

**Wetland
Action**



**WETLANDS
INTERNATIONAL**

**FIND
YOUR
FEET**

 **HarvestHelp**



**Striking a Balance (SAB):
Maintaining Seasonal Wetlands
& their Livelihood Contributions in central Southern Africa**

**Implemented by
Wetland Action, Harvest Help, Find Your Feet, MALEZA and NLWCCDP**

**WETLANDS AND POVERTY REDUCTION PROGRAMME
SECOND DEMONSTRATION PROJECT WORKSHOP**



Permanent core of a seasonal wetland, Simlemba

Field Trip Guide

Compiled by

*Patrick Thawe, Dalitso Kafuwa
Robert White & Adrian Wood*

Lilongwe, Malawi

September 2007

Contents

1. Introduction
2. Kasungu District and Simlemba Traditional Authority
 - 2.1 Location of the Project Area
 - 2.2 Physical Environment
 - 2.3 Development Experience
2. Simlemba Sustainable Rural Livelihoods Project
 - 2.1 Origins and Partners
 - 2.2 Aims and Objectives
 - 2.3 Approach and Activities
 - 2.4 Achievements to Date
3. Wetlands and Rural Livelihoods in Simlemba TA
 - 3.1 Wetlands in the Project Design
 - 3.2 Wetland Assessment and Sustainability Issues
 - 3.3 WPRP Demo Sites - Aims and Activities
4. Field Sites
 - 4.1 Orientation for the field visits
 - 4.2 Malawila Village
 - Nature of the wetland
 - Villages in the Area
 - Development Initiatives in the Wetland
 - Threats to the Sustainable Use of the Wetland
 - Field Visit & Schedule
 - 4.3 Katema
 - Nature of the wetland
 - Villages in the Area
 - Development Initiatives in the Wetland
 - Threats to the Sustainable Use of the Wetland
 - Field Visit and Schedule
5. Wetlands and Livelihoods
 - 5.1 Wetland Production Changes Behaviour
 - 5.2 Wetlands Making Me Self-Employed
6. Links to Policy
 - 6.1 National Wetland Policy
 - 6.2 National Irrigation Policy
 - 6.3 NGOs and Wetlands
 - 6.4 Wetlands and the Private Sector

Annex 1: Field Trip Logistics

1. Introduction

This booklet provides you with an introduction to the Simlemba field sites of the Zambia-Malawi demonstration project which you will visit on 24th October. (Annex 1 provides logistical details for the trip.)

In this booklet you will find details on:

- the physical environment and the development history of Kasungu District, and especially the Simlemba area,
- the origins and aims of the Simlemba Sustainable Rural Livelihoods Project, along with some details of the organisations involved, and the progress of the project to date;
- the thinking behind the wetland element in this project and how this links to the other elements of the project to create a more functional landscape and thereby both improve livelihoods and also the wetland environment;
- the situation in the two field sites to be visited (Malawila & Katema) and key features and issues to be noted and discussed;
- two cases of how wetlands have contributed to the improved livelihoods of different families in the sites to be visited;
- the national and policy linkages from the demo project are raised in the concluding section.

During the field trip it may be useful if you can greet people in the local language:

Hello:	Moni
How are you:	Muli bwanji
I am fine:	Ndili bwino
Thank you:	Zikomo

Please Note:

In groups of 15 we are a major intrusion into these communities. Please observe people's privacy and respect their wishes as you move around and when taking photographs.

2. Kasungu District and Simlemba Traditional Authority

2.1 Location of the Project Area

Kasungu District is in the northern part of the Central Region of Malawi. The District capital of Kasungu is some 130km north of Lilongwe. Simlemba Traditional Authority (TA) area, where the Demo sites are found, is in the north-eastern part of Kasungu District, some 60km from Kasungu (See Figure 1). According to the 1998 census, Simlemba TA had an area of 251 sq km, out of the total district size of 7878 sq km.



Figure 1: Lilongwe to Kasungu District, Central Region, Malawi

2.2 Physical Environment

The terrain in Simlemba is gently undulating or flat for the most part, although there are low rocky hills, especially in the Malwila area, while there is a major hilly escarpment in the east at the edge of the Great Rift Valley. The southern boundary of the TA is marked by the Dwangwa River which drains almost all of the district (See Figure 2). However, despite the size of its catchment, this is no longer a perennial river due to extensive catchment degradation and recurrent drought.

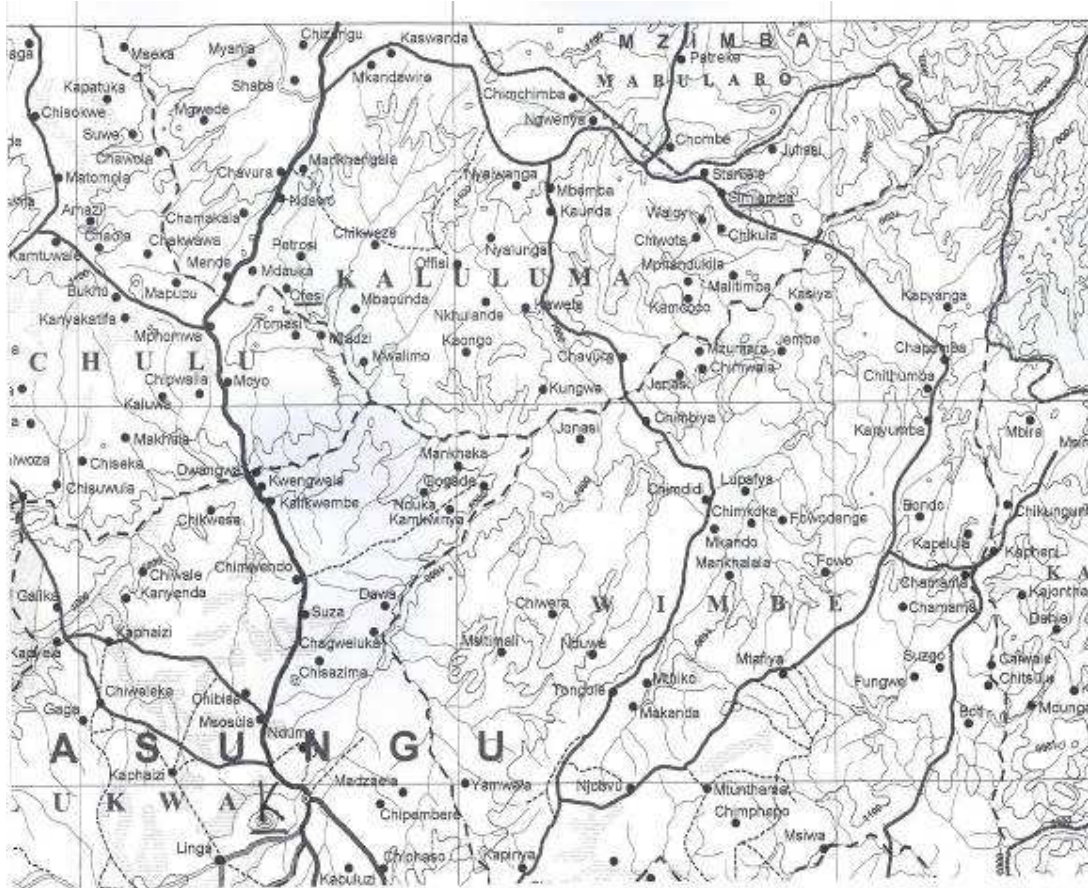


Figure 2: Dwangwa Basin & Simlemba TA in Kaluluma Extension Planning Area

Some basic aspects of the physical environment are given in the table below.

Environmental Feature	Characteristics in Simlemba TA
Altitude	1,200m amsl
Rainfall	800-1,000mm per annum, single wet season Nov-Apr
Rainfall reliability	Low; frequent droughts, 3 in last 5 years, last year OK
Natural Vegetation	Brachystegia / miombo woodland, little remains
Soils	Sandy loam latosols with poor structure & hard pans

There are a number of significant features of the local environment which are relevant to the wetlands in the area. These include:

- deforestation of the catchments and increased runoff,
- hardpans and breakdown in structure of the soil which reduce water infiltration and water storage in catchment, as well as groundwater flow through the subsoil to recharge the wetlands.

It should be noted that the few remaining areas of natural forest in the hilly areas in the north and east of the district are currently under threat from the expansion by companies supporting small-holder, flu-cured tobacco production, which seems to be targeting those areas with remaining natural woodland.



Figure 3: Dwangwa River in dry season



Figure 4: Deforestation in Simlemba TA

2.3 Development Experience

Simlemba TA has many development features typical of rural Malawi and indeed of many other parts of sub-Saharan Africa: rapid population growth, expansion of farming to the agricultural margins, and high poverty and food insecurity. Some key indicators are given in the following table.

Development Indicators	Situation in Kasungu District
Population 1998	484,000 (23,241 Simlemba TA)
Estimated population 2007	?? (c50,000 Simlemba TA)
Rural population density 1998	93 persons / sq km
Population growth rate	2.8% per annum.
In-migration	From Muchinji and Dedza districts
Below the poverty line	48.9%
Without food (October 2005 - last drought)	30% (40% Simlemba TA)
Dried up boreholes (October 2005)	700
Farms below one hectare	50%
Female headed households	34%
HIV / AIDS Prevalence rate	10-14%

Food insecurity is the major concern in the two District Development Plans (2002-2005 and 2005-2008). The causes of food insecurity are seen to include land degradation and loss of ground cover. According to these Plans, the solution lies in irrigation from perennial streams and rivers and the utilisation of the “vast” dambos (wetlands) which have never been exploited. The total irrigable area is estimated to be 151,000ha of which only 1.6% has been utilised (KDPD, 2003, p.33).

The gender situation suggests that many households are short of labour, a situation which is no doubt worsened by the HIV/Aids epidemic. The need for improved nutrition, especially in the “hungry season” (October to March) is increased by the growing HIV/AIDS prevalence rate.

3. Simlemba Sustainable Rural Livelihoods Project

3.1 Origins and Partners

The Simlemba Sustainable Rural Livelihoods (SSRL) Project (2005-09) is implemented by the Malawi Enterprise Zone Association (MALEZA) with financial support through Harvest Help from the Big Lottery Fund in the UK. The project covers 35 communities.

This project is the outcome of a two year period (2002-2004) of participatory project development which explored the value of a variety of activities, including sustainable agriculture, small business development and the formation of farmer organisations.

3.2 Aims and Objectives

The SSRL Project's main goals are:

- a) to improve household food and nutrition security through practising sustainable utilisation of natural resources, especially wetlands,
- b) to meet basic needs as a result of increasing income and assets derived from sustainable income generating enterprises, and
- c) to increase awareness of HIV/AIDS and capacity to cope with its negative impacts.

3.3 Approach and Activities

The project takes a participatory and process approach, rather than focusing on blueprint planning. The focus is on building social capital and capacity in the communities through discussions about the issues faced and how the farmers can address them with only limited technical training and/or minimal provision of external inputs. The focus is on meeting felt needs in a manner which can be sustained by the communities.

The main project activities relating to wetlands include:

- Club formation in communities where the project works, reviving Village Development Committees and developing new Village Natural Resource Management Committees,
- Sustainable agriculture, with compost making, and use of organic manures to increase self-sufficiency, as well as water retention, soil and water conservation – especially contour and tied ridges as well as vetiver grass and agro-forestry,
- Crop diversification – primarily soya beans and vegetables,
- Sustainable cultivation of wetlands, with more efficient use of water and protection of wetland cores,
- Improved natural resource management – especially afforestation,
- Livestock provision for multiplication and sharing for income diversification,
- Community Agricultural Worker (CAW) system of extension and support,
- Business development to improve income diversification,
- Savings mobilisation and improved access to credit for enterprise development,
- Improved market access,
- Improved diet for those affected by HIV/AIDS.

2.4 Achievements to Date

According to the Mid Term Evaluation (May 2007), despite the drought during both of the first two years of implementation the project has made considerable progress. In particular the following have been achieved:

- Well structured community-based organisations in the form of clubs, which have helped reorientate and strengthen Village Development Committees,
- High level of community involvement in project execution, and strong sense of ownership of interventions by beneficiaries,
- Project addresses the immediate and felt needs of the beneficiary communities, especially in terms of soil fertility and use of local resources, especially wetlands,
- Some improved food security and nutrition, but limited increases in income,
- Adoption of sustainable agricultural practices,
- Use of Community Agricultural Workers is effective way of providing extension and outreach to communities,
- Rural based micro-finance programme has developed from grass roots in terms of savings mobilisation,
- Knowledge of HIV/AIDS and use of Voluntary Counselling and Testing increased, and
- Good relationship of the project with government agencies.

4. Wetlands and Rural Livelihoods in Simlemba TA

4.1 Wetlands in the Project Design

Wetlands were identified as a plentiful but under-used resource in the discussions between MALEZA and the communities. The development of these areas was seen as one way in which poverty could be reduced and food security improved, especially in drought years. This was in line with the District Development Plan, and the policy of the Irrigation Branch. However, the focus in the project is on the sustainable use of these areas, recognising the potential for their destruction through poor management.

3.2 Wetland Assessment and Sustainability Issues

In 2005 a study was undertaken for the project of the wetland resources and the challenges faced in their development. This identified several different types of wetlands. However, it noted the need to raise awareness about the water balance in the wetlands (inputs and outflows), as a basic concept in wetland management. This conceptualisation identified two main areas for project work, catchment rehabilitation - to improve the water inflow into the wetlands, and careful land use within the wetland, with protection of areas of natural vegetation, to prevent erosion and downcutting.

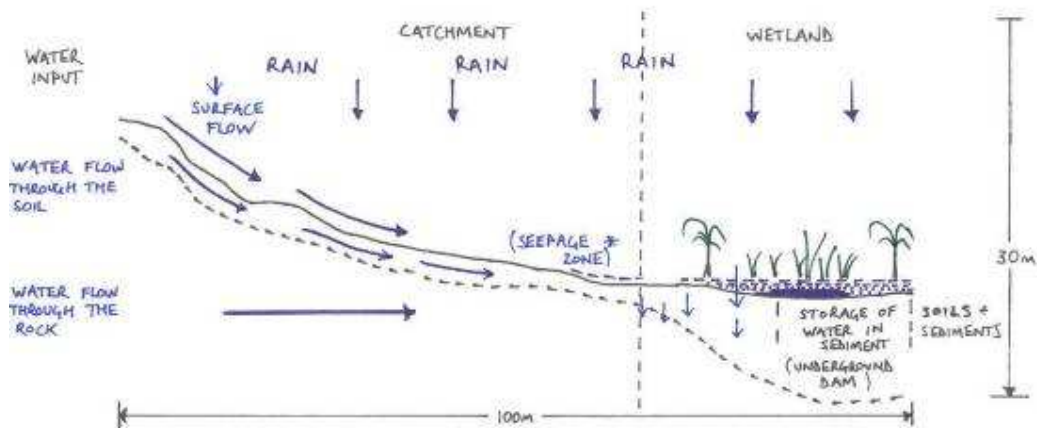


Figure 5: Hydrological balance in valley wetlands of Simlemba TA.



Figure 6 : Seepage zone pond in partly drained area, to be used for hand irrigation



Fig. 7: Wetland natural vegetation

Key ideas developed from this study are outlined below and in Figure 8.

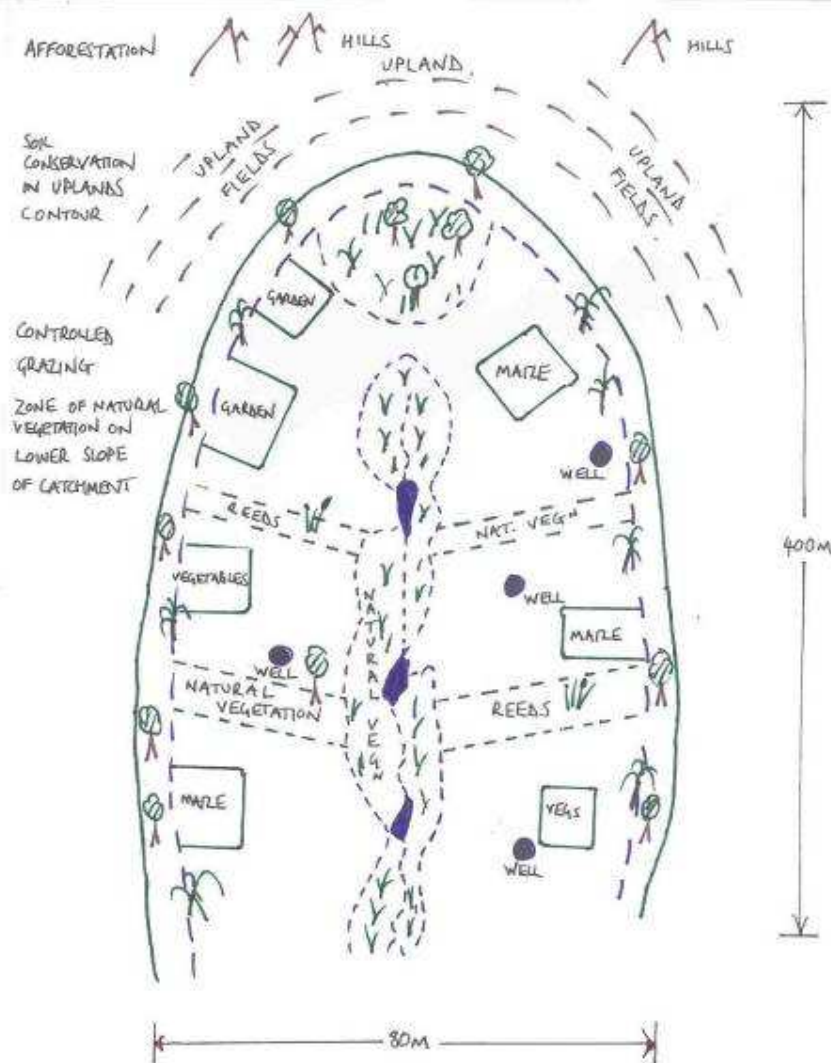


Figure 8: A Well Managed Wetland and Catchment

Questions to Address	Ideas to be Explored
Improve water availability for the wetlands	<ul style="list-style-type: none"> ○ maintain the annual flooding ○ improve water retention in the wetlands through areas of natural vegetation to slow floods and enhance infiltration, ○ rehabilitate catchments to improve infiltration and water storage
Reduce loss of water from the wetlands	<ul style="list-style-type: none"> ○ better use of irrigation water & residual moisture with raised or depression beds, depending on water availability, ○ use of mulch to reduce evaporation losses, ○ prevent erosion in wetlands, especially down-cutting and gulleying, through maintenance or re-establishment of areas of natural vegetation,

	<ul style="list-style-type: none"> ○ reduction in the areas of sugar cane, ○ removal of eucalyptus from within or near the edges of wetlands
Maintain soil quality and structure in wetlands to prevent erosion, maintain crop yields, and improve water infiltration	<ul style="list-style-type: none"> ○ use of compost and kraal manure, ○ explore minimum tillage & avoid hardpan creation by hoes, ○ keep areas of natural vegetation
Increase quality and quantity of produce from wetlands	<ul style="list-style-type: none"> ○ correct plant spacing, ○ use of integrated pest management and organic pesticides, such as tephrosia, ○ use of compost and kraal manure,
Diversify and improve benefits from wetlands, to enhance their value and protection	<ul style="list-style-type: none"> ○ development of new enterprises such as bee keeping ○ enhancing of existing enterprises such as mat making, vegetable processing, etc, ○ improvement of water sources

While these ideas were developed primarily from discussions with farmers, their use in the project depends upon the outcome of the project's discussions with the farmers and their wish to employ them.

3.3 WPRP Demo Sites - Aims and Activities

Three sites with considerable wetland potential and on-going activities have been selected for this project: Chiotha, Katema and Malawila. The two specific foci within this demo project are to:

- a) develop and test field-level strategies for the sustainable management of seasonal wetlands, and
- b) influence NGOs, national policy and international conventions, to better recognise the role of wetlands in poverty reduction and the links between poverty reduction and sustainable wetland use.

At the field level the emphasis is on technical measures related to land husbandry and the maintenance of a functional landscape, as well as the development of social capital and institutions at the community level. At the policy level the work involves learning networks, information dissemination and mini-workshops / roundtable discussions.

The overall output sought is to reduce poverty among wetland-dependent communities through applying a *functional landscape approach* and seeking to support *multiple use of wetlands* in order to achieve sustainable wetland management. To ensure sustainability of its work, the Project seeks low cost and economically attractive ways of developing the wetland potential, exploring how to achieve higher and more secure crop yields and others benefits, while in all cases linking this to ecologically sensitive management of catchments and wetlands.

The project has regional relevance as wetlands have become a new cultivation frontier in most countries in East and Southern Africa in recent decades and the sustainable use of these is an evolving poverty/environmental issue.



Figures 9,10,11: Examples of Multiple Use of Malawila wetland

The distinguishing features of this project include:

- Seasonal wetlands
- Functional landscape
- Local institutions and social capital
- Business development
- Learning networks
- Policy development
- International conventions & regional organisations

Specific field issues and activities include:

a) Catchment rehabilitation with:

- community nurseries producing tree seedlings
- afforestation of upland areas subject to run-off
- soil & water conservation of upland fields with ridges and agro-forestry,
- improved water infiltration with use of organic manures,
- land use planning to prevent cultivation coming down to wetland edge,
- sediment trapping to prevent deposition in the wetlands.

b) Improved wetland management through:

- use of beds to improve water control and use of residual moisture,
- correct spacing of plants to improve yields and quality,
- use of organic manure to maintain soil fertility,
- location of wells avoiding the centre of the valley,
- maintenance of areas of natural vegetation, especially in the centre of wetlands.

c) Institutional development and capacity building with:

- Village Natural Resource Management Committees to manage land use,
- application of rules concerning bushland / forest protection with controlled grazing, fire breaks and protected areas of natural vegetation or planted forest, and
- land use planning arrangements, with broad zoning and specific advice.

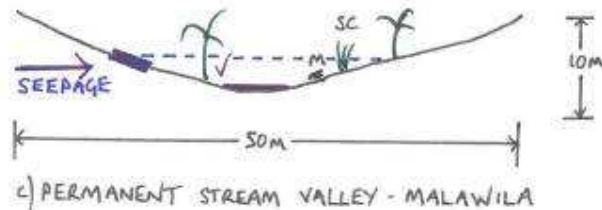
These are all types of activities which you should be able to see evidence of in the field.

4. Field Sites

4.1 Orientation for the Field Visits

The main purpose of the field visit is to get into the village lands, catchments and wetlands, to see what is being undertaken by the project. The following descriptions provide a short introduction to each site and the issues which the project is grappling with. The aim is to sensitise you, but hopefully not bias you, so that you can make the most of the limited time. There will be opportunities to ask questions as you go around and at the end. Please record these for the **field questions board** back in the conference venue. We look forward to your observations, questions and advice.

4.2 Malawila Village



Nature of the Wetland

The wetland along the Kamwala stream, which runs through the lands of Malawila, is probably typical of what many wetlands were like more widely in this part of Malawi several decades ago: - a perennial stream with extensive seepage areas which help to maintain the declining flow through the dry season. The flooding lasts for four to five months from December to May, and then the water level subsides with very little, if any, flow remaining in October / November.

Villages in the Area

There are several villages in the area being visited:

- Malawila on the northern / north-western side of stream,
- Israel on the opposite bank,
- Sawa in the headwater area, to the right when looking at the stream.

This raises issues of coordination for catchment management, especially given the conflict between Sawa and Malawila in the past.

Development Initiatives in the Wetland

As with many parts of Malawi, external initiatives have encouraged wetland utilisation. This was the case in Malawila when MALEZA first started working in this area in 2003. Brian Kunkwezu, who was involved in that initial work, should be with us on the field trip and able to explain the initial ideas.

Threats to the Sustainable Use of the Wetland

There are a number of pressures on this wetland, although, with the apparently plentiful supply of water, these are generally not seen as serious by the community. Key ones are:

- Catchment degradation – especially with the flu cured tobacco initiative in this area
- Extensive clearance of the natural vegetation in the wetland so that very little remains,
- Widening of the “wetland” area at the edges, incorporating upland into the wetland and exporting water to these areas with treadle pumps.

Field Visit

The visit will focus on:

- the functional landscape approach which is being taken in this community to address environmental degradation in the uplands of Malawila and to help maintain the supply of water to the wetland,
- the management of water and land in the wetland, and
- the development of community-based institutions for natural resource management.

Visit Schedule

1. Pre village Stop

- view of headwater hills up to Sawa village

2. Village meeting

- Club Chair – Agnes Banda, VNRMC Chair – Precious Mkweu (M), Club Secretary – Lydia Chisi, Village Headman – Maxwell Nyirenda, Community Agricultural Workers (CAWs) – Fransisco Matundu & Gladwys Lungu.

3. Afforestation site

- with fine views of village setting, catchments and wetland
- species: *Acacia seamena*, *Khoa quensis*.

4. Upland farm land

- soil and water conservation measures,
- agroforestry,
- tephrosia cultivation and its uses.

Note tobacco barns, two storey, grass thatched, to right 50 m from road as you walk here. Also look for brick making

5. Wetland visit

- border of forest / bush to trap sediment flows and prevent erosion into wetland (homestead forest land of one of the CAWs),
- extending of wetland sites into dry / upland areas,
- clearance too close to central stream which has been canalised and so could increase erosion, some bulrushes (*mulemeka*) in central stream,
- use of basins for irrigated cultivation
- drainage channels for early season access to wetland
- irrigation wells at various sites – not central,
- domestic water sources – unprotected springs,
- one area of natural vegetation – reeds (*matete*).

6. Discussions

4.3 Katema Village



Nature of the Wetland

The wetland at Katema is much wider and less clearly demarcated than at Malawila, with a large area flooded to a shallow depth and agriculture expanding into the wetland as the water retreats. There are no clear seepage zones, but the variable ground water flows mean that there are variations in the water table within the wetland, and the depth to which wells have to be dug and their retention of water into the rainy season. These broad wetlands are more typical of the wetlands in the area, and in Southern Africa, and they are usually called *dambos*. Gardens within *dambos* are called *dimbas*.

At Katema the flooding lasts for four to five months from December to April, and then the water level starts to subside. There is no clear channel in the upper part of the drainage system, and what did exist at the downstream edge of the village lands is now covered by the lake behind the dam constructed in 2006.

Villages in the Area

There are two villages in the area being visited:
Katema on the side of approach, southern side, and
Kakona on the opposite bank,
This raises issues of coordination for catchment management.

Development Initiatives in the Wetland

This wetland has been increasingly used for vegetable cultivation using residual moisture after the flood retreats and then hand dug wells for watering small gardens using watering cans. During the most recent drought year there was an “asset for work” programme which helped the villagers construct a dam at the downstream end of their wetlands. However, its use for fish keeping, or other productive purposes, is still being discussed. Treadle pumps have been distributed by government and some private companies and these have led to a sudden, massive expansion of wetland cultivation. Managing this is a major challenge.

Threats to the Sustainable Use of the Wetland

There are a number of pressures on this wetland. Key ones are:

- Catchment degradation,
- Upland cultivation extending down to the wetland,

- Expansion of cultivation plots towards the centre of the wetland,
- Increasing use of treadle pumps.

Field Visit

The visit will focus on:

- the functional landscape approach which is being taken in this community to address environmental degradation in the area and to help maintain the supply of water to the wetland,
- the land use planning in the uplands including the designation of a village fuelwood plots and village forest area,
- the management of water and land in the wetland, and
- the development of community-based institutions for natural resource management.

Visit Schedule

1. Village meeting

- Village Headman – Bosco Mtika, Club Chair – Richard Chikolosa, Club Secretary – Anna Zimba, Club Treasurer – Geoffrey Banda, VNRMC Chair – Abel Nyirongo, CAWs – Samuel Mtika, Stevie Mtika.

2. Upland farm land

- soil and water conservation measures,
- agroforestry,
- tephrosia cultivation and its uses.

3. Afforestation nursery site

- nearby termite mound to be climbed – gives best views of wetland

4. Wetland visit

- border of forest / bush to prevent erosion into wetland, but some old fields here,
- extending of cultivation plots into centre of wetland,
- use of basins for irrigated cultivation
- irrigation wells at various sites – should not be centrally located,
- domestic water sources

5. Discussions

5. Wetlands and Livelihoods

5.1 Wetland Production Changes Behavior – Abel Nyirongo.

Katema village is one of the demonstration sites for the Striking a Balance project. The people from this village did not believe that compost manure could work, especially in the *dambo*. When the project was introduced last year there was a big demand for chemical fertilizers from the people of this village.

A 27 year old young man, Abel Nyirongo, is one of the farmers who are now enjoying the fruits of SAB project.

‘When I started cultivating in the *dambo* in 1992 I did not know anything about compost manure. When this project came I was one of the farmers who were chosen to attend training in sustainable *dambo* cultivation and management. We were trained in plot layout in the *dambo*, compost manure making and application, soil and water conservation and catchment management.’

‘There is a lot of water in our *dambo* this year as compared to last. This is partly because of good rain and to the larger extent because we are trying to manage the water in our *dambo*. We did not know that certain crops like sugar cane can destroy the *dambo* by removing too much water. We used to cultivate a lot of sugar cane in our *dambo* but now the amount of sugar cane has been reduced. There is more moisture now in the area we have reduced the sugar cane’

In the past before the training Abel could not yield enough from his 0.25-acre dambo plot.

‘I used to plant a lot of crops in poorly constructed seedbeds hoping to yield more from a small area. I now know how to construct sunken seedbeds and raised seedbeds. I plant my crops at the recommended spacing and I can see that my yields have improved and they are of good quality. I was getting 20 maize cobs from 3m ×1m plot but now I am getting over 30 good cobs from the same plot.’

‘I could not grow different *dambo* crops because of a lack of money to buy fertilizer. I am now able to grow tomato, onion, maize and rape because I use compost manure and I am not worried about buying fertilizer.’

Abel’s financial problem has lessened. From what he harvested in the last four months he has been able to pay the balance of K3000 for the treadle pump which he bought on credit. He has also managed to buy a radio at the price of K500 and saved K2000 for domestic purposes.

‘I am always busy doing work on my *dimba* garden because it is where I am earning a living. I used to drink heavily in the past because there was nothing I could get from the *dimba* apart from the few vegetables and maize which I used for food. Now there is a lot of money in the *dimba*. I am making K400 every week from vegetable sales. This has really motivated me to dedicate most of my time to the *dimba*. By spending a lot of my time in the *dimba* my drinking habits have changed and I am contemplating quitting

that. Chances of contracting this deadly HIV/AIDS have decreased because I am always busy on my garden and I don't have time to think about ladies. I am working hard to make my family happy. This is what I have been looking for, something which can bring money into my pockets. I am looking forward to a day when I will have an exchange visit to those who have been doing these practices for some time so that I can learn more from them.'

5.2 Wetlands Making Me Self Employed – Charles Mvula

Charles Mvula, 32, of Malawira village started *dimba* production in 2003. His *dimba* production was not productive due to a lack of fertiliser and knowledge. This caused a lot of problems in his family. There was shortage of food and he could not properly clothe his wife Loveness, 30, and his children Mercy 17, Ackim 10, Innocent 9 and Brenda 6. Charles used to leave his village to go to other places where he could do some piece work and earn some money to take to his family to buy food. However, his absence meant he was neglecting his farm. It was a vicious circle.

When the Striking a Balance project came to Malawira, Charles had a lot of expectations. 'When I heard about this project I was very happy because my problems were going to be solved. I thought there were going to be free fertilizer, seed and pesticides. I was very annoyed that what was happening was not what I expected. We only got free seed and a lot of trainings.'

Charles later appreciated what the project offered. 'Before this project I did not realize that I can earn my living through *dimba* production. After been trained in *dimba* production I started to construct proper seedbeds and I used recommended spacing for planting different crops. This has really helped me. I am now able to yield more than I used to yield before this project. My yield now is thrice what I used to get before the project. I grow tomato, onion, rape, mustard and maize. I have 75 3m × 1.2m plots of maize, 19 mustard and 10 rape. I sell some of the green maize and use the remaining at home. The vegetables bring me a lot of money. I can make K3000 every 2 weeks. I am now able to feed my family and buy clothes for my wife and children. My children are now going to school wearing school uniform. This is wonderful. I think this will be my job - working in the *dambo*. I don't think I will have time to go and search for piece work. I have employed myself. Furthermore, I do not use chemical fertilizers in my *dimba*. I use compost, which is very cheap, and I save a lot of money that I would have used to buy fertilizer.'

Charles has not only been trained in *dimba* production. He indicated that he is aware of the importance of the water in the *dambo*. 'The water which is in the *dambo* is very important to me. It is this water we follow in the *dambo* because it makes our crops grow well. That is why we make sure our water is conserved so that we continue using it and our children's' children could also use the same water in the future for their needs. We construct marker ridges and realign the ridges in the upland gardens so that soil erosion is reduced. The soil, which can be carried by running water, can cause a lot of problems in the *dambo*. The soil can burry our *dambo* and there will be no water in the *dambo*. In addition, gardens which have been marked and realigned hold water and this water will infiltrate into the ground and eventually it will recharge the *dambo*.'

6. Links to Policy

6.1 National Wetland Policy

The project has initiated contact with key stakeholders involved in wetlands in Malawi, from Government, academics and civil society organizations. The project has been incorporated as a member of the Civil Society Agriculture Network (CISANET) sub committee on Irrigation. Through CISANET, the project has organized the first meeting for stakeholders on wetlands in Malawi which will take place at the end of October, 2007. The meeting is aimed at sharing experiences on wetland related work and initiating dialogues and networking around sustainable utilization of wetlands. As yet there is no National Wetland Policy, although some government departments are responsible for developing this. It is hoped that the project can provide new momentum to this process.

6.2 National Irrigation Policy

Malawi has a number of policies aimed at promoting food security. Of particular relevance to the project is the National Irrigation Policy which is broadly aimed at promoting irrigation to improve food security in Malawi. The policy, among others, promotes the use of wetlands for irrigation. The project is engaging with key stakeholders in debating the irrigation policy, largely through the CISANET irrigation sub committee, and seeks to promote the sustainable use of the wetlands when promoting production and utilization of the wetlands for livelihoods.

6.3 NGOs and Wetlands

In order to achieve food security, a number of NGOs working on livelihoods have programmes that promote the use of wetlands through irrigation and/or winter cropping. The project has initiated dialogue with NGOs such as Concern Worldwide on their livelihood programmes and their development of wetland management practices.

6.4 Wetlands and the Private Sector

The project is also exploring ways in which it can engage the private sector in the use of wetlands. Through various contacts, the project has identified some activities which may lead to the unsustainable use of wetlands. These include the distribution of treadle pumps in large quantities to communities for irrigation without any consideration of their impact on water resources and the wetlands.

ANNEX 1: Field Trip Logistics

Transport

Transport from Lilongwe to Kasungu and on the field trip will be provided in one minibus and two 4x4 vehicles.

The approximate time schedule will be:

Tuesday 23rd

Depart KGL	15.30
Arrive Kasungu	17.30

Wednesday 24th

Depart Kasungu for field	07.00
Arrive Mkomazi School	08.15
Depart Mkomazi School	08.25
Arrive Field Site	08.45
Depart Field Site	11.15
Arrive Mkomazi School	11.30
Lunch	one hour
Depart Mkomazi School	12.30
Arrive Field Site	12.45
Depart Field Site	15.15
Arrive Kasungu	16.00
Depart Kasungu	16.15
Arrive Lilongwe at KGL	18.15

Accommodation, Dinner and Breakfast

Participants will be accommodated in the Kasungu Inn or the Dumisami Hotel and will eat dinner and breakfast in their respective accommodation.

Field Schedule

Breakfast should be taken at 06.30 as departure will be at 07.00.

We will travel first to Mkomazi School which will be the logistical focus for the day, with lunch provided there and vehicle swap overs made there. There are toilets (pit latrines) at school. Water for hand washing, as well as extra drinking water, will be provided there.

Malawila Field Group

To be led by Patrick Thawe, with support from one of the government AEDO staff, and also Brian Kunkwezu.

Note the CAWs here do not speak English

Katema Field Group

To be led by Yona Chsawanje, with support from one of the government AEDO staff.

Note the CAWs here do not speak English

Other HH/FYF, MALEZA or WA staff to divide equally between the two groups.

Lunch and Refreshments

All participants will be provided with one bottle of cold water on departure from Kasungu. One cold soft drink and one more bottle of cold water will be provided at lunchtime along with a packed lunch. One bottle of cold water will be provided at Kasungu for the return journey.

Community School Contribution

The school where we will eat lunch is a community school. This means that many costs have to be met by the community – such as teachers housing and extra class rooms. You will see that building has been halted due to lack of funds. A contribution to the school building fund is suggested as an appropriate gesture by participants.

