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Wetland Conservation

Benefits of Wetlands and Attitudes of Local Communities towards Wetland Conservation in the Southwest Ethiopia

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ABSTRACT

This study was conducted in the Sheyebench and South Bench districts of the Bench-Sheko zone and Masha district of the Sheka zone in southwest Ethiopia. Chega-Gawussi wetland from Sheyebench, Chonkie-Shinkie wetland from South Bench, and Lake Dembi from Masha districts were selected for the study. Respondents in the vicinity of studied wetlands were interviewed to assess the benefits of wetlands and attitudes of local communities towards the benefits and conservation practices of wetlands. This study revealed that wetlands provide a wide range of uses for local communities, such as livestock grazing, irrigation, recreation, grass and forage harvesting, water sources for livestock and domestic uses, fish harvesting, and firewood collection. The total livestock holdings of the respondents as measured and the family size are significantly and positively associated with the frequency of wetland resource harvest/utilization. The result of the study revealed that the majority of respondents agreed with the benefits offered and the importance of conservation practices of wetlands. Despite the studied wetlands offering numerous benefits to the local communities, they were under threat due to the factors of land expansion deforestation, eucalyptus plantation, silting from adjacent farmlands, and overgrazing. The results of the study show that the local community has a positive attitude towards wetland conservation, and therefore the Office for Agriculture and Natural Resources, Forestry and Environmental Protection, and Biodiversity Conservation Organizations should work collaboratively to initiate and mobilize local communities to reduce the burden on wetland over-exploitation.

Keywords: *Attitude, Benefits, Conservation, Harvest, Wetland*

Wetland Conservation

INTRODUCTION

Wetlands are areas of marsh, peatland, or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of seawater whose depth at low tide does not exceed six meters (Scott and Jones, 1995; Abebe and Geheb, 2003). Finlayson and Moser (1991), wetlands cover about 6% of the world's land surface, however, about 50% of wetlands of the world have already been altered in the last 50 years (Dugan, 1993). This is could be due to a lack of understanding about the inter-linkage among wetland conservation, benefits, and human well-being, wetland ecosystems have not been conserved well and deteriorated due to agriculture and urbanization. For so many years, human societies have paid little attention to wetlands, resulting in poor conservation for wetlands, and communities are not well involved in the conservation and wise of wetlands. This has resulted in wetland depletion both at local and global levels. A number of studies show that in the 20th century, half of the world's wetlands were lost (McNeill, 2000; WRI, 2002) due to the lack of proper implementation of appropriate policy measures and participatory wetlands management strategies that involve the long-term benefit for future generation from wetlands.

Sustainable wetland management has received most thought within the role of community participation and their perception toward the importance of wetlands and sustain only if managed and utilized with sound knowledge and cooperation among communities and other stakeholders. Harnessing the practices and knowledge of the local community's wise use of wetland resources and local people's role in the stewardship of wetland management is the crucial approach. Despite local community dependence on wetlands resources for a number of reasons, their little participation in wetland management causes hindrance in conservation.

Wetland Conservation

Ethiopia has diverse wetlands that are distributed throughout many parts of the country. These wetlands contribute to diverse species of plants, animals, and microorganisms. Wetlands are important sites for livestock grazing and irrigation in Ethiopia (Amsalu and Addisu, 2014; Wood, 2001). The livelihoods of people living near wetlands are directly affected by the loss of wetlands because it contributes to human well-being and poverty alleviation (Gauthier *et al.*, 2005). Therefore, it is critical for conserving the wetlands in order to ensure sustainable benefits for future generations from wetlands through stakeholder involvement particularly local communities surrounding wetlands need to be part of decision-makers for wetland resource management. It is necessary to develop and enforce participatory wetland conservation strategies at various levels in order to ensure wetland resources sustainability.

The level of community participation in wetland conservation is based on the benefits they derive from it and the attitude of the community towards wetlands conservation may also influence their skill and knowledge. Lack of understanding among local communities about the importance and wetlands conservation may also be the factor that may hinder the level of community participation. The benefits of wetlands and attitudes of local communities in southwestern Ethiopia toward wetlands conservation have not been well studied. This study looks at how local communities in Southwestern Ethiopia felt about the benefits and conservation practices of wetlands. The attitudes of wetland users must be investigated because the sustainability of wetlands is intimately related to those communities. The majority of the remaining wetlands in Southwest Ethiopia are common resources where society relies on them for numerous reasons. There have been scant studies on the attitudes of local communities toward the benefits and conservation practices in Southwest Ethiopia. This study was therefore undertaken to study the benefits and attitudes of local communities towards the benefits and conservation of wetlands in southwestern Ethiopia.

METHODS

Study area Description

A cross-sectional study was conducted on 315 randomly selected household heads living in the vicinity of wetlands in southwest Ethiopia. The study was carried out in the Sheybench and South Bench districts of Bench-Sheko zone and Masha districts of the Sheka zone which are located 586 km, 566 km, and 718 km from Addis Ababa, respectively, to the south-west. Geographically, South Bench lies between $29^{\circ} 23' 13.401''$ – $29^{\circ} 41' 37.004''$ east longitude and $6^{\circ} 43' 55.916''$ – $6^{\circ} 59' 42.775''$ north longitude, SheyBench lies between $34^{\circ} 50' 0''$ – $35^{\circ} 52' 30''$ east longitude and $6^{\circ} 7' 30''$ – $7^{\circ} 50' 0''$ north longitude whereas Masha is located between $35^{\circ} 29' 0''$ east longitude and $7^{\circ} 44' 0''$ north longitude. Based on wetland region scope, Chonkie-Shinkie wetlands were selected Sheybench district Gullish kebele, Lake Dembi from South Bench District Fanika kebele, and Chega-Gawussi wetlands from Masha District Yina Kebele¹. These wetlands have a different land-use class that witnesses human-environment interactions.

¹ Kebele refers to the smallest administrative unit of Ethiopia, contained within a district, similar to the award, a neighborhood or a localized and delimited group of people.

Wetland Conservation

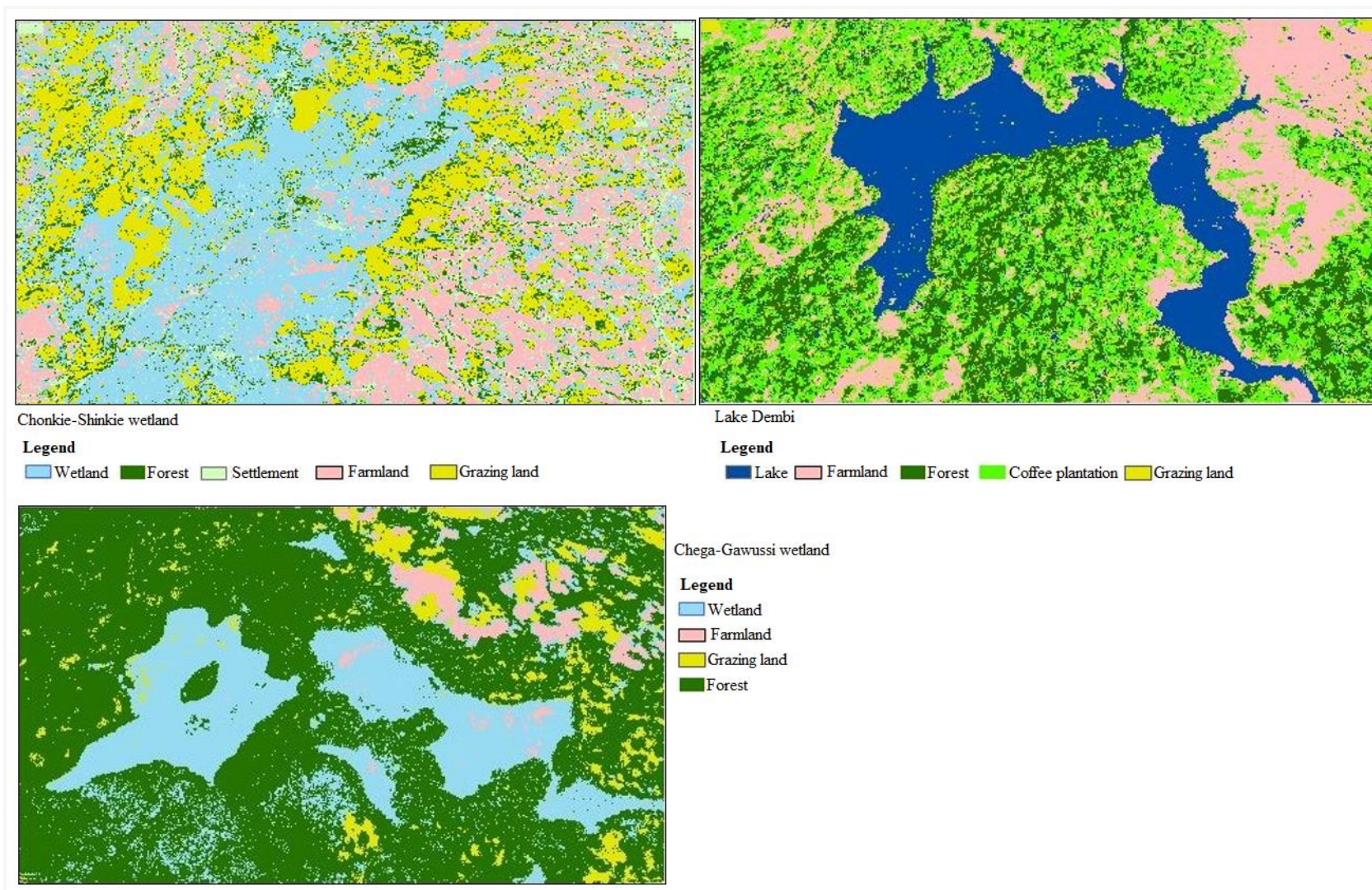


Figure 1. Land use class of the studied wetlands of Southwest Ethiopia

Wetland Conservation

Methods of Data Collection and Analysis

Random sampling was employed to select household heads (HHs) for the questionnaire survey from purposefully selected study kebeles. The sample size was determined using Israel (2012).

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size, N is the population size and e is the level of precision at 5%. As a result, 315 household heads were randomly interviewed and responded to the questions out of 1482 household heads living close to the studied wetlands.

Table 1. Sampled household size

Zone	District	Wetlands Selected	Kebele Location of the wetlands	Total households of the Kebele	Sampled Households
Sheka	Masha	Chega-Gawussi	Yina	488	101
Benchi-Sheko	South Bench	Lake Dembi	Fenika & Fajeka*	547	116
	Sheybench	Chonke-Shinkie	Gullish	447	98
Total				1482	315

* Fajeka is found under Sheko Woreda of Bench-Maji zone and HHs around the lake were part of the study

Questionnaires with both closed and open-ended questions were developed, and 315 participants were selected randomly for the interview. The questionnaires were answered by all of the selected respondents. To collect data on local participants' attitudes toward the benefits and conservation of wetlands, a five-point Likert scale method (Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree (3), Agree (4), and Strongly Agree (5)) was used. Descriptive statistics were used to analyze data on the local community's attitudes toward the importance and conservation of wetlands.

Wetland Conservation

RESULTS

Demographic Characteristic of Respondents

Of the total inquiry survey, about 78%, 82%, and 92% of the respondents in the vicinity of the Chega-Gawussi wetlands, Chonkie-Shinkie wetlands, and Lake Dembi were male-headed households, respectively. The mean age of the respondents involved in the study ranges from 41 to 60 years, and the majority of respondents did not attend formal education. More than 80% of respondents were farmers, with the majority owning farmland ranging from 0.5 hectares to 1 hectare in size.

Benefits of Wetland Ecosystem

Respondents consider wetlands as an important asset and they used reeds from wetlands as roofing for houses and other temporary crop huts, cultural/ceremonial purposes, feed their livestock with nearby wetland water and grasses, harvested medicinal plants from the wetlands, used water from nearby wetlands for agriculture, and used wetlands' fish and other wild animals. The majority of respondents (more than 85%) in the study areas have been harvested reeds from wetlands for roofing the houses and other temporary crop huts, as well as for other ceremonial purposes. Similarly, more than three-quarters of respondents in the study areas feed their livestock from nearby wetland resources. More than 83% of the respondents have used wetlands as a source of medicinal plants to treat human and animal diseases. Fishing and wild animal hunting were not frequent in the wetland areas of the study sites (Table 1), with just less than half of the respondents participating in these activities. In comparison to the Chonkie-Shinkie wetlands and Chega-Gawussa wetlands, Lake Dembi provides better fishing opportunities for the local community. More than 75% of respondents at Lake Dembi and Chonkie-Shinkie wetlands reported that they were using water from nearby wetlands for agriculture, particularly for irrigation during the dry

Wetland Conservation

season. On contrary, only about 19% of Chega-Gawussi wetland respondents said they used the wetlands for agriculture. About 30% of respondents in each study site were used water from wetlands for various domestic purposes. On the periphery of Lake Dembi, there were coffee plantations, and a few respondents were engaged in irrigation activities near the Chonkie-Shinkie wetland and Lake Dembi which might intensify the pressure on wetlands.

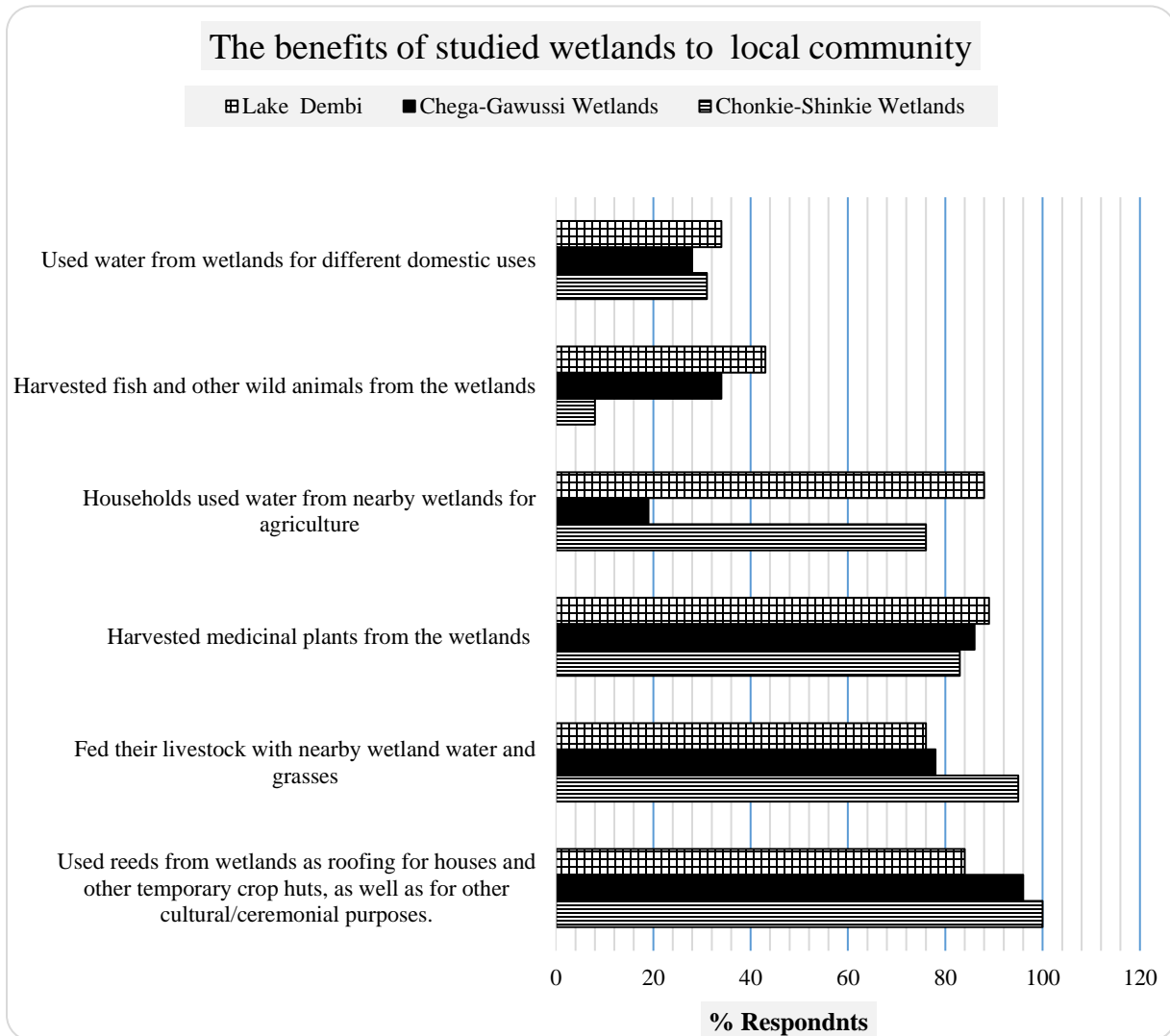


Figure 2: Benefits of the studied wetlands for the local communities

Wetland Conservation

Attitudes of the respondents to the wetland ecosystem services

From the total inquiry survey, on average, about 8 % and 19% of respondents in the study were strongly disagreed and disagreed respectively with the statement “Wetlands have aesthetic values, enhance environmental beauty and used as an attraction for ecotourism activities” (Table 2). However, about 28% (agreed) and 26% of respondents were strongly agreed to with the aforementioned statement. There is a significant difference in the response of respondents across the wetlands (Table 3). Typically, in the Masha district (lake Dembi) about 31 percent (agreed) and 34 percent were strongly agreed that Wetlands have aesthetic values, enhance environmental beauty and used as an attraction for ecotourism. This might be due to good conservation as compared to other studied wetlands. On average, of the total respondents, 10% (strongly disagreed), 15% (disagreed), 30%(agreed), and 25% (strongly agreed), with the statement “Wetlands are used as habitat for wildlife including fish, birds, reptiles, and amphibians”. The chi-square analysis to the mentioned statement shows that there is no difference in the responses of respondents across the wetland to this statement. On average, of the total respondents, about 10% strongly disagreed and 29% of respondents disagreed with the statement “Wetlands reduce water pollution, control floods, soil erosion, and improve environmental health” whereas 16% of respondents agreed and 24% were strongly agreed with this statement (Table 2). The responses of respondents differ significantly across wetlands. Approximately 13% of respondents strongly disagreed and 16% disagreed with the statement “Wetlands are sources of grass and water for livestock and are used for irrigation activity, especially during seasons”. On the other hand, 23% and 25% of respondents agreed and strongly agreed respectively with the above-mentioned statement. This might due accessibility of wetlands to drive such resources from wetland and the lack of strict rules for wetland conservation.

Wetland Conservation

Table 2. Attitude of local communities toward benefits of studied wetlands

Statements	Responses	Number of respondents			Average	χ^2	Sig.
		Chega-Gawussi wetland (N=101)	Lake Dembi (N=98)	Shonkie-Chonkie wetland (N=116)			
Wetlands have aesthetic values, enhance environmental beauty, and are used as an attraction for ecotourism activities	SD	2(2)	9(9)	14(12)	8	17.464	0.026***
	D	14(14)	15(15)	30(26)	19		
	N	20(20)	19(19)	22(19)	19		
	A	31(31)	29(29)	27(23)	28		
	SA	34(34)	26(26)	23(20)	26		
Wetlands are used as a habitat for wildlife, including fishes, birds, reptiles, amphibians, etc.	SD	8(8)	9(9)	14(12)	10	2.714	0.951
	D	13(13)	15(15)	19(16)	15		
	N	20(20)	19(19)	24(21)	20		
	A	31(31)	29(29)	34(29)	30		
	SA	29(29)	26(26)	25(22)	25		
Wetlands decrease water pollution, control floods, soil erosion, and important environmental health	SD	10(10)	10(10)	13(11)	10	22.799	0.004***
	D	10(30)	28(28)	33(28)	29		
	N	20(20)	22(22)	24(21)	21		
	A	27(17)	13(13)	19(16)	16		
	SA	34(24)	25(25)	27(23)	24		
Wetlands are sources of grass and water for livestock and are used for irrigation activity, especially in seasons.	SD	15(15)	12(12)	14(12)	13	1.243	0.996
	D	16(16)	15(15)	18(16)	16		
	N	23(23)	21(21)	29(25)	23		
	A	21(21)	25(25)	27(23)	23		
	SA	26(26)	25(25)	28(24)	25		

SD= Strongly Disagree; D=Disagree; N=Neutral; A= Agree; SA=Strongly Agree

Attitudes of Local Communities towards Wetland Conservation

In all of the studied wetlands, on average, about 10% of respondents strongly disagreed with the statement “wetland margins should be restored by native wetland plants to conserve wetlands” whereas about 15% strongly disagreed with this statement (Table 3). About 20%, 31%, and 28% of respondents at the Chega-Gawussi wetland were neutral, agree, and strongly agree, respectively, to the above-mentioned statement (Table 3). Approximately 20% of respondents at all studied wetland strongly disagree with controlling fire, invasive weeds, and eucalyptus plantation expansion from wetland areas while nearly 14% of respondents disagreed. A quarter (25%) of respondents were neutral on the statement that fire, exotic weeds, and eucalyptus plantation expansion should be controlled in wetland areas. About 23% and 19% of respondents agreed and

Wetland Conservation

strongly agreed that fire, exotic weeds, and eucalyptus plantation expansion should be controlled in wetland areas, respectively.

Regarding to the statement “It is very important to develop community-based wetland management plans and implement them with the integration of other stakeholders”, less than 10% of respondents in all studied wetlands strongly disagreed with the statement; while about 25% of respondents strongly agreed with this statement (Table 3). Approximately 13% of respondents strongly disagreed with the statement that degraded farmlands and areas adjacent to wetlands should be afforested and 16% of them disagreed with the mentioned statement. In contrast, 24%, 22%, and 24% of respondents were neutral, agree, and strongly agree to the statement, respectively (Table 3). In all studied wetlands, approximately 12% of respondents strongly agreed and 19% disagreed with the statement that it is critical to prevent waste discharge to wetland areas. Contrary to this, about 31% of respondents strongly agreed and 22% disagreed with the mentioned statement. In all studied wetlands, regarding the quoted statement “it is critical to provide alternative feed sources and shade for livestock away from wetlands” approximately 24%, 23%, 24% of respondents were neutral, agreed, and strongly agreed to the statement. About 28% of respondents strongly agreed and 23% of respondents agreed that encroachment into wetland areas for farmland expansion, irrigation, livestock grazing, and other purposes should be controlled.

In the studied wetlands, there was a significant difference in the responses of the respondents to some statements related to wetland conservation. There were substantial differences in the respondents' responses to the statement that “developing a community-based wetland management plan and implementing it with the participation of other stakeholders is critical. In this regard, nearly 4%, 12%, 19%, 31%, and 35% of respondents strongly disagreed, disagreed, neutral, agreed, and strongly agreed respectively to the mentioned statement (Table 3). The number of

Wetland Conservation

respondents who strongly disagreed and disagreed with the same statement in the Chega-Gawussi wetlands was lower than in the Lake Dembi and Conkie-Shinkie wetlands. In the Chega-Gawussi wetlands, the number of respondents who responded neutral, agree, or strongly agree to the statement that developing a community-based wetland management plan and implementing it with the participation of other stakeholders is very crucial was greater than the number of respondents that answered neutral, agree, or strongly agree to this statement. The number of respondents who agreed or strongly agreed to the statement that it is important to provide alternate feed sources and shade for livestock away from wetlands at the Chega-Gawussi wetlands was higher than the number of respondents who agreed or strongly agreed at the Chonkie-Shinkie wetlands and Lake Dembi. In comparison to Chonkie-Shinkie wetlands and Lake Dembi, the number of respondents who disagreed or strongly disagreed with the same statement was lower at Chega-Gawussi wetlands. Similarly, the number of respondents who strongly disagreed and disagreed in the Chega-Gawussi wetlands was small compared to the number of respondents who strongly disagreed and disagreed in the Chonkie-Shinkie wetlands and Lake Dembi. However, the number of respondents who strongly agree and agree in the Chega-Gawussi wetlands was higher than the number of respondents who strongly agree and agree in the Chonkie-Shinkie wetlands and Lake Dembi.

Wetland Conservation

Table 3. Respondents attitude toward conservation of studied wetlands

Statements	Responses	Number of Respondents			χ^2	Sig.
		Chega-Gawussi wetland (N=101)	Lake Dembi (N=98)	Shonkie-Chonkie wetland (N=116)		
Margins of wetlands should be restored by native species of wetland vegetation for wetland maintenance	SD	8(8)	11(11)	13(11)	1.598	0.991
	D	14(14)	15(15)	17(15)		
	N	20(20)	19(19)	24(21)		
	A	31(31)	29(29)	30(26)		
	SA	28(20)	24(24)	32(28)		
Fire, exotic weeds and eucalyptus plantation expansion wetland areas should be controlled	SD	20(20)	19(19)	23(20)	1.63	0.99
	D	13(13)	14(14)	16(14)		
	N	24(24)	25(25)	29(25)		
	A	21(21)	24(24)	27(23)		
	SA	23(23)	16(16)	21(18)		
It is very crucial to develop community-based wetland management plan and implement it with the integration of other stakeholders	SD	4(4)	13(13)	12(10)	28.088	0.000**
	D	12(12)	23(23)	34(29)		
	N	19(19)	24(24)	29(25)		
	A	31(31)	21(21)	15(13)		
	SA	35(35)	17(17)	26(22)		
The degraded farmlands areas adjacent to wetlands should be afforested	SD	15(15)	12(12)	15(13)	1.745	0.988
	D	19(19)	15(15)	16(14)		
	N	24(24)	24(24)	29(25)		
	A	21(21)	22(22)	27(23)		
	SA	22(22)	25(25)	29(25)		
It is important to prevent waste discharge to the wetland areas	SD	12(12)	11(11)	14(12)	1.341	0.995
	D	18(18)	20(20)	23(20)		
	N	16(16)	17(17)	21(18)		
	A	34(34)	31(31)	32(28)		
	SA	21(21)	22(22)	26(22)		
It is essential to provide alternative feed sources and shade for livestock away from wetlands.	SD	5(5)	14(14)	15(13)	31.953	0.000**
	D	10(10)	23(23)	31(27)		
	N	22(22)	26(26)	28(24)		
	A	32(32)	25(25)	16(14)		
	SA	32(32)	10(10)	26(22)		
Encroachment into wetland areas for the purpose of farmland expansion, irrigation and livestock grazing and etc. should be reduced	SD	7(7)	18(18)	14(12)	33.362	0.000**
	D	11(11)	24(24)	38(33)		
	N	14(14)	19(19)	9(8)		
	A	31(31)	20(20)	21(18)		
	SA	38(38)	17(17)	34(29)		

SD= Strongly Disagree; D=Disagree; N=Neutral; A= Agree; SA=Strongly Agree

DISCUSSION

The result of the study revealed that the studied wetlands are important for livestock grazing, irrigation, recreation, grass/forage harvesting, the water source for domestic use and livestock, fish harvesting, and firewood collection. Wetlands support the production of fisheries and sources of medicinal plants and they are also ecologically important in the storage, filtration, and supply of water (Abebe and Geheb, 2003; Wood *et al.*, 2002). Another study showed that wetlands provide

Wetland Conservation

goods and services to livestock and household water sources, grazing for livestock, firewood, reeds, building materials, recreation, and flood mitigation (MEA, 2005; Schuyt, 2005; Junk *et al.*, 2013; Amsalu and Addisu, 2014).

The survey inquiry revealed that the community at Chonkie-Shinkie wetlands, Chega-Gawussi wetlands, and Lake Dembi had harvested reeds from the wetlands for roofing houses cultural, ceremonial, and thatching purposes. Other harvesting purpose includes; grass for animal forage, medicinal use source of water for agriculture. According to (Gordon *et al.*, 2007) and (Houghton *et al.*, 2001), wetlands in Ethiopia are of historical, cultural, and ceremonial importance. (Dixon, 2008) confirmed dense reed vegetation is used for ceremonies and festivities in Ethiopia in addition to roofing, craft materials, and cattle forage.

Coffee plantation and small-scale irrigation activities were observed on the fringes of Lake Dembi. Fish harvesting and recreational activities are also recorded in Lake Dembi. Gemechu (2010) estimated that more than 83% of people around Lake Abijata rely on wetlands for various types of subsistence. Besides, Lake Abijata and other wetlands around this wetland provide services for the development of ecotourism, which is a great prospect for the job opportunities and economic base of local communities. Chonkie-Shinkie wetlands used wetlands for livestock grazing and irrigation and water sources. During the dry season, in order to search for grass and water, the farmers from surrounding communities bring their cattle to this wetland. Wetland resources are used for grazing in the dry season. Some of them are used for water sources and irrigation and for domestic water supply (Gemechu, 2010). Like the respondents from Lake Dembi, a few respondents were engaged in irrigation activities adjacent to Chonkie-Shinkie wetland. The finding of Afework (2005) indicated that the communities around Lake Tana have benefited a lot from fishing and irrigation activities.

Wetland Conservation

Pece wetland in Uganda accounts for more than 50% of the monthly income of the rural community living around this wetland (Opio *et al.*, 2011). Bosma *et al.* (2012) estimated that 40% of Mahakam Delta households' livelihood depends on mangrove wetland ecosystem resources. Wetlands are considered to be a vital resource on which many rural economies and whole communities depend (RCS, 2006). Silvius *et al.* (2000) and Maclean *et al.* (2011) suggested that the poorest, land-dependent communities are the most directly dependent on wetland services and function as an income source and livelihood diversification.

Unlike of attitudes of respondents in Masha, the attitudes of respondents in Lake Dembi and Conkie-Shinkies on wetland benefits and conservation were remarkably similar. There are traditional taboos associated with the wetland conservation practices in Sheka Zone. The culture of Shakicho people protects wetlands and waterfalls and they consider wetlands as sources of water for rivers and forests that keep them from drying up and believe that there is a connection between wetlands, rivers, forests, and human health. The thought of Shakicho people regarding nature as an asset is mainly manifested in sustainable natural resource management. The traditional systems of belief that enforce taboos on resources and ecosystems contribute to the conservation of natural resources, especially wetlands. Many indigenous people and local communities associated with wetlands have great knowledge of managing these ecosystems in a sustainable way, and in some instances have an ongoing cultural association with wetlands. In the Sheka zone, cultural forests, wetlands, and riverine forests were conserved through the traditional beliefs for centuries. Taboos and social norms restrict humans from cultivating wetlands and clearing woods on the riverside and surrounding areas. Despite all these facts, currently, those resources face threats due to the new belief systems. The Shakichos believe that people will die or face evil things if they abuse these taboos. Traditional Shekacho culture does not encourage direct wetland grazing of livestock

Wetland Conservation

to avoid compaction (Tadesse and Fite, 2011). The traditional culture of the Shekecho people focuses on the conservation of nature for their existence and this nature-based culture enables the natural forest and associated wetland registered by UNESCO. However, the studies revealed that currently, changes in the belief system have altered the attitude of people and respect for wetland and river taboos. This gradual weakening of the traditional beliefs of Sheka people has resulted in illegal encroachment to wetlands and forest areas that cause the depletion of natural resources.

Local people typically require a reason for the conservation of resources. Sustainable conservation of wetland requires local community efforts and therefore it is imperative that conservation should be linked with sustainable benefits to generation. The attitude of local communities is one of the ultimate factors deciding the conservation of the natural resources. The result of this study revealed that the majority of communities have a positive attitude towards wetland conservation. Despite the positive attitude of local communities toward wetland services, Due to a shortage of farmlands, local communities were forced to search for extra farmland and encroach on communal lands such as wetlands and forest areas. In different parts of Ethiopia, instead of sustaining wetlands, most households have given priority to achieving their basic needs (Beyene *et al.*, 2012). Lamsal *et al.* (2015) suggested that the participation of the community in conservation activities was poor, although they maintained a positive attitude to the conservation of wetlands in Nepal and households did not engage in the conservation of wetlands. Even the poverty reduction strategy for food security improvements in Ethiopia did not give due attention to natural resources, particularly wetland resources (Awulachew *et al.* 2007). Ethiopia did not properly implement Ramsar Convention for wetland conservation (Deribe 2007) and no wetland policy has been established (Hailu 2007). Therefore, for the management and use of wetlands at local, regional, and national levels, the principles of sustainable development set out in the Ramsar Convention

Wetland Conservation

(Bamba, 2004) should be followed. In southwest Ethiopia, proper and sustainable conservation measures of wetlands resources were not made and they are more likely to degrade further unless appropriate measures are taken to tackle this problem.

CONCLUSION

The studied wetlands have a number of uses for the local communities. Approximately 60% and 38% of the surrounding household heads rely on the Chonkie-Shinkie wetland for livestock grazing and forage/grass harvesting for other various purposes. As far as Chega-Gawussi wetland is concerned, of studied households about 10% of the household heads collected firewood from this wetland and about 13% of household heads harvested grass/forage from Lake Dembi. The socio-economic characteristics of household heads had influenced the frequency of harvest/use of wetland resources. The increment in the livestock and family size of the respondents resulted in a statistically significant increase of 0.1 and 0.10 respectively in the frequency of wetland resource harvesting/use. As household TLU increases by one unit, the frequency of wetland utilization/harvest increases by 0.15 and 0.13 at Chega-Guwassi wetlands and Lake Dembi, respectively. The majority of respondents revealed a positive attitude towards the benefits and conservation of wetlands. The study shows that there were positive attitudes towards wetland conservation activities. This indicates that there are more local residents who are engaging themselves in the conservation efforts. The result of this study shows that communities living in the vicinity of the wetland areas had a positive attitude towards wetland conservation and had cultural respect for wetlands and related resources. Community mobilization and initiation is therefore a decisive mechanism and necessary approach to overcome degradation and over-exploitation of existing wetlands in Southwest Ethiopia. Sound wetland management can only be sustainable if the system harnesses the local community's deep-rooted traditional knowledge.

Wetland Conservation

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Contribution of Authors: All of the authors contributed by participating in data collection, organization, and analysis, as well as report writing and reviewing.

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