



Current National Policies and Strategies Related to Wetlands Use and Climate Change

Case Study of Simlemba in Kasungu District



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Case Study of Simlemba in Kasungu District

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Developed and designed
Jackie Nankhunda and Dorothy Tembo
Centre for Environmental Policy and Advocacy (CEPA)
P.O. Box 1057
Blantyre
Malawi
Tel.: +265 212 700 104
www.cepa.org.mw



1.0 What are “Wetlands?”

The Ramsar Convention (amended in 1982 and 1987) defines wetlands to include a wide variety of habitats such as marshes, peat lands, flood plains, rivers and lakes and coastal areas such as salt marshes, mangroves, and sea grass beds, but also coral reefs and other marine areas no deeper than six metres at low tide, as well as human-made wetlands such as waste water treatment ponds and reservoirs . Wetlands include a wet basin and an area of land between the basin and the adjacent upland. Wetlands can be seasonal, semi-permanent, and permanent depending on soil type and precipitation amount. Wetlands are dynamic ecosystems, water levels and vegetation often fluctuates seasonally and annually. In Malawi, Lake Chilwa was the first site signified as a Ramsar site.

2.0 The impact of climate change on water resources and their management in Malawi

Climate change is the single most important global phenomenon today not least because it has the potential to affect everyone on earth. The Intergovernmental Panel on Climate Change (IPCC) points out numerous impacts of global warming affecting water availability, ecosystems changes, food production and health. The severity of the impacts will obviously depend on extent of

¹Malawi became party to the Convention in November 1997;

² IPCC (2008), Climate Change Synthesis Report 2007 (IPCC, Switzerland);

Current National Policies and Strategies Related to Wetlands Use and Climate Change:

Case Study of Simlemba in Kasungu District

temperature changes, socio-economic pathways and the capacity to adapt . It is clear however, that the poor and vulnerable like majority of Malawians will be much more adversely affected.



Silted Lifidzi river in Salima

Malawi is highly vulnerable to adverse impacts of climate change and extreme weather events (GoM, 2006). Over the last three decades, Malawi has experienced a number of adverse climatic hazards. The most serious ones include dry spells and seasonal droughts. The droughts have increased in frequency, intensity and magnitude and have adversely impacted on food and water security, water quality and sustainable livelihoods of rural communities.

Agricultural production in Malawi is predominantly rain fed. Droughts cause most of the crops to wither or wilt as such affecting productivity, leading to food shortages, hunger and malnutrition. Floods on the other hand, wash away top soils, crops and animals including humans. This also has a bearing on food insecurity in the country. Although Malawi has had surplus in maize production during the last three years, some parts of the country have been facing significant changes in weather patterns. These have had irreversible and damaging effects on crop and livestock production,

Current National Policies and Strategies Related to Wetlands Use and Climate Change:
Case Study of Simlemba in Kasungu District



Dried Thangadzi river in Nsanje

and the environment. In the case of Kasungu district, it has frequently faced reductions in food production due to dry spells and severe drought conditions.

With its narrow economic base, limited agro-processing industries and over-dependency on rain fed agriculture, there is little the country can do to slow down or stop climate change because of its miniscule contribution to global greenhouse gas emissions.



Management of Uplands with natural trees to reduce run-off

Current National Policies and Strategies Related to Wetlands Use and Climate Change:

Case Study of Simlemba in Kasungu District

This points to a different orientation in terms of policy response as clearly, mitigation is not the main preoccupation for Malawi. Malawi's main concern is to reduce the impacts of climate change. Local communities, who are living on the climate frontline, are already doing their best to adapt to their changed environment by building on local knowledge and diversifying their livelihoods.



Using of Vertivar grass to reduce run-off from upland

For communities living around wetlands, these have become a major livelihood strategy. Wetlands have been recognised as an important source of water and nutrients necessary for biological diversity and often support livelihoods of a lot of rural communities in developing countries. Despite their importance, wetlands are increasingly coming under threat of being modified or reclaimed. The recent global phenomena of climate change has brought more challenges to management of wetlands as rural communities have been resorting to them as a coping and adaptation strategy.

The rise in incidences of dry spells and droughts in Kasungu district has forced local communities in the Simlemba area to increase their reliance on the wetlands as a coping and adaptation strategy. However there have been concerns regarding the effects of drought and land degradation, soil and water conservation measures in the

Current National Policies and Strategies Related to Wetlands Use and Climate Change:
Case Study of Simlemba in Kasungu District



Admirer of Vegetables harvested from the revamped wetland of Simlemba



Happy with the Cabbages grown on the forgotten resources

wetland and deforestation in the wetland catchment and crop management practices with the ever increasing weather pattern not only in the Simlemba area, but also in other parts of the country. Another major issue has been the capacity of local communities to sustainably utilize and manage the wetland. It is widely agreed that these issues will not only demand changes in practice but will also require policy response.

3.0 Review of the status of policies and legislation on wetland use and Climate change

3.1 National Irrigation Policy and Development Strategy (2002)

This strategy is very relevant to wetlands use and climate change because of its first two broad objectives dealing with contributing to poverty alleviation of resource poor smallholder farmers by enhancing farm income and by supplementing the recommended strategies for rain fed agriculture and increasing agriculture production by ensuring some production during droughts and the dry season affecting availability of water, which in today's scenarios are associated with climate change.

It is important to note that although this strategy does not directly mention issues of climate change, it emphasizes in enhancing adaptation measures. In addition the policy doesn't mention wetland but lists the types of wetlands as defined by Ramsar Convention; the list includes *dambos*, flood plains, rivers, earth dams and *dimbas*. Perhaps mentioning wetlands and climate change would improve policy response compared to current status.

The strategy only mentions of conserving irrigation areas and doesn't mention how they should be conserved and sustainably utilised. This has an implication on wetland management for its sustainability worsened by effects of climate change especially where their functions, products and attributes are not adequately recognised or valued by policies.

3.2 National Water Policy (2005)

The Policy considers the conservation, management, development and utilization of water resources as one of the priorities in national development and over the years these resources are continuously threatened by climate change. The policy provides, *inter alia*, for integrated and sustainable water resources management and in this respect calls for promotion of good catchment management to protect and sustain the ecosystem biodiversity and wetlands. The policy also calls for formulation of mitigation measures to reduce the impact of climate change and variability as a means of

Current National Policies and Strategies Related to Wetlands Use and Climate Change:

Case Study of Simlemba in Kasungu District

disaster preparedness and management. Disaster management is specifically addressed and recognizes the severe economic and cultural disruption and dislocation facing the most vulnerable population of the affected communities. The policy seeks to establish preparedness and contingency plans for water related disasters and emergencies, as an integral part of water resources management. Most of the wetlands such as flood plains are prone to flooding therefore putting in place contingency plans would be ideal.

In providing for establishment of Catchment Management Authorities and devolving water resources management to catchment level, the policy facilitates active participation in management by local communities. This would imply providing an enabling environment for community participation in the management of catchments like the one in Simlemba. It must be noted that Catchment Management Authorities do not exist in the Simlemba area. However, with the assistance of Malawi Enterprise Zone Association (MALEZA), Village Natural Resources Management Committees (VNRMC) was formed in all the eight villages under the project Simlemba Sustainable Catchments and Wetland Management implemented together with Development Fund of Norway, Ministry of Agriculture (Kasungu Agriculture Development Division). These committees are involved in coordinating land use, designating protection zones around wetlands, formulating informal by-laws and assisting the Village Heads in conflict resolution.

Although, the policy aspires to promote efficient and effective utilization and conservation of water resources for sustainable agricultural and irrigation development, this can only be accomplished through harmonizing policies that are relevant to natural resources management and mutually enforcing natural resources legislation to protect water resources from degradation.

3.3 National Land Policy (2002)

According to the Land Act which is currently under review, there are three land tenure categories: customary, private and public.

Current National Policies and Strategies Related to Wetlands Use and Climate Change:

Case Study of Simlemba in Kasungu District

Customary land is land that is held, occupied or used under customary laws but excludes public land. Public land is the land which is occupied, used or acquired by the government, and any other land which reverts to government on termination, surrender or fall-in of freehold or leaseholds. Private land is land owned, held or occupied under freehold title, or a certificate of claim or which is registered as private under the Land Act.

Following adoption of the Malawi National Land Policy (MNL) in 2002, the ensuing Act will classify land into three categories: government, public and private land. The current customary land will become private land, allocated exclusively to families or individuals and leaseholds. Under the new Land Law, customary tenure will be codified and granted full statutory recognition as free simple customary estate, registered and available for disposition under market conditions. This is very important considering the current regimes in *dambos* and wetland fall under customary land, as is the case in Simlemba.

The goal of the MNL is to ensure tenure security and equitable access to land, to facilitate the attainment of social harmony and broad based social and economic development through optimum and ecologically balanced use of land and land based resources. Section 5.6.1 of the MNL states that any grouping of families and individuals living in a locality or having customary land rights in a defined area that seeks to protect their common property interest or *dambo* shall be recognized and legally protected as common property. The strength with the policy is that it is exhaustive on issues pertaining to land tenure systems more especially on communal customary land ownership which is vital in wetland management. The policy is explicit on the role of the local authorities, Village Land Committees and Land Tribunals. However, one of the major gaps in the policy is lack of emphasis on sustainable utilization regimes of common access areas such as wetlands. Considering that wetlands are a common resource, ownership is not definite. Since the Village Head has the right to transfer land from one household to another, this scenario tends to demoralize wetland

Current National Policies and Strategies Related to Wetlands Use and Climate Change:

Case Study of Simlemba in Kasungu District

users as they know that the land is not permanently theirs as such there is no incentive to promote sustainable utilization and conservation measures as such most wetland suffer from the *tragedy of the commons*.

3.4 National Forest Policy (1996)

The goal of the National Forest Policy (1996) is to sustain the contribution of the national forest resources to the quality of life in the country by conserving the resources for the benefit of the nation. One of the specific objectives of the policy is to reduce dependency on wood fuel as a source of fuel. However, this objective is being fraught with challenges due to demands from other sectors, such as tobacco farming in catchments of wetlands, like in the case of the Simlemba area in Kasungu district. Although no scientific study has been conducted, with the local communities revealed that unregulated tree cutting for tobacco curing in the wetland catchment has had devastating effects in water availability in the low lying areas where the wetland exists. This could even exacerbate the impacts of climate change.

In addition, forestry management under privately owned land is also problematic. Lease holders are obliged to honour the terms and conditions of the lease, including those relating to forestry management during the period of the lease. Under the Land Act regulations, for example, agricultural lessees are required to put at least 10% of their land to reforestation. This provision is routinely ignored and no enforcement seems to be taking place. If this provision was complied with, at least wetland catchment in Simlemba would have been sustainably managed.

3.5 National Environmental Policy (2004)

The National Environmental Policy (NEP) was adopted in 1996 and revised in 2004. It promotes sustainable social and economic development through sound management of the environment and natural resources. As a framework instrument the NEP is expected to guide lead agencies in so far as their activities affect the environment and natural resources management. Most objectives

Current National Policies and Strategies Related to Wetlands Use and Climate Change:

Case Study of Simlemba in Kasungu District

and strategies have direct relevance to wetland use and climate change. For example, Agriculture policy must be closely coordinated with that of land use, water and natural resources and must incorporate the environmental costs of soil erosion and soil fertility hence minimize environmental impacts of cultivation along marginal lands, ensure observance of buffer zones along watercourses. This is very important for sustainable utilization of wetlands.

Forestry policy must address deforestation as a contributing factor to soil erosion and siltation hence the need to promote and support conservation of forest ecosystems and forest conservation for civil works, prohibiting encroachment of protected areas and wanton cutting of trees as well as promoting afforestation measures. If this is effectively applied in wetland catchments, it could contribute to sustainable management.

Since water is an important habitat for key natural resources such as forests, fisheries, wildlife and other biodiversity and has a bearing on climate change, water policy must follow an ecosystems approach; hence the need to incorporate integrated watershed management practices, rainwater harvesting, development of small scale irrigation schemes and other environmentally friendly measures, and incorporating the polluter pays principle.

It should be noted that in the foregoing review, Malawi does not have a specific policy on climate change management and wetland use. As such, there has been no opportunity to benefit from the revised NEP.

3.6 Irrigation Act (2001)

The Irrigation Act (2001) is declared as an Act that stipulates for sustainable development and management of irrigation, protection of the environment from irrigation related degradations and establishment of the National Irrigation Board. The Act emphasises on setting up institutional arrangements and provides for offences and penalties. Some of the deterrent measures provided in the Act

Current National Policies and Strategies Related to Wetlands Use and Climate Change:

Case Study of Simlemba in Kasungu District

have a bearing on issues of wise use of and protection of wetlands. Section 46 (1) and (2) provides against practices which are destructive or potentially destructive to the catchment areas of a river or public watercourse supplying water to an irrigation scheme or farm, or permit livestock to graze in dambo areas under irrigation.

However, the provisions do not fully provide for the protection of wetlands especially from industrial waste, human settlements, human waste, or crop production related activities. These are very important aspects if wetlands are to be sustainably utilized. In addition, the Act does not address climate change issues in relation to irrigation.

Under Part VII: the Act provides for local community participation in development and management of irrigation. The Act provides for the Minister responsible for irrigation to enter into an irrigation management agreement with an irrigation management authority. An irrigation management authority means any local community organization established for the purpose of promoting local participation in the development and management of irrigation and includes any irrigation scheme, club cooperative or association. However, none of these exist in the Simlemba area, meaning they have not benefitted from irrigation management agreements.

3.7 Other legislations on wetlands

Land Act 1965, the Water Resources Act 1969, the Waterworks Act 1995, the Environment Management Act 1996, the National Parks and Wildlife act 1992 and the Forestry act 1997 are some of the legislations recognising wetland but just like any other legislations, there is limited information emphasizing its management and sustainable utilization which would be one of the climate change adaptation strategies.

3.8 National Adaptation Programme of Action (NAPA) (2006)

The National Adaptation Programme of Action is a key instrument under the UNFCCC for member states to develop. The NAPA of

Current National Policies and Strategies Related to Wetlands Use and Climate Change:

Case Study of Simlemba in Kasungu District

Malawi seeks to increase the adaptive capacities of vulnerable communities to adverse effects of climate change (Kamperewera, 2007). One of the key adaptation needs ranked highly in the NAPA is increasing resilience of food production systems to erratic rains by promoting sustainable *dimba* production of maize and vegetables in *dambos*, wetlands and along river valleys. The NAPA recognizes the role of wetlands in sustaining food production, while simultaneously expressing the need to sustainably utilize the wetlands.

The NAPA further proposes a list of 5 priority areas that need to be implemented. The first priority area which looks at improving community resilience to climate change through the development of sustainable rural livelihood relates to wetland utilization in one way or another. The two ways in which the NAPA seeks to achieve this are important for sustainable management and utilization of wetlands. These are: improving water management to withstand erratic rains through water harvesting, water conservation, and small-scale irrigation; and promoting sustainable utilization of *dambos*, wetlands and river valleys under sustainable *dimba* cultivation.

However NAPA does not provide a clear strategy on wetland management and its sustainable use which is crucial to this country which is already facing challenges with climate change. Just like other policies and legislation, NAPA lacks implementation because of funding.

3.9 National Programme for Managing Climate Change in Malawi (2009)

The major goal of 2009 National Programme for Managing Climate Change is that “Malawi is able to plan for and respond to the challenges that climate change poses for sustainable economic development and food security”. One of the objectives of the framework is to address problems that communities are currently facing due to the impact of climate change by piloting few projects that the country has had on adaptation and mitigation measures.

Current National Policies and Strategies Related to Wetlands Use and Climate Change:

Case Study of Simlemba in Kasungu District

It is obvious that use of wetlands is likely to emerge when considering pilot projects, because majority of the projects on adaptation relate to small scale irrigation. Wetlands appear to be one of the few sources where residual moisture still exists for winter cropping.

3.10 The National Biodiversity Strategy and Action Plan (2006)

The National Biodiversity Strategy and Action Plan (NBSAP) of 2006 outlines the status of the various biodiversity resources Malawi is endowed with and stipulates strategies and actions necessary to ensure the conservation, management and sustainable utilization of biodiversity resources. *Under Theme 2* regarding Aquatic Biodiversity, it has been noted that most of the marshland has been lost due to cultivation and invasive species. It is further noted that the loss is very pronounced in the central region of Malawi, where over 60% of the marshes and *dambos* have been lost to winter cultivation.

In order to achieve sustainable integrated management of aquatic biodiversity the NBSAP suggest that there is need to consider integrated watershed management and minimize the current deforestation and winter cultivation that is wide spread in wetlands. One of the actions being suggested by NBSAP in protecting ecosystems is creating and supporting alternative income generating activities that can take away pressure from unstable areas such as wetlands and *dambos*. In addition, there is need to employ conservation measures in utilizing wetlands. Perhaps the latter could be practical, considering that over the past two decades a number of initiatives aimed at supporting alternative income generation in the environment and natural resources management sector have failed to take off.

4.0 The key policy and legislation issues

1. There is absence of specific policy instrument on wetlands and climate change for Malawi. Wetlands and climate change have been incorporated in the existing sectoral policy and legislation instruments which reduce their importance. Apart from the NAPA, the utilization of wetlands as a climate change strategy has not found its way into national policy frameworks
2. Conflicting policies and practices: a number of policies have grown piecemeal, yet they are intended to regulate the same ecosystem. Each sector has its own mandate and the emphasis in the implementation of the wetland utilization and management. This has led to conflicting practices on the ground. For instance those advocating for winter cropping and small scale irrigation do not seem to care much about management of catchment areas provided their goal of food production is attained. This is also coupled with the limitations posed by the technologies available such as watering cans and treadle pumps. This is the reason why sensitive areas such as wetlands are being unsustainably utilized. Emerging high profile initiatives such as the Greenbelt will make this challenge much more pronounced.
3. Wetlands and agricultural production: agricultural production is dependent upon a number of other related resources, such as land and water. Agricultural production should therefore consider policies that enhance conservation and utilization of these related resources, including wetlands which are one of the main water sources with frequent dry spells and droughts.
4. Approach to climate change and wetland management - despite affecting a cross section of sectors, climate change challenges and wetland management are being addressed independently by different players which require coordination.
5. Lack of or limited implementation is another big challenge most policies and legislation are facing.

5.0 Recommendations

1. Develop policy tools to guide wetland utilization and management. - It is essential that a framework policy and legislation on wetlands be formulated. This would help in setting up objectives and equitable ways to balance short term demands with safeguards for wetland functions and values in the long term.
2. Policy harmonization: Harmonization of all relevant policy instruments, such as irrigation, agriculture, water and land resources, environment will ensure that they work towards similar objectives of sustainable utilization and management of wetlands in the light of climate change. Policy harmonization will also promote coordination amongst the various government agencies concerned with wetland management and climate change; those involved in irrigation on the one hand and those whose preoccupation is environment and natural resources management on the other hand.
3. Institutional strengthening and harmonization - the current National Wetland Steering Committee, is largely dormant. Its emphasis is also on wildlife related issues in wetlands, particularly those under protected area management. For that reason, the committee needs to be revitalized and its scope expanded to include other aspects of wetland utilization in Malawi.
4. Land tenure and land use - engage in processes towards the review of the current Land Act and enactment of the ensuing Legislation which will address security of tenure, facilitate conservation and proper land use, particularly in the wetlands. This needs to be coupled with lobbying for compliance to terms and conditions of lease holders on the 10% land allocation to reforestation.
5. There is need to engage the relevant policy and legislations holders in extensive resource mobilization to ensure implementation which will include enforcing some of the laws that are currently dormant.

Current National Policies and Strategies Related to Wetlands Use and Climate Change:
Case Study of Simlemba in Kasungu District



Participants pose for a Photograph after a briefing meeting on Policies related to wetland at Kasungu ADD