

# Challenges of Community-Based-Ecotourism Development in Gorgora-Ethiopia

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# ABSTRACT

Community-based ecotourism is used to describe a variety of activities that encourage and support a wide range of objectives in economic and social development and conservation. It became alternative means of income generations and off-farm activities to minimize degradations pressure on endangered environments in rural areas of Ethiopia, particularly Gorgora. The potentials of Gorgora area helps to prepare the community based eco-tourism development. The major objective of this research was to investigate major challenges for the development of community-based ecotourism in Gorgora. Both quantitative and qualitative data generated from these techniques are analyzed, and are used to complement each other. Gorgora is rich enough in ecotourism potential that contribute to attract ecotourists, but deforestation, water pollution, soil erosion, overgrazing; limited infrastructures, and accommodation facilities and services are found as the major problem contributors to the degradations of natural and cultural resources of the area. However, Lake Tana and its wetland including endemic bird species for bird watching, water sports, monasteries and church used for religious ceremony, palace of Susenyos, Mussolini monument, and 'Selassie' cave are located at shore of Lake Tana that used to attract tourists for historical tour and recreation. Thus, developing infrastructures, increasing awareness of the local communities, introducing and promoting community-based ecotourism are important strategic directions for sustainable development of cultural and natural resources for Gorgora local communities, which would be improved the livelihood of local communities.

Keywords: Ecotourism potentials; Challenges; Community-based-ecotourism; Gorgora

# INTRODUCTION

According to Watkins and The International Ecotourism Society (TES, 2003) a widely accepted definition of ecotourism is: "responsible travel to natural areas that conserves the environment and sustains the well-being of local people" [1,2]. The International Ecotourism Society (IES), this definition was expanded by Honey to include seven basic principles of ecotourism, as follows: Respects local culture, Involves travel to natural areas, Minimizes impact, Builds environmental awareness, Provides direct financial benefits for conservation, Provides financial benefits and empowerment for local people and Supports human rights and democratic movements [3,4].

Ecotourism places many demands on a wilderness area, foremost being the ability to accommodate tourists while still providing the experiences they seek. The advantage for the wilderness area is that "because ecotourism is primarily resource-based, protection of these natural and archaeological resources is essential for sustained ecotourism" [5]. Many conservation organizations and governments see ecotourism as the means to both preserve and develop remote areas.

Community-Based Ecotourism (CBET) means different things to different people, the International Ecotourism Society defines ecotourism as 'Travel to natural areas that conserves the environment and sustains the well-being of local people'. This distinguishes it from nature tourism, which involves visiting natural attractions but without any explicit objective of achieving environmental or social protection. Boo rephrased it as 'nature tourism that promotes conservation and sustainable development', introducing the element of pro-active conservation and economic development [6]. Honey expanded the definition to include not only financial benefits for conservation and for local people, but also support for human rights and democratic movements [3].

In the context of conservation theory and practice, CBET is a form of community based natural and cultural resource management, a popular choice of activities in an enterprise-based strategy for biodiversity conservation and preservation, and it's a common element in integrated conservation and development projects [7].

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From an environmental perspective, self-described ecotourism operators cover a different range, from those that simply practice some cost saving or environmental measures (e.g. water recycling or renewable energy), to those that actively invest in protecting natural areas or threatened species [8].

Most ecotourism operations also claim to benefit local communities; either through employment or by contributing to community projects, but the term community-based in CBET implies going beyond this to involving communities actively [9]. This has been interpreted as anything from regular consultations, to ensuring that at least some community members participate in tourism-related economic activities, to partial or full community ownership of whole ecotourism enterprises. Ecotourism has proven itself to be important tool for conservation, and in certain cases it has improved the quality of life of local people, who continue to demand it as a sustainable development option [10].

According to Lindberg and Enriquez stated the wide range of interpretation of the conservation and community development objectives of CBET is reflected in the reporting of results [11]. A project that creates a bit of local employment or helps reduce poaching of a few species can be regarded as a success story or a disappointment, depending on what it set out to achieve. A lack of consensus on fundamental objectives and realistic expectations underlies much of the debate around CBET, and ICDPs in general [8].

CBET is as a potential source of economic development and poverty alleviation, particularly in marginal rural areas with limited agricultural potential [12]. A newer term that also has been used is sustainable heritage tourism. Sustainable heritage tourism promotes sustainable development, environmental conservation, conservation of historic sites, cultural revitalization, and research that provides interpretive knowledge to tourists [13].

Whether and when communities benefit economically from CBET is clearly a relevant issue. There is no doubt that many Community-Based Ecotourism (CBET) programmes create some local employment or generate some revenues (not necessarily profits) that enhance some local incomes or help support community projects. The economic impact is hard to judge, however, in the absence of specific data, baseline and contextual information and quantitative analysis. Many reports fail to distinguish between revenues and profits, ignore issues such as distributional effects and market saturation, and lack any cost-benefit or cost-effectiveness analysis [8].

However, animals in protected areas may face stress due to ecotourism. Affect the movement, foraging, and reproductive behaviour of large mammals; some species withdraw from the home range; some change behaviour, and still others may become habituated to human presence [14]. Ecosystems: in abnormally high or low population densities of some species in tourist areas, ecological change through population increases in unaffected species, deforestation from firewood harvesting, camping, and construction and Destruction of unique flora [15].

In developing countries tourism or ecotourism has become one of the economic sectors that generates substantial income and maintains conservations of protected areas. For example, in Kenya in Amboseli National Park the income obtained from ecotourism is 18-20 times more than the income obtained from agricultural activities [16]. In case of Ethiopia because of the majority of its population are engaged in agricultural activities instead of on off-farm activities like ecotourism, natural resources are exposed to extreme degradations [17].

According to EFCOT also indicated alternative means of income generations and off-farm activities to minimize degradations pressure on endangered environments in rural areas of Ethiopia. Ecotourism could be as a good example of alternative income generation and off-farm activities which benefit local communities while achieve the conservation goals of natural resources. Furthermore, Scwenk indicated assessment of ecotourism or simple nature tourism does not need more facilities and depends on locally obtained facilities or natural capital of the poor that can be managed locally [18].

In order to make tourism sustainable in Ethiopia there was an attempt to introduce ecotourism to rural areas as component of natural resources management through creating diversified livelihoods for local people [19]. Brodnig also stated that ecotourism could be very important where the ecosystem is fragile and other forms of natural resource management might be impossible [20]. Therefore Community-based ecotourism is used to describe a variety of activities that encourage and support a wide range of objectives in economic and social development and conservation. Related to the increased sense of environmental and social responsibility in tourism plus sustainability, community-based ecotourism is also gaining popularity as part of strategies for conservation and development [21].

Gorgora particularly, Northern shore of Lake Tana has a significant number of different species of fauna and flora. There are also ancient churches, island monasteries, palace, monument and spectacular coastal sites (NGCTD, 2009). Hence Gorgora site is one of the most important tourist attractions areas in northern circuit, in Amhara region. However, many of these natural and cultural resources are declining at an alarming rate due to the wining behavior of human and, low level of conservation and rehabilitation effort.

Despite the above mentioned cultural and natural values on this site nationally heritage statues, the Gorgora resources are influence of mass-consumerism is precipitating the degradation and destruction of natural cultural resources crucial to local communities of Gorgora livelihoods. That means, Gorgora area communities couldn't benefit in the tourism industry. Local communities are depending on agriculture activities only, there is no other alternatives/off-farming activity to its source of income, nevertheless as can be observed from this site resources and availability of community awareness program and groups make to conserve authenticity to original ones and then benefited them [22].

Thus, introduction and implementation of Community Based eco-Tourism (CBET) is the most important solution for the aforementioned problems, which may further typify the opportunity and the extent to which the area can contribute for sustainable economic growth.

# RESEARCH METHODOLOGY

## Research design and approaches

CBET in the tourism industry can reflects within the tourism decision-making process, in the sharing of tourism benefits and creating sustainable environment which is in the protection and preservation of natural and cultural attraction [23]. In turn, these key aspects of community-based ecotourism determine the extent to which tourism as alternative means of income contributes towards alleviation of widespread poverty, especially amongst local communities in developing countries.

This paper, challenges of community-based-ecotourism development in Gorgora, was indeed, derived from these key aspects. This complexity, the paper is therefore designing to use a combination of multiple techniques of data collection in order to successfully address the central research questions [24]. In other words, this paper enables one to collect details information about a community-based ecotourism challenges and gain a rich understanding that particular community within the area [25].

Furthermore, this paper is chosen because the study seeks to investigate challenges of community-based ecotourism for sustainable tourism development, which implies that conducting a study area at the community level was an appropriate strategy. The study would be strengthening through the triangulation of both quantitative and qualitative data which are obtained by means of the questionnaire survey and the interviews respectively [26].

The research design employed a combination of qualitative and quantitative approaches to obtain data in Gorgora located at a distance of 65 km and 30km by bus at from Gondar and Kolla Diba respectively (DWCTO, 2018) that had been preferred for its unique untapped potentials. Specifically, focused on Abrejeha, Mangia and Gorgora Kebele administrations, due to most tourism activities are run on natural, cultural and historical attractions. Such respondents are identified by the use of systematic random sampling, especially for the household survey [27].

Strength of the paper was that it brings together perspectives from key tourism stakeholders (ordinary members of the community, decision-makers within the community, tourism experts) at the micro level, where little tourism research on this topic would be done. That means Description design is used to describe phenomenon since the researcher has prior knowledge about problems and information needed to explain situations followed by field survey to supplement the phenomenon with statistical descriptions.

## Data types and data sources

The questionnaires were distributed to household representatives that complemented by review of literature, in-depth interviews with tourism officials and regard bodies, tourism businesses and owners in Gorgora. Consequently, the researcher used a cross-sectional descriptive and field survey approach for the scope of the study that took short duration and focused on gathering both quantitative and qualitative information from both primary and secondary sources [28].

## Methods of data collection

This research paper was enriching by the use of both secondary data and primary data. Primary data are the new data or original data generate by this research, whereas secondary data are existing data or information collects for a purpose other than that of the researcher [29].

## Sample size and sampling technique

To obtain a representative sample is consisting of 5 key informants for interviews and 141 household representatives for questionnaires were select that represent all tourism actors throughout Gorgora. The researcher determined the sample size from the total local community household representatives, concerned tourism officials, and village government and, house hold representatives that classified into three groups:

**Group 1:** There are many Tourism officials but District tourism development officer (1) and North Gondar Administrative culture and tourism department head (1) were selected based on purposive sampling technique that based their experience, interest, proximate, knowledge, duties and responsibilities [30].

**Group 2:** Kebeles government and community leaders /'likemenber'/(3) were selected on each study area kebeles based on purposive sampling technique based on their voluntariness, and occupation employed [31].

**Group 3:** Household representatives (141) were selected since they used as a sampling frame and unit of analysis using the calculating method. Which is reliable up to 95% and deviation factor is less than 0.05 (social scientists usually establish a cut-off point at 5% chance of sampling error) [32]. Besides that, according to Cochran's (1977) sample size formula, on the representation basis, the sampling technique is used systematic sampling in probability sampling, this is the reason, it's considered as the best technique of selecting a representative sample [33].

For a population of 2481 of households, the required sample size is 150.however, since this sample size exceeds5% of the households (2481\*.05)=124, Cochran's (1977) correction formula should be used to calculate the final sample size. These calculations are as follows (Table 1).

=n1=n/ (1+n/household)

=n1=150/ (1+150/2481)=141

Where population size=2481

Where n =required return sample size because sample >5% of the household of population

Table 1:	Profiles	of survey	respondents
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Respondent characteristics	Sex		Total	Number of respondents	Percentage
Kebeles	М	F			
Mangia	734	120	854	42	30
Abrejha	1367	80	1447	72	51
Gorgora	189	351	540	27	19
Total	2289	551	2841	141	100
Saura a Janta J G			2010		

Source: adopted from census survey, 2010.

#### Data analysis and presentation

The researcher complete questionnaires were code and the quantitative data was analyzed by using the Statistical Package for the Social Sciences (SPSS) - computer software. Qualitative data or more specifically, free responses arising from open-ended questions that respondent's answer using their own words are code into a set of categories develops from identified commonalities.

For all the qualitative data, paraphrasing while remaining faithful to the original meaning as it is gives by the respondent and/or selecting illustrative quotes that have been applied in a particular context, were the two approaches use to display qualitative data has been collected by the in-depth interviews. It also important to note that all the qualitative data had to be translate from Amharic back to English. Respondents were asked to rate their quantitative survey responses on a 5-point Likert scale where 1=strongly disagree; 2=disagree; 3=undecided; 4=agree; and 5=strongly agree, depending on a particular question.

The analysis of such responses (quantitative data) from the survey by SPSS produces frequencies, percentages, means and cross-tabulations of responses on each aspect, and ANOVA and Independent T-test on Awareness of each kebeles. Calculation of frequency distribution and the mean and standard deviation provide descriptive statistical analysis of quantitative data collect by the questionnaire survey. Quantitative responses have been categorized, analyzed, and examined based on various respondent groups such as sex, occupation, education, and the location of the kebeles.

### **RESULTS AND DISCUSSION**

#### Local communities' knowledge of tourism

Within the section of community economic benefits, promote conservation resources and participation in Gorgora CBET development in the survey questionnaire and the interview guide of, community awareness of the issues related to the CBET as sustainable development at Gorgora was a concern. The survey results show that in the Gorgora CBE-related awareness, benefits, conservation issues were the main focus; in addition, tourism development issues were mentioned. Respondents who attended the Gorgora CBE-related awareness, 70.3% reported that good awareness about tourism development issues were discussed at tourism development awareness programs they attended (Table 2), while 71.8 % mentioned that economic benefits were discussed, in additional to those attending the awareness, 67.4% and 81.9%, respectively reported that better economic benefits than other means of livelihood and satisfaction issues and promotes conservation of natural and cultural resources issues were discussed in local people awareness. Hence, 3.70 of mean mentioned about the discussion of local communities have enough awareness to tourism that help to develop community-based ecotourism product improvement issues in this site (Table 2).

In addition, the in-depth interview findings suggested that community members were Well-informed about the Gorgora potential natural and cultural attractions that help to CBE development, benefit and better means of livelihood issues, which related to Gorgora tourism development. One local government kebele leader mentioned that: 'The measurement for level of tourism knowledge is better in Gorgora area communities. One of the reasons is due to the high involvement of the government in providing awareness program in natural conservation and protection their resources.

However, the government has taken little initiative to develop and promote tourism development in Gorgora, even though there are many tourist attractions. Ecotourism in Gorgora could be as a source of income and means of alternatives for its community.

In another way, to compare males and females' household awareness of the study area using independent sample t-test that helps to know how to properly present and describe information. In quantitative data analysis, there are several statistical tests that can be used to examine relationships between two or more variables, or differences between two or more groups. Inferential statistics represent a category of statistics that are used to make inferences from sample data to the population [34]. In particular, these statistics test for statistical significance of results i.e. statistically significant direct relationships between variables, or seek to examine statistically significant differences between two or more groups.

According to Dwayne, Statisticians often choose a cut-off point under which a p-value must fall for a finding to be considered statistically significant [35]. If the p-value is less than or equal 0.05 (5%), the result is deemed statistically significant, i.e., there is a significant relationship between the variables. Use the p-value as

Issues	Respon	dent awareness	Respon	ndent benefit	Responden	t means of livelihood	Respond	ent conservation
	Ν	%	Ν	%	Ν	%	Ν	%
Strongly Disagree	2	1.40%	11	8.00%	17	12.30%	9	6.50%
Disagree	22	15.90%	15	10.90%	7	5.10%	7	5.10%
Undecided	17	12.30%	13	9.40%	21	15.20%	9	6.50%
Agree	89	64.50%	64	46.40%	69	50.00%	67	48.60%
Strongly Agree	8	5.80%	35	25.40%	24	17.40%	46	33.30%
Total	138	100.00%	138	100.00%	138	100.00%	138	100.00%
Mean	138	3.57	138	3.7	138	3.55	138	3.97
St.deviation	138	0.879	138	1.192	138	1.203	138	1.094

Table 2: Local communities awareness.

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an indicator of statistical significance. An independent samples t-test examines whether there is a significant difference on a quantitative/numerical variable between two groups or categories of respondents. The independent variable must be categorical with only two categories (dichotomous), the dependent variable must be quantitative/numerical.

This Table 3 describes the means and standard deviations of each group: Male and Female respondents. The means represent the average awareness with the overall kebeles scores for the sex groups on a five-point scale. One can see clearly that the average awareness score for male respondents is 3.81, whereas for Female respondents it is 3.45. However, based on the above Table 3 cannot arrive at any conclusions that male is more significantly better awareness than female respondents without examining the statistical significance of the result (t-test information) in Table 4.

Therefore, the Table 4 describes independent samples t-test information to ascertain whether there is a significant difference between the sex groups in relation to awareness with the study area. Before examining the t-test information, we must decide whether assume equal variances or not. To check this, look at the Table 4 the p-value (sig.) for the Levene's test (.149), it is above .05, hence it's assumed equal variances, read the assumed equal variance column of the Table 4, focus on the sig (2-tailed) row this is the p-value (.04). This is below our cut-off point.

Table 3: Group statistics.

	Respondent sex	Ν	Mean	Std. deviation	Std. error mean
Awareness of People	Male	100	3.81	0.882	0.088
	Female	38	3.45	1.01	0.164

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Hence, the mean and standard deviation result found in the **Group Statistics** Table 3, male households (M=3.81, SD=0.88) reported significantly higher levels of awareness with the overall study area than did Female households (M=3.45, SD=1.01).According to Dwayne (2004), to explain in Levene's test it is better reporting the results of the independent sample t-tests only if the bottom row for t-test information is significant; if non-significant, report the top row [35]. Therefore, in the above Table 4 the test revealed that a statistically significant difference between males and females (t-value=1.94, degree of freedom=59.7, p-value=.06).

Furthermore, one-way ANOVA is a generalized version of the independent samples t-test. It examines differences among three or more groups on quantitative/numerical (numerical/interval/ratio) variables.

The above Table 5 in the ANOVA output is similar to that of the descriptive statistics table from the t-test. It shows the means and standard deviations for each kebeles. Mean awareness scores based on a five-point scale ranging from 1(strongly disagreed) to 5 (strongly agreed).

The Table 6 (Levene's test) tests the assumption of equal variances for the ANOVA. This is the same as the assumption found in the t-test but in another table. The p-value is .003 which is below .05 indicating that equal variances not assumption are met.

This is the post-hoc tests to see where the differences lie. It focuses on the Games-Howell post hoc test as the Levene's test revealed equal variances not assumed (p=.003). According to Dwayne (2004) the Scheffe post-hoc test should be selected when equal variances assumed but the Games- Howell post-hoc test should be selected if not [35]. See Table 7 that those Gorgora differed significantly from those Abrejeha and Mangia they (Gorgora) had significantly lower awareness scores.

Table 4: Independent samples tes	t.
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Statistical test		Awaren	ess of people
		Equal variance assumed	Equal variance not assumed
Levene's Test of equality of variance	F	2.102	
	Sig	0.149	
t-test for equality of means	Т	2.071	1.949
	Df	136	59.685
	sig.(2-tailed)	0.04	0.056
	mean difference	0.36247	0.36247
	std.error difference	0.17502	0.18602
	95% confidence interval of the difference	0.01636	0.00967
		0.70857	0.73461

Table 5: Descriptive awareness of people.								
Site	N	Mean	Std. deviation	Std. error	95% Confidence	interval for mean	Minimum	Maximum
				-	Lower Bound	Upper Bound	_	
Aberejeh	72	3.8872	0.82707	0.09747	3.6928	4.0815	1	5
Mangia	42	3.6964	0.87735	0.13538	3.423	3.9698	1.81	5
Gorgora	24	3.2214	1.14594	0.23391	2.7375	3.7052	1.19	4.69
Total	138	3.7133	0.92935	0.07911	3.5569	3.8698	1	5
2								

Source: survey results

A one-way ANOVA was conducted to examine whether there were statistically significant differences among households in different kebeles relation to their awareness with the study area households. Post-hoc Games- Howell tests revealed statistically significant differences between household respondents of Gorgora (M=3.22, SD=1.15), and those Mangia (M=3.70, SD=0.88) and those Abrejeha (M=3.89, SD=0.83), (Table 7 and Figure 1). Respondents Mangia and Abrejeha reported significantly higher awareness with the study area compared with Gorgora households. There were no other significant differences between the other groups.

# Major problems of the local peoples and status of their social services

The major problems on the conservation of natural and cultural resources in Gorgora are deforestation, Lake Tana water pollution, soil erosion because of overgrazing. These problems results in vegetation degradation, wildlife depletion, fish reduction, and associated factors. The researcher observation and responses of sampled households about major problems that face in and around Gorgora tourism development are presented in Table 7.

# Major challenges of the local people

According to the respondents besides management problems on natural and cultural resources, Environmental pollution (on lake Tana that are source of drinking water but it observed exposed to pollution like oil, garbage, pesticide etc), deforestation, soil erosion that are cause of food insecurity, limited health services

Table 6: Awareness of people.	
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Levene statistics	df1	df2	Sig
6.107	2	135	0.003

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and facilities and inadequate transportation services are the major problems of local communities in and around the Gorgora (Table 8).

These problems of local people are emanated from socio-economic conditions and contributed to increase poverty and consequently can affect the natural and cultural resources destruction of Gorgora since local communities are entirely depend on these resources.

According to households' survey relating to conservation problems of natural and cultural resources of Gorgora, about 79.7%, 94.2%, 84.8.0%, 73.2% and 73.9%, respondents responded that deforestation, environmental pollution, soil erosion and overgrazing, insufficient health service and facilities, and limited transportation services respectively (see Table-8). On the other hand, interviewer respondents also responded that vegetation degradation, wildlife depletion, and fish reduction are the effects of the above problems.



Figure 1: Mean plot of awareness of people in kebeles.

Table 7: Awareness of p	people: in LSI	D (multiple	comparisons).
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(I) respondent kebeles	(J) respondent kebeles	Mean difference (I-J)	Std. error	Sig.	95% Confid	ence interval
					Lower Bound	Upper Bound
Abrejeha	Mangia	0.19072	0.17553	0.2792	-0.1564	0.5379
· _	Gorgora	.66580*	0.21308	0.0022	0.2444	1.0872
Gorgora	Mangia	47507*	0.23132	0.0419	-0.9326	-0.0176
*The mean difference is a	ignificant at the 0.05 lovel					

\*The mean difference is significant at the 0.05level.

Table 8: A major	challenge that	faces the study area.
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Issues	Frequency and percentage	SD	D	UD	А	SA	Total –	Descriptive sta	
								М	SD
No Environmental pollution	Count	71	39	8	8	12	138	138	138
	%	51.40%	28.30%	5.80%	5.80%	8.70%	100.00%	1.92	1.262
No Deforestation in kebeles	Count	79	51	0	4	4	138	138	138
	%	57.20%	37.00%	0%	2.90%	2.90%	100.00%	1.57	0.879
No Soil erosion	Count	69	48	3	12	6	138	138	138
	%	50.00%	34.80%	2.20%	8.70%	4.30%	100.00%	1.83	1.113
Adequate health service and facility	Count	50	51	10	19	8	138	138	138
	%	36.20%	37.00%	7.20%	13.80%	5.80%	100.00%	2.16	1.222
Adequate transport service	Count	65	37	8	15	13	138	138	138
	%	47.10%	26.80%	5.80%	10.90%	9.40%	100.00%	2.09	1.348

Source: Survey results

# Status of social services of local people in and around Gorgora

Based on the survey data (DWCTO, 2018) obtained from secondary data in different offices of Dembia Woreda and observation in where large ecotourism potential area, there is no sufficient social services for local communities living in and around Gorgora and for developmental of CBET (Table 8). Among social service, there is no adequate electricity supply in Gorgora and it environs, which is a serious problem for the local communities' daily life and other related social services of the study area including health service, water service, telecommunication, and schools' functions.

Therefore, these problems may affect the local people way of life and made them to be exposed to poverty, which led to degradations of natural resources. According to Brodnig due to extreme poverty, the poor people in rural areas depend directly on natural resources, which might lead to loss of natural resources [36-38].

## CONCLUSION

Even though Gorgora area has huge ecotourism potentials, it is facing different problems on the development of community-based ecotourism. Some development problems on natural resources like deforestation toindigenous trees and others, lake Tana water pollution (garbage and sewage) and social related problems like limited health service and facilities, inadequate transportation, lake of adequate infrastructure and utilities (potable water, electricity, telecommunication including internet services ), food insecurity which are contributed to aggravate poverty that might be a major threat to cultural and natural resources of study area were stated.

Generally, developing infrastructures, increasing awareness of the local communities, introducing and promoting communitybased ecotourism are important strategic directions for sustainable development of cultural and natural resources for Gorgora local communities, which would be improved the livelihood of local communities.

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