

Access to and monopoly over wetlands in Malawi

Daimon Kambewa

This paper focuses on the existing customary tenure and use rights to valuable wetland gardens and governance mechanisms. It identifies the modes of access, drawing attention to the differing roles of chiefs, families as well as households in wetland management. The study, carried out in the Lake Chilwa wetland in Malawi's Southern Region, demonstrates that access to water and land resources is closely intertwined and embedded in social ties and power relations. It contrasts the customary systems of governance and tenure with those that are likely to be put in place by the new land, water and irrigation policies and laws. A combination of qualitative methods and survey research was used to examine how the policies and development strategies are interacting with customary practices and are influencing livelihood strategies.

Keywords: wetland gardens, access, rights, obligation, social and power relations, tribute, monopoly, land concentration, Lake Chilwa, Malawi

Introduction

Wetlands, locally known as dambos in Malawi, are defined as any permanently or seasonally wet land in valleys, depressions, or floodplains with open herbaceous vegetation, mainly grasses and sedges, and an absence of trees (FAO 1996). In 1991/92 FAO Land Resources Evaluation Project (LREP) estimated that, in Malawi, the total irrigable area of dambos (wetlands) is between 480,000 ha and 600,000 ha (FAO 1996). Upland dambos formed about 70 percent of the area, while flood plains constituted about 25 percent. Districts with larger upland wetlands include Mzimba, Kasungu, Mchinji, and Dedza. Floodplains include Vwaza and Majete in the Lower Shire, Chikwawa District; Chilwa in the Phalombe plains covering Phalombe, Zomba, and Machinga Districts; and Kazuni in Rumphu; Nkhata Bay, and Karonga.

Wetland agriculture in Malawi takes place as formal and informal irrigation. Formal irrigation encompasses government schemes that were established from the 1960s to 1970s and self-help schemes that were constructed in the 1980s. In the Lake Chilwa wetland, such schemes include Domasi, Likangala, Bimbi, Chibwana, Mikoko, and Zumulu. Informal irrigation, locally called dimba cultivation, is carried out on customary lands especially in the dry season. Dimbas are irrigated gardens in wetlands, along the banks of streams and rivers, and in areas below small earth dams. Here dimbas are called wetland gardens in order to differentiate them from those found along the riverbanks. Currently, most irrigation in Malawi takes place in dimbas and estimates show that 123,000 ha are under informal irrigation compared to 27,000 ha under formal irrigation (GoM 2000a).

Both formal and informal irrigation are being promoted as a rural development strategy to improve rural income and food availability. Government efforts directed towards informal irrigation have increased since the 1990s when the country experienced a critical food shortage due to drought (Mzembe 1997). The efforts are manifested in a shift in policy from government-owned (formal) schemes to farmer-managed schemes and informal irrigation (GoM 2001). It is projected that wetland cultivation can transform rural livelihoods if people receive the requisite information, such as extension service, and technology, such as treadle pumps, plus input support, such as the Targeted Input Programme (TIP).

The driving forces behind intensification of wetland cultivation are recurrent droughts and floods, and declining soil fertility (FAO 1996). These, combined with limited access to land and farm inputs, have resulted in widespread poverty as manifested in most households experiencing food shortage. In 1998 nearly 60 percent of households had inadequate food, especially between December and February (NEC/NSO 1997/98). The situation became worse in the year 2002 when food shortage and famine showed how vulnerable the country is to natural calamities, such as drought, when associated with economic mismanagement by the government. The estimated number of deaths due to famine in 2002 ranged from 1,000 to 3,000 (Devereux 2002). Assani

(2003) suggested that the hunger crisis resulted in instances of crop theft, a situation that sometimes led to the accused thieves being killed.

In response to droughts, since the 1990s the Malawi Government, with assistance from FAO and the Danish International Development Agency (DANIDA), started mobilizing and supporting farmers to utilize wetlands, streams, and rivers for wetland cultivation (IFAD 1995). Of late, emphasis on wetland cultivation has been accompanied by political messages by the president and his cabinet, other political leaders, and government officials. Donors, particularly Department for International Development, instituted a dry-season TIP, directed specifically at dimba and supplied seed (especially maize seed) and free fertilizer. Programmes providing treadle pumps on loan have also been initiated to boost irrigated crop production.

Research questions and methodology

The study on which this paper is based was conducted in order to address the lack of information about existing modes of access and control over wetland gardens. The study also aimed at correcting information such as the misunderstanding of the tenure status of wetlands in the land policy, and the relative neglect of informal irrigation in the irrigation policy. If wetland cultivation is to be promoted, there is a need to clarify rights of access and to pay attention to ecological concerns. This study provides information on patterns of access to and allocation of wetlands and wetland gardens, and an analysis of the existing tenure system and use rights in the Chilwa Basin, located in the Southern Region of Malawi. A combination of qualitative methods, including participant observation, individual interviews, and survey research, was used to examine how policies, development strategies, and climatic and economic conditions have turned wetlands into valuable ecosystems for various livelihood strategies.

The research design adopted in the study was a case study in order to answer the question how access and use of wetlands is shaped. Prior to the study a reconnaissance survey was conducted in eleven sites namely, Manyamula, Namasalima, Njara, Likapa, Bimbi and Khanda in Zomba District; and Zumulu, Mposa, Chibwana, Kandauko and Mpheta in Machinga District, to assess the feasibility of the study. Four sites were then chosen for the study and these are Khanda and Likapa in Zomba and Mpheta and Mposa in Machinga. All the sites showed two different patterns of access but the four were chosen because there were logistically accessible. Likapa and Mpheta represented sites where GHV or VH allocate gardens while Khanda and Mposa represented sites where the gardens are inherited among families or households. In the chosen sites some areas of the wetland were demarcated as the study locus. The demarcated areas were about one kilometer long and half a kilometer wide and they covered about 20 percent of the area cultivated per site. A total of 1297 garden owners were enumerated and the list formed a sampling frame. Hence, instead of sampling in the villages, respondents were identified through gardens and they were followed later in the villages.

Results

Significance of wetland gardens

Cultivation in the Lake Chilwa wetland takes place throughout the year, with rice as the main crop in the rainy season. Rice varieties grown in the area include hybrids, such as faya, pusa, kilombero, and taichuni, and local varieties, such as amanda, kawasala, and tuwengane. Ecological variability across areas results in different cropping patterns. Thus, some people in Mpheta plant rice in the dry season because there is adequate moisture. In the dry season, from April to October, people grow maize, sweet potatoes, tomatoes, beans, pumpkins, cowpeas, green leafy vegetables, onions, and watermelons. Plots are usually intercropped. The cultivation calendar is such that the first crop is planted at the beginning of the rainy season, from October to November, and harvested in January or February. From March to April people prepare the gardens for the dry-season crop to be planted from April to October. Usually crops planted during this time grow on residual moisture, and it is only when there is critical moisture stress that people dig wells and use watering cans, pails, and plates to irrigate crops.

During the reconnaissance survey a total of 1297 garden owner were listed in the wetland and this only represented about 20 percent of the people in the study sites. During informal interviews the people said that

wetland cultivation is their main source of livelihood, followed by fishing. Usually they sell rice to get cash to meet household needs, while maize grown in the dry season is kept for food. In fact, 83 percent of the 170 respondents to the questionnaire said they keep the maize from wetland gardens for food. In Mposa it was observed that most houses had iron sheet roofs while some had television aerials, all of which people attributed to rice growing. In Mpheta village, one villager sold rice in the year 2003 and used the money to buy iron sheets for his house. Apart from cash generation, rice is also exchanged for maize, which is a staple food in all the sites. In Mposa area it was found that people come from TA Chamba (13 km. away) or nearby Chikala Hills to exchange maize for rice.

Households who have access to wetland gardens in the dry season reported that they normally have enough food throughout the year. In fact 75 percent said that they do not run out of food from January to February, a period when most Malawians do so because dryland maize is still immature. People with wetland gardens plant maize in September and October and harvest it in January and February. Households also supplement their cash by selling crops such as sweet potatoes, tomatoes, watermelons, sugarcane, and vegetables. Of course, these crops are also used for home consumption. Respondents reported that vendors usually buy their rice, vegetables, and sweet potatoes. In fact, in October 2003, vendors could be seen transporting bags of sweet potatoes on bicycles from the wetland to nearby markets like Zomba, Malosa, Govala, and Machinga. One day a truck was seen loading watermelons at Khanda, ready for sale at Zomba market.

Apart from wetland gardens, the survey revealed that people rely on other wetland resources such as fish (48 percent), grass for construction (19 percent), firewood (10 percent), reeds for construction (9 percent), and bird hunting (4 percent). Also included are activities such as brick making, residence, livestock grazing, and initiation and rain making ceremonies. Some reports indicated that cultivation in the wetland has resulted in loss of wildlife due to destruction of habitats. Some resources reported by respondents to be disappearing are: wild animals (28 percent), fish (12 percent) and birds (11 percent). There is also a change in crop pattern in the gardens where originally sweet potatoes, green leafy vegetables, and tomatoes were the common crops but, due to drought and TIP, many people now grow maize followed by sweet potatoes and vegetables in the gardens.

It is important to stress that in the research area wetland gardens for dry-season cultivation are not found throughout the basin but are concentrated in areas around the river mouths of Chanyungu and Lingoni in Mposa site, Domasi in Mpheta site, and Naisi in Khanda site. In Likapa site people rely on water coming out of Likangala Irrigation Scheme. In Mposa site it was observed that there were no gardens in the dry season in places that were one kilometer away from Chanyungu stream because the water dries up early. As a result, some people were cultivating stony places at the foot of Chikala Hill to grow maize. This was because they could not get gardens in the river mouth since it was all allocated, or they could not afford to rent, or they did not have relatives from whom to borrow the gardens. Some people have also moved to the upland slopes of Chikala Hill in search of land to grow maize.

Currently, the Chilwa Basin is faced with an increasing demand for wetland gardens, resulting in conflicts of interests and aims among various wetland users, conflicts over access and ownership of wetlands, and conflicts and competition for water among various users. In addition, there are environmental issues, particularly concerns that intensive wetland cultivation will lead to degradation of the wetland and related natural resources. Already experience in Mpheta study site is that floods from Domasi River occur every year and damage houses, property, and wetland gardens in Namasalima village, which lies at the edge of the wetland. Local people and government officers say floods are common because of deforestation of the upland areas. These floods have resulted in conflicts between residents of Mpheta and Namasalima villages. Those from Namasalima have attempted to construct a bund to protect their property but people from Mpheta have demolished it, arguing that the bund will destroy the canal carrying water to the Domasi Irrigation Scheme. This conflict has not yet been resolved.

Modes of access to wetland gardens

Gardens in the Lake Chilwa wetland are accessed through permission from village headmen (VH), group village headmen (GHV), and traditional authorities (TA), and through inheritance from family members. The VH, GVH and TA are all chiefs but VH and GVH are junior chiefs while TA is senior. Table 1 shows that out

of 170 households who had wetland gardens, 61 percent inherited from their family members, while 39 percent were allocated the gardens by the chiefs.

The first mode of access to be discussed is where gardens are inherited among family members. Table 1 shows that this practice exists in all the sites but it is most common in Mposa (88 percent) in Machinga District, and Khanda (81 percent) in Zomba District. During informal interviews people reported that households that inherit plots from family members do so without the involvement of the chiefs. In these cases, it is only in times of conflicts and disputes that chiefs would be asked to attend to issues of wetland cultivation.

Key informant interviews on the origins of inheritance of wetland gardens indicated that in the 1970s the TAs partitioned the wetland among village and family heads within their areas of jurisdiction, especially to those living close to the wetland. This was in response to increased demand by residents to cultivate the wetland. The demand might have been intensified as people got attracted by the benefits from the irrigation schemes, which were established in the area at around the same time. Reports from various people indicated that TA Mposa allocated the wetland to VHs in Mtambalika, Kambalame, Nanga, Mussa, and Mposa villages while GVH Khanda distributed the wetland to VHs in Khanda, Maliwata, and Kalembe villages. At that time, households within family groupings received plots and the VHs or family heads recognized the plots as belonging to the households. The question we are still following is why do people not just acquire plots in the adjacent irrigation schemes, instead of cultivating outside the schemes? So far people say land outside the schemes is more fertile than in the schemes.

Table 1. Modes of access to wetland gardens

Allocated by:	Study site				
	Mposa (%)	Mpheta (%)	Likapa (%)	Khanda (%)	Total (%)
n	43	42	43	42	170
The Village Headman	4.6	11.9	55.8	19.0	22.9
The Group Village Headman	0.0	57.1	0.0	0.0	14.1
The Traditional Authority	7.0	0.0	0.0	0.0	1.8
Inherited from family members	88.4	31.0	44.2	81.0	61.2

The second mode of access is where chiefs allocate wetland gardens to individuals seeking land for cultivation. Table 1 shows that this practice is more common in Mpheta (69 percent) in Machinga District, and Likapa (56 percent) in Zomba District. Individuals getting the gardens from the chiefs only have user rights but there is no time limit as to how long they can use the garden, rather, there are conditions, which can result in an individual losing the garden, this will be explained in the next section. In the sample, the village headman is a predominant local management agent accounting for 23 percent of the gardens allocated, followed by group village headmen who allocated 14 percent.

An account of how some chiefs in the study area gained control of wetlands is found in Mpheta site in Machinga District. Here a chief increased his ability to control wetland access after he managed to remove people from Namasalima in Zomba District from his area. During the interviews it was revealed that people from Namasalima cultivated in the Mpheta area up to the 1980s, but GVH Mpheta removed them to give land to his people, arguing that the land belonged to people from Mpheta. However, after the people from Namasalima withdrew, those from Mpheta did not take up the plots because they feared that people from Namasalima would bewitch them. GVH Mpheta then announced that people from other places were free to cultivate in the area, but on the condition that they would become registered tax-payers of the village. Many did so, coming from the surrounding villages and other places to cultivate in a place called Bango within Mpheta site. People currently found in Bango come from areas within Zomba and Machinga Districts as well as other districts, such as Mulanje, Phalombe, Balaka, Ntchisi, and Nsanje. Some even came from

Mozambique. People migrated to the Mpheta area to fish or to grow rice in the irrigation schemes near Lake Chilwa. Others came because they did not have adequate land in their original homes or were in search of fertile soils. Some in-migrating men married women from Mpheta village. This has improved their access to gardens as the GVH has given them plots to cultivate because they are treated as citizens.

In another case - Likapa site - what was once a cattle-grazing area has been turned into an area for farming. Originally people did not cultivate gardens in the area because cattle destroyed their crops. However, due to diseases, most cattle died in the 1970s and '80s, and some cattle were stolen, after which some people started cultivating the wetland. Upon seeing the demand for cultivation, GVH Mbalu allocated the wetland to his subjects, VHS Ramusi 1, Ramusi 2, Ramusi 3 (Likapa), and Mbalu. It then followed that anyone who wanted gardens in the wetland went through the VHS.

Other modes of access to wetland gardens include renting and borrowing in the dry season. Results of the survey showed that of the 157 people who cultivated in the 2003 dry season, 90 percent (141) cultivated their own gardens while the rest relied on borrowing and renting. Again, thirty people (19 percent) out of 141 people who cultivated borrowed and, of these, 18 cultivated both their own gardens and also borrowed, whereas 12 relied only on borrowed gardens. Twenty people (13 percent) rented gardens and, of these, 16 cultivated their own and also rented, while 4 relied solely on renting.

Obligations and rights of use of wetland gardens

Requirements for ownership of wetland gardens

Access to wetland gardens is accompanied by some requirements here referred to as obligations. Individuals have to fulfill these obligations in order to secure ownership over the gardens. Table 2 shows that, overall, 61 percent of the households received the gardens with obligations, while 39 percent had no obligations to fulfill. The most common obligation is that households should pay tribute to chiefs (44 percent). Lesser obligations include the need to cultivate every season (18 percent), be a full member of the village (14 percent), participate in development activities, and also respect chiefs. Table 2 also shows that the obligation to pay tribute varies from place to place and is more prevalent in Likapa (81 percent) and Mpheta (69 percent) than in Khanda and Mposa sites where it was recorded 14 percent and 9 percent respectively.

Table 2. Requirements for ownership of wetland gardens

Requirements	Study site				
	Mposa (%)	Mpheta (%)	Likapa (%)	Khanda (%)	Total (%)
n	43	42	43	42	170
No requirements	76.7	23.8	0.0	57.1	39.4
Pay tribute to local leaders	9.3	69.0	81.4	14.3	43.5
Cultivate plots every season	14.0	7.1	18.6	31.0	17.6
Be member of the village/area	2.3	9.5	27.9	14.3	13.5
Do development work	2.3	9.5	7.0	0.0	4.7
Respect local leaders	2.3	2.4	2.3	0.0	1.8

The tribute that people pay is in form of bags of rice and it is locally called *chothokoza* (literally meaning “thanks”). During informal interviews people indicated that they are required to give the chief bags of rice

from the rainy-season harvest in order to secure ownership or cultivate the gardens. Most people pay one 50 kg bag of rice per garden, while some pay one bag regardless of the number of gardens. In the dry season, people use the gardens to grow maize, rice, vegetables, and other crops, without giving the chief any extra payment. Failure to pay tribute often means that the chiefs can take away the gardens. To confirm this claim people revealed that four people in one village in Mpheta site lost gardens to the chief because they did not pay tribute. However, people were not completely free to discuss the subject in detail for fear that the chiefs would hear and take away their gardens.

During informal interviews, the people clarified that the tribute is an annual rent to the chiefs and it is organized such that there are committees, whose job is to register people, show them the gardens, and collect bags of rice after harvesting. One chief justified the practice as the only way he could get food and income since he cannot work in the field, as he is always busy performing his duties as chief, for example, settling disputes. In 2002/03, this chief reported that he received 40 bags of rice and sold them at K500 each. He used the money to buy iron sheets for his two houses. Another chief received 26 bags through tribute from people. The chiefs defended the tribute practice saying they collect bags of rice to sell and use the money to carry out development work that benefits the whole community, for example, construction bridges and paths. A fact most respondents disagreed, saying the chief always asks people to pay separate money for development or the people themselves construct bridges. The outcry from the people is that they are being exploited. In fact, people complained that they pay cash in order to be shown the land for gardens and to construct their huts. The amounts vary from MK100 to MK1000 and it is paid once in life.

Oral history has shown that the tribute is an old practice in the Lake Chilwa wetland. Key informants indicated that the practice is similar to an old one, locally known as *kuphikira mowa*. *Kuphikira mowa* was a practice where new families or households settling in a village prepared beer and other foods to thank the chief for giving them the land to settle and cultivate. Reports indicated that in the colonial period, a family or household would move out of its village seeking new land to settle and cultivate in another village. The chief in the new village gave land without demanding any pay. During harvesting period, the new family prepared beer and other foods and calls the chief and his subjects to feast. At the end of the feast, the family organized gifts for the chief, and these could be livestock or crops. The *kuphikira mowa* function marked a time a family or household was officially accepted as members of the village. In the subsequent years, every household gave produce to the chief as thanks for the land they cultivate. In some cases chiefs were thanked for rain-calling practice, where they were associated with powers to call rain. The *kuphikira mowa* practice does not take place any more, but gifts are still being given to the chiefs.

It is important to mention here that some people, such as fellow VHs, the elderly, or those related to the VH or GVH, are exempted from the tribute practice and it is subject to changes. One VH in Khanda site reported that he used to have the practice but he stopped because some people abused it and people in the area showed displeasure. But in Mposa it was reported that another VH was considering starting to require tribute because he did not receive adequate compensation for his work as chief, and he was also attracted by the considerable rental income earned by his peers. The practice is indeed prone to abuse as noted in Mpheta, where people reported that committee members collected rentals for the gardens in addition to bags of rice. They also collected more bags of rice than they passed on to the chief. For example, the chief indicated that in the year 2003 he got 26 bags while the committee said they collected 46 bags, and yet there are over 300 households in the area who are supposed to pay bags.

Failure to cultivate is yet another requirement by which people could lose access to their gardens. Although few people (18 percent, see Table 2) mentioned it, the obligation exists in all the sites under both modes of access. During the reconnaissance survey, it was reported that failure to cultivate every year results in some people losing the gardens. A case in point exists in Likapa site where an individual lost a garden to the chief because it was not cultivated. The individual came from Mozambique to Likapa site in the early 1990s, looking for piecework, and he became employed as a watchman/herdsman. He then obtained a garden from the chief but it away in 2003 because he did not cultivate in the 2002/03 season since he was sick. With the increasing prevalence of HIV/AIDS, it is likely that more people will lose their gardens due to an inability to cultivate yearly.

Ownership and freedom of use of wetland gardens

Access to wetland gardens is accompanied by degrees of freedom on what one can or cannot do. The freedoms – the obverse of obligations – are referred to here as rights of use of gardens. These rights include the right to dispose the garden to an heir, lend, and the right to rent. Table 3 shows that, overall, 83 percent (141) of the households are free to dispose of their gardens to an heir, 69 percent are free to lend, and 40 percent are free to rent out the gardens. At the same time no one is free to sell the gardens in any of the sites. The rights vary with sites, for example, more people are free to dispose to an heir in Mposa (95 percent) and Khanda site (98 percent). The right to lent out is higher in Likapa (81 percent) and Khanda (86 percent) while renting is higher in Mposa (67 percent) and Khanda (79 per cent). As a reminder, Mposa and Khanda are the sites where gardens are inherited among family members while Mpheta and Likapa is where chiefs allocate the gardens.

Table 3. Freedom of use of wetland gardens

Freedom	Study site				
	Mposa (%)	Mpheta (%)	Likapa (%)	Khanda (%)	Total (%)
n	43	42	43	42	170
Freedom to dispose to an heir	95.4	73.8	65.1	97.6	83.0
Freedom to lend	58.1	52.4	81.4	85.7	69.4
Freedom to rent out	67.4	4.8	9.3	78.6	40.0
Freedom to sell	0.0	0.0	0.0	0.0	0.0

So far the results show that more people are allowed to rent and pass to an heir in the sites where the gardens are inherited among family members, while there are some restrictions in sites where chiefs allocate the gardens. However, lending does not follow the same pattern as it happens that regardless of sites, some people are restricted while others are allowed to lend out the gardens. This observation is confirmed in Table 4 where the right to pass on a garden to an heir varies with modes of access. Table 4 shows that overall, 57 percent of the households who received the gardens from family members are free to do so, compared to 27 percent of those who were allocated the gardens by chiefs.

Table 4. Modes of access vs freedom to pass on wetland garden to heir

Mode of access	Study site				
	Mposa (%)	Mpheta (%)	Likapa (%)	Khanda (%)	Total (%)
n	43	42	43	42	170
Through local leaders	2.3	26.2	20.9	0.0	12.4
Through family members	2.3	0.0	14.0	2.4	4.6
Total not free pass a garden	4.6	26.2	34.9	2.4	17.0
Through local leaders	9.3	42.8	34.9	19.0	26.5
Through families members	86.1	31.0	30.2	78.6	56.5
Total free to pass a garden	95.4	73.8	65.1	97.6	83.0

As indicated in Table 3, a total of 83 percent (141) of the people have the right to pass on their gardens to heirs. Table 5 shows that 67 percent (95) of the people with a right of disposal to heirs do not pay annual tribute (*chothokoza*) to the chief, thus constituting those with greatest security over the gardens. On the other hand, 33 percent (46) have the right to dispose of the gardens to heirs but also pay tribute, and this is more common in Mpheta (58 percent) and Likapa (79 percent). Informal interviews indicated the right of disposal to an heir was conditional on the willingness of an individual to pay tribute annually.

Table 5. Tribute practice vs freedom to pass on wetland garden to heir

Mode of access	Study site				
	Mposa (%)	Mpheta (%)	Likapa (%)	Khanda (%)	Total (%)
n	41	31	28	41	141
Local leader without tribute	7.3	6.5	7.1	9.8	7.8
Family without tribute to leader	87.8	35.5	14.3	80.5	59.6
Total without tribute	95.1	42.0	21.4	90.2	67.4
Local leader with tribute	4.9	51.5	39.3	9.8	23.4
Family with tribute to leader	0.0	6.5	39.3	0.0	9.2
Total with tribute	4.9	58.0	78.6	9.8	32.6

The obligation to pay tribute is the largest constraint on tenure of the gardens. Table 6 shows that the same number of people (33 percent) who could not pass the gardens to an heir considered the gardens to belong to the chief because the latter can take away the gardens if one fails to pay tribute. This is against 67 percent who considered the gardens as personal property because they were inherited from parents. The degree of ownership varies among the sites; for example in Mposa and Khanda, 84 percent and 83 percent, respectively, consider the gardens as personal property. In Mpheta and Likapa, 45 percent and 77 percent, respectively, indicated that they do not own the gardens. This implies that in places where families allocate gardens there is security of ownership unlike where chiefs control allocation.

Table 6. Ownership over wetland gardens

Mode of access	Study site				
	Mposa (%)	Mpheta (%)	Likapa (%)	Khanda (%)	Total (%)
n	43	42	43	42	170
Not mine unless I pay tribute to the chief	2.3	45.2	76.7	7.1	32.9
Mine since I inherited from parents	83.7	47.6	23.3	83.3	59.4
Mine because the chief is a witness	14.0	7.1	0.0	9.5	7.6

Generally, people who said that the gardens are not theirs, consider themselves as temporary citizens. The sense of temporary ownership was also evidenced in the type of houses the people had. Despite having stayed quite long periods in their current locations, people lived in simple huts while they had good houses (for

example, with iron roofs) in their original homes. Noted though is that people who come looking for gardens are located away from the main villages: for example, in Mpheta the people live in Bango area, which is about half a kilometre away from Mpheta village. A related observation was made in GVH Mbalu area during the reconnaissance survey. In this area, the in-migrants are located in a place called Manyamula and it is about a kilometre from Mbalu village, going towards the Lake Chilwa.

The second right of use is lending wetland gardens. Table 7 shows that a total of 69 percent of the people are free to lend their gardens. The right to lend wetland gardens varies with the modes of access. Overall, more people (44 percent) are free to lend out when the gardens are allocated by families, compared with 25 percent when chiefs control allocation of gardens. People with many gardens mainly do lending, and sometimes when the owner is sick. The borrower pays nothing and it is claimed that it is one way of enabling each other to grow crops in the dry season. However, a close look at the practice showed that one result of people lending gardens is to keep them cleared. One person from Maliwata village in Khanda site commented that instead of hiring labour to till, he just lends the gardens during the dry season and gets them back when time for planting rice comes in the rains. In this case he does not need labour for clearing and tilling the gardens.

Borrowing is mostly done among relatives and close friends. Cases in point are in Mposa where Biti Major stayed with her husband in Mbalame village and borrowed a garden from her brother cheMajor in Chipojola village. In Khanda, Mrs. Sululu from Mwandama village borrowed a garden from Mrs. Chikaonda from Khanda village, because her sister was married to Mrs. Chikaonda's son. A key condition for a borrower is that he or she is only allowed to cultivate the garden during the dry season, after which the plot is given back so that the owner can use it in the rainy season. Another condition is that the owner can lend the garden for up to three years; more than three years is said to result in the borrower taking over the garden because it is assumed that the owner is no longer interested in it.

Table 7. Modes of access vs freedom to lend wetland gardens

Mode of access	Study site				
	Mposa (%)	Mpheta (%)	Likapa (%)	Khanda (%)	Total (%)
n	43	42	43	42	170
Through local leaders	4.7	35.9	14.0	0.0	13.5
Through family members	37.2	11.7	4.6	14.3	17.1
Total not free to lend	41.9	47.6	18.6	14.3	30.6
Through local leaders	7.0	33.3	41.9	19.0	25.3
Through family members	51.1	19.1	39.5	66.7	44.1
Total free to lend	58.1	52.4	81.4	85.7	69.4

However, during informal interviews some people indicated that they were not willing to lend out their gardens because they did not trust borrowers. Some analysis revealed that 29 percent of the 52 respondents who did not lend out their gardens did so because they feared borrowers would not return the gardens after use, while 62 percent did not lend because the land belonged to the chiefs and the latter prohibited lending. It can therefore be argued that, while chiefs restrict borrowing, chances for one to borrow are also rooted in the trust between the owner of the garden and the borrower.

The third right of use is the right to rent out the gardens. Table 8 shows that more people are free to rent out gardens in Khanda (79 percent) and Mposa (67 percent), but renting is restricted in Mpheta (95 percent) and Likapa (91 percent). Thus, renting is allowed where families allocate gardens and it is prohibited in sites where chiefs control allocation of gardens.

During key informant interviews chiefs indicated that if a member is found renting out a garden they take the garden away because renting is similar to selling and nobody is allowed to sell land. Renting also implies that an individual has more land than needed. However, some individuals indicated that in practice renting takes place. At the time of the survey, rental charges varied from K300 to K700 depending on the size of the garden. Renters usually come from places such as Zomba City and Liwonde, although some are from within the sites. The renters mostly used hired labour (*ganyu*) to work in the gardens and sometimes the owners of the gardens also participated in *ganyu*.

Table 8. Modes of access vs freedom to rent out wetland gardens

Mode of access	Study site				
	Mposa (%)	Mpheta (%)	Likapa (%)	Khanda (%)	Total (%)
n	43	42	43	42	170
Through local leaders	4.7	66.7	51.2	4.8	31.8
Through family members	27.9	28.5	39.5	16.6	28.2
Total not free to rent out	32.6	95.2	90.7	21.4	60.0
Through local leaders	7.0	2.4	4.7	14.3	7.1
Through families members	60.4	2.4	4.6	64.3	32.9
Total free to rent out	67.4	4.8	9.3	78.6	40.0

Discussion

The study has shown that people with access to wetland gardens have an advantage in terms of food availability. Seventy-five percent of the respondents with gardens said that they have enough maize for family consumption. Wetland gardens also supplement cash income in the households. Those who are unable to gain access to a wetland garden thus are at a considerable disadvantage. Those who can either borrow or rent a garden are somewhat better off. However, rental fees may be high and thus limit access. The study has also shown that wetland garden is an activity being carried out by thousands of small farmers.

However, the value of wetland gardens is threatened by the fact that people who do not have gardens cultivate in the hills. These are the people who cannot afford to rent, or they do not have relatives from whom to borrow, or the gardens are all fully allocated such that the wetland has reached a saturation point. A report by FAO (1996) warned against cultivation practices in the uplands, especially when this is done without soil conservation techniques. The argument is that upland cultivation facilitates soil erosion and siltation in rivers, and it encourages peak flows in streams that then facilitate gully formation in wetlands. The overall result is a reduced flow of water into the streams and lowered water tables in the wetland. The effects on the farmers are that the area under cultivation is reduced and the period when the wetland can be cropped on residual moisture is reduced as well, a situation that ends in increased conflicts over access to, and use of, areas with moisture.

However, on a positive note, soil erosion brings fertile soils down into the wetland as farmers themselves pointed out; they said that they do not apply chemical fertilizer because “fertility comes from the uplands.”

The environmental concerns are valid but it should be recognized that in Malawi, just as in most other countries in the SADC region, there are no wetland policies formulated specifically to guide the wise-use concept in wetlands. Countries usually put elements of wise-use under environmental policies and legislation. This is with exception of Zambia, which by 2001 had a draft policy. Uganda is another country in Africa with a national wetland policy aimed at halting destruction of these areas (RoU, 1995). In accordance with the policy the Ugandan Government has trained and placed extension staff at district level so that they can supervise wetland management and utilization. Wetland management in Malawi falls under the mandate of the National Parks and Wildlife policy with its focus on biodiversity, as well under other environmental policies. The danger with the use of multiple policies is that they are usually develop independent of each other and they are not harmonized, such that they can result into confusion and conflict during implementation of the wise-use concept.

The study has revealed that access to water and land is intertwined and there are no separate rights and obligations for land and water in the wetland. This is because people mostly use residual moisture, and if a well is dug, one puts it in his or her own garden. So far there are no cases of people selling or begging for water. The study has shown that access is embedded in social ties and power relations, for example, many people (61 percent, see Table 1) accessed through inheritance among family members. Another example is where borrowing of the gardens is mostly done among family members and closest friends. This suggests that one may be assured of having a garden as long as he/she is a member of the family that owns the wetland. Family members do not only constitute blood relations, as some can use marriage links to borrow the gardens. While some members lend gardens just to help others grow crops in the dry season, it has been noted that lending is done to keep the gardens clean for rainy season planting. By implication access is rooted in reciprocity, where people feel they should be helped because they also help other (Mtika, 2001). However, sometimes individuals do not want to lend others because they fear that borrowers may not return the gardens, implying that access is also tied to the trust that exists between people. While social ties are conduits of access, the second mode, which is allocation by chiefs, implies that power relations shape access and ownership of wetland gardens. In this study 33 percent (see Table 6) of the people had security over the gardens only when they served the interests of the chiefs by paying bags of rice. In other words, being a member of the family does not warrant access or ownership, rather, it depends on one’s willingness to serve the interests of the chiefs in power.

The study has further shown that there is monopoly over the wetland by the households and the chiefs. What accounts for the difference seems to be the interpretation given by different chiefs and families to their rights and obligations. As far as the household claims are concerned the wetland and wetland gardens may be seen as their *de facto* private property. This agrees with the findings by Mkandawire on arable land, that when land has been allocated, households have total control and no one can oust them without due consultation (Mkandawire, 1992). In fact, possession of land transcends an individual lifetime, for land is held to belong to the living, the dead, and the unborn. The findings support the analysis in the new land policy, which accepts that “customary” tenure more often means family property, and which proposes the means for legal recognition of such private ownership. As far as the chief-controlled system is concerned, those chiefs who demand annual payments argue that access to the wetland is conditional on the willingness of an individual to pay tribute. This fact is disputed by some other chiefs as well as by some villagers.

Of course allocation of gardens by chiefs conforms to the ideal situation on arable land (Mkandawire, 1992 and GoM, 2001), namely that access to land may be gained through the village heads who get their right of administration from the chiefs who are the custodians of all the land. Village heads may allocate land to individuals, their children, or any member of the extended family. However, those chiefs who control access, do so out of their vested interests, thus, demanding payment in the form of bags of rice for the plots they allocate. The practice of giving some produce to the chief who allocated the gardens has been described in the past and present in some parts of the country, but it has been more closely associated with dry-land fields than wetlands (GoM, 2001). Moreover, the system is now an annual obligatory payment for wetland gardens, some

chiefs are like landlords instead of trustees of land, and the traditional gift giving has evolved into monetized and extractive practice akin to paying rent. As one chief claimed, he gets tribute as compensation for the services he renders. These services include settling land and family disputes and organizing TIP programmes. According to the claim by the chief, it can be understood that the closest members in the village use decency to claim these services while the in-migrants have to pay. The behaviour by the chiefs is often referred to as 'rent-seeking' by political scientist and economists among others. However, the concept of rent-seeking does not address what is really happening on the ground as it has been seen that the practice operates within social, economic and political contest. For example, fellow chiefs and close relatives are exempted; other chiefs denounce the practice and some people pay more while others pay less. The specific social relations cannot be explained by a simple market monopoly concept.

So far it remains important to know that the monopolistic behaviour of the chiefs comes from the traditional powers vested in them but reinforced by the land policy as custodians of land. The chiefs are using these powers to concentrate land for themselves by suppressing those with whom they have weak relationships. If chiefs were to succeed in land concentration, one may expect more conflicts, especially with those who may not want to comply with the conditions attached. Already, some chiefs say they are attracted to the practice as a way of increasing their income. Rising demand for the wetlands, especially in view of recurrent droughts and dwindling uplands for cultivation, may well increase the tendency of these chiefs to claim more wetlands, thereby increase insecurity over the gardens among the villagers, especially, the in-migrants. The existing conflicts over this issue have generated arguments over who is the rightful chief. Some claim that a certain lineage is not supposed to provide chiefs because they came into the area later, while another lineage claims that the other group cannot provide chiefs because their ancestors came to the area as slaves. An analysis suggests that the cases are not about chieftaincy or original settlers alone, but about who should have authority over valuable land. The results are social conflict, social divisions, and splits within villages.

The tribute practice is similar to *kuphikira mowa* practice. This suggests that the practice is old and it might have existed along side the tenancy labour system described by Mkandawire in 1992. Mkandawire (1992) stated that in the Southern Region of Malawi, large land alienation together with immigration of the Lomwe people from Mozambique in the early 1900s, along with population growth, resulting in scarcity of land within the African Trust area. Scarcity of land caused major conflicts over land between European estate owners and smallholder encroachers. A 'solution' to the conflict was the development of a tenancy labour system whereby peasants had to supply labour to estates in exchange for a small plot of land. This tenancy system was called *thangata*, which in Chichewa means to assist. However, the first president of the Republic of Malawi, Kamuzu Banda, abolished *thangata* soon after independence in 1964. It is therefore interesting to see some of its elements still existing in the wetlands now. Why these elements have persisted shows how research has not paid much attention to social issues in wetlands, hence, it is another area that requires more work to be done.

Implications of the research findings on land, water and irrigation policies

The results of the study form customary systems of governance and tenure to wetlands for irrigation and are contrasted with those that are proposed by new land, water and irrigation policies. To begin with, current perception in the land policy about wetlands is that they are unallocated land and access is open, and chiefs are the trustees (GoM, 2001). This perception does not hold in the Lake Chilwa wetland where land is household property or chiefs hold it as personal property and not as trustees. Therefore the assumption does not reflect what is really happening on the ground and it obscures policy challenges such as the composition of the proposed land management committees to oversee land allocation. The question to be answered during the implementation of the policy relates to whether chiefs should become members of the committees or what role they should play, knowing that they are not neutral entities, rather, they have vested interests, which might affect the work of the committees. It seems chiefs should not be given an upper role in the land management committees as this would advantage them to concentrate the wetland to themselves.

The results have implications for the water policy, which proposes to give water permits to any users using water for productive purposes. However, the study found that there are thousands of small farmers with small wetland gardens, which are personal, borrowed or rented. It is not clear how the small farmers will be

organized to get water permits. A meeting with policy makers in August 2004 showed that the observation was an eye opener which requires serious considerations, hence, there are no clear ideas yet on how to handle the issue. The issue becomes complicated when we consider that wetland gardens rely on water from the streams. This suggests that an increase in demand for wetland gardens has potential for conflict over water with stream-bank gardens and with irrigation schemes upstream. Here, it implies that promoting irrigation in wetlands requires an integrated and coordinated approach between upstream and downstream users and among the different authorities including those in irrigation, agriculture, water and environment. Usually, the policies are disjointed and their implementation is conflicting, for example, irrigation policy encourages cultivation in wetlands including areas along river and stream-banks. On the other hand the policies on environment and land resources aim at protecting rivers by leaving some area as buffer zone. The idea of buffer zone is defeated further by technologies that are used to carry water to irrigate crops by concentrating cultivation in the buffer zone since farmers only carry water a short distance.

The land policy further proposes that any group of families or individuals living in a locality or having customary land rights in a defined area that seeks to protect their common property interest over the wetland should be recognized. The same thinking applies in the water policy, which also proposes the formation of catchment management committees to ensure sustainable utilization of water resource. The irrigation policy (GoM, 2000b) also adopts the thinking and proposes the establishment of farmer associations and farmer clubs as a pre-condition for supporting irrigation schemes and *dimba* farming respectively. The thinking is to organize people so that they can manage water resources as groups with common interest. However, the study has revealed that wetland users are socially differentiated by place of origin, relationship to the chief and age, sex, some are renters and borrowers while others are controllers. These groups have different rights and obligation, for example, some pay tribute while other are exempted. In fact, instead of common interest, different categories of people draw on elements of trusteeship, as the case of chiefs, and entitlements based on family and locality in order to claim access and ownership over the wetlands.

Two issues for policy implications emerge from the proposals to organize people by common interest. First, the idea risks concentrating water and land resources in the hands of those in power such as the chiefs. Second, the idea may create more structures, which may claim authority and ownership thereby intensifying competitions and conflicts over wetlands with the existing ones, thus, families and chiefs. As mentioned earlier, implementation of these ideas requires careful consideration to avoid creating advantages for some sections of societies. The concern here is how much sensitive the policies are to the informal institutions that govern access to land and water resources.

Conclusions

The study concludes that wetland cultivation is very important for people's livelihoods. While this news is not new, it is important to notice that this value is threatened by other activities in the ecosystem; its sustainability, therefore, is dependent on the collaboration among various users, as well as collaboration among wetland-related policies in land, agriculture, environment, wildlife, and water sectors.

Another conclusion is there is concentration of the wetland going on among family members and some chiefs. Wetland concentration is a result of the monopolistic behaviour by some chiefs and households. The behaviour by the chiefs should be noted and outreach programmes are required in order to reduce it. Already the land policy warns that "holding land in trust for citizens does not make the Headperson, Chief, or any public official the owner of the land". Of course in terms of broadening access, it seems that where chiefs monopolize the wetland, people from outside the districts and even outside Malawi have obtained gardens. This is contrary to the pattern of *de facto* family property, where families monopolize and allocate gardens, almost always to kin. But the practice of demanding annual payments is a clear deviation from their traditional role as custodians and administrators. It is also counter to the proposal in the new land policy that *dambos* should be exclusive to members within the Traditional Authority's area or be converted to smaller areas under common property.

A third conclusion is that access and ownership of the wetland is secure for some people and insecure for others. This means implementation of the land policy in wetlands should not be based on a broad perception

that there is increased land customary tenure insecurity, as the reform process did. This perception only holds true for the areas where some chiefs allocate the gardens, and it does not apply in places where the gardens have become personal property for the households. If wetland utilization goals for agriculture are to be achieved access by various people should be enhanced. At a national level, the achievement of the goals is dependent on putting in place a policy and laws. These policies and laws have to be sensitive to the social and power relations existing in the wetland, otherwise there is a chance that the policies will only work to the advantage of the chiefs to accumulate land for themselves at the expense of other villagers. At the local level, enhancement of access is dependent on establishing governance practices that are transparent and accountable to the people in allocation of the gardens and dispute resolution. This would require formation of groups of local users to manage conflict resolution and land allocation systems, instead of leaving such systems in the hands of chiefs only.

In sum, this study reveals a localized debate over the value, modes of access, and legitimate rights over wetlands and wetland gardens, which, so far, has remained invisible to policy makers, planners, and development practitioners. It is to be hoped that the detailed analysis of the social and power relations in wetlands provided here will further more appropriate consideration of these valuable resources in policy and administrative procedures.

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Contact Address

Daimon Kambewa, Rural Development Department, Bunda College of Agriculture, University of Malawi, Malawi (kambewad@snp.org.mw)