officer, Machinga District • Office of the President and Cabinet- Liwonde • Office of the President and Cabinet – Machinga District Council • Executive Officer, Machinga District • Executive Officer- Liwonde Town • Marine Police, Liwonde
	Individual Meetings	<ul style="list-style-type: none"> • Nkula Power Station • Blantyre Water Pumping Station, Blantyre Water Board • Marine Police Unit, Liwonde • District Commissioner, Machinga District Council • Director of Planning and Development, Machinga District Council • Environmental District Officer, Machinga District Council • District AIDS Coordinator, Machinga District Council • District Lands Officer, Machinga • District Commissioner, Balaka District Council • Director of Planning and Development, Balaka District Council • District Lands Officer, Balaka District Council • Logistics Officer, Balaka District Council • Director of PWP, Balaka District • Assistant Disaster Management Officer, Balaka District Council • District Commissioner, Mangochi District Council • District Commissioner, Machinga District Council • Director of Planning and Development, Machinga District • Acting Regional Commissioner for Physical Planning, Zomba District

Stakeholder Level	Consultation Type	Consulted Stakeholders
		<ul style="list-style-type: none"> • Planning Technician Regional Lands Physical Planning Office, Zomba
District Councils	Focus Group Discussion	<ul style="list-style-type: none"> • Blantyre <ul style="list-style-type: none"> ○ Director of Planning & Development ○ District Forestry Officer ○ District Fisheries Officer ○ District Water Development Officer ○ District Land Officer ○ Irrigation Engineer • Zomba <ul style="list-style-type: none"> ○ Environmental District Officer ○ Monitoring & Evaluation Officer ○ District Labour Officer ○ District Fisheries Officer (Fisheries) ○ District Agriculture Development Officer ○ Senior Assistant Information Officer (SAIO) ○ Disaster Management Officer (Disaster) • Chikhwawa <ul style="list-style-type: none"> ○ Monitoring & Evaluation Officer ○ District Fisheries Officer ○ District Aids Coordinator ○ Transport Officer ○ Assistant District Registrar ○ District Forestry Officer ○ Environmental District Officer ○ Acting Lands Officer ○ Assistant Disaster Reduction Officer • Nsanje <ul style="list-style-type: none"> ○ District Commissioner ○ Monitoring & Evaluation Officer ○ Crops Officer ○ Fisheries Officer ○ Lands Resources Officer ○ District Agricultural Development Officer ○ Head Clerk

Stakeholder Level	Consultation Type	Consulted Stakeholders
		<ul style="list-style-type: none"> ○ Irrigation Officer <hr/> <ul style="list-style-type: none"> ● Balaka <ul style="list-style-type: none"> ○ Assistant District Forestry Officer ○ Lands Officer ○ Senior Agriculture Lands Resources and Crops Officer (SALRCO) ○ Acting Agriculture Extension and Development Officer ○ Assistant District Disaster Risk Management Officer (ADDRMO) ○ Logistical Officer <hr/> <ul style="list-style-type: none"> ● Mangochi <ul style="list-style-type: none"> ○ Lands Officer ○ Disaster Management Officer ○ District Agriculture Development Officer ○ Irrigation Officer ○ District Fisheries Officer ○ District Forestry Officer ○ Monitoring & Evaluation Officer ○ Environmental District Officer <hr/> <ul style="list-style-type: none"> ● Salima <ul style="list-style-type: none"> ○ Director of Planning and Development ○ M & E Officer ○ Assistant District Registrar ○ Environmental Health Officer ○ Senior Assistant Land Conservation Officer ○ District Forestry Officer ○ Lands Desk Officer ○ District Water Officer

Stakeholder Level	Consultation Type	Consulted Stakeholders
		<ul style="list-style-type: none"> • Machinga <ul style="list-style-type: none"> ○ Director of Planning and Development ○ Assistant District Disaster Risk Management Officer ○ Lands Officer ○ Deputy District Water Officer
Businesses	Individual Meetings	<ul style="list-style-type: none"> • Sucoma Sugar Plantation
Environmental Groups	Public Meetings	<ul style="list-style-type: none"> • Wildlife Environment Society of Malawi (WESM)
Non-Government Organisations	Public Meetings	<ul style="list-style-type: none"> • Participatory Development Initiative (PDI)
	Interviews	<ul style="list-style-type: none"> • GOAL Malawi • Churches Action in Relief and Development (CARD) • Save the Children • Chikhwawa Diocese WALA Program • Population Services International - Malawi
Community Members	Public Meetings	<p>Public meetings were held in the following communities:</p> <ul style="list-style-type: none"> • GVH Chimphwembwe, Nsanje • GVH Mphamba, Nsanje • GVH William, Blantyre • GVH Ngwaya, Blantyre • GVH Nseule, Blantyre • GVH Mpilisi, Balaka • GVH Chimwala, Mangochi • GVH Dalamkwanda, Salima • GVH Nyamula, Nsanje • GVH Mlooka, Zomba • GVH Chabwera, Machinga
Community Leaders	Focus Group Discussion	<p>Focus group discussions were held with group village head (GVH) representatives from the following communities:</p> <ul style="list-style-type: none"> • Various parts of Nsanje: <ul style="list-style-type: none"> GVH Tengani GHV Mpangira Sub-Traditional Authority Tengani GVH Nyanthumbi GVH Dumba

Stakeholder Level	Consultation Type	Consulted Stakeholders
		<p>Sub-Traditional Authority Malemia GVH Chikhawo GVH Dinala GVH Mbangu GVH Magulugulu GVH Malemia 1 GVH Malemia 2 GHV Mthumba GVH Mchacha GVH Kalumbi Senior GVH Kachere GVH Chazuka GVH Mpomba GVH Chiphwembwe</p> <ul style="list-style-type: none"> • GVH Chimphwembwe, Nsanje • Ulemu Village, Chikhwawa • GVH Kachakwala, Blantyre • GVH Masinde, Blantyre • GVH Chabwera, Machinga • GVH Mlooka, Zomba • GVH Mtuwa, Mangochi • GVH Kunkhongo, Salima
Community Members - Women	Focus Group Discussion	<p>Focus group discussions with women from the following group village heads (GVH) and individual villages:</p> <ul style="list-style-type: none"> • GVH Mmembe, Nsanje • GVH Nyamula, Nsanje • GVH Ngabu, Nsanje • GVH Mbenje, Nsanje • GVH Namila, Chikhwawa • Ulemu Village, Chikhwawa • Njeleza Village, Chikhwawa • GVH Chiphazi, Chikhwawa • GVH Masinde, Blantyre • GVH Kachakwala, Blantyre • GVH Ngwaya, Blantyre • GVH Mlooka, Zomba • GVH Liundi, Machinga • GVH Chabwera, Machinga • GVH Maliro, Mangochi • GVH Kunkhongo, Salima

Stakeholder Level	Consultation Type	Consulted Stakeholders
Community Members - Men	Focus Group Discussion	Focus group discussions with men from the following communities: <ul style="list-style-type: none"> • GVH Mbenje-1, Nsanje • GVH Mmembe 2, Nsanje, 12 men (not in same community as GVH Mmembe1) • GVH Nyamula, Nsanje • GVH Mphamba, Nsanje • Namila Village, Chikhwawa • Njeleza Village, Chikhwawa • GVH Masinde, Blantyre • GVH Liundi, Machinga • GVH Mtuwa, Mangochi
Community Members	Socio Economic Survey	Conducted in all eight project affected districts, details listed in Table 2 .
Community Members	PAP Census	Conducted in the construction footprint for the Project, details listed in Table 3 .

TABLE 2. HOUSEHOLD SURVEYS BY DISTRICT

District	Village	Total
Balaka	M'manga	22
	Mmanga	1
	Mpilisi	26
Blantyre	Kachakwala	11
	Masinde	12
	William	18
Chikhwawa	Chiphazi	13
	Matope	1
	Namila	5
	Njeleza	7
	Salumeji	11
	Ulemu	12
Machinga	Chabwera	15
	Kaudzu	33
	Liundi	23
	Liwonde	8
	Massi	1

District	Village	Total
	Mpalira	14
	Mzingala	10
	Sitola	6
Mangochi	Chimwala	4
	Chipeta	1
	Chiwaula	21
	Maliro	24
	Mtenje	1
Mangochi	Mtonda	1
	Mtuwa	3
	Mwalabu	17
	Mwenechande	17
Nsanje	Chimphwembwe	5
	Chimphwembwe	1
	Mbenje	8
	Mnembe	9
	Mphamba	10
	Mnembe	2
	Nyamula	15
Salima	Dalamkwanda	46
	Kunkhongo	26
	Mgawi	1
	Mkwanda	1
Zomba	Mlooka	56
Total		520

TABLE 3. COMPENSATION AND ASSET SURVEY DETAILS

Household / Business	Name of Business Owner	Ownership Type	Asset ¹	Impact
1	Steve Njovuyalema Moyo	Owner	Shiri Lodge- restaurant and hotel	Permanent
2	Mr Billy Mphande	Owner	Shire Campe - accommodation and boat tours	Boat access permanent
3	Felix Mwawa	Owner	Building- grocery shop and barber	Temporary
4	Liwonde Town Assembly	Owner	Market Shelter	Temporary
5	Inusa Matola	Tenant	Market Shelter	Temporary
6	Jackson Moote	Tenant	Market Shelter	Temporary
7	Shaibu Matemba	Tenant	Market Shelter	Temporary
8	Joseph Master	Tenant	Market Shelter	Temporary
9	Symon Laison	Tenant	Market Shelter	Temporary
10	Francis Phiri	Tenant	Market Shelter	Temporary
11	Damiano Makina	Tenant	Market Shelter	Temporary
12	Aufi Daudi	Tenant	Market Shelter	Temporary
13	Mussa Mabuka	Owner	Bicycle Shed	Temporary
14	Innocent Sanudi	Owner	Chips Shed	Temporary
15	Adine Mponda	Owner	Meat Roasting Shed	Temporary
16	Lucius Banda	Owner	Land	Temporary
17	Daniel Chipeta	Owner	Land	Temporary

1. All the affected assets are in the vicinity of the Barrage construction and work sites. The list excludes assets of Government Institutions.

2 Consultation Outcomes by Issue

During the consultation with stakeholders a wide range of issues were raised. These ranged from the importance of the Shire River, drought and river flow, project impacts, communication strategies and impacts on livelihoods. Key concerns raised by communities were:

- Rise in water levels affecting crops, particularly 'dimba farming' located close to the river;
- Damage to buildings at the barrage site, both public and private;
- Increase in animal/human conflict, especially hippos and crocodiles as the River extends;
- Potential increase in STI's close to the construction site; and
- Loss of income from garden rentals by owners.

Key positive impacts perceived were:

- Employment for local residents;
- Improvement in local business from cash injection by the project workers, quarry and sand purchases;
- Increased electricity supply; and
- Increased water levels, which may facilitate irrigation farming and increase agriculture production downstream.

A summary of key stakeholder outcomes is presented below.

2.1 Importance of the Shire River and Lakes Malawi and Malombe

From discussions with communities it was revealed that the lives of the people and the river were tightly interconnected. For many communities, the river and the lakes are considered to be the main, if not the only source of their livelihood. The dependence is such that if anything happened that 'took the river or lake away' from the people, many would become destitute as it would be similar to uprooting their livelihoods. Sentiments such as the following were illustrative of this fact: 'ndi mgodi wathu wa golide'- it is our gold mine. The Shire River and Lakes Malawi and Malombe, are important to those living in their vicinity for a number of reasons, the most common were:

- Source of water for agricultural activities-irrigation
- Source of agricultural winter cropping. The wetlands provided after flooding are fertile and important for production, they can often be more productive than those further away from the river;
- Source of fish for food;
- Source of employment- catching and selling fish;
- Source of water for domestic use-washing, drinking;
- Source of natural resources such as sand for building (Lake Malawi) and reeds and other materials (Shire River) for mat making that are sold or used in the homes;
- Grazing land for animals;
- Tourist attraction; and
- Transportation across the lake (e.g. to Makanjira in Mangochi District from Salima) or river to access amenities such as hospitals and family relations.

Effectively any activity, which results in the loss of fishing opportunities or declining fish stocks or farming resources such as wetlands, will affect people negatively. Any increase in these opportunities or resources bolsters the livelihoods of the population along the Lake and Shire River.

2.2 Changes in Water Flow – Droughts and Floods

Changes in the Lake and River levels affect those who rely on these sources for water supply. Through the community consultation process it was found that drought had occurred anywhere between 2-4 times during the last decade. In the southern most districts of Nsanje and Chikhwawa, the frequency of droughts was reported to be at least four times in the past ten years. In some communities it was reported that drought was a yearly occurrence, and that during those years the Shire River becomes very important for food production, fishing and casual work for most households. All the communities visited mentioned drought years that were consistent with those that had affected the whole country; most common cited were those of 2001-2002 and 2005-6 which were severe and affected many people in the country, especially in regard to food production and availability.

It was also perceived that in many areas the water levels had gone down in recent years compared to the past. Communities downstream had observed that the water levels had gone down. It was suggested that possible reasons for this were changes in climate such as drought conditions as well as the construction and operation of the barrage. Some mentioned that since the barrage was constructed, the river had receded steadily.

Stakeholders further mentioned flooding which occurs in the rainy season as well as when the barrage gates are opened. This flooding mostly affects populations along the Shire River and can have both positive and adverse impacts. Depending on the level of flooding this can damage crops and some property; the impacts are greater for communities living in an area where tributaries for rivers, particularly the Chivili River feed into the Shire River. Positive impacts from flooding occur when the waters recede two to three months after the flooding. This process leaves behind wet and fertile grounds that are used for cultivating various crops and is commonly called 'dimba' farming. In Nsanje and Chikhwawa, it was indicated that yields are higher from these flooded lands than those further from the River.

There was some concern that the barrage operation might decrease water levels downstream, while there would be an up swell (*nthutumule*) upstream. If water levels decreased downstream irrigation farming would be negatively affected, especially where water cans and treadle pumps are used. It was also suggested that if this occurs, more and more people would move further (cultivation) into the river bed/ lake shores, and therefore face increased risks when occasional flooding happens, especially during the rainy season. It was felt by stakeholders that if the Project manages this aspect, that livelihoods can be improved naturally both up and downstream. It was suggested that for the type of occasional flooding that is due to the operation of the Barrage, there appeared to be a need for education and communication regarding periods when gates would be opened as for the most part, there was no warning and some people had lost crops in the past due to these floods. It was also found through consultation that many communities were unaware of the buffer zone for the River reserve or that land in the river reserve was being leased out or sold. This results in an increased number of farmers using land close to the River, increasing the risk from floods. Further communication about the Project and its affects should also include information about the River buffer zone.

2.3 Impacts on Livelihoods and Employment / Business Opportunities

In relation to impacts on water levels and flow, a number of stakeholders raised concerns about impacts on livelihoods up and downstream of the Barrage. There was concern that parts of gardens, pasture lands and 'dimba' land especially that which is close to the River may be damaged alongside crops such as bananas, sugarcanes and fruit trees as the water level rises, which would affect livelihoods. It was also mentioned that the loss of 'dimba' land would reduce rental income by owners. If livelihoods are affected, restorative measures should be in place to mitigate affects. Communities suggested both land for land exchanges and cash measures as suitable compensation.

Stakeholders also perceived that employment for local residents and increase in local business would be a positive impact for those living close to the Barrage in Liwonde.

2.4 Health and Safety Issues

In relation to health and safety issues, stakeholders raised a number of issues and concerns. One key concern was about hippos and crocodiles in the Shire River. While there was appreciation for the attraction of wildlife afforded by the River and Lakes, there were also grave concerns about the conflict that arises between hippos, crocodiles and human populations and a fear that if the river extends the potential for animal/

human conflict will increase. Most of the communities visited along the Shire River and lakeshores stated that they depended on these water sources for domestic use, due to a lack of potable water. As a result, communities had concerns that should water levels increase downstream as a result of the raised Barrage, it may lead to an increased risk of crocodile attacks, especially for women who collect the water. This concern was reported in all communities, with some communities (e.g. TA Chimwala) reporting recent incidences where hippos have caused extensive damages to crops. There were also recent examples of people being killed or harmed by crocodiles e.g. TA Mponda. There were requests from communities that there be avenues to submit grievances to the Government about this issue.

There were also some concerns raised that the influx of workers into the Project location could increase disease transmission, including STI's/ HIV. To address this it was suggested that the project prioritize local residents for aspects of the work whose skills can be found locally e.g. non-skilled and semi-skilled work, which would also increase benefits for the community and to also provide sexual and reproductive health/ HIV and AIDS education during project implementation.

2.5 Resettlement and Compensation

Anything that causes changes to the River or Lakes inevitably affects the pattern of life and livelihoods in the areas along the banks/shores. Should the changes affect the Shire River and Lakes be adverse, livelihoods that will be affected are likely to extend beyond those directly affected through loss of property due to the inter-connection between various activities such as farming and fishing (e.g. food availability in the area) and the employment that these activities generate. On the other hand, should the changes have a positive effect; livelihoods will be enhanced for the same reasons.

Those directly affected through loss of property were said to require immediate support. Types of support mentioned by communities included compensation for those affected, equivalent in value to what has been lost and not relief as has been the case before for when flooding damaged crops and gardens. This compensation should include money to construct damaged property and income loss in the case of buildings used for business e.g. rentals for the period of disruption. In addition, for private business property's that will need to be demolished permanently due to the project, new sites should be identified for those affected. For loss of crops, land and other property in gardens such as fruit trees, these should be appropriately valued and the owners compensated accordingly. It was mentioned that there are aspects that will require the involvement of local chiefs in cases where there is loss of gardens due to water inundation.

For those consulted within the construction footprint of the project, and who have been identified as PAP's, all indicated that they would like to be paid compensation in cash. It was expected that any adverse impacts arising from the River changes due to the upgrading of the Barrage will be addressed by the Government (MoWDI).

2.6 Project Impacts on Transport Routes

Lakes Malawi and Malombe and the Shire River are important for transportation. During community consultation it was found that parts of the river and lakes are used as crossing points (dooko). In Nsanje, Zomba and Balaka, points are connected along the Shire River. In Salima and Mangochi, there are links along Lakes Malawi and Malombe, including traffic to Makanjira and Cape Maclear, respectively. People move between these places for trade purposes and health services. In Nsanje, movement is between Malawi and Mozambique, mainly for farming purposes for the Malawian population, while the Mozambican population crosses to Malawi to access health services. There were also cases where the River linked relations across districts (e.g. Zomba and Balaka) and where some people commuted across the River to gardens or familial relations on the other side of the River.

The assessment team learnt, however, that there is a new development where Malawians have been asked not to farm across the Shire River in Mozambique and that there was now pressure on the land along the river on the Malawian side. In view of this, the prospect of proposed upgrade of the Barrage tended to heighten fears that the people will now be 'squeezed from both ends' should there be damage to land on the Malawian side of the river. However, these fears were based on incomplete information and reinforced the need for a systematic communication campaign in regard to the proposed project.

In the above connection, there are some people who have invested in water transportation facilities in the form of canoes. Those running canoes make between MWK800-1,000 per day transporting people and goods

across the Shire River. Bigger boats that travel across Lake Malawi and Malombe make much more money with their vessels than those that run the canoes.

It was raised that the project might impact some of the crossing points if they are inundated and become unusable. If this occurs, there may need to be the creation of new docking points. This could potentially lead to a loss of income for those that depend on providing transport services via canoes as they adjust to new docking points as well as a disruption of the river/lake transportation system for the general populace. Furthermore, it may negatively affect trade due to the reduced movement of goods. These aspects should be monitored and communicated adequately to the affected population.

2.7 Communication between Governments and Community

Community consultation also discussed the existing mechanisms for communication between the community and Government authorities. This follows a decentralized framework where issues work through the villages or areas to the local leaders (Village or Group Village Headperson), to the Traditional Authority (TA) or Sub-Traditional Authority (STA), and finally to the District Commissioner. The underlying institutional structure is the Village Development Committee (VDC) that operates at a village level combining with a number of villages the Area Development Committee (ADC) that aggregates issues at the TA/STA level before being channelled to the District Council.

Information would ordinarily pass through the same channels back to the community. However, across all communities there were concerns that this channel is somewhat slow, and for some issues non-functional. There are considerable delays in getting feedback from Government officials. For some issues, there is no feedback at all, and this is a cause of mistrust between the communities and state structures. For communication between the Government and communities a more effective strategy needs to be devised.

2.8 Priority Development Issues in the Communities Consulted

The most common issues cited by communities amongst those consulted had to do with access to basic services and food insecurity. A review of the socio-economic profiles made available to the assessment team revealed that the development issues mentioned have also been recognized by the District Councils and are part of the District Development Plans. In some communities, there appeared to be some disenchantment with the many requests by 'people like you' to prioritize community needs and then nothing comes out of these suggestions.

The following list of issues recurred from community to community, with differences observed only in the rankings in order of priority.

- Lack of Potable Water: either water is salty when it is available in bore wells (Nsanje and Chikhwawa) or there are few water collection points;
- Limited access to social services: either facilities are too far or cannot be easily accessed because of lack of bridges on some of the main tributaries into the Shire River. These services were mainly health, education, maize mills and markets;
- Food Insecurity: due to poor harvest, high food prices and limited capability at household level to find money and other resources to purchase food when own production is inadequate;
- Low Literacy levels: either classes had been discontinued where they existed before due to lack of teachers as volunteer teachers drop out or they had not been initiated yet;
- Insecurity of property: incidences of theft were reported, especially for cattle and other valuable household items. The communities felt there was need for police stations to exert a dissuasive influence on those that are bent on committing crime.

Within the communities consulted, poor access to socio- economic services and food insecurity are key issues. Consequently, should the upgrade impact negatively on these, the situation is likely to be exacerbated and attitudes towards the project would be poor.

2.9 Presence of Non-government Organisations

Many of the communities visited indicated that it was mostly community based organizations that were operating within their locality, mainly looking at issues related to orphans and HIV and AIDS. However, in some communities, there were also some non-governmental organizations operating within the locality.

Five NGOs were contacted as part of the consultation process for the RAP (see also Table 18). These were:

- GOAL Malawi, – focus on livelihood protection and enhancement, health and nutrition;
- Churches Action in Relief and development (CARD) – focus on food security and small scale irrigation, livelihoods, humanitarian response, human rights and governance, water and sanitation, environmental management, and disaster risk management;
- Save the Children – focus on maternal and child health issues;
- Chikhwawa Diocese WALA Program – focus on promoting the reduction of food insecurity among the chronically food insecure households in 6 Traditional Authorities in Chikhwawa District;
- Population Services International, Malawi – focus on HIV/AIDS, and reproductive health.

3 Summary of Key Consultation Outcomes by Group

3.1 Community Stakeholders

The response matrix, **Table 4**, below outlines the key issues raised and suggested in relation to project affects and awareness by community stakeholders according to their stakeholder group. A summary table, indicating how the Project will address key stakeholder concerns is provided in **Table 18** of **Section 4**.

TABLE 4. KEY COMMUNITY CONCERNS ABOUT THE PROJECT

Stakeholder Group	Key issues and concerns	Suggestions
Women	<ul style="list-style-type: none"> <i>Perceived negative affects:</i> The women consulted raised concerns about potential damage to crops, gardens and houses if water levels rose. There were also concerns that women collecting water for domestic use would be at an increased risk from crocodiles as water levels rise. They were also concerned about an increase in STI's within the construction area. <i>Benefits from the Project:</i> Women commented that the benefits from the project would include an increase in small scale business, especially those that sell food to workers in the area, employment opportunities for both men and women and some thought that women would find marriage partners. <i>People most likely to be affected by the Project:</i> Women stated the farmers and fishermen would be affected but it was likely that all communities would be affected because many people rely on the river in some way. <i>Awareness of the Project:</i> None of the 16 groups of women consulted had heard about the Project. 	<ul style="list-style-type: none"> Women recommended that aid and assistance be provided to those who are affected by the project. Requested that barrage operators have more consideration for those downstream of the barrage and to alert people when opening and closing the barrage. Suggested that designated points to collect water be provided to communities as this would reduce accidents and deaths from crocodiles. Women requested that they be notified of the start date and that they be informed of how the project will benefit or affect them. Commented that they did not know about the river buffer zone, as a result they cultivated wherever they liked. Stated that there is a need for an education program about this.
Men	<ul style="list-style-type: none"> <i>Perceived negative affects:</i> Increased water levels could damage crops and houses and result in a loss of land to be cultivated. This could also increase number of crocodiles close to where people live and cultivate. <i>Benefits from the Project:</i> Increased irrigation opportunities, employment with the Project and increased electricity. <i>People most likely to be affected by the Project:</i> Participants stated that those affected would be mostly those living close to the river; however the Project could affect everyone as all rely on the river for livelihoods and food. <i>Awareness of the Project:</i> Only 2 out of 9 	<ul style="list-style-type: none"> Suggested that government and NGOs should provide timely assistance to those affected. This could be food, seeds, cash and land. Barrage gates should be opened from December-March giving people time to harvest and prepare their land for the next cultivating season. Advised that the government should be more aware of the people living downstream as in the past gates have been opened without regard to crops and

Stakeholder Group	Key issues and concerns	Suggestions
	<p>groups of men consulted had heard about the Project prior to consultation. Both had heard about the Project from the radio.</p>	<p>people. Stated that the opening of the gates should not coincide with the rains because this would exacerbate the effects of flooding.</p> <ul style="list-style-type: none"> • Suggested a quicker mechanism for communications between councils and communities, for example Group Village Head – Traditional Authority – District Commissioner.
Village Chiefs	<ul style="list-style-type: none"> • <i>Perceived negative affects:</i> Increased water levels could damage houses, reduce land for livestock grazing, increase hippos and crocodiles in the area and washaway crops which could bring food insecurity. Concerns were also raised about the spread of STI's in the community with the influx of workers for the Project. • <i>Benefits from the Project:</i> Stated that the Project might improve irrigation and hence increase agricultural production. It could improve electricity supply and increased water levels could increase fish numbers. There will also be employment and business opportunities for those close to the Project site. • <i>People most likely to be affected by the Project:</i> Those with farms and gardens close to the River. • <i>Awareness of the Project:</i> Only one community, Chabwera, Machinga had heard about the Project. 	<ul style="list-style-type: none"> • Suggested that ways of containing the Chivili River be found as the flooding of this river increases negative impacts in the area. • Suggested that people affected observe the buffer zone on the river. • Notify people in advance of the Project. • Recommended that people are warned about when the barrage gates are opened to avoid accidents. • Recommended that the Government prepare a plan to assist those whose crops are damaged. • Give priority to local people when employing workers (Machinga). • Introduce more irrigation schemes to help those who cultivate on the river banks.
Community Meetings	<ul style="list-style-type: none"> • <i>Perceived negative affects:</i> Concerned that increased water levels will damage crops and houses, result in decreased grazing land for animals, submerge boat docking points, increase the number of crocodiles in the area and put lives at risk if warning systems are not in place. Raised concerns about increase in diseases such as dysentery, cholera, bilharzias and STI's such as HIV in the construction area. • <i>Benefits from the Project:</i> Potential for increased irrigation for crops and increased levels of fish. Employment opportunities for those close to the Project site. Improvement in electricity supply. • <i>People most likely to be affected by the Project:</i> People who farm close to the River. • <i>Awareness of the Project:</i> Only a few communities had heard a rumour about the 	<ul style="list-style-type: none"> • Recommended that the Government conduct an assessment of all people that will be affected to determine extent of loss and compensate them. This will allow people to prepare i.e. not to cultivate in areas likely to be affected, or move houses if required. • Advised that people should be consulted about the Project before it starts because they rely on farming close to the river. • Suggested that the barrage be opened only after the harvest. • For emergencies, a quick way for reaching the district needs to be identified.

Stakeholder Group	Key issues and concerns	Suggestions
	proposed project.	<ul style="list-style-type: none"> • Suggested that the Government should provide boreholes because most people drink water from Shire River, which is not safe. • Suggested canals are provided for irrigation.
Community Based Organisations	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Gardens, houses and crops may be damaged. • <i>People most likely to be affected by the Project:</i> The whole area will be affected since most people use the river as source of water for domestic use. Those with land and houses close to the river are to be directly affected. • <i>Benefits from the Project:</i> The project will be a source of employment for people. It may also promote irrigation and number of fish • <i>Awareness of the Project:</i> One had heard rumours of the Project. 	<ul style="list-style-type: none"> • Notify the public about the Project. • Involve the Village Development Committee in the Project.

3.2 District Councils

All eight Districts affected by the Project were consulted and their views, concerns and suggestions were collected and helped to inform the design of the Project. Overall district councils recommended that those affected be appropriately compensated, that there should be greater notification about the Project and that those in flood and drought prone areas be closely monitored. They further recommended the enforcement of the river buffer zone. **Table 5** summarises the key suggestions from the District Councils consulted.

TABLE 5. SUGGESTIONS FROM DISTRICT COUNCILS

District	Suggestions
Nsanje	<ul style="list-style-type: none"> • Compensation for those affected by the Project. • People should be informed in advance of any potential risks that may arise from the project. Suggested that a structure involving local leadership to inform people be established. • Stated that frameworks and the execution of resettlements with regard to flooding needs to be strengthened in Malawi. Suggested that this be undertaken by ensuring that households at risk are provided with adequate equipment and materials for building homes. • Suggested that part of the long term strategy should be to encourage and educate people not to farm too close to the river. Thought that enforcement measures may need to be put in place.
Chikhwawa	<ul style="list-style-type: none"> • Suggested that the disaster management structures at the district level (District Civil Protection Committee, Village Civil Protection Committees, etc.) be involved in managing any unexpected damage to property that may be caused by the project and operation of the barrage. • Suggested that results from the ESIA be provided to the districts so that the district commissioner knows how and when to get involved in the process. • Commented that the recommended buffer zone from the river bank is 20-30 metres, but this is rarely adhered to. Stated that there is a need to enforce the recommended river

District	Suggestions
	reserves to avoid encroachment however this is a very difficult process
Blantyre	<ul style="list-style-type: none"> • Advised the need to closely monitor traditionally flood and drought prone areas that may be affected due to changes in water flow as a result of the upgraded barrage i.e. TA Lundu (flooding), Lirangwi area (drought). • Commented that there is little information flow between different agencies and recommended increased sharing of information so that district councils can be more actively involved in issues. • Recommended compensation to all whose crops, houses or gardens are damaged. • Stated that the Lands Acquisition Act needs to be enforced as chiefs are selling land illegally, including that along the River. This has been a source of grievances, especially where one piece of land is sold to more than one person.
Zomba	<ul style="list-style-type: none"> • All those impacted need to be considered, particularly those who might need to be resettled. • Commented that people have not been educated about observing the river reserve and farming along the river banks. Advised that this education needs to be carried out. • Called for a detailed study on environmental impacts of the project- especially the potentially negative impacts. • Recommended that the control of weeds be factored into the Project as increasing water levels will mean more aquatic weeds e.g. typha reeds, hyacinths, upstream.
Balaka	<ul style="list-style-type: none"> • All those negatively impacted should be compensated. • Raised concerns that the rise in waters level will increase the animal-human conflict, especially crocodiles. • Called for the development of an environmental management plan detailing positive and negative impacts, particularly as so many rely on the Shire River.
Mangochi	<ul style="list-style-type: none"> • Commented that the communities and infrastructure along the Shire River and Lake Malombe may be affected by the Project, particularly fishermen and farmers. Those who are affected should receive compensation and the District Council should be involved in the process. • Commented that bi-laws to regulate environmental issues have not been updated and approved since 2006 due to the absence of elected councilors. This can be a constraint for effective environmental management. Recommended that for better long term management of the lakeshores, there is a need to strengthen enforcement mechanisms of laws. • Recommended that traditional leaders be sensitized about the project and their possible roles in the case of disputes arising from damages to land and crops that may necessitate re-allocation.
Machinga	<ul style="list-style-type: none"> • Whether heard about project: There have been rumours over the past five years, but official notification came in November 2011. • Importance of the Shire River: source of income through fishing and sale of fish. Source of business through tourism-wildlife and boat riding. Facilitates irrigation. Source of water for domestic use-Southern Region Water Board gets water from the Shire. • Land Holding System: mostly customary, except in Liwonde Town where land is administered according to statutory requirements by the Government through the District Council/town. Buffer zone is between 25-30 metres from the bank. • Land Acquisition procedure: person identifies land, makes application to DC, stating purpose. Application processed according to land acquisition guidelines that the District Council follows.

District	Suggestions
	<ul style="list-style-type: none"> • Management of Land and Resources along River Banks: there is no particular structure, although a District Environmental Sub-committee exists. Policy coordination is difficult due to conflicting practices between Ministry of Agriculture and Forestry. Buffer zone requirement is not always followed because farmers are looking for residual moisture. Regulation of statutory planning areas made difficult by politicization of issues. • Project Impacts and people likely to be affected: negative-local farmers may lose crops and gardens; houses may be destroyed; Liwonde national park wildlife and vegetation may be affected by rising waters. Positive- Irrigation may be promoted, navigability may be enhanced; tourism facilitated e.g. for the MV Mangunda; employment and business boom locally; Negative animal-human conflicts may increase as the water rises and banks expand in the upstream; influx of sex workers, there may be conflicts where some people may resist resettlement should this be required, damage to houses and business property. • Suggestions: arrange for compensation for those that may be affected or will require relocation; people need to be sensitized about the project and possible consequences, including an emphasis on project benefits; prioritize employment of local people when project starts. • Communication and disaster management structures: there is a disaster management structure from community right up to the district. At community level, we have VCPCs and ACPCs that link to the district VCPC. However, most of these structures at the community level are not fully functional due to limited capacity and resources. In areas where they are working, there is specific support from NGOs such as Immanuel International. The Government should provide funding for capacity building and operations for the disaster management structure as currently the mandates of staff working on disaster management is unfunded. • Grievance Handling Systems: grievances related to land disputes are handled first by chiefs or the Town Council, but ultimately by the Ministry of Lands Regional Office. For damages to property or land, simple assessments are done by the District Council. However, all complex ones are done by the Regional Lands Physical Planning Office. For crops damaged by animals from the National Park, there is no mechanism to redress complaints although the Disaster management framework is applied where damage is extensive (more than 10 Households). • Observed Changes in the River: there was more water in the river in the past than now due to siltation arising from environmental degradation. Turbidity has increased. There has also been an increase in water weeds (hyacinth mainly) in the past 5-10 years. • On-going and Planned Development Initiatives: drilling of bore in six TAs; gravity fed piped water scheme by African Development Bank, rehabilitation of boreholes by the National Water Development Program, the Railway project from Mozambique through Machinga; Wellness through Agriculture and Livelihood Approaches (WALA) in 5 of the 14 TAs in the district (Agriculture, HIV and AIDS, disaster management)
Salima	<ul style="list-style-type: none"> • Whether they had heard about the project before November 2011: The district officers had not heard about the project before November 2011. • Importance of the Lake: source of livelihoods from fishing. Fish business also promotes prostitution. Salima Town relies on fish from the Lake. Business-commercial properties such as hotels along the lake. Transportation means to Makanjira in Mangochi. • Impacts of the project: gardens (through flooding) and houses may be destroyed, especially in drought prone areas such as those in TA Maganga. Evidence from 1978 water up-swell suggests that houses along the lake may be affected. People whose property or gardens will be affected need to be compensated by Government. • Landholding system in the district: most land held under customary system. However,

District	Suggestions
	<p>with developments, some is held under leasehold. Some is public e.g. Forest reserves. Buffer from Lake foreshore is 30 metres. However, enforcement of buffer zone observance is difficult. Compounded by conflict in practices between agriculture and forestry activities-farming too close to the lake in search of moisture versus preserving buffer zone. As a result, there is increased siltation into the water bodies.</p>

TABLE 6. STAKEHOLDER CONSULTATION OUTCOMES FOR WORKSHOP ON PRESENTATION OF TOR FOR INDEPENDENT EIA FOR UPGRADED KAMUZU BARRAGE

Date	Name	Organisation/Position	Remarks/ Suggestions
12 th September 2011	Modesta B Kanjaye	MoWDI Director (Water Resources)	<ul style="list-style-type: none"> • Stated that the EIA Team needs to know Malawi EIA process and should therefore consult with EAD. Recommended that EIA reports along Shire, Lake Malombe and Lake Malawi are reviewed. • Raised that it was important that the EIA teams have maps as soon as possible. • Commented that social issues are not coming out very clearly. Suggested that the ESMP have input from local communities. • Queried what impacts the project will have on river bank structures such as water supply in-take, lodges, hotels and sanitation structures. Recommended that an assessment of land to be affected after re-designing of the Barrage be carried out. • Impacts of the project on the livelihood of fishing communities around or along the Shire River more especially at the barrage should be assessed. • Commented that waste management not coming out clearly – construction and weed. Some of these mitigations may require assessment e.g. weed disposal/ management • Stated that land use should not only focus on aerial pictures, also need to consult Liwonde ADD and Ministry of Lands. • Advised that it needs to be assessed whether the design and operation meets various water-user needs downstream e.g. BWB, Irrigation schemes etc. • Impact of other stakeholders on water resources (e.g. ESCOM on water intake) needs review. Recommended that BWB, ESCOM, Sucoma, irrigation projects downstream are consulted. • Recommended that the Shire-Zambezi Waterway (Ministry of Transport) be consulted as it might affect the barrage. • Recommended that a baseline study of all initiatives along project area be undertaken. • Recommended that a clear early warning system should be linked to the operation of the barrage – to ensure the protection of the people. Operational impacts need to be critically considered.
	Zachary M Kasomekera	National Water Development Program (NWDP)/MoWDI Program Manager	
	Allan Kaziputa	Environmental Affairs SEO	
	Rex Kanjedza	MoWDI Principal Water Resources Officer	
	Peter Makwinja	Roads Authority Environmental Specialist	
	Mavuto Chiipanthenga	Blantyre Water Board Projects Manager	
	Chimwemwe Mawaya	NORPLAN- SIA Expert	
	Meya Kalindekafe	NORPLAN- EIA Expert	
	Jan A Roti	NORPLAN- Team Leader	
	Peter Maele	NORPLAN- Engineer	
	Rose Kachuma	National Water Development Program (NWDP) Water Resources Specialist	
Hyde Sibande	MoWDI		

Date	Name	Organisation/Position	Remarks/ Suggestions
	Jacqueline Dias	Southern Region Water Board (SRWB) PIUM	<ul style="list-style-type: none"> • Delineation of impact area needs – reconsideration, assess what developments in Mozambique and Tanzania might be affected. • Stated that National Parks – need to know the inundated areas for proper input. The impacts of fluctuation of water level in Liwonde National Park – affecting all wildlife and their habitats needs to be assessed. • Raised the issue of downstream collection of crocodiles' eggs and their habitats. • Positive impacts from the floods downstream, lower shire should be considered. • Sena Development corridor needs review (re: Shire Zambezi waterway). • Effects of water fluctuations on sand bars (as key habitats) along Shire River need to be assessed. • Stated that the Shire Valley Irrigation Scheme Proposed construction of HEP dams along the Songwe River.
	Samuel Nyanyale	Liwonde National Park Division Manager	
	Misford Mikuwa	MoWDI	
	Elesani C Zakochera	Wildlife Environment Society of Malawi (WESM) - Lilongwe	
	William Chipeta	MoWDI	
	James Longwe	Participatory Development Initiative (PDI) Executive Director	
	Jester K Nyirenda	Department of National Parks and Wildlife	
	Bryson T Msiska	Department of Environmental Affairs	
	Fanuel Kapute	SMEC Fisheries Expert	
	Felix Kalowekamo	SMEC EIA Specialist	
	Michael Holics	SMEC Team Leader	
	Stayford K Phiri	SMEC Country Manager	
	Evelyn Mwasi	SMEC Administrative Officer	

TABLE 7. STAKEHOLDER CONSULTATION MEETINGS AT LIWONDE TOWN COUNCIL

Date	Name	Organisation/Position	Remarks/ Suggestions
14 th November 2011	Meeting organised by National Water Development Programme staff	Liwonde Town Council	<ul style="list-style-type: none"> • Discussion focussed on the sites and buildings affected by the Project. • Stated that the bathymetric study and survey will enable an accurate picture of the amount of overflow from the Project. • Commented that consultations were still being carried out to determine those who would be affected. From the site visit undertaken it was seen that two private business sites were likely to be affected, one permanently, while the other site may only be affected during construction. The other two sites that were likely to be affected due to construction activities were on public land- a guest house belonging to Ministry of Public Works and the National Parks and Wildlife site. The design consultant NORPLAN will be determining the exact number of buildings to be affected. • Commented that the planned temporary construction camp is on land belonging to ESCOM and earmarked for office construction. • The cost of buildings affected has not yet been established. An appraisal of income flows for building affected found that if temporarily affected during construction, Mr Mwawa's was to lose approximately MWK100,000 per month in rentals. The owner of the other site that would permanently be affected (Shiri Lodge) was not available, and hence details regarding income flows had not yet been established. • Commented that information needs to be provided to the public about the Project. It was noted that this would be done through the District Councils. • Stated that a town meeting will be held by the end of November to address the issues of whose property will be affected and all other issues that relate to the Project in relation to Liwonde. This meeting will be facilitated by the Machinga District Council and the Ministry of Lands-Eastern Region • MoWDI to communicate project impacts to the relevant Government ministries/departments whose property will be affected • Recommended the development and implementation of a communication plan on the Project. This will include district sensitization/consultation meetings, meetings with neighbourhood leaders and NGOs supporting programs along the Shire River and Lakes Malombe and Malawi areas.

Date	Name	Organisation/Position	Remarks/ Suggestions
6 th December 2011	Meeting organised by National Water Development Programme staff	Ministry of Agriculture, Irrigation and Water Development (MoWDI) Deputy Director Liwonde Town Council Marine Police Unit National Parks Representative	<ul style="list-style-type: none"> Organised in response to questions raised by the Liwonde Town Council Planning Committee to discuss potential impacts on property. It was commented that many stakeholders including Environmental Affairs Department (EAD), the Police, Lands, National Parks and Wildlife, Electricity Supply Commission of Malawi (ESCOM) and many others were contacted on this issues. Deputy Director MoWDI emphasized the fact that there is the need to work together on development activities and that government rules and regulations should be followed. <p>Weed Anchorage Point</p> <ul style="list-style-type: none"> Meeting also included a site visit, commented that the proposed weed boom anchorage site belongs to Ministry of Transport and Public Infrastructure and that there is a guest house on site. It was noticed that the strip of land between the perimeter fence of the property and the river bank is narrow and steep. Some were concerned that the likelihood of the bank falling over together with the anchors during heavy floods was very high. It was explained that the anchorage point will extend from the outside point to inside the fence. The section inside the fence will be underground. It was advised that since there will be excavations and that the wire fence may have to be broken, the MoWDI should write to Ministry of Transport and Public Infrastructure requesting for permission to go ahead with the development in their premises. It was suggested that permission should be sought well in advance. It was observed with concern that weeds trapped along the boom are not cleared frequently, a situation that might accelerate sedimentation and create sand bars across the river. The concern was dismissed by the Engineers who reported that the water underneath the trapped weeds moves fast and washes away any deposits on the river bed. It was commented that after removing the weeds including water hyacinth from the boom ESCOM dumps them 5km on land away from the river. This practice was discouraged as it only helps to spread/disperse the water hyacinth whose spores are capable of germinating even after 15 years of dormancy. Use of the plant to digest sewage and manure were discussed as alternatives but did not seem to be suitable. <p>Liwonde Police Roadblock</p> <ul style="list-style-type: none"> It was commented that two sites at the end of the roadblock are likely to be affected. A shop on a private

Date	Name	Organisation/Position	Remarks/ Suggestions
			<p>piece of land belonging to Mr F. H. Mwawa and a market shed on the left belonging to Machinga District Council. Both sites are likely to be affected as contractors will use the sites for the construction of cofferdams as well as storage of construction materials such as gravel and quarry stones.</p> <ul style="list-style-type: none"> • It was agreed that a professional and detailed identification of structures likely to be affected should be done. MoWDI and Liwonde Town Council were requested to undertake the exercise. • It was raised that during the earlier meeting it was suggested that a task force should be established to identify property that will be affected but as of yet there was no report from the task force. • It was commented that those who have built in the road reserve and river banks did so while fully aware of government restrictions and may therefore not qualify for full compensation of their property. It was advised that these people will be compensated if they are present before the cut off date. <p>Shiri Lodge</p> <ul style="list-style-type: none"> • Commented that the lodge, which is located on the southern end of the existing barrage, will be impacted as one of the lodge structures, which has its foundation in the Shire river bed, is in the way of a coffer dam. • It is also on the point of connection between the current and the proposed new bridge to be immediately west of the existing barrage. The owner of the lodge was not present during the visit. <p>Marine Police Unit</p> <ul style="list-style-type: none"> • The Marine Police office is directly opposite Shiri Lodge on the left at the southern end of the barrage. • Commented that the Police Unit will not be affected but proposed that an open space adjacent to the Police Unit will be used for construction of an administration block and a barrage control room. • MoWDI commented that they would like to be connected to the control room so that they can be able to monitor what is happening at the barrage. The land earmarked for the administration block/control room belongs to Police. • The Officer in-charge of the Marine unit strongly suggested that MoWDI should request for permission to acquire and use the land from the Inspector General (IG) in Lilongwe. Recommended that copies of communications to the IG should be sent to the Head of the Marine Department in Monkey Bay so that he/she is updated on the developments.

Date	Name	Organisation/Position	Remarks/ Suggestions
			<p>Proposed construction camp site</p> <ul style="list-style-type: none"> The proposed construction camp is opposite the Marine unit on the right hand side of an earth road that leads to the southern anchorage point of the existing Weed Boom. Some participants present said the land belongs to ESCOM while others said ESCOM has only applied for the piece of land but has not yet acquired it. Liwonde Town Council was requested to establish the current status of the piece of land. Suggested that the ESIA team may need to look at the suitability of the site as it is small and too close to residential houses for the Marine staff unit. Some asked if they could find an alternative site, the engineers said it was not possible to do so unless they demolish structures somewhere else. A different site would make the project more expensive as it will increase number of compensation. Some raised concerns that noise, exhaust gases and vibrations from the camp could negatively impact those living in the Marine Unit houses. <p>Liwonde National Park – Tourist boat transfer point</p> <ul style="list-style-type: none"> Discussed that the point is located on the bank of the Shire River immediately upstream the Marine Police residential premises. This is where the southern end of the current weed boom is anchored and is the preferred spot for the proposed boom. The area used to be a pick up point for tourists to Liwonde National Park but is no longer used. National Parks representative commented that the department has no problem with the developments provided the developer establishes a new pick up point for the department. A site for the new pick up point will be communicated as soon as it is identified. <p>General Discussion</p> <ul style="list-style-type: none"> Discussion concentrated on the various sites potentially impacted by the project- namely the area for the weeds boom, the shop owned by Mr Mwawa, the shelter owned by the town council, the Shiri Lodge, the Police unit and the site for the temporary construction camp. Site No. 8 Southern Region Water Board (SRWB). It was advised that the consultant should clearly demarcate the areas which are expected to be affected. Liwonde town council is to confirm ownership of the concerned areas. The MoWDI to communicate with owners/management of concerned areas and to facilitate the formulation of time based action points.

Date	Name	Organisation/Position	Remarks/ Suggestions
			<ul style="list-style-type: none"> • Members were urged to consider the project as theirs and not only for the MoWDI and were requested complete action requested of them. • A question was raised as to whether this would affect the way line. Members were informed that it was very unlikely that the railway line would be affected and that the EIA would take care of all those concerns. • The issue of dumping weeds was discussed and it was noted that there were some previous studies. It was stated that a report was completed by Prof. E. Sambo of University of Malawi, through the Environmental Affairs Department (EAD) hence there was need to follow up with EAD. <p>Members requested that there be full consultation and dissemination of information relating to the project.</p>

TABLE 8. INDIVIDUAL CONSULTATIONS WITH NATIONAL LEVEL OFFICIALS

Date	Name	Organisation/Position	Remarks/ Suggestions
7 th July 2011	Madam Gertrude Thaulo Program Manager Anderson Kawajera	Program Manager Ministry of Agriculture and Food Security, Liwonde Land Management Specialist Ministry of Agriculture and Food Security, Liwonde	<ul style="list-style-type: none"> Introduced the project and provided a brief description of Consultancy Services and work program over next 10 months. Established lines of communication for collecting baseline data for EIA.
24 th August 2011	Christopher Chikaonda Sinkonde	Cartographer/GIS Expert Department of Surveys, Lilongwe	<ul style="list-style-type: none"> Introduced the Project and discussed availability of mapping/GIS information. Obtained relevant maps of the Project area.
21 st October, 2011	Felix Mangani	Land Commissioner, Ministry of Lands and Housing	<ul style="list-style-type: none"> Project was presented to stakeholder and relevant issues discussed. Indicated that the river buffer Zone is 30 metres from the shoreline. Commented that in case of property damage, compensation was only applicable to private property. Indicated that along the lake most of the land is customary owned. Stated that in the land acquisition and compensation procedure the District Commissioner liaises with relevant sectors for valuation compensation is arranged accordingly. Commented that generally people that are displaced due to a project activity are assisted by the chiefs to find alternate land. Provided the National Land Policy Land Act.
21 st October, 2011	Mr Haiya	Director-Audit, Roads Fund	<ul style="list-style-type: none"> Stakeholder provided a de-brief about Kamuzu Barrage project. Indicated that much of information required relating to resettlement framework could be found with the Roads Authority.
22 nd October, 2011	Mr. Allan Kaziputa	Senior Environmental Officer, Department of Environmental Affairs	<ul style="list-style-type: none"> Provided information about the National Environmental Policy Suggested to consult Ministry of Land on Resettlement and Compensation framework Indicated there was no generic national resettlement framework but that they are prepared for individual programs.

TABLE 9. INDIVIDUAL CONSULTATION WITH REGIONAL/ DISTRICT BODIES AND OFFICIALS

Date	Name	Organisation/Position	Remarks/ Suggestions
17 th October, 2011	Mr. Jack Lusewa	Marine Sergeant, Marine Police Unit, Liwonde	<ul style="list-style-type: none"> • Discuss the Project • Stakeholder provided perception on river water fluctuations. Stated that water levels fluctuate during peak and low seasons. Stated that current river depth is estimated at 290 centimetres. At its greatest the river depth was said to be approximately 490 centimetres. The water levels rise due to river flooding upstream, strong winds on Lake Malawi, opening and closing of the Barrage. • During droughts, the River recedes up to 20m from the banks. Otherwise it would recede around 10m Causes of water rises. • Water levels are measured both am and pm.
18 th October, 2011	Mr. JJ Kanyangalazi	District Commissioner (DC), Machinga District Council	<ul style="list-style-type: none"> • Meeting provided an explanation of the Kamuzu barrage EIA/SES assignment. • DC agreed to arrange for someone from the district to accompany survey team where feasible. • Environmental District Officer was indicated as contact point alongside Director of Planning and Development.
18 th October, 2011	Mr Wezi Gausi	Director of Planning and Development, Machinga District Council	<ul style="list-style-type: none"> • Stakeholder provided a list of villages along the Shire River on the Machinga side along with population estimates from the district registration database. • Provided the secondary data- socio-economic profile and District Development Plan. • Explained the boundaries between districts-Balaka and Liwonde. • Commented that the River bank in Machinga stretches across two TAs –Nkula and Sitola.
18 th October, 2011	Mr. Tananga Nyirenda	Environmental District Officer, Machinga District Council	<ul style="list-style-type: none"> • Suggested other agencies where information on Land Use planning can be obtained, these include: <ul style="list-style-type: none"> ○ District Agriculture Development Office at the ADD; ○ District Lands Officer(in DADO's office); ○ Fisheries dept; ○ Extension workers: Health Surveillance Assistants; and ○ Court clerks.
	Mr. Ben Tonho	District AIDS Coordinator, Machinga District Council	

Date	Name	Organisation/Position	Remarks/ Suggestions
18 th October, 2011	Mr. Aubrey Jaza	District Lands Officer, Machinga District Council	<ul style="list-style-type: none"> • Meeting discussed land holding types, land acquisition processes, including role of Traditional leaders in this process. • Commented that land in the district mostly held as customary land, stated that only land around Liwonde is public land. • Stated that the Shire River is a protected area, although people encroach. • Stated that current prices of land are approximately MWK 25,000/ha. District land office endorses land sale • Stated that the buffer Zone from the river or lake is approximately 30-50 metres; this was to be confirmed. • Commented that there was a perception of conflict among policy strategy holders for the different sectors regarding use of river banks: agricultural production/fishing versus marginal land protection. • Recommended that the Disaster Management Officer be consulted.
18 th October, 2011	Movete Mkandawire	District Commissioner, Balaka District Council	<ul style="list-style-type: none"> • Courtesy call was conducted and stakeholder was provided a de-briefing about the Kamuzu Barrage Upgrade Project and the EIA component. • Stakeholder committed support to the team and provided District Water & sanitation strategic plan • Promised to send a district officer with the field team during community consultations
18 th October, 2011	David Gondwe	Director of Planning and Development, Balaka District Council	<ul style="list-style-type: none"> • Provided a list of villages in Balaka that are along the Shire River. • Commented that the rate of encroachment is increasing and people are cultivating even close into the buffer zone. • Stated that when disaster strikes, it is difficult for government to respond (e.g. flooding or attack by crocodiles) • Commented that undeveloped land prices in the area are MWK 20,000/ha • Provided contact details for the traditional authorities concerned.
	Grevazio Tsirani	District Lands Officer, Balaka District Council	
	Chisomo Kisindire	Logistics Officer, Balaka District Council	
	Laston Mwamange	Director of PWP, Balaka District Council	

Date	Name	Organisation/Position	Remarks/ Suggestions
	Taonga Kamanga	Assistant Disaster Management Officer, Balaka District Council	
19 th October, 2011	Mr. Chirwa	District Commissioner, Mangochi District Council	<ul style="list-style-type: none"> • Stakeholder was debriefed about the Project and assured support when consultations started. • Discussed links between Socio-economic Profile (SEP), District Development Plans (DDP), District Strategic Plans and Annual Investment plans. • District Commissioner (DC) mentioned the existence of other Government programs e.g. Green Belt Initiative that will cover approx. 800 households. He also discussed Chancellor College Group which promotes environmental protection initiatives such as tree planting and conservation of indigenous trees. • Commented that maize and rice are common crops of people living alongside the river • DC indicated that people had been apprehensive of rising water levels due to the barrage, possibly because limited information had been disseminated about the Project thus far. • Provided contacts for the TA's covered under the Project.
10 th November 2011	Derek Zalimba	Production Supervisor Blantyre Water Pumping Station, Blantyre Water Board	<ul style="list-style-type: none"> • The Blantyre Water Pumping station is located very close to Nkula Hydropower station. It withdraws water from Shire River. Its intake is located upstream of the Nkula Barrage. The maximum daily production is 85,200 m³/day when all pumps operate for 24 hrs. • The pumping station is equipped with eight pumps. Four pumps have each a discharge capacity of 460 m³/hr. The rest have each a discharge capacity of 1,440 m³/hr. The Clear water output is 80,952 m³/day. There are eight pumps for supplying the clear water to the city through a head of 700 metres through a distance of 37 km. A pressure break tank is located at Chilika. • The Distribution reservoirs are all located in the City. A conventional water treatment plant is also located nearby. It has its own water quality laboratory. The treatment plant included presetting tanks, flocculation tanks, dosing chamber etc. • Commented that siltation at intake is a huge problem since it clogs their intake. To address this they have a leased a dredger, on standby, in order to remove the silt so that the intake to the pumping station can get clear water.

Date	Name	Organisation/Position	Remarks/ Suggestions
10 th November 2011	Samuel Ndala Steven Medson Kayira	Operation Manager Nkula Power Station, ESCOM Senior Power Station Manager Nkula Power Station, ESCOM	<ul style="list-style-type: none"> • Additional 300 boreholes shall be sunk to augment the water supply of Blantyre City. • One of the most significant water users along the Shire River. • Commented that the hydropower station has 8 units with a total installed capacity of 124 MW. Nkula A has three units and installed capacity of 24MW, Nkula B has an installed capacity of 100 MW. The annual energy production varies from 581 GWH to 650 GWH. • Stated that there are two barrages side by side serving both hydropower stations. The water conveyance structures consist of tunnels and penstocks. The barrage is equipped with sector or radial gates. • The power station manager commented that siltation upstream of the barrage is a very serious problem which they have to deal regularly in order to avoid the clogging of the intake to the tunnel. The siltation has been problematic in the last 12 years. Stated that there is a dredger equipped with a stirrer and a suction pipe which removes the silt to a nearby dumping site. The silt is ejected into this dumping site which is divided into parcels of land with dykes. • Suggested that there be an initiative to rehabilitate the watersheds nearby to reduce siltation. • Suggested that as ESCOM is not actively participating in the discussions taking place to upgrade the barrage, the MoWDI should make an effort to engage ESCOM as far as possible. Recommended that ESCOM should also be given access to water level measurements, rating curves, reference datum etc.
15 th February, 2012	Mr. JJ Kanyangalizi Mr. Wezi Gausi	District Commissioner, Machinga District Council Director of Planning and Development, Machinga District Council	<ul style="list-style-type: none"> • Commented that the Project needs to ensure that everyone affected is notified and recommended a personal invitation be sent to those directly affected. • Advised that more information regarding Shiri Lodge and the communication that has occurred with the owner regarding illegal developments can be obtained from the Regional Lands Physical Planning Office in Zomba. • Commented that the DC's office could assist in facilitating meetings by stamping the public notices to be put up. • Commented that the Town Council would handle all issues related to property

Date	Name	Organisation/Position	Remarks/ Suggestions
			<p>development. Advised that the Chief Executive Officer for Liwonde should be involved in discussions regarding the Project and property to be affected.</p> <ul style="list-style-type: none"> • Stated that in the absence of local councilors, there is a planning committee which represents the community that reviews all planning and development issues.
21 st February, 2012	Mrs G C Yambeni	Acting Regional Commissioner for Physical Planning, Zomba	<ul style="list-style-type: none"> • Discussed aspects of properties to be affected by the Project. Confirmed that the Shiri Lodge is on land leased to Mr. Steve Njovuyalema Moyo. Commented that, part of the developments are illegal, stating that all structures close to the road and before the fence are illegal developments. • Commented that the application for approval for this property was rejected on the basis of the need to maintain the river and road reserve. However, efforts to stop the developments have proved unsuccessful. • Commented that there is a need to review the entire property development and enforcement framework in the country as it is difficult to enforce. • Advised that for a proper valuation of the assets to be affected, the Project should engage the Housing Department in the Ministry of Lands.
	Mr. A Chimbiya	Planning Technician, Regional Lands Physical Planning Office, Zomba	

TABLE 10. INDIVIDUAL CONSULTATION WITH BUSINESSES

Date	Name	Organisation/Position	Remarks/ Suggestions
12 th November 2011	Watson Ligomba	Irrigation Manager Sucoma Sugar Plantation	<ul style="list-style-type: none"> • The sugar plantation is estimated to be 14,000 ha in size. • They use a variety of irrigation types, including sprinkler and surface irrigation. Almost half of the irrigation area is under sprinkler and the rest under surface irrigation. Their main canals have a discharge capacity of 1.7 m³/s. • Commented that they are currently licensed to abstract 23.6 m³/s of water from the Shire River and additional surface water from Mwanza River. They have plans to expand the irrigation but they have found out that the amount of water available is a limiting factor. Commented that three weeks prior to this consultation they have faced a serious water shortage. They have to lodge their complaint to the Water Resources Board. • Stated that they are also facing a very serious problem with sedimentation in their irrigation canals. • Recommended that initiatives should be taken to reduce the silt in the rivers. Stated that there are a number of forestry programmes around the river. • Commented that the irrigation scheme is also a bulk consumer of power. Their demand stands now at 23 MW.

TABLE 11. FOCUS GROUPS DISCUSSIONS WITH DISTRICT COUNCILS

Date	Name	Organisation/Position	Remarks/ Suggestions
Nsanje District			
25 th October 2011	Rodney Simwaka	District Commissioner, Nsanje District Council	<ul style="list-style-type: none"> • People should be informed in advance of any potential risks that may arise from the project. Suggested that a structure involving local leadership to inform people about the Project be established. • Raised concerns that those with dimba gardens close to the river will be most affected as the river course expands. • Stated that the District Councils need to receive sufficient information on the proposed Project. • Commented that there needs to be a detailed assessment of property and assets affected by the upgrading of the barrage. Those impacted should be compensated. • Commented that flooding occurs every year in Nsanje and is a result of rains upstream, rivers feeding into the Shire as well as barrage operations. • Stated that frameworks and the execution of resettlements with regard to flooding needs to be strengthened in Malawi. Suggested that this be undertaken by ensuring that households at risk are provided with adequate equipment and materials for building homes. • Commented that the Shire River is an important source of income and food in terms of fishing. It is a source of water for domestic use, irrigation and sanitation. It is also a means of transport from one place to another for animal grazing for livestock. • Suggested that part of the long term strategy should be to encourage and educate people not to farm too close to the river. Thought that enforcement measures may need to be put in place. • Stated that landholding is customary, with some held as public land and leaseholds. If there are ever any disputes, these are mainly handled by the traditional leadership structure. • Commented that river flooding damages crops but is it also important for agricultural production when the water recedes. • Crocodiles and hippos also harm and kill people.
	Sautso Phiri	Monitoring & Evaluation Officer, Nsanje District Council	
	LH Faramenga	Crops Officer, Nsanje District Council	
	I A Kaulendo	Fisheries Officer, Nsanje District Council	
	F Nyirenda	Lands Resources Officer, Nsanje District Council	
	JMJ Mkombezi	District Agricultural Development Officer, Nsanje District Council	

Date	Name	Organisation/Position	Remarks/ Suggestions
Chikhwawa District			
31 st October 2011	Newton Munthali	Monitoring & Evaluation Officer, Chikhwawa District Council	<ul style="list-style-type: none"> • Stated that the Shire River is important for livelihoods and the moisture left in the soil after waters recede is important for cultivation and can aid in boosting crop production. • Grievances from communities mainly arise from chiefs selling customary land to more than one person. There are also grievances related to damage of crops by hippos. • Commented that land in the area is mostly customary. The sale of land follows the land policy act, however, some chief's sell land without regard to the frameworks and also to more than one person; this issue is generally resolved by traditional leaders. • Commented that the recommended buffer zone from the riverbank is 20-30 metres, but this is rarely adhered to. Stated that there is a need to enforce the recommended river reserves to avoid encroachment however this is a very difficult process. • Commented that people who use the river for transportation might be affected as the docking points may change/be damaged by the Project. If this happens it could potentially impact livelihoods. • Stated that the project might cause flooding but also facilitate farming and irrigation. • Participants had observed that siltation in the river is increasing and the water levels appear to be decreasing. Commented that sand can now be seen in the river at Bangula. When it floods the river expands by up to 20m. • Advised that there should be plans to compensate those that will lose land and crops, even from the normal operation of the barrage. • Suggested that the disaster management structures, civil protection committees present at the district and village levels (District/ Area/ Village Civil Protection Committee) be involved in managing and communicating about disasters. • Suggested that results from the ESIA be provided to the districts so that the district commissioner knows how and when to get involved in the process. • Recommended that those using the river be informed about the project and its potential impacts.
	Monica Kagwira	District Fisheries Officer, Chikhwawa District Council	
	Martha Kabanga	District Aids Coordinator, Chikhwawa District Council	
	Lawrence Namalindwa	Transport Officer, Chikhwawa District Council	
	Maggie Msiska	Assistant District Registrar, Chikhwawa District Council	
	Leonard Kamangadazi	District Forestry Officer, Chikhwawa District Council	
	Peter Magombo	Environmental District Officer, Chikhwawa District Council	
	Mwawela Sapuwa	Acting Lands Officer, Chikhwawa District Council	
	F Kadzokoya	Assistant Disaster Reduction Officer, Chikhwawa District Council	

Date	Name	Organisation/Position	Remarks/ Suggestions
Blantyre District			
31 st October 2011	P. Kantsitsi	Director of Planning & Development, Blantyre District Council	<ul style="list-style-type: none"> • Commented that the Shire River is an important source of livelihoods and transportation for people located along it. • Stated that the Lands Acquisition Act needs to be enforced as chiefs are selling land illegally, including that along the River. This has been a source of grievances, especially where one piece of land is sold to more than one person. • Within the area, most land is customary owned but near Zalewa road it is mostly leasehold. Stated that the buffer zone which is left for tree planting is 50 metres or twice the width of the river; however in some areas this is not respected. • In regards to land, the grievance handling system follows the traditional structure: Village Head-Group Village Head- Traditional Authority- District Lands Office- Commissioner of Lands- Courts. • Commented that increased water flow may facilitate irrigation however people very close to the river and their assets may be affected should the water levels rise due to Barrage operation. • Commented that there is little information flow between different agencies, recommended increasing sharing of information so that the district council can be more actively involved in issues. • Recommended compensation to all whose crops, houses or gardens are damaged. • During times of flood, water can overflow the banks by up to 50m, particularly in flood prone areas. During drought waters can recede by up to 5m. Suggested that these drought and flood prone areas, TA Lundu (flooding), Lirangwi area (drought) be closely monitored as they are more likely to be affected.
	G.E. Kanyerere	District Forestry Officer, Blantyre District Council	
	P. Madzikusamba	District Fisheries Officer, Blantyre District Council	
	Tamala Zembeni	District Water Development Officer, Blantyre District Council	
	Emma Bello	District Land Office, Blantyre District Council	
	Julia Qoto	Irrigation Engineer, Blantyre District Council	
Zomba District Council			
10 th November 10, 2011	C G Thyangathyanga	Environmental District Officer, Zomba District Council	<ul style="list-style-type: none"> • Commented that the Shire River is an important habitat for wildlife and a source of livelihoods for people along the river. Anything happening to the river would affect wildlife and people in one way or another. • Stated that those living or farming close to the river may be affected. This can be both positive, increased water for irrigation and negative, too much water which would damage crops.
	E Kenamu	Monitoring & Evaluation Officer, Zomba District Council	

Date	Name	Organisation/Position	Remarks/ Suggestions
	N Kaphuka	District Labour Officer, Zomba District Council	<ul style="list-style-type: none"> All those impacted need to be considered, particularly those who might need to be resettled. Communities should also be notified of Project timing and other relevant information. In regards to grievances involving customary land, chiefs often tackle these first before they are passed onto the higher levels. Chiefs are an important level in grievance handling. Commented that people have not been educated about observing the river reserve and farming along the river banks. Advised that this education needs to be carried out. The main reason people encroach onto the river reserve is a scarcity of land. On large rivers, generally cultivation can start about 30m from the river bank. Advised that trans-boundary issues both upstream and downstream should be looked at seriously. Called for a detailed study on environmental impacts of the project- especially the potentially negative impacts. Recommended that the control of weeds be factored into the project as increasing water levels will mean more aquatic weeds e.g. typha reeds, hyacinths, upstream.
	G Mwadzaangati	District Fisheries Officer (Fisheries), Zomba District Council	
	C Luwanda	District Agriculture Development Officer, Zomba District Council	
	M Chilimbiro	Senior Assistant Information Officer (SAIO), Zomba District Council	
	F Mtepa	Disaster Management Officer (Disaster), Zomba District Council	
Balaka District			
14 th November, 2011	Moses Mtambo	Assistant District Forestry Officer, Balaka District Council	<ul style="list-style-type: none"> Commented that the people most likely to be affected by the upgrading of the Kamuzu Barrage are the irrigation farmers. Stated that there are more than 500 irrigation farmers, both organized schemes and individual farmers. If flooding occurs, the farmers will lose part of their gardens. Commented that the project would have positive impacts on irrigation if properly organized. All those negatively impacted should be compensated. Raised concerns that the rise in waters level will increase the animal-human conflict, especially crocodiles. Called for the development of an environmental management plan detailing positive and negative impacts, particularly as so many rely on the Shire River. Land in the area is customary owned land and is overseen by traditional leaders. The river buffer zone is 30m from the banks; generally those who have encroached on the river reserve are not compensated for their losses.
	Grevazio Tsirani	Lands Officer, Balaka District Council	
	Charles Kamwendo	Senior Agriculture Lands Resources and Crops Officer (SALRCO), Balaka District Council	
	Bizwick Chimanya	Acting Agriculture Extension and Development Officer, Balaka District Council	

Date	Name	Organisation/Position	Remarks/ Suggestions
	Taonga Kamanga	Assistant District Disaster Risk Management Officer (ADDRMO), Balaka District Council	
	Chisomo Kisindile	Logistical Officer, Balaka District Council	
	Hastings Mwachibe	Head Clerk, Balaka District Council	
	Andy Nambezo	Irrigation Officer, Balaka District Council	
Mangochi District			
November 18, 2011	Sylvester Maluku	Lands Officer, Mangochi District Council	<ul style="list-style-type: none"> The Shire River is important as it supports peoples livelihoods and helps to preserve threatened plant species <i>e.g.</i> Tsanya. The river also adds economic value to land, land along the river or lake is likely to be valued higher than that far from the lake, especially where the land is to be used for commercial purposes such as construction of a resort. Commented that the communities and infrastructure along the Shire River and Lake Malombe may be affected by the Project, particularly fishermen and farmers. Those who are affected should receive compensation and the District Council should be involved in the process. Commented that bi laws to regulate environmental issues have not been updated and approved since 2006 due to the absence of elected councillors. This can be a constraint for effective environmental management. Recommended that for better long term management of the lakeshores, there is a need to strengthen enforcement mechanisms of laws. Commented that there needs to be better harmonization between agriculture and forestry departments/ministries about environmental management. Recommended that traditional leaders be sensitized about the project and their possible roles in the case of disputes arising from damages to land and crops that may necessitate re-allocation.
	Carolyn Chabwera	Disaster Management Officer, Mangochi District Council	
	Lexter Munthali	District Agriculture Development Officer	
	James Yadidi	Irrigation Officer	
	J Chamveka	District Fisheries Officer	
	L Mlaviwa	District Forestry Officer	
	G Chilenga	Monitoring & Evaluation Officer	

Date	Name	Organisation/Position	Remarks/ Suggestions
	R Kachingwe	Lands Officer	<ul style="list-style-type: none"> Commented that much of the land in the area is customary, although some land used as lodges near the lake is leased. For the sale or transfer of land a member of the public needs to consult with the chiefs before it can be endorsed by the District Commissioner. Traditional leaders normally resolve disputes over land, however if the land involves the district, the District Lands officer will be involved.
	Linda Kalolokesya	Environmental District Officer	
Salima District			
April 30, 2012	Blessings Nkhoma	Director of Planning and Development, Salima District	<ul style="list-style-type: none"> Whether they had heard about the project before November 2011: The district officers had not heard about the project before November 2011. Importance of the Lake: source of livelihoods from fishing; fish business also promotes prostitution; Salima Town relies on fish from the Lake; business-commercial properties such as hotels along the lake; transportation means to Makanjira. Impacts of the project: gardens (through flooding) and houses may be destroyed, especially in drought prone areas such as those in TA Maganga. Evidence from 1978 water up-swell suggests that houses along the lake may be affected. People whose property or gardens will be affected need to be compensated by Government. Landholding system in the district: most land held under customary system. However, with developments, some is held under leasehold. Some is public e.g. Forest reserves. Buffer from Lake foreshore is 30 metres. However, enforcement of buffer zone observance is difficult. Compounded by conflict in practices between agriculture and forestry activities-farming too close to the lake in search of moisture versus preserving buffer zone. As a result, there is increased siltation into the water bodies. Management of land and resources along lake banks: district promotes a bottom up approach to development where projects are driven by community members. At the district level, there is District Environmental Sub-committee (DESC) that ensures cross-sector collaboration in the use of resources. Land acquisition procedures: for customary land, the person buying identifies land and buys. Consultations with chiefs take place and chiefs consultation form filled out. Land is subsequently surveyed after payment of relevant fees and transfer is effected after completion of permanent
	Mathias Mailosi	M&E Officer, Salima District	
	Moses Kaufulu	Assistant District Registrar, Salima District	
	Lyton Chinoko	Environmental Health Officer, Salima District	
	Arthur Chiwayula	Senior Assistant Land Conservation Officer	
	SND Phiri	District Forestry Officer	
	E Kamthunzi	Lands Desk Officer, Salima District	
	Waki Chungwa	District Water Officer	

Date	Name	Organisation/Position	Remarks/ Suggestions
			<p>beacons;</p> <ul style="list-style-type: none"> Grievance Handling System: issue reported go to the Village Head. If not resolved issue forwarded to Group Village Head, then Traditional Authority if still not resolved. From the TA, issues not resolved sent to District Commissioner. If still not resolved, issue decided in court. Changes on the Lake: the lake is expanding but getting shallow due to siltation over the years. Water is turbid. Fish catches also appear to be declining. During peak flooding, water overflows to between 20-30 metres from the shoreline. During dry periods, lake recedes by about the same distance. On-going/planned development projects: planned road to connect the lodges and hotels by Ministry of Tourism, Water and sanitation programs by the Central Region Water Board, River Bank protection by the Forestry Department, Green Belt initiative (although meeting resistance from some sections of the community), presidential initiative on afforestation and construction of sandbank around Lifidzi to reduce floods. Communication and Disaster Management Structures: In case of emergency, use the disaster management structures- Village CPC- Area CPC-District CPC. The VCPCs have phone contacts for the Disaster Management Office. Extension workers that advise the VCPCs also link directly with the Disaster and Risk Management Office. There is a 24 hour feedback deadline for all reports received. For areas along the Lake, the VCPCs are active and functional but need capacity enhancement to be able to adequately carry out their functions.
Machinga District			
April 27, 2012	Wezi Gausi	Director of Planning and Development, Machinga District Council	<ul style="list-style-type: none"> Whether heard about project: There have been rumours over the past five years, but official notification came in November 2011. Importance of the Shire River: source of income through fishing and sale of fish. Source of business through tourism-wildlife and boat riding. Facilitates irrigation. Source of water for domestic use-Southern Region Water Board gets water from the Shire. Land Holding System: mostly customary, except in Liwonde Town where land is administered
	Shepherd Jere	Assistant District Disaster Risk Management Officer, Machinga District	

Date	Name	Organisation/Position	Remarks/ Suggestions
	MK Mwakhwawa	Assistant District Registrar	<p>according to statutory requirements by the Government through the District Council/town. Buffer zone is between 25-30 metres from the bank.</p>
	Aubrey Jazza	Lands Officer, Machinga District	<ul style="list-style-type: none"> • Land Acquisition procedure: person identifies land, makes application to DC, stating purpose. Application processed according to land acquisition guidelines that the District Council follows.
	Gabriel Makwemba	Deputy District Water Officer	<ul style="list-style-type: none"> • Management of Land and Resources along River Banks: there is no particular structure, although a District Environmental Sub-committee exists. Policy coordination is difficult due to conflicting practices between Ministry of Agriculture and Forestry. Buffer zone requirement is not always followed because farmers are looking for residual moisture. Regulation of statutory planning areas made difficult by politicization of issues. • Project Impacts and people likely to be affected: negative-local farmers may lose crops and gardens; houses may be destroyed; Liwonde national park wildlife and vegetation may be affected by rising waters. Positive- Irrigation may be promoted, navigability may be enhanced; tourism facilitated e.g. for the MV Mangunda; employment and business boom locally; Negative animal-human conflicts may increase as the water rises and banks expand in the upstream; influx of sex workers, there may be conflicts where some people may resist resettlement should this be required, damage to houses and business property. • Suggestions: arrange for compensation for those that may be affected or will require relocation; people need to be sensitized about the project and possible consequences, including an emphasis on project benefits; prioritize employment of local people when project starts. • Communication and disaster management structures: there is a disaster management structure from community right up to the district. At community level, we have VCPCs and ACPCs that link to the district VCPC. However, most of these structures at the community level are not fully functional due to limited capacity and resources. In areas where they are working, there is specific support from NGOs such as Immanuel International. The Government should provide funding for capacity building and operations for the disaster management structure as currently the mandates of staff working on disaster management is unfunded. • Grievance Handling Systems: grievances related to land disputes are handled first by chiefs or the Town Council, but ultimately by the Ministry of Lands Regional Office. For damages to property or land, simple assessments are done by the District Council. However, all complex

Date	Name	Organisation/Position	Remarks/ Suggestions
			<p>ones are done by the Regional Lands Physical Planning Office. For crops damaged by animals from the National Park, there is no mechanism to redress complaints although the Disaster management framework is applied where damage is extensive (more than 10 Households).</p> <ul style="list-style-type: none"> • Observed Changes in the River: there was more water in the river in the past than now due to siltation arising from environmental degradation. Turbidity has increased. There has also been an increase in water weeds (hyacinth mainly) in the past 5-10 years. • On-going and Planned Development Initiatives: drilling of bore in six TAs; gravity fed piped water scheme by African Development Bank, rehabilitation of boreholes by the National Water Development Program, the Railway project from Mozambique through Machinga; Wellness through Agriculture and Livelihood Approaches (WALA) in 5 of the 14 TAs in the district (Agriculture, HIV and AIDS, disaster management).

TABLE 12. PUBLIC MEETING WITH PROJECT AFFECTED PERSONS

Date	Name	Organisation/Position	Remarks/ Suggestions
February 17, 2012	S Banda	Concerned community member	<ul style="list-style-type: none"> • Overview of the Shire Basin River Management Project (SRBMP) and the Upgrading of the Kamuzu Barrage was provided. • Discussed the assets likely to be affected: Marine Unit Office; Shiri Lodge and National Parks and Wildlife plot on the East Bank; Ministry of Works Guest House yard (West Bank) and Liwonde Town Fish/ Meat shelter on West bank of the River, close to the Police Road block. • Discussed the rights of the people whose property would be negatively affected, including compensation and grievance handling system. • Discussed community concerns including whether property will be temporarily affected and barrage security. • Commented that there is need to provide information to people around Liwonde and along the Shire River to ensure they are aware of the project. This will also prevent opportunistic property development in the project area in view of possible compensation. • Commented that frequent public meetings, radio and TV messages on the Project should assist in further clarifying issues related to the Project. • Requested that barrage ownership be clarified to avoid confusions that have been experienced before.
	M B Nyirenda	Shiri Lodge Manager	
	Frank Mangwaya	Concerned community member	
	G Z Chirwa	Executive Officer-Machinga District Council	
	A Chindimba	Liwonde Town Planning Office	
	L Misoya	Liwonde Town Planning Office	
	J L Njolomole	Liwonde Town Planning Office	
	T N Nyirenda	Environmental District Officer, Machinga District	
	T R Mulewaza	Liwonde Town Chief Executive Officer	
	P Wadinga	Office of President and Cabinet-Machinga	
	EC Nyirongo	Office of President and Cabinet-Liwonde	
	Sergeant Matakoto	Marine Police Sergeant-Liwonde	
Sergeant J L Lusewa	Marine Police Sergeant-Liwonde		

TABLE 13. PUBLIC MEETINGS WITH COMMUNITIES

Date	Name	Remarks/ Concerns	Suggestions
26 th October, 2011	GVH Chimphwembwe Nsanje 160 men and women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Commented that sometimes when the barrage gates are opened, crops are still in the field and the extra water destroys the crops. Raised concerns that with more water the damage could be greater and lives could be at risk. • <i>People most likely to be affected by the Project:</i> People who farm too close to the river. Stated that this is because chiefs are selling the land in the buffer zone. • <i>Benefits from the Project:</i> If the project lowers water levels it will mean more land for cultivation, which people rely on the most. If there is more water, there will be more fish. • <i>Awareness of the Project:</i> Community not aware of Project. • <i>Use of the Shire River/Lake:</i> The river is used for agriculture (irrigation), fishing, domestic use, animals and means of transport- to and from Mozambique where land for cultivation and markets for businesses are food. The River also a source of food in times of prolonged drought, e.g. <i>nyika</i>. • <i>Changes in water level:</i> The water levels have risen, which affects the ability to cultivate crops. • <i>Development Projects:</i> Only community initiatives of moulding bricks. • <i>Negative aspects of the river that affect people:</i> Floods, crocodiles and hippos threaten people and crops. • <i>Communication Channels:</i> Communication is conducted through the chiefs to District council. However, the Government should find ways of communicating directly with the people so as to avoid communication problems. 	<ul style="list-style-type: none"> • Advised that compensation should reach the right people. • Advised the people should be consulted about the Project before it starts because they rely on farming close to the River. The government should communicate directly with communities to avoid communication problems. • Suggested that the Barrage be opened only after the harvest. • Suggested that the Chivili River (tributary to the Shire River) should be closed as it causes a lot of flooding, 3-4 times in a year.
27 th October, 2011	GVH Mphamba, Nsanje 55 men and women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that with increased water levels, some gardens may be negatively affected. • <i>People most likely to be affected by the Project:</i> People with gardens and fruit crops, such as bananas are likely to be affected the most by the Project. • <i>Benefits from the Project:</i> It will improve electricity supply, which is currently an issue in hospitals. Commented that increased moisture in the soil from the River overflow will 	<ul style="list-style-type: none"> • Suggested that the Government and NGO's respond to peoples needs. • People whose gardens are affected should be compensated.

Date	Name	Remarks/ Concerns	Suggestions
		<p>increase crop cultivation and irrigation farming.</p> <ul style="list-style-type: none"> • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> The River is a source of livelihoods for all people in the district, even those in the upper areas. Commented that some people have two homes, one in the high levels and another close to the river which allows them to grow crops throughout the year. • <i>Changes in water level:</i> Commented that the water levels have reduced. • <i>Development Projects:</i> Stated that a government irrigation scheme is available but it is not functioning. There is also a scheme for moulding bricks for school construction. • <i>Negative aspects of the river that affect people:</i> When the River floods, some crops are damaged. Crocodiles in the area kill people. • <i>Communication Channels:</i> Communication with the Government is done through chiefs (GHV, TA) to the District Commissioner. The district communicates back to community through chiefs. Commented that normally there is no feedback or there are delays in feedback. For example, the issue of the irrigation scheme has not been resolved despite many follow up requests. 	
27 th October, 2011	<p>GVH Nyamula, Nsanje</p> <p>400 men and women</p>	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Raised concerns that the increase in water will cause the River to overflow which that may affect gardens and crops. • <i>People most likely to be affected by the Project:</i> People living and farming close to the river will be affected. • <i>Benefits from the Project:</i> Commented that there will be increased irrigation opportunities and an increase in fish. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> The River is used for fishing, farming through irrigation and use of "mtope" (moisture from flooding waters). Grass along the river is also used for grazing animals. • <i>Changes in water level:</i> Community had not perceived any changes in the water levels. • <i>Development Projects:</i> Commented that there are no ongoing development projects. 	<ul style="list-style-type: none"> • Advised that people should be notified before the Project starts. • Requested that those operating the barrage be considerate of those living downstream. • People who will lose property should be given appropriate compensation.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Negative aspects of the river that affect people:</i> Floods affect people every year and crops are washed away. Crocodiles also affect people negatively. • <i>Communication Channels:</i> All communication goes through the chiefs. The GVH reports to the TA and the TA sends the message to the District Commissioner. Messages from the DC also come through the TA to the GVH and to the community. 	
3 rd November, 2011	GVH William, Blantyre 180 men and women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that extra water will submerge boat-docking points and destroy crops and gardens. • <i>People most likely to be affected by the Project:</i> People with gardens close to the river will be the most affected, however, many people rely on products from the same gardens so more people will be indirectly affected. • <i>Benefits from the Project:</i> The increase in water will be useful for irrigation and might increase production if proper plans to assist people are implemented. • <i>Awareness of the Project:</i> Community not aware of the Project before the meeting. • <i>Use of the Shire River/Lake:</i> The River is used for farming, fishing and water for domestic use (cooking, sanitation and drinking). The gardens along the river feed the whole of Blantyre with the fish or food crops grown along it. • <i>Changes in water level:</i> Community had not perceived any significant changes in water levels however during flooding water levels increase. • <i>Development Projects:</i> Commented that there is a farm input subsidy program although it does not reach everyone in need. Community also moulds bricks and engages in irrigation farming. • <i>Negative aspects of the river that affect people:</i> During the rainy season there is a lot of flooding which causes damage to crops, water levels rise up to 1 kilometre from the bank in some sections. • <i>Communication Channels:</i> The communication channel to the government flows from Village Chiefs to the District Commissioners office. The DC will also communicate back through the same channel. However, there is need to improve feedback and speed of response. For emergencies, a quick way for reaching the district needs to be identified. 	<ul style="list-style-type: none"> • Suggested that treadle pumps be provided to people to increase irrigation opportunities. • Suggested that the construction of canals also be considered. • People affected by the Project should be compensated. • For emergencies, a quick way for reaching the district needs to be identified.

Date	Name	Remarks/ Concerns	Suggestions
4 th November 2011	GVH Ngwaya, Blantyre 350 men and women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Commented that if the barrage operation reduces water levels, irrigation farming and fishing will decrease. • <i>People most likely to be affected by the Project:</i> The whole area will be affected and those with gardens and houses close to the river as well as fishermen will be affected the most. • <i>Benefits from the Project:</i> Commented that the Project will increase fish in the river, increase irrigation farming and make it easier to draw water from treadle pumps. • <i>Awareness of the Project:</i> Community were not aware of the Project. • <i>Use of the Shire River/Lake:</i> Water for domestic use e.g. drinking; irrigation schemes and transportation to the hospital. • <i>Changes in water level:</i> The community has noticed a decrease in water levels. • <i>Development Projects:</i> There are community brick moulding initiatives and government farm input subsidy programs and irrigation schemes. • <i>Negative aspects of the river that affect people:</i> When the river floods, community members are unable to get to the hospital on the other side of the river. People also lose their lives due to flooding. Crocodiles kill people and domestic animals. • <i>Communication Channels:</i> Communication to the Government runs from Village Development Committee (VDC) to Area Development Committee (ADC) to District Development Committee (DDC) and vice-versa from the district to community. In the case of crocodile attacks the Group Village Head takes the case to the EPA (Extension Planning Area) who communicates with the game patrol (under Parks and Wildlife Department). 	<ul style="list-style-type: none"> • Compensation should be provided to those affected. • Suggested the implementation of a Government boat to transport. • Suggested that the Government should provide boreholes because most people drink water from Shire River, which is not safe. • Suggested the canals be provided for irrigation.
4 th November 2011	GVH Nseule, Blantyre 50 men and women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that crops such as bananas and sugarcane will be washed away due to too much water. Increase in water levels may also increase the number of crocodiles in the area. • <i>People most likely to be affected by the Project:</i> Those staying too close to the River will be affected the most. • <i>Benefits from the Project:</i> More water may encourage irrigation farming. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> It is a source of water for domestic use, means of 	<ul style="list-style-type: none"> • Notify the community about potential rises in water levels.

Date	Name	Remarks/ Concerns	Suggestions
		<p>transportation and is also used for fishing.</p> <ul style="list-style-type: none"> • <i>Changes in water level:</i> Commented that water levels have decreased, noted 6 droughts in the last decade. • <i>Development Projects:</i> Community Vitalization and Afforestation in the Middle Shire (COVAMS) program promotes good agricultural practices and planting of trees. • <i>Negative aspects of the river that affect people:</i> Commented that barrage operations have affected the normal course of the River, therefore when ESCOM closes its gates, crops wither and die. Crocodiles also kill people. • <i>Communication Channels:</i> Communication to the government is done through GVH or T/A to the DC. Some information is relayed to the community through radios and the Police. 	
11 th November, 2011	GVH Chabwera, Machinga 85 men and women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> The Project could damage houses, crops and gardens especially around the Barrage. Concerned that any increase in water levels upstream may cause affect land and buildings. • <i>People most likely to be affected by the Project:</i> People around the Barrage and those with property close to the river. • <i>Benefits from the Project:</i> The community thought that the Barrage upgrade will bring many benefits, there will be employment for people and businesses in the area will increase, as there will be people in the area with money to spend. • <i>Awareness of the Project:</i> Some had heard about the project, but not officially. They had heard that the Barrage was old and needed to be renovated. • <i>Use of the Shire River/Lake:</i> The Shire River is an important source of water (for the water board) and is used for domestic use. Commented that ESCOM also uses the same river for generation of electricity. For the community it is a source of fish, as well as food crops such as maize (green and dried) and horticultural crops e.g. tomatoes, cabbages, etc. A lot of lodges have also been built along the River around Liwonde and provide employment for people in the area. • <i>Changes in water level:</i> No significant changes perceived by the community. Fluctuations of water levels reserved depending on whether it is the rainy or dry season. • <i>Development Projects:</i> Commented that there are a lot of developments going on-mainly by 	<ul style="list-style-type: none"> • Compensation and assistance to those affected. • Notification about the Project before it starts.

Date	Name	Remarks/ Concerns	Suggestions
		<p>private individuals. The Government also constructs schools. Adult literacy classes are promoted although not many people attend.</p> <ul style="list-style-type: none"> • <i>Negative aspects of the River that affect people:</i> The flooding of the River damages part of the crops every year. Crocodiles and hippos also cause a lot of problems and in some areas close to the game reserve, elephants are also a problem. • <i>Communication Channels:</i> Communication to the Government on all issues is channelled through the Chiefs. The chiefs communicate information to the DC and the same channel is used to relay information to communities. The messages run from the Village Heads-Group Village Head- Traditional Authority- District Council. 	
13 th November, 2011	GVH Mlooka, Zomba 125 men and women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned about the loss of property such as gardens (dimba) and houses close to Lake Malombe due to up swell (nthutumule) of the lake due to closure of the Barrage gates. Concerned about loss of grazing land for animals and possible affects on the tarmac road close to the shoreline. Concerned about potential increase in STI's, such as HIV if and when men move to the construction sites. • <i>People most likely to be affected by the Project:</i> Farmers along Lake Malombe and those who have houses along the Lake. People at Mangochi Boma will also be affected as most of what they consume comes from around Lake Malombe e.g. fish, vegetables. • <i>Benefits from the Project:</i> The fish population may increase with more water. Stated that people from Mangochi and those close to the Barrage will also find employment. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> Source of income from fishing and dimba gardening. The River facilitates irrigation farming, fish and is used for domestic uses. Commented that the community entirely depends on the Lake. • <i>Changes in water level:</i> Community stated that water levels had decreased. Elderly members present at the meeting stated that the River had receded from its normal course, starting when the Barrage first opened in 1965. • <i>Development Projects:</i> Stated that there are water and sanitation projects run through the Catholic Church and there is the Bilal Trust which supports orphans and runs water projects. 	<ul style="list-style-type: none"> • Suggested that the Government implement measures to deal with crocodiles should the project lead to an increase in the crocodile population. • The Chiefs and Government should provide alternative land to those whose land is affected. All people that lose property should be compensated.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Negative aspects of the river that affect people:</i> Animal-human conflicts (hippos damaging crops, crocodiles killing people and livestock). Flooding which destroys crops. • <i>Communication Channels:</i> Information flows from the community to Senior Chief (TA) to a Department at the District Commissioners office. The same channel is used for relaying messages downwards to the community. However, according to the community responses are always late, one example cited was the issue of crop damage by animals; at present there is only one game ranger. 	
16 th November, 2011	GVH Mpilisi, Balaka 200 men and women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned about destruction of crops and risk to lives if there is no warning about the flooding. Concerned also about an increase in diseases such as dysentery, cholera, bilharzias and others. • <i>People most likely to be affected by the Project:</i> People with gardens close to the river and surrounding communities. Production will be reduced due to damage to crops and gardens. • <i>Benefits from the Project:</i> Increased water levels will increase fish levels and water for irrigation. • <i>Awareness of the Project:</i> Community not aware of Project. • <i>Use of the Shire River/Lake:</i> The River is a source of wetlands - used for crops, food through fishing and drinking water for people and livestock. • <i>Changes in water level:</i> Community has noticed a decrease in water levels. • <i>Development Projects:</i> There is a clinic for children under five at Linchi village. • <i>Negative aspects of the river that affect people:</i> Crocodiles and hippos are a huge problem as the harm people and destroy crops. Community commented that there is no compensation from the Government about this issue. • <i>Communication Channels:</i> Village Heads take messages to the Village Development Committee (VDC). The VDC take messages to Traditional Authority. Community commented that there are often delays in this process and no feedback is provided. Suggested Ward Councillors, that used to be in place, would be the quickest way to get messages to the District Commissioner. 	<ul style="list-style-type: none"> • Suggested that the government and NGO's provide hospitals, bridges and boreholes. • Compensation for those affected by the Project. • Notify the public about the Project. • Suggested Ward Councillors, that used to be in place, would be the quickest way to get messages to the District Commissioner.
17 th November,	GVH Chimwala, Mangochi	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned about the loss of property such as gardens (dimba) and houses close to Lake Malombe due to up swell (nthutumule) of the Lake due to closure 	<ul style="list-style-type: none"> • Notify the public before the project starts.

Date	Name	Remarks/ Concerns	Suggestions
2011	25 men and women	<p>of the Barrage gates. Concerned about loss of grazing land for animals and possible affects on the tarmac road close to the shoreline. Concerned about potential increase in STI's, such as HIV if and when men move to the construction sites.</p> <ul style="list-style-type: none"> • <i>People most likely to be affected by the Project:</i> Farmers along Lake Malombe and those who have houses along the Lake. People at Mangochi Boma will also be affected as most of what they consume comes from around Lake Malombe e.g. fish, vegetables. • <i>Benefits from the Project:</i> The fish population may increase with more water. Stated that people from Mangochi and those close to the barrage will also find employment. • <i>Awareness of the Project:</i> Some people had heard about barrage maintenance at a chiefs meeting in Mangochi. Most had not heard about the Project. • <i>Use of the Shire River/Lake:</i> Source of income from fishing and dimba gardening. The River facilitates irrigation farming, fish and is used for domestic uses. Commented that the community entirely depends on the Lake. • <i>Changes in water level:</i> No perceived changes in water levels. • <i>Development Projects:</i> Stated that there are water and sanitation projects run through the Catholic Church and there is the Bilal Trust, which supports orphans, and runs water projects. • <i>Negative aspects of the river that affect people:</i> Animal-human conflicts (hippos damaging crops, crocodiles killing people and livestock). Flooding which destroys crops. • <i>Communication Channels:</i> Information flows from the community to Senior Chief (TA) to a Department at the District Commissioners office. The same channel is used for relaying messages downwards to the community. However, according to the community responses are always late, one example cited was the issue of crop damage by animals; at present there is only one game ranger. 	<ul style="list-style-type: none"> • Government should conduct an assessment of all people that will be affected to determine extent of loss and compensate them. This will allow people to prepare i.e. not to cultivate in areas likely to be affected, or move houses if required. • Government should be more concerned with the lives of people than it currently is, particularly in regard to animal/human conflict.
20 th November, 2011	GVH Dalamkwanda, Salima 45 men and women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that houses close to the Lake will be washed away and that businesses like hotels and the banks may collapse due to increased moisture in the land. Community concerned about Project impacts and the thought of resettlement. • <i>People most likely to be affected by the Project:</i> People with gardens and properties close to the Lake will be affected, but most people in this area do not farm. 	<ul style="list-style-type: none"> • The government should try to keep everyone's best interests at heart. • Suggested the provision of a government hospital. The nearest is at Kaphathenga which is very far from here.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Benefits from the Project:</i> Improvement in electricity supply and it will also facilitate irrigation. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> The Lake is used for fishing (for food and money); water for domestic use and sand for building. The Lake is the source of their livelihoods (our gold) and it is a means of transport to Makanjira. • <i>Changes in water level:</i> Levels have remained the same but sand banks have increased. • <i>Development Projects:</i> The Local Development Fund has built a head teachers house. • <i>Negative aspects of the river that affect people:</i> Flooding affects peoples' fields. Strong winds on the Lake prevent people from fishing sometimes. • <i>Communication Channels:</i> The GVH sends messages to the T/A. The T/A sends messages to the DC. The DC communicates back to the community through the same channel. However, there are delays and sometimes no feedback. 	

TABLE 14. FOCUS GROUP DISCUSSIONS WITH VILLAGE CHIEFS

Date	Name	Remarks/ Concerns	Suggestions
26 th October, 2011	Various Parts of Nsanje 19 chiefs GVH Tengani GHV Mpangira Sub-Traditional Authority Tengani GVH Nyanthumbi GVH Dumba Sub-Traditional Authority Malemia GVH Chikhawo GVH Dinala GVH Mbangu GVH Magulugulu GVH Malemia 1 GVH Malemia 2 GHV Mthumba GVH Mchacha GVH Kalumbi Senior GVH Kachere GVH Chazuka GVH Mpomba GVH	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Commented that when the gates at Nkula falls are opened, the water levels go up. As a result flooding occurs and crops are washed away. Raised concerns that this Project may increase this risk, which could bring food insecurity if the madimba (winter gardens) are flooded. Further concerned that houses will be affected, that livestock will have nowhere to graze and should the water be released during periods when crops have been planted they will be washed away. • <i>People most likely to be affected by the Project:</i> Most people will be affected but those with farms close to the river will be the most affected. • <i>Benefits from the Project:</i> Stated that the Project might improve irrigation and hence agriculture production and also that electricity supply may improve. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> The Lake is used for Irrigation schemes, fishing, means of transport and when water levels go down along the Shire, crops like maize, beans, etc are planted. The River also acts as a boundary with Mozambique. • <i>Changes in water level:</i> Commented that water levels have gone down due to climate change plus the closure of gates. Stated that there had been two droughts in the last decade, 2001 and 2004. • <i>Development Projects:</i> Stated that development projects are spread throughout the GVHs. Government farm input subsidy program and various irrigation schemes are available for communities. However, health and education services still not fully available to people, commented that people walk long distances to health units. • <i>Negative aspects of the River that affect people:</i> Crocodiles and hippos are a threat to people and crops. When the river floods, it damages the crops. • <i>Communication Channels:</i> Depends on the problem but communication is mostly through the TA to the DC. If it is an agricultural problem, the extension worker is informed. Help comes through the DC to the TA then to the Group Village Headman. This communication 	<ul style="list-style-type: none"> • The Government should be aware of the farming needs of the farmers and ensure water is not released during those periods. • Notify people in advance of the Project.

Date	Name	Remarks/ Concerns	Suggestions
	Chiphwembwe	channel works but delays are experienced at the DC's office because they have a lot of things to do, if this case another request is made.	
26 th October, 2011	GVH Chimphwembwe Nsanje 8 Chiefs	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that gardens and crops will be destroyed by rising water levels. Their experiences with operation of Nkula and Tedzani gates shows that the operation of the barrage will cause flooding and destruction of crops, they are also concerned that this will be exacerbated by the Chivili River water flows. • <i>People most likely to be affected by the Project:</i> Those that farm too close to the river. • <i>Benefits from the Project:</i> Increased moisture in the soil after the waters have receded will facilitate crop cultivation. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> The River is important for the survival of many people living along the river. They depend on the river for fish, farming and water for domestic use. • <i>Changes in water level:</i> The water levels are decreasing and droughts have occurred four times in the past ten years. • <i>Development Projects:</i> Irrigation schemes are in the community but some need to be revived and enhanced. Some people are also involved in moulding bricks. • <i>Negative aspects of the River that affect people:</i> People are affected by floods, which are exacerbated by the Chivili River, as well as crocodiles. The floods destroy people's crops, while the crocodiles terrorize people and harm or kill them. • <i>Communication Channels:</i> Communication is through Village headmen (VH). The VH send their messages to the GVH who communicates with the Traditional Authority before he sends messages to be delivered to the DC. Sometimes use is made of the VDC-ADC-District Council structure but messages have to be endorsed by the chiefs at the village and group village head level. 	<ul style="list-style-type: none"> • Suggested that ways of containing the Chivili River are found as flooding increases negative impacts in the area. • Suggested that people affected observe the buffer zone on the river. • When opening and closing of the gates, there should be consideration for those living downstream. They should be alerted about when gates are opened.
30 th October 2011	Ulemu Village, Chikhwawa 5 chiefs	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned about potential damage to crops and gardens if water levels rise. Commented that houses are not too close to the river but crops are. • <i>People most likely to be affected by the Project:</i> People who have gardens and fruits (e.g. bananas, mangoes) close to the river area are those most likely to be affected by the project. 	<ul style="list-style-type: none"> • People whose property is destroyed should be compensated • Recommended that people be warned about when the barrage gates are opened to avoid accidents.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Benefits from the Project:</i> The Project may increase opportunities for irrigation. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> The River is used for farming (dimba), rain fed agriculture (source of fertile land), fishing (for food and selling) and is also used for animals. • <i>Changes in water level:</i> Commented that the community has experienced three to four droughts in the past ten years. • <i>Development Projects:</i> There are no development projects apart from irrigation schemes. • <i>Negative aspects of the River that affect people:</i> When the river floods beyond normal levels, gardens and crops are destroyed. There are also crocodiles that maim and kill people and animals. • <i>Communication Channels:</i> Communication depends on the type of issue. However, usually it is through the chiefs who communicate with the TA and the DC. If there is a message to pass on to the community, the DC or officers at the DC's office pass the message through chiefs as well. 	<ul style="list-style-type: none"> • Suggested that adult literacy classes be promoted.
4 th November, 2011	GVH Kachakwala, Blantyre 8 chiefs	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> People's gardens and crops alongside the river, such as bananas and other fruit trees will be damaged. • <i>People most likely to be affected by the Project:</i> People with gardens along the river as well as those who buy agricultural goods will be affected. • <i>Benefits from the Project:</i> The increase in water will increase fish and irrigation may also expand to cover more people. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> Source of water for animals, domestic use, fishing and irrigation. Also used as means of transportation. • <i>Changes in water level:</i> There have been two droughts in the last ten years. Commented that the water levels had not changed. • <i>Development Projects:</i> Commented that World Vision had water and tree planting projects but they are no longer operating. • <i>Negative aspects of the River that affect people:</i> Flooding, which affects crops and houses 	<ul style="list-style-type: none"> • Suggested that more development projects be undertaken in the area • Compensate those affected.

Date	Name	Remarks/ Concerns	Suggestions
		<p>and crocodiles that kill people.</p> <ul style="list-style-type: none"> • <i>Communication Channels:</i> Communication is sent through the GVH, who links up with TA. The TA passes messages on to the District. If there were messages from the district, they would follow the same channel. 	
4 th November, 2011	GVH Masinde, Blantyre, 6 chiefs	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Raised concerns about potential impacts on crops and houses. • <i>People most likely to be affected by the Project:</i> People with farms and houses close to the river. • <i>Benefits from the Project:</i> Commented that if water levels are regulated properly at the barrage, there may be an increase in food production through irrigation farming. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> The River is a source of drinking water, wetlands used for farming, water for irrigation, fishing and means of transportation. • <i>Changes in water level:</i> Community perceived that the water levels have reduced in the last ten years and there have been two droughts. • <i>Development Projects:</i> No development projects by Government or by NGO's are in the area. • <i>Negative aspects of the River that affect people:</i> Floods, which damage crops and crocodiles, which harm or kill people. • <i>Communication Channels:</i> Communication flows through the Village Chiefs to the District Commissioner (DC). The Village Head communicates with the GVH, who passes the message on to the Traditional Authority and onto the DC. This system works in reverse when communicating to the community. 	<ul style="list-style-type: none"> • Advised that the Government needs to notify and inform people about the Project. • Recommended that the Government prepare a plan to assist people whose crops are damaged by the Project activities. • Suggested that the Government assist the community with other developments issues, for example lack of food and clean water. • Suggested that assistance be provided when hippos damage crops.
11 th November, 2011	GVH Chabwera, Machinga 7 chiefs	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that some buildings and gardens may be flooded due to water up-swell (<i>nthutumule</i>). Concerned about the spread of STI's in the community with the influx of workers for the Project. • <i>People most likely to be affected by the Project:</i> People living around the barrage will be most affected and those with fields close to the barrage could also be affected. • <i>Benefits from the Project:</i> Employment and business opportunities close the Project site. 	<ul style="list-style-type: none"> • Give priority to local people when employing workers. • Compensation for those affected.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Awareness of the Project:</i> They had heard a rumour that the barrage would be upgraded. • <i>Use of the Shire River/Lake:</i> The River is important for fishing, farming and transport. • <i>Changes in water level:</i> Commented that the water levels are declining. There has been drought two to three times in the past ten years. • <i>Development Projects:</i> There is the construction of schools and clinics and brick moulding projects. • <i>Negative aspects of the River that affect people:</i> Floods and hippos, which damage crops and crocodiles, which harm or kill people. • <i>Communication Channels:</i> Communication to the Government flows from village-head-group village- Traditional Authority-District Commissioner (DC). Messages from the DC are also passed back through the same channel. 	
12 th November, 2011	GVH Mlooka, Zomba 17 chiefs	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that farming close to the river will be affected by flooding. The increased water levels could increase hippos and crocodiles in the area. • <i>People most likely to be affected by the Project:</i> Those that have land close to the river will be most affected but in the end it will affect the whole community because they depend on each other. • <i>Benefits from the Project:</i> Expanded irrigation farming for those with gardens close to the banks. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> The River is used for irrigation schemes; farming in the wetlands, source of food e.g. fish, water for domestic use e.g. drinking, washing and as a means of transportation. It is also a source of income through fish and transportation (canoes). • <i>Changes in water level:</i> Water levels have gone down due to climate change and also the closure of the gates affects water levels. The Chiefs noted two droughts in the last decade, 2001 and 2004. • <i>Development Projects:</i> There are community projects, which involve moulding bricks for schools. 	<ul style="list-style-type: none"> • Introduce more irrigation schemes to help those who cultivate on the river banks. • Provide appropriate compensation- land/ cash for those who are affected by the Project.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Negative aspects of the River that affect people:</i> Flooding in the rainy season affects crops. Crocodiles kill people, although the number of incidences has declined. • <i>Communication Channels:</i> Depends on the problem but mostly through the TA to the DC. If it is an agricultural problem, the extension worker is informed. Help comes through the DC to the TA then to the Group Village Headman. However, there are often communication delays at the DC's office because it appears the office handles a lot of things. 	
17 th November, 2011	GVH Mtuwa, Mangochi 9 chiefs	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that flooding will affect crops and gardens. • <i>People most likely to be affected by the Project:</i> People with gardens close to the river and those that are renting fields for farming will also be affected. • <i>Benefits from the Project:</i> The increase in water will increase fish stocks and help irrigation as more people can be supported to practice irrigation farming. <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> The River is used for fishing, farming (dimba gardens) and water for domestic use. • <i>Changes in water level:</i> Commented that the water levels have not changed much. However, the levels seem to have slightly decreased. • <i>Development Projects:</i> There are community programs to make bricks for schools and well as a government farm subsidy program. • <i>Negative aspects of the River that affect people:</i> When the river floods, crops are destroyed. Hippos and crocodiles also kill people and destroy crops. • <i>Communication Channels:</i> All communication has to go through the Chiefs. Sometimes it is through committees such as the VDC. The messages then go through the TA to the District Commissioner. 	<ul style="list-style-type: none"> • Provide support to people who will lose or have their property affected by flooding. • Suggested that more development projects are provided. Commented that health centre is far from the community. • Recommended that people should be warned so that they do not plant crops that may be destroyed when the project starts.
November 20, 2011	GVH Kunkhongo, Salima 5 chiefs	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned about impact on crops and houses when the Barrage gates are closed. • <i>People most likely to be affected by the Project:</i> People with gardens close to the Lake. However, if there is a lot of water overflowing the banks even those further away from the shore will be affected. 	<ul style="list-style-type: none"> • Assistance should be provided if and when floods occur. • Compensation should be provided if gardens and crops are destroyed. • Notify the public about the project.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Benefits from the Project:</i> Electricity supply will improve and more people will practice irrigation. • <i>Awareness of the Project:</i> Community not aware of the Project • <i>Use of the Shire River/Lake:</i> Commented that the “the lake is our gold mine”. It is the main source of livelihoods; it is used for fishing, employment for men who assist fishermen and as source of water for domestic use. • <i>Changes in water level:</i> Stated that the water levels have decreased and that they have experienced drought twice during the past ten years. • <i>Development Projects:</i> There is support for orphans, fish dams, and tree planting. • <i>Negative aspects of the River that affect people:</i> Floods and sometimes when there are strong winds, there are accidents with fishermen. • <i>Communication Channels:</i> Messages are passed from the community to the GVH. The GVH then sends messages to the Traditional Authority. The TA then communicates with the District Commissioner. Messages from the District would use the same channel to communicate messages to the community. 	

TABLE 15. FOCUS GROUP DISCUSSIONS WITH WOMEN

Date	Name	Remarks/ Concerns	Suggestions
26 th October, 2011	GVH Mnembe, Nsanje 15 women	<ul style="list-style-type: none"> ● <i>Perceived negative effects:</i> The Project will affect people in the Lower Shire through increased flooding and widening of the river. ● <i>People most likely to be affected by the Project:</i> People with gardens closest to the River. ● <i>Benefits from the Project:</i> Restoration of water to its original level and more water/moisture for farming. ● <i>Awareness of the Project:</i> Community not aware of the Project. ● <i>Changes in water level:</i> Should the water level go down, it will be difficult as many people rely on the River. Stakeholders commented that when the water level goes down or there is drought and production is low, people rely on part time work in other people's gardens. Stated that droughts have occurred many times in the past ten years-perhaps more than five times, ● <i>Use of the Shire River/Lake:</i> Raised the issue of the importance of the Shire River regarding transport to Mozambique as many people have farms in Mozambique. Since there are few safe water points, women fetch water from the River. The River is also used for agriculture (irrigation), fishing, water for domestic use and animals. ● <i>Negative aspects of the River that affect people:</i> Crocodiles and hippos are a constant problem. 	<ul style="list-style-type: none"> ● Provide aid to people that are affected. ● Requested barrage operators to have more consideration for those downstream of the barrage. ● Provide designated points to collect water, this would reduce accidents and deaths from crocodiles.
26 th October, 2011	GVH Nyamula, Nsanje 35 women (two groups)	<ul style="list-style-type: none"> ● <i>Perceived negative effects:</i> There were concerns raised that if the upgrading and operation of the barrage reduces water levels, there may be a scarcity of water for animals. If this happens it also means that water for domestic use will recede and expose women to crocodile risks. ● <i>People most likely to be affected by the project:</i> Farmers and fishermen are likely to be affected by the project when the river floods due to increase in water levels. ● <i>Benefits from the Project:</i> Increased water and moisture would facilitate crop production. ● <i>Awareness of the Project:</i> Community had not heard of the Project. 	<ul style="list-style-type: none"> ● Government should provide aid to those affected in the form of food and cash. ● Suggested that more health units are provided.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Division of labour amongst men and women:</i> Men- looking for money or food, building houses. Women- fetching water, looking after the house, cooking and caring for children. • <i>Use of the Shire River/Lake:</i> The Shire River is very important for livelihood and is also important for water for domestic use and transport. • <i>Negative aspects of the River that affect people:</i> When there is an increase in flooding, there is also a potential increase risk of cholera. Crocodiles also impact communities negatively. • <i>Access to Services:</i> Health units are far away and accessing services is difficult. • <i>Girl's education:</i> Most girls enrol in school but do not progress due to poverty and pregnancies. 	
27 th October, 2011	GVH Ngabu, Nsanje 21 women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Reduction or overflow of water in the banks. The overflow may cause damage to crops such as bananas, sugarcane and also destroy gardens. The number of crocodiles and hippos may increase closer to where people cultivate when the water level rises. • <i>People most likely to be affected by the project:</i> People that use the river for water for domestic use. People with land along the River whose land may be flooded. • <i>Benefits from the Project:</i> The Project may promote irrigation, which would benefit people. • <i>Use of the Shire River/Lake:</i> Water for domestic use, farming. Commented that the community is heavily dependent on the Shire River for their livelihoods. All households depend on the Shire in some respect. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Changes in water levels:</i> When water level goes down, women have difficulties getting water for domestic use. People go inside the river bank to find water for <i>dimba</i> gardens. They use boreholes in this process but this can take a long time. Commented that when there are droughts food security is affected and the river can help to alleviate this problem. • <i>Negative aspects of the River that affect people:</i> Crocodiles, hippos and flooding affect 	<ul style="list-style-type: none"> • Provide farming land to those affected. • Government should provide timely assistance in the form of food and resettlement.

Date	Name	Remarks/ Concerns	Suggestions
		<p>people. However, when floods occur, receding waters leave behind moisture and fertile soils are used for cultivation.</p>	
<p>28th October, 2011</p>	<p>GVH Mbenje, Nsanje 11 women</p>	<ul style="list-style-type: none"> ● <i>Perceived negative effects:</i> When the water level rises, floods occur and transport is interrupted which means people are unable to cross the river to Mozambique where their gardens are, the gardens may also be affected by increased water levels. ● <i>Benefits from the project:</i> Community expected the Project to return water levels to what they used to be and farming and fishing will be as good as it was. Increased water levels will promote agricultural production and raise the possibility of extending irrigation. ● <i>Awareness of the Project:</i> Community had not heard of the Project. ● <i>Use of the Shire River/Lake:</i> Source of livelihood- fishing and agriculture. ● <i>Division of labour amongst men and women:</i> Men build houses and do farming and fishing. Women do farming, sweeping around the compound, fetching water, cooking, business, casual work (<i>ganyu</i>) and fetch firewood. ● <i>Decision-making:</i> Men have more influence than women. They make decisions on land use, family income and expenditure. Women however, also have some influence, especially on matters pertaining to family planning. ● <i>Ownership of assets by women:</i> The traditional leadership guarantees the ownership of assets by women. There are no socio-cultural barriers preventing women from owning land and women are free to own land and assets. ● <i>On-going development activities:</i> Adult literacy, caring for orphans and the elderly through community based organisations. ● <i>Girls' education:</i> Many girls enrol in school but there are a lot of dropouts due to a lack of school fees, lack of basic materials like food and soap and also early pregnancies. ● <i>Access to Services:</i> Health services are poor. Staff are rude and the communities commented on inadequate treatment e.g. aspirin for almost all diseases. Women prefer buying their medication from grocery stores. 	<ul style="list-style-type: none"> ● Suggested that the Project implementers try and ensure that many people benefit from the Project. ● Ensure that water levels do not rise excessively but are enough to keep moisture for cultivation. ● There is need for development projects in the community to assist parents to send their children to school.

Date	Name	Remarks/ Concerns	Suggestions
29 th October 2011	GVH Namila, Chikhwawa 12 women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Increased flooding which may damage crops and possibly lives if people are not told in advance about water releases. • <i>People most likely to be affected by the Project:</i> All the people with farms along the river. • <i>Benefits from the Project:</i> Increase in fish, which may benefit fishermen and the general population in the area. Irrigation farming can be extended to other areas not previously practicing irrigation. • <i>Awareness of the Project:</i> Participants had not heard of the Project until time of meeting/consultation. • <i>Use of the Shire River/Lake:</i> Agriculture, fishing, grazing animals and transport. • <i>Decision- making:</i> Women participate in decision-making and some are members of committees at the community level. At the household level women have a say on important decisions although the man as the head of the household has more influence. • <i>Ownership of assets by women:</i> Women can freely own assets. Land owned by women is passed on from parents. • <i>Access to Services:</i> Access is difficult, especially during the rainy season. There are few NGOs operating in the area. Adult literacy classes are available but most women do not attend. • <i>Negative aspects of the River that affect people:</i> Flooding that makes the smaller rivers overflow. 	<ul style="list-style-type: none"> • Suggested a bridge be built to facilitate access to health units and maize mills. • People should be notified of the Project start date. • Encourage more women to participate in adult literacy classes.
29 th October, 2011	Ulemu Village, Chikhwawa 14 women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> When the water level decreases there will be problems with finding water for domestic use. If it increases, there will be damage of gardens and the trees in them. • <i>People most likely to be affected by the Project:</i> The Project will affect all people but especially those with gardens, fruit trees and houses close to the river. • <i>Benefits from the Project:</i> Upgrading the barrage may bring water levels back to original levels. • <i>Awareness of the Project:</i> Community had not heard of the Project. 	<ul style="list-style-type: none"> • Compensate people that will be affected. • Need for more development activities to ensure people are accessing health, education, agriculture and water services. • More education on family planning, especially for men.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Use of the Shire River/Lake:</i> Farming (agriculture), source of fish and a source of water for drinking and for animals. Also used for transport. • <i>Decision- making:</i> Both men and women make decisions in the home concerning resources and reproductive health. Women also have influence at the community level. • <i>Ownership of assets by women:</i> Women can own land and other property. When there are problems, the chief is consulted. • <i>Access to Services:</i> Development programs are few but some people are involved in moulding bricks. There are no adult literacy classes, although women want to attend. Health units are accessed although sometimes there is no medicine. • <i>Girls' education:</i> Girls enrol in school but many drop out due to early marriage. 	
30 th October, 2011	Njeleza Village, Chikhwawa, 9 women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Flooding may damage crops and gardens. • <i>People most likely to be affected by the project:</i> Those with gardens and crops along close to the river. • <i>Benefits from the Project:</i> Project may encourage irrigation. • <i>Awareness of the Project:</i> Community was not aware of project until this meeting. • <i>Use of the Shire River/Lake:</i> Water for drinking and dimba gardens. The River is also used for fishing and transport. People are very dependent on the River since there is a drought almost every year. • <i>Changes in water levels:</i> Commented that in recent years the water levels have been reducing. • <i>Negative aspects of the River that affect people:</i> Flooding and attacks by crocodiles. When the water level goes down it means irrigation and drawing water is difficult. Those with gardens close to the river are the most affected. • <i>Communication Channels:</i> All issues related to development are channelled through the chiefs to the Area Development Committee and to the District Council. Messages from the district would be communicated back through the same channels. 	<ul style="list-style-type: none"> • Government should compensate those affected. Suggested that NGOs can assist with the process. • There is need for more boreholes in the area to assist in addressing the need for safe water.

Date	Name	Remarks/ Concerns	Suggestions
29 th October, 2011	GVH Chipfazi, Chikhwawa 22 women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Houses and crops will be damaged. • <i>People most likely to be affected by the Project:</i> People with gardens close to the river, although most the people in the catchment area will also be affected as they rely on production from the river. • <i>Benefits from the project:</i> The Project may allow more people to engage in irrigation farming. • <i>Awareness of the Project:</i> Community was not aware of the Project until this meeting. • <i>Division of labour amongst men and women:</i> Both men and women work to earn money for household use and also tend the gardens. Women look after the home including caring for children, fetching water, washing, cleaning the house and caring for the husband. Men and boys build houses. • <i>Decision-making:</i> Women take part in decision making however for some issues men make the decisions and have more influence on the decisions made. Men normally do not want women to practice family planning although there is some understanding. • <i>Ownership of assets by women:</i> The law and chiefs ensure that land belonging to women is not taken away. Women are free to own other property. • <i>Girl's education:</i> Girls are enrolled into school but often drop out due to poverty, pregnancy and marriage. There are no active adult literacy classes. • <i>Access to Health Services:</i> Health services are available but medicine is not always available. • <i>Changes in water levels:</i> There are changes in the river come because of droughts and heavy rains. When the water levels go down there are difficulties in accessing the water for irrigation and home use. When there are droughts and production is low, people do part time work to survive. When it is extreme people eat river plants called <i>nyika</i>. 	<ul style="list-style-type: none"> • Provide food aid to those affected. • Build houses for those affected. • Drill boreholes when the water levels go down. • Alert people when opening and closing the Barrage.
3 rd November, 2011	GVH Masinde, Blantyre 17 Women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Upgrading the Barrage will cause flooding, which will wash away crops as the water level rises. • <i>People most likely to be affected by the Project:</i> Everyone will be affected since there is inter-dependence between those who farm close shire (those with wetlands) and 	<ul style="list-style-type: none"> • Commented that they did not know about the river buffer zone, as a result they cultivated wherever they liked. Stated that there is a need for education. • Government should provide the affected households

Date	Name	Remarks/ Concerns	Suggestions
		<p>those who farm in the upper land. However, those who stay closest to the Shire River will be directly affected. Many stay close to river to protect their crops from hippos.</p> <ul style="list-style-type: none"> ● <i>Benefits from the Project:</i> More water will mean more fish; it will also mean more wetlands for farming. ● <i>Awareness of the Project:</i> Community was not aware of the Project until this meeting ● <i>Ownership of assets by women:</i> Women are free to own assets. They own land passed on from their parents. ● <i>Division of labour amongst men and women:</i> Some activities/roles are common to both men and women however drawing water, cooking, fetching firewood are tasks exclusive to women. ● <i>Decision-making:</i> Men have the most influence on decisions as well as money that the household generates. ● <i>Girls Education:</i> Most girls go to school but only a few complete their studies. School fees, poverty of parents and pregnancies are main the factors behind girls dropping out. ● <i>Access to services:</i> Health services are poor, as is quality. 	<p>with aid in form of money, food as well as resettlement areas.</p> <ul style="list-style-type: none"> ● More services are required. Nurses and doctors should change their attitudes and serve people better and with respect.
3 rd November, 2011	GVH Kachakwala, Blantyre 25 women	<ul style="list-style-type: none"> ● <i>Perceived negative effects:</i> If the water goes down due to the upgrade there is concern that there won't be enough water for irrigation, drinking and that there will be less fish. ● <i>People most likely to be affected by the Project:</i> Fishermen, farmers, people living along the river and those who have property (gardens and crops) along it. ● <i>Benefits from the Project:</i> The community perceived no benefits. ● <i>Awareness of the Project:</i> Community was not aware of project until this meeting. ● <i>Use of the Shire River/Lake:</i> Water for irrigation, fishing, domestic use, grazing for domestic animals such as cattle and goats and a home to wild animals. The river is also used for transport in some sections. ● <i>Negative aspects of the River that affect people:</i> Crocodiles and hippos destroying people's crops. Floods also destroy people's crops. 	<ul style="list-style-type: none"> ● Government should try and mitigate impacts. ● Suggested constructing canals for irrigation.

Date	Name	Remarks/ Concerns	Suggestions
3 rd November, 2011	GVH Ngwaya, Blantyre 15 women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Destruction of crops and gardens along the riverbanks. Commented that their gardens are very close to the river and are likely to be damaged. Also should the water levels go down there will be less water for irrigation, drinking and less fish. • <i>Benefits from the Project:</i> Increased water volume will mean an increase of fish and irrigation opportunities. • <i>People most likely to be affected by the Project:</i> Farmers and fishermen will be affected the most. • <i>Awareness of the Project:</i> Community was not aware of Project. • <i>Division of labour amongst men and women:</i> Women and girls are involved in agricultural activities, cooking, fetching water, caring for children and laundry. Men and boys are involved in agricultural activities and building houses and toilets. • <i>Decision-making:</i> Mostly done by men but women also have a say on family planning issues. Women consult their husbands but if their husbands do not agree they do what they think is good for their health. Men and women take part in decision making in community affairs. • <i>Ownership of assets by women:</i> Women do own land but it is mostly land that was left to them by their grandparents. This is family land that cannot be sold. There are no factors that prevent women/girls from owning and accessing resources. Boys and girls have equal right to property and education. • <i>Girl's education:</i> Girls enrol into school but most don't go beyond primary level. They dropout due to poverty and early marriage/pregnancy. • <i>Access to Services:</i> The nearest hospital is at Matope (Neno), which is the other side of the river. Communities use canoes to cross the River to reach the hospital. Pregnant women deliver on their own children without supervision of medical personnel. The women commented that doctors and nurses are rude. A literacy teacher is available but only two women attend classes. 	<ul style="list-style-type: none"> • None
11 th November,	GVH Mlooka, Zomba	<ul style="list-style-type: none"> • <i>Perceived Negative Effects:</i> Loss of wetlands and crops due to floods. There were concerns that houses may be damaged by flooding and that good soil, used for cultivation would be washed away. 	<ul style="list-style-type: none"> • Government should notify people before the Project starts.

Date	Name	Remarks/ Concerns	Suggestions
2012	20 women	<ul style="list-style-type: none"> • <i>Benefits from the project:</i> Increased water volume could increase fish levels and water for irrigation. • <i>People most likely to be affected by the Project:</i> Those living very close to the banks and those with gardens close to the river. • <i>Awareness of the Project:</i> The community were not aware of the Project. • <i>Division of labour amongst men and women:</i> Women are responsible for drawing water, fetching firewood, washing and cooking. Men build houses and latrines. Both men and women do agriculture and small-scale business. • <i>Decision-making:</i> Both men and women work together in making decisions. On reproductive issues, women have the right to voice their views on the number of children they want to have. However, in most cases men have the greatest influence. • <i>Ownership of assets by women:</i> Women are able to own assets. • <i>Girl's education:</i> Most girls go to school but only go up to standard 8 or form 1. The main reasons for girls dropping out are early pregnancy and lack of money for school fees. • <i>Access to Services:</i> Health units are far from the community and women face difficulties during childbirth. 	<ul style="list-style-type: none"> • For those affected negatively, Government should provide aid in form of food.
13 th November, 2011	GVH Liundi, Machinga 18 women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Loss of houses, wetlands and crops due to floods. There were concerns that people as well as good soil for cultivation will be washed away. • <i>Benefits from the Project:</i> Increase in fish and water for irrigation. • <i>Awareness of the Project:</i> The community were not aware of the Project. • <i>People most likely to be affected by the project:</i> Those living very close to the banks. • <i>Division of labour amongst men and women:</i> Women and girls do agricultural activities; take care of the household and business. Men and boys build houses and dig and building bathrooms/toilets as well as find food for the household. • <i>Decision-making:</i> Both men and women work together in decision making. On reproductive issues, women have the right to voice their views on the number of children they want to have. However, in most cases men have the greatest influence. 	<ul style="list-style-type: none"> • Need for a government clinic • Government should notify and sensitize people before the project starts. • Government should provide aid in form of food.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Access to Services:</i> On-going projects in the community include planting trees in the upper lands as well as along the banks, irrigation schemes, nursery schools and road construction. There are adult literacy classes, although most women do not attend. Commented that the government hospital is far but there is a health centre nearby. The health centre is not free. • <i>Ownership of assets by women:</i> Women cannot possess their own piece of land. They use family land, which is passed on from generation to generation. • <i>Girl's education:</i> Most girls go to school but only go up to standard 8. Some drop out because of pregnancy or lack of money for school fees. 	
15 th November, 2011	GVH Chabwera, Machinga 31 women (two groups)	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Women raised concerns that sexually transmitted diseases such as AIDS may increase also that gardens upstream may be damaged due to rising water levels. • <i>People most likely to be affected by the project:</i> People around the barrage and along the river. • <i>Benefits from the Project:</i> Increase in small scale business, especially food sales due to workers in the area; employment for both men and women on the Project. Commented that some women will find marriage partners. • <i>Awareness of the Project:</i> The community were not aware of the Project. • <i>Division of labour amongst men and women:</i> Women –cooking, looking after children, businesses and farming. Men- building houses, fishing and looking for money to provide household needs. • <i>Importance of the Shire:</i> Source of fish, farming alongside the River and transport. • <i>Decision-making:</i> Women participate in decision making but always in consultation with men. Women commented that sexual and reproductive health issues are always difficult. Some men are not willing to discuss them and women proceed with birth control measures without telling their husbands for fear of conflict. • <i>Ownership of assets by women:</i> Women can own property in their own right without hindrance. However, sometimes their land is taken from them by family members (uncles) who stay in the village. 	<ul style="list-style-type: none"> • Compensation for those affected. • Need to continue promoting adult literacy classes.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Girls' education:</i> Girls have chance to be educated but many drop out due to lack of fees, clothes and early pregnancy. The highest many go is standard eight or form 2. • <i>Access to Services:</i> Health facilities are available but availability of medicine is not consistent. Adult literacy classes exist but women are reluctant to attend. 	
18 th November, 2011	GVH Maliro, Mangochi 16 women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Damage to crops and gardens if the water overflows. Any reduction in fish stocks will affect communities. • <i>People most likely to be affected by the Project:</i> Fishermen and those with gardens close to the river. • <i>Benefits from the Project:</i> More water may bring more fish and promote irrigation. • <i>Awareness of the Project:</i> Community was not aware of the Project until this meeting. • <i>Division of labour amongst men and women:</i> Women and girls- cooking, caring for the home, fetching water and farming. Men and boys- building houses, looking for food and money to feed the family. • <i>Decision- making:</i> Women take part in decisions in their own households and community governance. Reproductive health issues are difficult to discuss because men are not comfortable with this. Men want a lot of children without regard to women's health. • <i>Ownership of assets by women:</i> Women are free to own assets, including land although they may not sell it as they want. • <i>Girls Education:</i> Girls enrol in school but most do not finish, due to early marriage, pregnancy, school fees and poverty of parents. • <i>Access to Services:</i> The health unit is far away and during the rainy season it is difficult to access. Medicines are not always available in the health centre. There are literacy classes available however teachers and materials are not always available. • <i>Changes in water levels:</i> Floods destroy crops, while drought means less water affecting crops. Fish quantities decline with reduced water levels. When water levels reduce, affecting crop yields and fishing people conduct casual work or small-scale business. 	<ul style="list-style-type: none"> • Provide aid to people affected. • Ask NGOs to come to the area with development projects. • People should be told how the Project will benefit or affect them. • Need for education for men to value health of their wives.

Date	Name	Remarks/ Concerns	Suggestions
20 th November, 2011	GVH Kunkhongo, Salima 16 women	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Gardens, houses and crops will be destroyed due to flooding waters. There were concerns that the government will cause problems by tampering with the river, causing flooding. • <i>People most likely to be affected by the project:</i> Those with gardens close to the lake but also houses as there have been cases in the past where water has flooded beyond gardens and affected houses. • <i>Benefits from the Project:</i> Increased water levels may encourage irrigation farming. • <i>Awareness of the Project:</i> The community were not aware of the Project. • <i>Division of labour amongst men and women:</i> Women fetch water, cook and fetch firewood. Men construct houses and look for food for the household. Both men and women do farming. • <i>Access to Services:</i> Access is easy but there is no medicine and a poor attitude of staff. Adult literacy classes were previously available but now the teachers have left. • <i>Ownership of assets by women:</i> Women are free to own assets, including land. • <i>Decision-making:</i> Men dominate decision- making and as a result women are not entirely free to discuss reproductive health issues. This extends to other aspects of life. Commented that actions affecting use of resources in the household will therefore affect women. • <i>Girl's education:</i> Many don't complete school due to lack of school fees, pregnancy and lack of uniforms. 	<ul style="list-style-type: none"> • Provide education for men on family planning. • Identify new adult literacy teachers to resume classes. • Compensation in the form of food and land to those affected.

TABLE 16. FOCUS GROUP DISCUSSIONS WITH MEN

Date	Name	Remarks/ Concerns	Suggestions
26 th October, 2011	GVH Mbenje- 1 Nsanje 8 men	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> The increase in water could damage crops and gardens. Concerns were raised about an increase of crocodiles in the area when the water levels rise. • <i>People most likely to be affected by the Project:</i> People cultivating close to the river. • <i>Benefits from the Project:</i> Moisture in the soil from the receding water can be used for planting crops. Most people harvest more from crops close to the river than those just relying on rain. • <i>Awareness of the Project:</i> Not aware of the project. • <i>Use of the Shire River/Lake:</i> Irrigation, fishing, transport, source of reeds for mat making, source of food in times of prolonged drought e.g. <i>nyika</i>. Participants commented that people depend on it for their livelihood-<i>dimba</i> gardens and fishing. • <i>Negative aspects of the River that affect people:</i> Flooding, even when there is not much rain the lower parts of the Shire River flood. Participants also raised that crocodiles harm and kill people. • <i>Changes in water levels:</i> Stakeholders perceived that water levels had receded and that there had been droughts every year since 2000. • <i>Communication Channels:</i> Commented that communication flows from Village Head to Group Village Head to Traditional Authority to District Commissioner. The same channel would be used when communicating messages to communities from the district centre. 	<ul style="list-style-type: none"> • Suggested that government and NGOs should provide timely assistance in the form of food as well as resettlement areas. • Government should provide portable drinking water through boreholes.
27 th October, 2011	GVH Mnembe 2, Nsanje, 12 men (not in same community as GVH Mnembe1)	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Loss of gardens and property due to rises in water levels, causing flooding. • <i>People most likely to be affected by the Project:</i> Those who farm along the river. • <i>Benefits from the Project:</i> The project is welcome provided the gates are opened at the right time. This project will bring more water which will promote farming. However, seeds should be supplied by the Government. The upgraded barrage in Liwonde will enable people grow crops since rains are unreliable. • <i>Awareness of the Project:</i> Participants had never heard of Project until the meeting. 	<ul style="list-style-type: none"> • Barrage gates should be opened from December-March giving people time to harvest and prepare land for the next cultivating season. • The opening of the gates should not coincide with the rains because that will mean disaster. The pieces of land that people have are not that big, therefore people want to fully utilize the land when water has subsided.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Use of the Shire River/Lake:</i> Three quarters of people in this community have farms in Mozambique along the Shire River. The River is also source of drinking water and facilitates irrigation- through the construction of canals. Participants also commented that after the floods have occurred and the water has subsided, the soil is good to grow crops. The river is also a means of transport to and from Mozambique. • <i>Changes in water levels:</i> Commented that water levels have been reducing, citing droughts in four of the past ten years. When droughts occur food and water shortages are experienced. • <i>Negative aspects of the River that affect people:</i> Crocodiles, which can harm and/or kill people and floods, which wipe out crops. • <i>Development projects in the community:</i> There are NGO's which support orphans, the aged, people with disabilities, and other vulnerable families. ActionAid supports children under five. • <i>Communication Channels:</i> Communication is done through the chiefs to the District Commissioner (DC). 	<ul style="list-style-type: none"> • Suggested aid in form of food and seeds.
28 th October, 2011	GVH Nyamula, Nsanje 16 men	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Raised concerns that graveyards may be flooded and that there might be damage to houses close to the River. Concerned that flooding will reduce the size of cultivatable land. • <i>People most likely to be affected by the Project:</i> Primarily those close to the River but almost everyone will be affected because the whole area relies on fish and produce from the River. • <i>Benefits from the Project:</i> Extra water may benefit people cultivating <i>dimba</i> gardens. Moisture left behind by overflowing water can be used for farming. • <i>Use of the Shire River/Lake:</i> Almost everyone depends on this river for food. • <i>Awareness of the Project:</i> Heard about the upgrading of the Barrage on Zodiak Radio. • <i>Changes in the water levels:</i> Commented that there have been some changes in water levels, with levels decreasing and droughts occurring every year in the last 5-10 years. Although the flooding is not like it used to be, the felling of trees and construction of roads has lead to more flooding. 	<ul style="list-style-type: none"> • Provide communities with aid and relocation assistance for those affected. • Plant reeds along the river so as to prevent it from increasing in size. • Advised that the government should be more aware of the people living downstream as in the past Barrage gates have been opened without regard to crops and people.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Communication Channels:</i> Commented that communication flows from Village Head to Group Village Head to Traditional Authority to District Commissioner. The same channel would be used when communicating messages to communities from the district centre. 	
28 th October, 2011	GVH Mphamba, Nsanje 10 men	<ul style="list-style-type: none"> • <i>Perceived negative Effects:</i> Concerned that increased water levels will damage crops and gardens, which could threaten food security. • <i>People most likely to be affected by the Project:</i> Farmers and those who farm along the Shire. • <i>Benefits from the Project:</i> The project is welcome in this area since it will mean more water and people want moisture especially during summer. • <i>Use of the Shire River/Lake:</i> For fishing, growing crops (<i>madimba</i>), as a source of drinking water, irrigation. It is also a site for tourism as people come to see the crocodiles. • <i>Changes in water levels:</i> The water levels have decreased, reducing moisture in the soil and yields from harvest. Community commented that drinking water for livestock and number of fish in the rivers has become scarce. • <i>Negative aspects of the River that affect people:</i> Flooding, crocodiles and cholera. When there is a flood, water comes up to 150 metres from the bank. • <i>Communication channels:</i> Communication is made through Village Protection Civil Committee (VPCC) but sometimes there is no feedback. 	<ul style="list-style-type: none"> • If flooding occurs due to the project, the government should make sure aid is provided. • Commented that the Government and Non-Governmental Organizations (NGOs) hold meetings in the villages but the fruits of those meetings are never seen. Suggested more action be taken following meetings.
29 th October, 2011	Namila Village, Chikhwawa 12 men	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned the Project will increase the likelihood of flooding, including from tributaries that feed into the Shire River. This could cause damage to crops. Mobility during the rainy season may also be difficult. • <i>People most likely to be affected by the Project:</i> All people in the area will be affected. However, people with gardens along the Shire will be affected the most. • <i>Awareness of the Project:</i> Not aware of the Project. • <i>Benefits from the Project:</i> Some people not previously engaged in irrigation farming may start practicing it. • <i>Use of the Shire River/Lake:</i> Almost everyone depends on this River for food since 	<ul style="list-style-type: none"> • Support people with irrigation equipment e.g. treadle pumps. • Provide direct assistance for people whose garden and crops may be damaged due to the increase in water levels.

Date	Name	Remarks/ Concerns	Suggestions
		<p>most people cultivate crops along the River.</p> <ul style="list-style-type: none"> • <i>Changes in water levels:</i> There have been no observed changes in water level however there have been 3-4 droughts since 2001. • <i>Communication Channels:</i> Communication mostly done through the traditional leadership structure. Messages are passed from Village Head to Group Village Head to Traditional Authority and finally to the District Commissioner and back. However, most of the times there are delays in receiving feedback. Hence people think the chief has not relayed the message. 	
30 th October, 2011	Njeleza Village, Chikhwawa 16 men	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that the Project may cause damage to crops and gardens because of increasing water levels and opening and closing of the Barrage gates. • <i>People most likely to be affected by the Project:</i> Everyone in the area will be affected for even if one does not have a garden along the River, as most people are either renting one or buying items from people farming along the river. • <i>Benefits from the Project:</i> The Project will bring more water, which will help irrigation activities. • <i>Use of the Shire River/Lake:</i> The River is very important for the community. It is used for fishing, farming and is a source of drinking water for many people. • <i>Changes in water levels:</i> There have been no major changes observed, however there has been three years of low rainfall. • <i>Negative aspects of the River that affect people:</i> When there is a lot of water in the Shire, there are floods. Crocodiles are also a threat, every year people are harmed or killed. • <i>Communication channels:</i> Communication is made through Village Head, and passed on to the Group Village Head who in turn passes it on to the Traditional Authority. The Traditional Authority is able to contact the District Commissioner on issues, if the district commissioner has a message, he would use the same channel to communicate with villages. 	<ul style="list-style-type: none"> • Provide more treadle pumps to communities.
3 rd November,	GVH Masinde	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Wetlands will be flooded and there were concerns that crops will die due too much water. 	<ul style="list-style-type: none"> • People should be warned when the barrage gates are

Date	Name	Remarks/ Concerns	Suggestions
2011	Blantyre 15 men	<ul style="list-style-type: none"> • <i>People most likely to be affected by the Project:</i> People with gardens and property along the River and also people upstream who do casual work on dimba land and gardens along the river. • <i>Benefits from the Project:</i> Project might increase opportunities for irrigation. • <i>Use of the Shire River/Lake:</i> Source of water for irrigation, fishing, water for domestic use, reeds for weaving mats and a tourist attraction. Source of livelihoods in almost all aspects of economic life-farming, fishing for food and sale. • <i>Changes in water levels:</i> Levels perceived to be lower now than before and there have been two droughts in the last ten years. To address this communities drill boreholes to enable people to access water for domestic use. • <i>Negative aspects of the River that affect people:</i> Flooding that destroys crops and the presence of wild animals such as crocodiles that harm/kill people. • <i>Development Projects in the community:</i> Community based organisations help people with HIV/AIDS, Bridge Two project (helps people with HIV/AIDS); Total Land Care provides help in the form of trees as well as in agriculture. • <i>Communication Channels:</i> Current mechanism flows from Village Development Committees to Area Development Committee to District Commissioner. 	<p>opened.</p> <ul style="list-style-type: none"> • Suggested that money and food be provided to those affected. • Suggested a quicker mechanism for communication Group Village Head – Traditional Authority – District Commissioner.
11 th November, 2011	GVH Liundi, Machinga 8 men	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that land that is close to the lake will be covered in water. If crops are in the field, they may be destroyed. Also concerned that there would be an outbreak of diseases e.g. cholera and increase of malnutrition if crops are destroyed. • <i>People most likely to be affected by the Project:</i> All people that have farms close to the river will be affected. • <i>Benefits from the Project:</i> Employment with the Project and possibly increased irrigation farming. • <i>Awareness of the Project:</i> Yes, the community had heard about it on the radio. • <i>Use of the Shire River/Lake:</i> The River is used for agriculture as a source of food, reeds for weaving mats and a means of transportation. The River is also used as source of drinking water and source of water for irrigation. 	<ul style="list-style-type: none"> • Food should be provided by the government, with help from different non-governmental organisations. • Construct wells to assist those affected. • Provide long pipes or water pumps to ensure irrigation does not suffer when water levels decrease. • Asked about who they could contact in regards to the project.

Date	Name	Remarks/ Concerns	Suggestions
		<ul style="list-style-type: none"> • <i>Changes in water levels:</i> The community perceived a decrease in water-levels in the Shire River and 2-3 droughts in the last decade, the worst being 2001 and 2005/6. Commented that some fish species have reduced and irrigation can become difficult which affects harvest. • <i>Negative aspects of the River that affect people:</i> Crocodiles and hippos harm people and destroying crops. Floods on the river can also affect crops and houses. • <i>Communication Channels:</i> Current mechanism flows from Village Development Committee to Area Development Committee to District Commissioner. 	
17 th November, 2011	GVH Mtuwa, Mangochi 15 men	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that crops and gardens would be washed away. Stated that their community is relatively far from the Lake but they were concerned that they may be affected if the production of crops is negatively affected. • <i>People most likely to be affected by the project:</i> Those with gardens close to Lake Malombe. • <i>Benefits from the Project:</i> Improved electricity supply and irrigation schemes. • <i>Use of the Shire River/Lake:</i> Source of food, employment, transport and income. It is also used for irrigation farming. • <i>Awareness of the Project:</i> Not aware of the Project before the meeting. • <i>Changes in water levels:</i> The water levels have decreased, with droughts occurring three times in the last ten years. • <i>Negative aspects of the River that affect people:</i> Crocodiles and hippos, which destroy people's crops. • <i>On-going development projects:</i> Bilal Trust, which builds mosques, National Association of People Living with HIV and AIDS in Malawi (NAPHAM) – helps people living with HIV/AIDS by giving them goats. NAPHAM also provides transport for the sick to hospitals. • <i>Communication Channels:</i> Messages flow from the Village Development Committee to the Area Development Committee and finally to the District Council. The District Council sends the messages back through the same channel. 	<ul style="list-style-type: none"> • Government should assist people who will be affected, suggested the provision of seeds. • Non-governmental organizations and chiefs should also assist.

TABLE 17. FOCUS GROUP DISCUSSIONS WITH COMMUNITY BASED ORGANISATIONS

Date	Name	Remarks/ Concerns	Suggestions
4 th November, 2011	GVH Kachakwala, Blantyre 7 members	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Concerned that the Project may damage crops and gardens and also increase the population of crocodiles. • <i>People most likely to be affected by the Project:</i> Commented that all people that use the Shire will be impacted including those with farms close to the river and those using it to draw water for domestic use. • <i>Benefits from the Project:</i> The Project may increase fish availability and irrigation activities. • <i>Awareness of the Project:</i> Community not aware of the Project. • <i>Use of the Shire River/Lake:</i> Stated that the river is currently used for fishing, water for domestic use and irrigation farming. It is an important source of food and income for people living along the River and beyond. • <i>Negative aspects of the River that affect people:</i> There are crocodiles in the River that threaten the lives of people in the area. Also when the water floods during the rainy season, crops are destroyed. Hippos also destroy people's crops. • <i>Changes in water levels:</i> Organisation perceived that water levels had decreased, with drought experienced three times in the past decade. • <i>Development Projects in the Community:</i> There are currently no development projects in community, except for the work of the CBO's in caring for orphans and the elderly. • <i>Communication Channels:</i> Communication to the government is done through the Group Village Head who communicates with the Traditional Authority- and ultimately, the District Commissioner. The DC uses same channel for messages to deliver information to the community. 	<ul style="list-style-type: none"> • Notify the public about the Project before it starts to enable for adequate preparation. • Suggested more development projects in the area be started.
11 th November, 2011	GVH Mzingala, Machinga 10 VDC	<ul style="list-style-type: none"> • <i>Perceived negative effects:</i> Gardens, houses and crops may be damaged. • <i>People most likely to be affected by the Project:</i> The whole area will be affected since most people also use the river as source of water for domestic use. Those with land and houses close to the river are to be directly affected. 	<ul style="list-style-type: none"> • VDC need to be informed about how they will be involved in the Project. The chiefs and the District/Town Council should ensure the VDC is involved in all development projects in the area.

Date	Name	Remarks/ Concerns	Suggestions
	members	<ul style="list-style-type: none"> • <i>Benefits from the Project:</i> The project will be a source of employment for people. It may also promote irrigation. • <i>Awareness of the Project:</i> No official notification, had heard rumours of the Project. • <i>Use of the Shire River/Lake:</i> The Shire is used for irrigation, electricity, water for domestic use and <i>dimba</i> gardening. It is also used for transport. • <i>Changes in water levels:</i> Commented that water levels have decreased and there have been 3-4 droughts in the last few years. • <i>Negative aspects of the River that affect people:</i> Flooding affects crops and mobility. Crocodiles and hippos also endanger people and crops. • <i>Development projects in the community:</i> There are adult literacy classes. Commented that the GVH and other people are sidelining the VDC e.g. the piped water project that will cover parts of Liwonde. • <i>Communication Channels:</i> Communication is done through the VDC to the ADC and to the District Commissioner (DC) or other relevant departments at the district center. Messages are passed through chiefs or extension workers back to communities. 	<ul style="list-style-type: none"> • Notify people about the Project.

TABLE 18. INDIVIDUAL DISCUSSIONS WITH NGOS

Date*	Name	ISSUES RAISED
Feb-Aug 2012	<p>Organization: GOAL Malawi Respondent: Mr. Abel Portfolio: Engineering Coordinator</p>	<p><i>Organization's focus</i> It was reported that GOAL Malawi works in the following interventions i) livelihoods protection and enhancement ii) Health and Nutrition iii) DRR and CCA iv) WASH.</p> <p><i>Geographical coverage</i> The respondent reported that GOAL activities are predominantly in Nsanje district. In that regard, it was highlighted that GOAL works with communities who live along the Shire River (lower Shire). It was reported that all the 9 traditional authorities (T/As) available in Nsanje district have communities living along the Shire River, with T/A Nyachikadza being entirely in the marshes along the River.</p> <p><i>Aspects the Shire River/Lake Malawi/Malombe that affect the people negatively</i> It was reported that worst flooding, crocodile attacks and destruction of crops by hippos are the aspects of the Shire River that affect people negatively.</p> <p><i>Changes over the past ten years</i> The respondent reported that the frequency and intensity of flooding has been increasing over the years. The flooding is mostly inundation from the swelling of Shire River. Furthermore, it was reported that the communities are also affected by flash floods as rivers from the upper lands fail to discharge their loads into the swelling Shire.</p> <p><i>Length of working in the district</i> GOAL Malawi has been working in Nsanje since 2003. It was noted that there are currently no plans to move out of the district.</p> <p><i>Organization interface with communities and community level structures</i> It was reported that over the years, GOAL has developed a cordial relationship with traditional leadership and communities including community based structures. The respondent reported that; <i>"GOAL has built the capacity of various community level structures and implementation of its programmes is done through these structures".</i></p> <p><i>Aware of government plan to upgrade</i> The respondent was aware of government plans to upgrade Kamuzu Barrage.</p> <p><i>Perceive positive effects from upgrading the Kamuzu Barrage</i> The respondent noted highlighted that the project would less likely have meaningful positive effects except for the</p>

Date*	Name	ISSUES RAISED
		<p>regulation of flow on the Shire River. However, he reported that should the regulation of the water flow be enhanced, it may to some extent affect the occurrence of flooding in the lower parts of the Shire River.</p> <p>Perceived negative effects from upgrading the Kamuzu Barrage</p> <p>The respondent reported that the project may have minimal meaningful effects, but hinted that if gates are opened, there may be flooding because of the increased flow in the Shire River.</p> <p>Current communication mechanisms with Government district level structures</p> <p>The respondent reported that the current communication mechanisms with government district level structures are regular DRR coordination meetings, District Executive Committee (DEC) meetings and report sharing.</p> <p>Possible organization's role regarding the upgrading project</p> <p>Information dissemination (early warning prior to gates opening) was perceived as the possible role GOAL could play regarding the upgrading project.</p>
Feb-Aug 2012	<p>Organization: Churches Action in Relief and Development (CARD)</p> <p>Respondent: Arthur Lichenya</p> <p>Portfolio: Monitoring and Evaluation Specialist</p>	<p>Organization's focus</p> <p>The respondent reported that CARD focuses on food security and small scale irrigation; livelihoods; humanitarian response, human rights and governance; water and sanitation; environmental management; and disaster risk management.</p> <p>Geographical coverage</p> <p>It was reported that CARD is operating in Nsanje, Thyolo, Mulanje and Mchinji. In Nsanje, CARD works with communities in the development of small scale irrigation schemes along the Shire River.</p> <p>Aspects the Shire River/Lake Malawi/Malombe that affect the people negatively</p> <p>The respondent reported that even though flooding is perceived to have negative effects on people, communities around Shire River expect 'normal' flooding between January and March every year. It was further reported that communities adapt to such flooding and take advantage of the alluvial soils that the floods bring to plant with the residual moisture soon after the flooding waters recede. In addition, it was reported that flooding negatively affects communities depending on the period the flooding occurs, the magnitude (high levels) and duration of occurrence.</p> <p>Changes over the past ten years</p> <p>The respondent reported that the frequency and magnitude of flooding has increased over the decade. This has caused damage to irrigation schemes, especially the open canal systems of irrigation that have seen canals collapsing rendering such schemes non-functional.</p> <p>In addition, it was reported that the period and duration of occurrence of flooding has been inconsistent for many times</p>

Date*	Name	ISSUES RAISED
		<p>over the past ten years, thereby negatively affecting the irrigation cropping season.</p> <p><i>Length of working in the district</i> The respondent reported that CARD has been in existence since 1995.</p> <p><i>Organization interface with communities and community level structures</i> The respondent reported that face to face meetings with communities, Project review meetings, Area Development Committee meetings and Village Development Committee meetings are used as avenues of interfacing with communities.</p> <p><i>Aware of government plan to upgrade</i> The respondent reported that he is aware of the government plan to undertake the upgrading of Kamuzu Barrage.</p> <p><i>Perceive positive effects from upgrading the Kamuzu Barrage</i> The respondent reported that since he assumed that water levels will be controlled at the Barrage during the upgrading period, he therefore perceived reduced flooding levels and a relatively more consistent pattern in terms of period and duration of the occurrence of floods.</p> <p><i>Perceived negative effects from upgrading the Kamuzu Barrage</i> The respondent noted with concern that during the upgrading phase, persistent flooding of the Shire River is more likely. This will affect irrigation cropping season for farmers along the Shire River. <i>“ Instead of growing twice per year (April- July and August- December cropping) farmers will find themselves relying more on the August-December Cropping with the first cropping (April-July) likely to be disturbed by the rather higher levels and prolonged flooding”.</i></p> <p><i>Current communication mechanisms with Government district level structures</i> The respondent narrated that face to face meetings with district officials through the District Executive Committee (DEC) meetings and other organized sector meetings are the current available communication mechanisms with government district level structures.</p> <p><i>Possible organization’s role regarding the upgrading project</i> It was reported that the role of CARD regarding the upgrading project could be that of Community awareness on the possible effects of the upgrading work and the necessary measures to take.</p>
Feb-Aug 2012	Organization: Save the Children Respondent: Thoko Makawa	<p><i>Organization’s focus</i> The respondent reported that Save the Children focuses on health issues, mainly those that are within the Essential</p>

Date*	Name	ISSUES RAISED
	Portfolio: District Clinical Coordinator	<p>Health Package (EHP), which focus more on maternal and child health.</p> <p><i>Geographical coverage</i></p> <p>It was reported that Save the children covers the whole Nsanje district and that it works closely with community and most of them they are along the Shire River.</p> <p><i>Aspects the Shire River/Lake Malawi/Malombe that affect the people negatively</i></p> <p>The respondent reported that most of the communities who live close to the River are affected by the floods during the rainy season and Cholera as they depend much on the Shire River for drinking water.</p> <p><i>Changes over the past ten years</i></p> <p>It was reported that the project under Save the Children is new hence there has not been significant learning regarding changes that could have affected people around the area.</p> <p><i>Length of working in the district</i></p> <p>It was reported that the project has been running for 6 months and that it expected to run for five years.</p> <p><i>Organization interface with communities and community level structures</i></p> <p>The respondent reported that Save the Children interfaces with community and community level structures through dialogues with tradition leaders, use of open meetings with the communities themselves, and use of the existing decentralized structures. In addition, being a health project, meetings with community government officials, for example, Health Surveillance Assistants are also used as avenues for interfacing with communities.</p> <p><i>Aware of government plan to upgrade</i></p> <p>The respondent was not aware of government plans to upgrade the Kamuzu Barrage despite the fact that Save the Children is working in Nsanje district.</p> <p><i>Perceive positive effects from upgrading the Kamuzu Barrage</i></p> <p>Being a new project, the respondent could not establish any positive effects that could accrue from the upgrade.</p> <p><i>Perceived negative effects from upgrading the Kamuzu Barrage</i></p> <p>The respondent note that if the upgrade will involve closure of roads, it is likely that the area could be isolated from accessing key services. Operationally the NGOs and other key partners might have challenges accessing the areas if poor alternative access is made.</p> <p><i>Current communication mechanisms with Government district level structures</i></p> <p>None</p>

Date*	Name	ISSUES RAISED
		<p>Possible organization's role regarding the upgrading project</p> <p>The respondent could pinpoint what role they could play in this project, but highlighted that if Save the Children is expected to play a role, official communication needs to be sent to the management of the organization.</p>
Feb-Aug 2012	<p>Organization: Chikhwawa Diocese WALA program</p> <p>Respondent: Maxwell Moyo</p> <p>Portfolio: Monitoring, Evaluation and Learning manager</p>	<p>Organization's focus</p> <p>It was reported that Chikhwawa diocese WALA program focuses on promoting the reduction of food insecurity among the chronically food insecure households in 6 Traditional Authorities in Chikhwawa.</p> <p>Geographical coverage</p> <p>It was reported that the program is covering traditional authorities N'gabau, Lundu, Katunga, Maseya, Kasisi and Makhwira. It was further reported that approximately 50% of the targeted communities are along the Shire River.</p> <p>Aspects the Shire River/Lake Malawi/Malombe that affect the people negatively</p> <p>The respondent reported that floods which usually wash away people's crop fields and harbouring crocodiles are aspects of the Shire River that affect people negatively.</p> <p>Changes over the past ten years</p> <p>Not sure.</p> <p>Length of working in the district</p> <p>It was reported that the programme has been operational for three years, since 1st August 2009 and will phase out in June 2014.</p> <p>Organization interface with communities and community level structures</p> <p>The respondent reported that interface with communities is done through meetings and community workshops. These are facilitated by grassroots level staff (Field Supervisors) and volunteers. In addition, the program has created additional community level structures (committees) to assist with the dissemination of the messages.</p> <p>Aware of government plan to upgrade</p> <p>Despite working along the Shire River, the respondent was not aware of government plans to upgrade the Barrage.</p> <p>Perceive positive effects from upgrading the Kamuzu Barrage</p> <p>It is perceived by the respondent that controlling the water level of the river would reduce floods in most parts of the</p>

Date*	Name	ISSUES RAISED
		<p>lower Shire.</p> <p><i>Perceived negative effects from upgrading the Kamuzu Barrage</i></p> <p>The respondent reported that Pollution from the construction works and communication challenges due to road infrastructure closure could be some of the negative effects that could be caused by the project.</p> <p><i>Current communication mechanisms with Government district level structures</i></p> <p>Meetings with government officials including direct meetings with the office of the District Commissioner are the current available communication mechanisms with government district level officials.</p> <p><i>Possible organization's role regarding the upgrading project</i></p> <p>It was noted that some stakeholders will expect the District Executive Committee to assign them a role to play in this project. The respondent is quoted as saying;</p> <p><i>"There has to be a formal notification of the project. The DEC stipulates the role of partners and stakeholders in such projects".</i></p>
Feb-Aug 2012	<p>Organization: Population Services International - Malawi</p> <p>Respondent: Charles Gona</p> <p>Portfolio: Service Provision specialist</p>	<p><i>Organization's focus</i></p> <p>It was reported that PSI focuses on HIV/AIDS, Reproductive health and WASH</p> <p><i>Geographical coverage</i></p> <p>It was reported that PSI works in a number of districts including Nsanje.</p> <p><i>Aspects the Shire River/Lake Malawi/Malombe that affect the people negatively</i></p> <p>Unclean drinking water, flooding and crocodile attacks were reported as aspects of the Shire River that affect people negatively.</p> <p><i>Changes over the past ten years</i></p> <p><i>Not sure.</i></p> <p><i>Length of working in the district</i></p> <p>The respondent reported that PSI has a five year project, so far the project has been implemented for two and half.</p>

Date*	Name	ISSUES RAISED
		<p><i>Organization interface with communities and community level structures</i> It was reported that PSI works with Community Based Organizations, NGO's, Health Centres and community leaders as avenues for interfacing with the communities.</p> <p><i>Aware of government plan to upgrade</i> Despite working along the shire river, the respondent was not aware of government plans to upgrade Liwonde Barrage.</p> <p><i>Perceive positive effects from upgrading the Kamuzu Barrage</i> Employment from the proposed upgrade was perceived as the positive effect of the upgrade.</p> <p><i>Perceived negative effects from upgrading the Kamuzu Barrage</i> The respondent reported that there will be communication challenges in the event that roads are rendered impassable. Furthermore, it was noted that if efforts are not directed towards the farming sector, this might result into low yields in the area.</p> <p><i>Current communication mechanisms with Government district level structures</i> District Executive committee meetings were reported as the current communication mechanisms with government district level structures.</p> <p><i>Possible organization's role regarding the upgrading project</i> It was reported that PSI could possibly carry out sensitization campaigns to ensure the surrounding communities have a clear understanding of the importance of this project.</p>

*Consultation was undertaken over a period of time through questionnaires sent over emails / phone interviews with the respective NGO field staff that were based in Nsanje, Chikhwawa and Blantyre.

4 Addressing Stakeholder Concerns and Incorporating Suggestions

The community consultation undertaken as part of the ESIA and RAP process has enabled the collection of important community views, concerns and suggestions about the Project. These concerns and suggestions as well as the Projects methods of addressing these have been summarised and are included in Table 19 below.

TABLE 19. ADDRESSING STAKEHOLDER CONCERNS

Key Stakeholder Concerns	Community and District Council Suggestions	Addressing Stakeholder Concerns
<p>Livelihoods Potential impacts of the Project on 'dimba' cultivation crops, grazing land, and properties located close to the River.</p>	<ul style="list-style-type: none"> • Provide compensation for those affected by the Project and involve the local leaders in its implementation. • Monitor impacts of the barrage upgrade up and downstream. 	<p>This has been assessed and addressed in the following sections:</p> <ul style="list-style-type: none"> • Section 6 of the RAP provides details of project-affected persons within the construction footprint of the Project. • Section 7 of the RAP outlines the entitlement and compensation frameworks for those affected. • Section 8 of the RAP provides the details of the institutional and organisational framework of this process, specifically how local leaders and District Councils will be involved in the implementation process for compensation as well as training activities to provide them the skills and understanding required to complete this work. • Section 11 of the RAP provides details on the monitoring and evaluation methods to be undertaken for the RAP. Section 5 of the Environmental and Social Management Plan (ESMP) further describes how the monitoring program will address water related issues and feed into the revision of operating rules for the Barrage to minimise adverse impacts.
<p>Health and Safety Increase in animal/human conflict: especially hippos, which destroy crops and crocodiles, which harm and kill people as the river extends.</p>	<ul style="list-style-type: none"> • Advised the need to closely monitor impacts. • Suggested that designated points to collect water be provided to communities, as this would reduce accidents and deaths from crocodiles. 	<ul style="list-style-type: none"> • Section 11 of the RAP provides details on the monitoring and evaluation methods to be undertaken for the RAP. Section 5 of the ESMP further describes how the monitoring program will address water related issues and feed into the revision of operating rules for the Barrage to minimise adverse impacts. • Section 12 of the RAP provides details on how communities and project affected persons can make grievances about the Project and its related impacts. • Section 9.7 of the RAP outlines the further consultation and dissemination processes that need to be undertaken as part of this Project, including the dissemination of grievance procedures to project affected persons. • The provision of water collection points will be further investigated.
<p>Health and Safety</p>	<ul style="list-style-type: none"> • Suggested education 	<ul style="list-style-type: none"> • Section 4 of the ESMP addresses this potential

Key Stakeholder Concerns	Community and District Council Suggestions	Addressing Stakeholder Concerns
<p>Increase in STI's, including HIV with the influx of workers into the local population close to the barrage.</p>	<p>programs be provided.</p> <ul style="list-style-type: none"> • Give priority to local people when employing workers (Machinga). 	<p>impact and mitigation measures, including:</p> <ul style="list-style-type: none"> ○ Ongoing HIV/AIDS and STI education campaign targeting all Project workers, both national and international, complemented by easy access to condoms at the workplace as well as to voluntary counselling and testing. ○ The preference for locally based workers where applicable
<p>Communication and Barrage Operating Times Lack of warning about barrage opening times and increased water levels, increasing risk of accidents and damage to crops.</p>	<ul style="list-style-type: none"> • Suggested barrage gates should be opened from December- March giving people time to harvest and prepare their land for the next cultivating season. • Communicate about barrage operating schedule and identify a quick way to disseminate information to communities to avoid accidents. • Notify the public about the Project. • Suggested that the disaster management structures at the district level (District Civil Protection Committee, Village Civil Protection Committees, etc.) be involved in managing any unexpected damage to property that may be caused by the project and operation of the barrage. 	<ul style="list-style-type: none"> • Section 9.7 of the RAP provides details of the further consultation and information dissemination strategies to be undertaken for this Project including: <ul style="list-style-type: none"> ○ The establishment of an early warning system, involving Malawi's civil protection committees, designed to provide communities with adequate warning of increased water levels due to the barrage operation, short term waves and natural flooding and impacts. ○ A strong communications and information sharing program on changes in water levels as well as the establishment of a community steering committee involving SRBMP staff and different water users designed to feedback on barrage operation. • Section 5 of the ESMP provides details and mitigation measures for the environmental and social boundary conditions for water releases from the Barrage, to help ensure that the future operating rules for the Barrage avoid scenarios that would exacerbate destructive flooding or other undesirable outcomes (to the extent the extremes of the possible release strategies would be able to cause this negative impact);
<p>Transport Routes Disruption to transport routes and inundation of boat docking points.</p>	<ul style="list-style-type: none"> • Communicate and monitor affects on transport and boat docking points. 	<ul style="list-style-type: none"> • Section 9.7 of the RAP provides details of the further consultation and information dissemination strategies to be undertaken this includes: <ul style="list-style-type: none"> ○ A strong communications and information sharing program on changes in water levels as well as the establishment of a community steering committee involving SRBMP staff and different water users designed to feedback on barrage operation and impacts.

Key Stakeholder Concerns	Community and District Council Suggestions	Addressing Stakeholder Concerns
<p>River Buffer Zone</p> <p>People raised concerns about lack of awareness of River reserve zone, leading to closer crops to the river increasing risks to safety and crops.</p>	<ul style="list-style-type: none"> Suggested that education programs about the River buffer zone be conducted and that the law be enforced. This would reduce accidents and crop damage. 	<ul style="list-style-type: none"> Section 5 of the ESMP provides details and mitigation measures education programs on the River buffer zone and how it will be communicated with communities.
<p>Weed Boom</p> <p>Concern that increase of weeds will increase siltation and sedimentation and cause sand bars.</p>	<ul style="list-style-type: none"> Recommended that the control of weeds be factored into the Project as increasing water levels will mean more aquatic weeds e.g. typha reeds, hyacinths, upstream. 	<ul style="list-style-type: none"> Section 4 of the ESMP provides details of mitigation measures on floating weed control. This includes: <ul style="list-style-type: none"> Construction of a floating steel boom upstream of the Barrage to control floating weeds and improve the weed management system overall.
<p>Temporary Workcamp site</p> <p>Concerns were raised about the size of the site and location, commenting that it is too close to residential houses.</p>	<ul style="list-style-type: none"> Suggested an alternative site be found. 	<ul style="list-style-type: none"> The site for the temporary workcamp has been chosen based on its proximity to the barrage and through the fact that it is vacant land owned by the Town Council. Other sites were assessed but this site was chosen as it had the least potential impacts on the community surrounding the site.
<p>Railway Line</p> <p>Potential impact on the railway line.</p>	<ul style="list-style-type: none"> Identify impacts. 	<ul style="list-style-type: none"> The Project does not impact on the railway line.
<p>Environmental Impacts</p> <p>Potential impacts to the existing environment.</p>	<ul style="list-style-type: none"> Called for the development of an environmental management plan detailing positive and negative impacts, particularly as so many rely on the Shire River. 	<p>A detailed Environmental and Social Impact Assessment has been undertaken investigating potential impacts on all aspects of the existing environment including water levels, water quality, flora and fauna and social impacts. Mitigation measures have been proposed for all Project activities, which have the potential for significant negative impacts on the existing environment.</p> <ul style="list-style-type: none"> Section 5 of the RAP report provides baseline information for social conditions; Section 5 of the ESIA provides baseline information for the existing environmental and social conditions. Section 7 of the ESIA provides a detailed assessment of potential impacts and mitigation measures. Section 8 of the ESIA summarises the proposed mitigation and monitoring measures proposed in order to reduce potential impacts. These are described in detail in the Project's ESMP.

Appendix 1: Focus Group Discussion Questions

CHECKLIST FOR FOCUS GROUP DISCUSSIONS

1. How do you use Shire River? Lake Malawi? Lake Malombe?
2. How dependent are you on these lakes and the river for your livelihood?
3. What places/towns do you get connected to using lake and river transport?
4. What kind of changes have you recently observed on the Shire River/ Lake Malawi?
5. Have you heard about the Government's aims to upgrade Kamuzu Barrage?
6. Do you see any benefits from the barrage? From its upgrading? If yes, which ones?
7. In the last one decade how many droughts (low water level) you have witnessed?
8. When the water level goes down, how does this affect activities on the river/lake?
Explain the nature of impacts.
9. If this would happen, what could be possible coping mechanisms that you can adopt to sustain your livelihood?
10. Which aspect of River Shire and Lakes Malombe and Malawi Affect you?
11. What kind of support would you require in case the river/lake is affected? Who should provide this support?
12. In case the river/lake water level goes down, what do you think should be done?
13. In case the water level goes down, what do you think should be done? Who should do it?
14. What are the existing mechanisms of communication on issues to and from communities to decision makers and to and from decision makers to communities?
15. Do you have any questions or comments?

Thank you for your cooperation

Appendix 2: Socio- Economic Questionnaire

EIA for the Upgraded Kamuzu Barrage

Ministry of Irrigation and Water Development

Questionnaire No.

Name of the Investigator: _____ Field Supervisor: _____

Dzina la yemwe akufunsa

Woyang'anira-

1. GENERAL IDENTIFICATION

1.1. Location: a- Upstream b- downstream c- barrage

Kumtunda Kumunsi pa balaji

1.2. Side: a- Western b- Eastern

Mbali Kuzambwe Kum'mawa

1.3. District: _____ Group Village: _____ Town: _____

Boma Gulupu tauni

1.4. Type of Location: a- Rural *kumudzi* b- Semi- urban *tauni yaying'ono* c- Urban *tauni*

2. HOUSEHOLD IDENTIFICATION

2.1. Name of the Head of the Household: _____

Dzina la mutu wa banja

2.2. Name of the Respondent: _____

Dzina la yemwe akuyankha mafunsowa

2.3. Religion of Household: 1) Christianity 2) Islam

Chipembedzo Mkhrisitu Mu Silamu

2.4. Tribal Lineage

Mtundu:

2.5. Type of Society: 1) Patriarchal 2) Matrilineal

Miyambo ya anthu Chitengwa Chikamwini

3. HOUSEHOLD INFORMATION ZA PA BANJA PANU

3.1. Household Details

SI No. <i>Nambala</i>	Name of the Family Member <i>Dzina la Munthu wa M'banja</i>	Gender (M/F) <i>Mwamuna /Mkazi</i>	Age <i>Zaka</i>	Education (<i>Maphunziro</i>)							Occupation (<i>Ntchito</i>)						
				1	2	3	4	5	6	7	1	2	3	4	5	6	7

Education Code: 1. Illiterate 2) Primary 3.Secondary 4.High school 5.Graduate 6.Vocational 7.Others

1.satha kuwerenga ndi kulemba 2) pulaimale 3. Sekondale 4.sekondale ya pa mwamba 5. Ali ndi digiri 6. Mmisiri 7. zina

Occupation Code: 1. Agriculture 2. Landless Labour 3. Business 4. Govt Service 5. Private job 6. Fishery & Livestock 7. Bicycle Taxi
1. Mlimi 2. Alibe malo olima ndipo amagwira maganyu 3. Wa bizinesi/geni 4. Amgwira m'boma 5. Amagwira pa kampani 6. Mlimi wa ziweto komanso ndi msodzi 7. wa kabaza

3.2. Vulnerable Household /Banja lovutikitsitsa:

1. Women-headed 2. Elderly-headed 3. Orphans 4. Widow mayi wa masiye 5. Physically Challenged

1. Mkulu wa banja ndi mayi 2. Okalamba 3. Mwana wamasiye 4. Mwamuna wao anamwalira ndipo Sali pa banja 5. wolumala

4. CONSTRUCTION MATERIAL OF HOUSE

Floor/Pansi: 1. Cement/Concrete 2. Mud/ 3. Other/
ya simenti ya dothi zina

Wall/khoma: 1. Baked Brick & cement mortar 2. Mud with bamboo poles 3. Compacted soil 4. Other
1. Ya njerwa zootcha ndi simenti 2. La dothi ndi mitengo kapena nsungwi 3. Mdindo 4. zina

Roof: 1. Corrugated Iron sheets 2. Grass thatched 3. Tiles 4. Other

Denga: 1. La malata 2. La udzu 3. Matailos/mapale 4. Zina

5. POSSESSION OF ASSETS

Asset <i>Chuma/katundu</i>	Quantity <i>kuchuluka</i>	Asset <i>Chuma/katundu</i>	Quantity <i>kuchuluka</i>
Goats/mbuzi		Radio/wallesi	
Chicken/nkhuku		Television/ TV	
Land/ malo		Car/Gallimoto	
Cattle/ ng'ombe		Sofa Set/ mipando ya sofa	
Bicycle/ njinga		Bed with Mattress/ bedi ndi matiresi	
Cell Phone/selula		Refrigerator/ firiji	

6. AVAILABLE FACILITIES IN THE HOUSE

Facility	Availability /kupezeka (Yes-1 No-2) <i>(inde-1 Ayi-2)</i>	If 2, then Alternative <i>Ngati ayi, mumzipeza kuti</i>
Electricity/magetsi		
Drinking Water/madzi okumwa		
Toilet/ chimbudzi		
Any Other		

7. FULFILLMENT OF DAY-TO-DAY NEEDS

Item	Locally	If 2, Please Mention	
	yes-1; No-2 <i>inde-1; ayi-2</i>	Place <i>Malo</i>	Distance <i>Kutalika kwake/mtunda</i>
Food Items <i>Zakudya</i>			
Commercial Items <i>Katundu wa mnyumba</i>			
Requirements for Social Functions za <i>miyambo/chisangalalo</i>			

8. HEALTH STATUS AND FACILITIES NTHANZI LA MOYO WANU NDI BANJA LANU

What best describes the health status of members of your household?

Ndi mau ati mwa ali m'munsimu omwe akuthat kulongosola nthazi la moyo wanu komanso banja lanu?

Good=1, 2=average, 3=poor 1= moyo wathanzi 2-pang'onopnang'ono 3- wodwaladwala

Self <i>Inuyo</i>	Own Children <i>Ana</i>	Spouse <i>Akazi/amuna anu</i>	Other Children Staying <i>Ana ena omwe mukukhala nawo</i>	Other Adults Staying <i>Akuluakulu ena omwe mukukhala nawo</i>

8.1. Access to Health Care *Mtunda kufika pa chipatala*

1. Dispensary 2. Pharmacy 3. Hospital
 1. *Disipensale* 2. *Pogula kapena kupza mankhwala/famase* 3. *Chipatal chachikulu*

8.2. Was any member of your family affected by illness in the last year? 1. Yes 2. No

Kodi wina aliyense wa m'banja mwanu anadwalako miyezi 12 yapitayi? 1. Inde 2. Ayi

8.3. If yes, please indicate: *Ngati alipo anadwalako, onetsani m'munsimu*

Diseases <i>Matenda</i>	No. of cases <i>Anadwala anthu angati</i>	Adult <i>Akuluakulu</i>	Children <i>Ana</i>	Treatment (Modern/ Traditional) <i>Anapita ku chipatala kapena kwa sing'anga wa zitsamba</i>	Locally/ External Treatment <i>M'dera momwe muno kapena kunjwa kwa dera lino</i>

8.4. How much time it takes approximately to reach health facility centre:

1. Less than 5 minutes 2. Less than 30 minutes 3. One hour 4. More than one hour

Mumatenga nthawi yotalika bwanji kuti mufike pa chipatala chomwe chili pafupi

1. *Kuchepera mphindi 5;* 2. *osaposa mphindi 30* 3. *ola limodzi* 4. *kuposa ola lilodizi*

9. EMPLOYMENT and INCOME NTCHITO NDI KAPEZENDWE KA NDALAMA

9.1. Employment status *Ntchito*

1. Throughout the Year 2. Seasonal 3. Unemployed
 1. *Ya Chaka chonse* 2. *Ya pa chaka* 3. *Sali pa ntchito*

9.2. Monthly Income Reported *Ndalama zomwe mumapeza pa mwezi*

1. Less than MWK 10,000 2. MWK 10,000-20,000 3. MWK 20,000- 30,000 4. Above MWK 40,000
 1. *Zosposa K10,000* 2. *MWK10,000-20,000* 3. *MWK 20,000-30,000* 4. *Zoposa MWK40,000*

9.3. Sources of Income *Kapezedwe ka ndalama*

Primary yodalilika	Source/Njira	Code:	Secondary Source <i>Yodalilika ya chiwiri</i>	Code:

Codes: 1. Agriculture 2. Landless Labour 3. Business 4. Government Service 5. Private job 6. Fishery and Livestock 7. Bicycle Taxi

Tanthauzo la manambala: 1. Ulimi 2. Maganyu 3. Bizinesi/geni 4. Amagwira m'boma 5. Pa kampani 6. Usodzi ndi ziweto 7. Kabaza

10. QUALITY OF LIFE

MOYO WANU (mulembe ma code ali m'munsiwa, musalembepe kuchuluka kwa ndalama)

Item	Expenditure per Month*	Item	Expenditure per Month*
Food <i>chakudya</i>		Clothes <i>zovala</i>	
Beverages <i>zakumwa</i>		Social Functions <i>zachisangalolo ndi zina</i>	
Education <i>maphunziro</i>		Farm Inputs <i>zipangizo za kumunda</i>	
Health/Medication <i>mankhwala</i>		Travel <i>mayendedwe</i>	
Other <i>zina</i>			

Codes: 1. Less than MWK 1,000 2. MWK 1,000 to 3,000 3. MWK 3,000 to 5,000 4. Above MWK 5,000
 1- *Zosaposewa MWK 1,000* 2- *MWK 1,000-2,000* 3. *MWK3,000-5,000* 4. *Above MWK5,000*

11. COVERAGE UNDER GOVERNMENT DEVELOPMENT SCHEMES: 1. YES 2. NO

NTCHITO ZA CHITUKUKO KAPENA THADIZO LOCHOKERA KU BOMA 1. INDE 2. AYI

11.1. If Yes, then provide the details Ngati yankho liri Inde, longosolani

Name of the Scheme <i>Dzina la pulojekiti</i>	Year <i>chaka</i>	Loan <i>ngongole</i>	Training <i>Maphunziro</i>	Employment <i>Kulembedwa ntchito</i>	Benefits 1-yes 2-No <i>Ndi za phindu 1 INDE 2 AYI</i>

11.2. After availing this scheme did your annual income increased? 1. Yes 2. No

Mutalandira thandizi limeneli, ndalama zomwe mumpazipeza pa chanka zinachuluka kapena ay? 1. Inde 2. ayi

12. INDEBTNESS NGONGOLE

Source* <i>Komwemunatenga</i>	Amount Taken (MWK) <i>Munatenga yochuluka bwanji</i>	Amount Returned (MWK) <i>Yomwe munaperekako</i>	Purpose** <i>Chifukwa chomwe munatengera ngongole</i>

*Codes: 1. Govt Bank 2 Private Bank 3. From Individuals

1. *Ya banki ya Boma Boma* 2. *Kuchokera ku Bank yomwe si ya Boma* 3. *Kwa munthu*

**Codes: 1. Agriculture 2 Business 3. Social Functions/Obligations
 1. *Ulimi* 2. *Bizinesi/geni* 3. *Zofunikira kuchita maling ndi miyambo yathu*

13. AGRICULTURE AND CROPS ULIMI NDI MBEWU

13.1. Do you have agricultural land? 1. Yes 2. No

Muli ndi mala olima? 1. Inde 2. Ayi

13.2. Cropping Pattern Kadzlidwe ka mbewu

Crops* & Season <i>Mbewu ndi nyengo yodzalira</i>	Land Area (ha) <i>Kukula kwa malo</i>		Production <i>Zokolola</i>	Amount Earned <i>Ndalama zomwe munapeza</i>
	Irrigated <i>Ulimi wa nthilira</i>	Non-irrigated <i>Wa kumtunda</i>		

*Codes: 1. Rice 2. Maize 3. Cassava 4. Vegetables 5. Sugarcane 6. Fruits 7. Tobacco

1. *mpunga* 2. *Chimanga* 3. *Chinangwa* 4. *Vegetables* 5. *Nzimbe* 6. *Zipatso* 7. *Fodya*

14. FOOD SECURITY *KUPEZEKA KWA CHAKUDYA NTHAWI ZONSE*

14.1. Do you experience food shortage? 1. Yes 2. No

Kodi pali nthawi ina yomwe banja lanu likhala liribe chakudya? 1- inde 2. Ayi

14.2. In which Season? *Nyengo/nthawi iti?* 1. Summer *dzinja* 2. Rainy *ya mvula* 3. Winter *yozizira*

14.3. How do you manage?

Chakudya chikasowa, ndiye mumatani?

15. AVAILABILITY OF SOCIAL INFRASTRUCTURE *KUPEZEKA KWA ZOFUNIKIRA*

1. Grazing Land 2. Playground 3. Health Facilities 4. Recreational Facilities 5. Graveyard

1. *Malo oweterako ziweto* 2. *Kosewera-ground* 3. *Za chiptalala* 4. *Kodzisangalatsira* 5. *Kumanda*

16. SOURCE OF DRINKING WATER? 1. Borewell 2. River/Lake 3. Piped Water 4. Stream

MADZI AKUMWA 1. *Mjigo* 2. *Mtsije/Nyanja* 3. *A m'paipi*, 4. *A mu khwawa*

17. SOURCES OF ENERGY FOR COOKING? 1. Charcoal 2. Kerosene 3. Firewood 4. Gas 5. Any other

ZOPHIKIRA 1. *Makala* 2. *Paraffin* 3. *Nkhuni* 4. *Gasi* 5. *Zina*

18. ACCESSIBILITY TO TRANSPORT FACILITIES *MAYENDEDEWE*

1. Mini Bus 2. Bus 3. Bicycle Taxi 4. Boat 5. Any other

1. *Mini basi* 2. *Basi* 3. *Kabaza* 4. *Boti* 5. *Zina*

19. MOBILITY

Most Frequently Travelled Place <i>Malo omwe mupapitako pafupafupi</i>	Purpose <i>Chifukwa chomwe mupapitirako</i>	Frequency <i>Mumapitako kangati?</i>	Distance <i>Mtunda wake</i>	Travel Time <i>Ntawi yomwe mumatenga</i>

Codes: Purpose *chifukwa*- 1. Social *zachikhaliidwe/kusangalala* 2. Market *kumsika* 3. Education *maphunziro* 4. Employment *kuncitho*

Frequency: 1. Daily 2. Weekly 3. Monthly

Kangati: 1. *Tsiku Liri Lonse* 2. *Sabata ili yonse* 3. *Mwezi uli onswa*

Distance/*kutalika* 1. 0-5 km 2. 5-10 km 3. 10-20 km 4. More than 20 km

20. MIGRATION KUSAMUKA KUPITA KUMADERA ENA

- 20.1. Do you migrate to work? *Kodi mumasamuka kukakhala kwina* 1- Yes *Inde* 2- No *ayi*
- 20.2. If Yes then how many months in a year? 1- less than 3 2. 3to 6 months 3. More than 6 months *Ngati mumasamuka, mumasamukakwa miyezi ingati? 1. Osaposa miyezi itatu 2. Miyezi itatu kapena isanu ndi umodzi 3. Kuposera miyezi isanu ndi umodzi*
- 20.3. Where do you migrate to? *Mumasamukira kuti?*
 1. Within the district 2. Within the Region 3. Outside the Region
1. M'boma momwe muno 2. Chigawo chomwe chino 3. Kunja kwa chigawo chino
- 20.4. What kind of job usually you undertake whenever you migrate? *Mukasamuka, mumakagwira ntchito yanji?*
 1. Agricultural *Ulimi* 2. Non-Agricultural *osati ulimi* 3. Trade/business *bizinesi/geni* 4. Others *zina (Specify fotokozani)*
- 20.5. How much do you earn MWK per month? *Pamwezi mumapeza ndalama ziganti* -----
- 20.6. At what time of the year do you migrate? *Mumasamuka nthawi iti:*
 1. Summer *ya dzuwa* 2. Rainy *ya mvula* Winter *yozizira*

21. STATUS OF WOMEN AZIMAYI AMAONEDWA BWANJI?

21.1. *Day to Day Activities Ntchito za tsiku ndi tsiku*

Agriculture <i>Ulimi</i>	Allied Activities* <i>Zina zokhudz ulimi</i>	Forest Produce <i>Zochokera ku nkhalango</i>	Trade & Business <i>Buzinesi/geni</i>	Agricultural Labor <i>Kugwira ntchit ulimimkqam</i>	Non-Agriculture Labor <i>Kugwira yosa</i>	Household work <i>Kugwira Ya mnyumba</i>	Household Industries <i>Ntchito ya m'mafkitale</i>	Looking After Children <i>Kuyang' anira ana</i>

Code: Yes-1 *inde- 1* No-2 *ayi- 2*

*Allied Activities: Dairy *ng'mbe za mkaka*, Poultry *Kuweta nkuku ndi mbalame zina*, Piggery *kuweta nkumba*, Sheep rearing *kuweta nkhusa*, Goat rearing *kuweta mbuzi* Fishing *usodzi* etc.

If, engaged in economic activities total income of the year: MWK. _____

Ngati mukugwira ntchito kapena kupanga bizinesi, mupeza ndalam zingati pa chaka?

21.2. Time Disposition of the women folks *Momwe azimayi amagwiritsira thawi yao:*

Time Period	6 am-9 am	9 m to 12 pm	12 pm to 3 pm	3 pm to 6 pm	6 pm to 9 pm
Type of Work <i>Mtundu wa ntchito</i>					

21.3. Involvement of Women in Decision Making: *Mwai wa amayi kutengapo mbali kuperak magainzo awo pakayendetsedwe kazinthu*

Areas	Financial Matters <i>Za chuma</i>	Education of children <i>Maphuzniro a a</i>	Health Care <i>Za umoyo</i>	Purchase of Assets <i>Kugula katundu wa mnyumba</i>	Social Functions <i>Za miyambo ndi zikindwerero</i>	Day To Day Activities <i>Zochitika tsiku ndi tsiku</i>	Local Governance <i>Kuyendetsa nawo nkhani ku dera</i>
Involvement <i>Kutenga mbali</i>							

Code: Yes *inde-1* No *ayi-2*

21.4. Attitude towards Girl Child *Momwe ana a akazi amaonedwera*

Select Areas	Education <i>Maphunziro</i>	Health <i>za umoyo</i>	Equal Right on Property <i>Kukhala ndi mwayi wogawiridwa katundu</i>
Response <i>yankho</i>			

Yes *Inde*-1 No *Ayi*- 2

21.5. Facilities during the Delivery of Child *Komwe azimayi amachilira akakhala ndi pakati*

1. Maternity Home/Hospital *kuchipatala/kunyumba*
2. In the Village /Traditional Attendant *kumudzi/kwa a zamba*

22. SIGNIFICANCE OF RIVER SHIRE AND LAKES MALOMBE AND MALAWI

KUFUNIKIRA KWA MTSINJE WA SHIRE NDI NYANJA ZA MALOMBE NDI MALAWI

22.1. Usefulness

Fishing <i>Usodzi</i>	Agriculture <i>Ulimi</i>	Transport <i>mayendedwe</i>	Any Other <i>zina</i>

Yes *Inde*-1 No *Ayi*- 2

22.2. How frequently do you use these for transport purpose?

Mumadzigwiiritsa nthawi youchuluka bwanji mtsinje ndi nyanjazi pa mayendendwe?

Daily <i>tsiku ndi tsiku</i>	Weekly <i>sabata ili yonse</i>	Monthly <i>mwezi</i>

22.3. What places/towns do you get connected to using lake and river transport?

Kodi mtsinje wa Shire ndi nyanjazi zimakulumkizitsani nd madera ati ndi ati?

22.4. What kind of boat do you use? 1. Manual 2. Mechanized

Mumagwiritsa ntchito bot la mtundu wanjji? 1-bwato lopalasa 2. La injini

22.5. For which produce/goods you would like to use the lake/river transport?

Mumafuna kugwiritsa ntchito mayendedwe a pa Nyanja/mtsinje ponyamul ambeu ziti?

22.6. Is travel cost cheaper than that of road transport? 1. Yes *inde* 2. No *ayi*

Kodi kuyenda pa madzi ndi kotsika mtengo kuyerekeza ndi pa mseu?

22.7. In a day, how many hours of power supply you get? *Pa tsiku mu makhalandimagetsi nthawi yayitali bwanji?*

1. 24 hrs
2. Up to 20 hrs
3. 12-20 hrs
4. Less than 12 hrs

22.8. From where the electricity comes (Source)? *Amachokera kuti magetsiwa*

22.9. Which aspect of River Shire and Lakes Malombe and Malawi Affect you?

1. Flooding *kusefukira madzi*
2. Water Animal Attacks *kusautsidwa ndi nyama*
3. Drought *Chilala*
4. Any other *zina*

Kodi ndi mbali zit za mtsinje kapena nyanja zomwe zima kukhudzani

22.10. In the last one decade how many droughts (low water level) you have witnessed?

Mu zak khumi zapitazi, pakhala kapena mwakumana ndi ng'amba zingati?

Appendix 3: Project Affected Persons Questionnaire

Census/Socio Economic Survey Questionnaire – kafukufuku wa sensasi

Upgrading of Kamuzu Barrage *Kukonzanso Kamuzu Barrage, Liwonde*

Date /Tsiku				
			2	0
				1

Investigator Name <i>Dzina la ymwe akufunsa mafunso</i>	Supervisor Name <i>Dzina la Oyang'anira</i>	1. Respondent Name (<i>Yemwe akuyankha</i>)

Type of Affected Asset *Mtundu wa zomwe zingakhudizidwe ndi pulojekiti*

Residential <i>nyumba yokhala</i>	1	Commercial (<i>malonda</i>)	2	Residential and Commercial (<i>malo okhal a ath u ochita lendi</i>)	3
Open Land/Plot (<i>Posamangidwa</i>)	4	Plantation/ Orchard (<i>anadzala mitengo</i>)	5	Graveyard (<i>Manda</i>)	6
School (<i>Sukulu</i>)	7	Hospital (<i>Chipatala</i>)	8	Industrial (<i>pali makampani opanga zinthu</i>)	9
Church (<i>Chalichi</i>)	13	Mosque (<i>Mzikiti</i>)	14	Govt. Land (<i>malo a boma</i>)	15
Agriculture (<i>ulimi</i>)	16	Waste/ Grazing/ Barren (<i>oguga/sangagwiritsidwe ntchito</i>)	17	Others (specify) <i>Zina(tchulani)</i>	99

Landholding size

(1) Less than one ha

Ochepera hekita imodzi

(2) 1-5 ha

pakati pa kita imodzi ndi mahekita asanu

(3) Above 5 ha

Kuposera ma hekita asanu

A. IDENTIFICATION

A.1 General Identification.

Coordinates:

Latitude:

Longitude:

Impact Status/source *Momwe katundu akhudizidwire*

- Upstream water level *kuchuluka kwa madzi ku mtunda kwa balaji*
- New Road Approach to barrage *Msewu wa nyawani pofika pa balaji*
- Temporary works *Zongogwirizira pomanga balaji*
- Temporary construction *Zomanga zongokhala mpaka nthawi yomwe balaji idzathere basi*
- Permanent operating site *malo oongolera za balaji*
- Weed collection point (East) *Posonkhanitsira zinyalala zobwera ndi madzi (Kummawa kwa balaji)*
- Weed collection point (West) *Posonkhanitsira zinyalala zobwera ndi madzi (Kuzmbwe kwa balaji)*

A.2 Location *Komwe malo ali*

Region <i>Chigawo</i>	District <i>Boma</i>

A.3 Type of Property (*Mtundu Wa Malo*)

Private <i>A munthu</i>	Government <i>a Boma</i>	Community <i>Mudzi</i>	Others <i>zina</i>
1	2	3	4

A.4 Ownership
Umwini wa malo

A.4.1 Do you own the structure/ plot/ agriculture land?
Kodi malowa ndi anu ? (Skip to A 4.3 if respondent is tenant)

Title Deed <i>Didi</i>	Customary Right <i>Malo a Mfumu</i>	Tenant <i>wa lendi</i>	On Lease <i>Lizi ya boma</i>	Non Title Holder <i>Palibe chitsikizo cha umwini wa malo</i>
1	2	3	4	5

A.4.2 Do you have any supporting document for this properties? Muli ndi chitsikizo choti malowa nd anu?
1. Yes *Inde* 2. No *Ayi*

Supporting document for ownership: _____
zikalata zotsimikiza umwini wa malo

A.4.3 Is the plot surveyed 1.Yes *Inde* 2. No *Ayi*
Kodi malaowa anapangidwa save?

A.4.4 Name, Address, Phone Number and LANDMARK
Dzina, keyala, foni ndi nambal ya chozindikiriitsa malo _____

A.4.5 If Tenant, Name and Address and Contact Number of the Owner
*Ngati akukhalapo ndi a lendi, dzina, keyala ndi foni ya eni ake a
malo* _____

A4.5.1 Lease period Kutalika kwa nthawi ya lizi (skip to A 5 if tenant)
1. six month *miyezi isanu ndi umodzi* 2. 12 months *chaka* 3. More than one year
kuposera chaka

A4.5.2 Amount paid in MWK
Munalipira ndalama zingati pogula malowa?

A.5 Structure Typology

Momwe chinthu chiriri

Wall Chipupa		Floor Pansi		Roof		Boundary Mpanda		No of Rooms Kuchulu ka kwa zipinda
Reinforced Concrete	1	Brick <i>njerwa</i>	1	Corrugated iron sheets <i>(la malata)</i>	1	Brick <i>njerwa</i>	1	
Thatched <i>yofoleledwa</i>	2	Concrete-ya simenti <i>(konkiri)</i>	2	Grass Thatch/Pla stic/plastic sheeting <i>(Udzu ndi pulatiki)</i>	2	Barbed Wire <i>waya wa minga</i>	2	
Mud <i>Matope</i>	3	Mud <i>Matope</i>	3	Tiles <i>Matailos</i>	3	Wood <i>mitengo/zipap ati</i>	3	
Bamboo ya <i>nsungwi</i>	5	Others <i>zina</i>	99	Others <i>(Zina)</i>	99	Others/ <i>Zina</i>	99	
Other <i>zina</i>	99							

B. PROPERTY DETAILS

Za katundu/zinthu

B.1.1 How old is the structure? (skip to B1.2 if tenant)

Kodi nyumbayi iri ndi zaka zingati nyumba inamagidwa

zaka

Chaka chomwe

*(Mention the Year since you are operating from this structure)
(nenani chaka chomwe munayamba kugwiritsa ntchito nyumbayi kapena chinthuchi)*

B.1.2. How long have you been residing or operating from the structure?

Mwakhala mukugwitsa ntchito chinthuchi kwa zaka zingati?

B.1.3 What type of business are you doing, in case of commercial use?

Ngati mumagwiritsa ntchito ya bizinesi, ndi bizinesi yanji?

1.		7.	Educational institution <i>maphunziro</i>	13.	Barber Shop <i>Mometera</i>
2.	Grocery/ General Store <i>Golosale/sitolo</i>	8.	Hotel/ Restaurant <i>Malo ogona/ odyera</i>	14.	Medicine Shop <i>Mogulitsira mankhwala</i>
3.	Vegetables/ Fruits <i>zipatso/zamasamba</i>	9.	Electrical <i>Za magetsi</i>	15.	Wine Shop/Bar <i>Bala</i>
4.	Cloth/Garments <i>nsalu</i>	10.	Furniture <i>Kukhoma matebulo ndi mipando</i>	16.	Butcher <i>Mophera nyama</i>
5.	Tailoring <i>kusoka zinthu</i>	11.	Petrol Pump <i>Pampu ya mafuta</i>	99.	Any other, please specify <i>Zina(tchulani)</i>
6.	Kiosk/ malo oyimbira <i>foni</i>	12.	Garage/ Mechanic Shop <i>Galaja</i>		

B.1.4 How much do you earn per month from the business? Mu mapeza ndalama zingati pamwezi pa bizinesi yanuyi MWK.....

B.1.4 Is your business self owned?

1 -Yes /*Inde*

2 – No *Ayi*

Kodi ndinu nokha mwini wake wa bizinesi yanuyi?

B.1.5 If No, how many partners? (Number)

Ngati ayi, mulipo anthu angati ?

B.1.6 How many people have you employed? (Number)

Munalemba anthu a angati a ntchito?

B.1.7 Where would you prefer to move from here? (Residential and Commercial Both)

Panopa mngakonde kusamukira kuti (nyumba kapena malo a bizinesi)

S No	Place Malo	Where Kuti (specify)	Distance in Km from existing Mtunda kuchokera pano(km)
1	Within the Village/ Town <i>M'mudzi/m'tauni momwe muno</i>		
2	Outside the Village / Town <i>Kunja kwa mudzi/tauni</i>		

B.1.8 Do you have any alternative land /structure? ena a padera/nyumba ina?

1 - Yes *Inde*

/ 2 - No *Ayi Muli ndi malo*

B.1.9 If Yes, where?

Ngati muli nawo, ali kuti?

Place (specify) <i>Malo (tchulani)</i>	Distance in Km from existing one <i>Kutalika kuchokera pa malo ano</i>

B.2 Type of Land 1. Irrigated *Mtundu wa malo Wothilira* 2. Un-irrigated *Wosathilira* 3. Waste Land *Oguga* 99. Other (Specify) *zina (tchulani)*

B.2.1 What Crops do you Grow?

1. Rice *Mumamlima mbeu zanjji* 2. Maize 3. Sweet potatoes 4. Vegetables 5. Fruits 7 cassava 99. Others Specify)____
1. *Mpunga* 2. *Chimanga* 3. *Mbatata* 4. *Za masamba* 5. *Zipatso* 6. *Chinangwa* 99. *Zina (tchulani)*

B.2.1.1 Yield per hectare *kuchuluka kwa zokolora pa hekita* _____

B.2.1.2 Market Price per unit- *Mtengo wa zokolola:* _____

B.2.2 Fruits Zipatso(No. of Trees Kuchuluka kwa mitengo)

Trees (<i>Mitengo</i>)	Mango	Orange (Ma olanje)	Banana (<i>Nthochi</i>)	Zina (Tchulani)

B.2.2.1 Production per year: *zipatso zokoledwa pa chaka* _____

B.2.2.2 Market price per unit *mtengo wogulitsira zipatso:* _____

B.2.3 For How Many years the Land being cultivated by you/ your ancestor's ____

Kodi inuyo kapaena makolo anu mwakhala mukulima malo ano kwa zaka zingati Less than 1 year 2. 1-5 years
3. 5-10 years 4. More than 10years
1. *Osaposeera chaka chimodzi* 2. *Zaka 1-5* 3. *zaka 5-10* 4. *Zaka zoposa 10*

C HOUSEHOLD INFORMATION
Za pa Banja Panu

C.1 Household Details Zinthu za pa nyumba

Head of house hold <i>Wa mkumli a pa Banja (Name/dzina)</i>	No. of family members <i>Kuchuluka kwa anthu m'banja mwanuK</i>	Male <i>Amuna</i>	Female <i>Akazi</i>	Above 15 years <i>A zaka zoposera 15</i>	Education <i>Maphunziro</i>							Occupation <i>Ntchito</i>												
					1	2	3	4	5	6	7	1	2	3	4	5	6	7						

Education code 1) Illiterate 2) Primary 3.Secondary 4.High school 5.Graduate 6.Vocational 7.Others
Maphunziro 1.satha kulemba ndi kuwerenga 2.Pulaimale 4.Sekondale 6. D iploma 5. Digiri 6. Za umisiri 7. Zina (tchulani)

Occupation code Ntchito 1) Ulimi 2. ogwira maganyu 3. Bizinesi 4. Ya Boma Gov service 5.Olembedwa ndi munthu
6 Ogwira ya m'nyumba 7.Others *Zina (Tchulani)*

C.2 Vulnerable Household Ndi Banja Iovutikitsitsa?

Ophans and Child Headed HH <i>Ana/Amasiye</i>	WHH/Unmarried <i>Mayi wosakwatiwa</i>	Elderly headed <i>Okalamba</i>	People with disabilities <i>Opuwala</i>	HIV/AIDS Infected and Chronically Ill <i>Odwala matenda a AIDS</i>	Small scale farmers <i>Alimi ang'noang'ono</i>

C.3 Type of Family
Mtundu wa Banja

Nuclear <i>Mayi, bamboo ndi ana</i>	Extended <i>Mayi, bambo ana awo ndi achibale ena</i>	Sibling <i>Ana okha okha</i>
1	2	3

C.4.1 What social infrastructure available?

Zofunikira zomwe muli nazo pafupi 1. Grazing Land (*malo owetera ziweto*) 2. Health facilities (*zipatala*)
3. School (*Sukulu*)

C.4.2 Source of water: 1. Dugwell (*chitsime chokumba*) 2. Borehole (*Mjigo*) 3. Pipe water (Water Board))
Komwe mumtunga madzi

C.4.3 Access to health care / za umoyo

1) Dispensary (*Dispensale*) 2) pharmacy (*Famase/kugulitsa mankhwala*) 3) Government Hospital (*Chipatala chachikulu cha boma*) 4) Private hospital (*Chipatal cha pulaiveti*)

C.4.4 Occurrence of disease in your family the last five years

Matenda m'banja mwanu zaka zisanu zapitazi

C 1) H.I.V/AIDS 2) Malaria 3) T.B 4) Yellow fever 5) Cholera 6) others
1) HIV/AIDS 2) Malungo 3) Chifuwa cha chikulu 4) Yellow fever 5) kolera 99) Matenda ena (*Tchulani*)

C.4.5 Sources of energy used for cooking

Komwe mumatenga moto wophikira

1. Charcoal (*makala*) 2. gas (*gasi*) 3. kerosine (*parafini*) 4. fire wood (*nkhuni*) 5. Others Zina (*Tchulani*)

C.5 Assets owned (*Chuma chomwe muli nacho*)

1. Bicycle (*Njinga ya kapalasa (fuliji)*) 2. Motorcycle (*njinga ya moto*) 3. Car (*Galimoto*) 4. TV 5. Fidge
6. Radio (*walesi*) 7. Computer (*komputa*) 8. Others Zina (*Tchulani*)

C.6 Monthly income of the household?

Ndalama zomwe mumapeza pa mwezi

1. Less than 10,000MWK (*Zosaposa MWK10,000*)
2. 20,000 -30,000 MWK
3. 30,000 - 40,000 MWK
4. Above (*zoposa*) 50,000MWK

C.7 Monthly expenditure (*Ndalama zomwe mumagwiritsa ntchito pamwezi*)

	Education (<i>Maphuziro</i>)	Health service (<i>za umoyo</i>)	Transport (<i>mayendedwe</i>)	Food (<i>chakudya</i>)	Clothes (<i>zovala</i>)	Ceremony (<i>zikondwerero</i>)	Any other (<i>Zina</i>)
MWK							

D. IMPACT ON PROPERTIES KUKHUDZIDWA KWA KATUNDU CHIFUKW CHA PULOJEKITI

D.1 Measurement of the Affected Property (in metre) *Kuyeza zomwe zinganongeke (metres)*

Property Affected/ <i>Zinthu Zomwe Zakhudzi dwa</i>	Distance from the Proposed Upgraded Barrage (<i>Mamita kuchokera pa balaji</i>)	Walls (m ²) <i>Zipupa (ma sikweya mita)</i>	Floor (m ²) <i>Pansi (ma sikweya mita)</i>	Roof (m ²) <i>Denga (ma sikweya mita)</i>	Total Area of the Property (m ²) <i>Kukula kwa chinthu chonse (ma sikweya mita)</i>	Area Affected (sq m) <i>Malo onse okhudzidwa (</i> <i>ma sikweya mita)</i>
Land (Malo)						
Structure <i>Chinthu chomang idwa</i>						

D.2 Extent of Impact on Properties *Kodi katundu waonongeka mochuluka bwanji?*

Sr. No	1	2	3	4	5	6	7	8	9	10
Extent of impact (<i>Kuchuluka kwa kuonongeka kwa katundu/Zomangidwa</i>)%	Up to 10	10-20	20-30	30-40	40-50	50-60	60- 70	70- 80	80-90	90-100
Land / <i>Malo</i>										
Structure/ <i>Zomangidwa</i>										

D.3 Preference for the mode of payment for compensation *Njira yomwe munthu angakonde kuti alandirire chipukuta misonzi :*

1. Cash/ Replacement value *Ndalama zomwe munaonaga pomanga*

2. Kind/Replacement of structure *Katundu*

Assessment of Supervisor

(a brief note if required): *Kuona kwa oyang'anira- alembe mwachidule*

Appendix 4: Photos of Stakeholders Consulted

Figure 1. Interviewing a stakeholder at Liwonde Barrage.



Figure 2. Interviewing a fisherman in Liwonde (17/10/2011).



Figure 3. Women Focus Group Discussion, GVH Mnembe, Nsanje-(27/10/2011).



Figure 4. Kamuzu Barrage EIA- Community Public Meeting (8/11/2011).



Figure 5. Household Survey Interview, GVH Makaula, Machinga, (8/11/2011).

