

GORGORA'S ECOTOURISM MODEL: A SUSTAINABLE PATH THROUGH COMMUNITY LEADERSHIP

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Abstract: *Community-based ecotourism holds promise for fostering sustainable development in Gorgora, Ethiopia. This paper explores the potential of such initiatives in leveraging local resources while preserving the environment and cultural heritage. Drawing on case studies and empirical research, it examines the opportunities and challenges of community involvement in ecotourism, highlighting the implications for economic growth, environmental conservation, and social cohesion. By shedding light on the transformative power of community-based ecotourism, this paper seeks to inform policymakers, practitioners, and local communities on strategies for sustainable development in Gorgora and similar regions.*

Keywords: *Community-based ecotourism, Sustainable development, Gorgora, Ethiopia, Environmental conservation, Economic growth.*

INTRODUCTION

The travel industry is currently one of the biggest and 2011). UNWTO (2020) noted that “international tourist most significant enterprises on the planet regarding arrivals worldwide grew 4% in 2019 to reach 1.5 billion business creation and age of unfamiliar income (UNDP, and 2019 was another year of strong growth, although slow compared to the exceptional rates of 2017 (7%) and 2018 (6%), Middle East 8% led growth followed by Asia and Pacific (5%), Europe and Africa (both 4% while America saw growth of 2%)”.

Similarly, “international tourism receipts earned by destinations worldwide have grown to \$1.7 trillion in

2018 up from \$1197 billion in 2013” (UNWTO, 2020). WTTC (2019) attempt to highlight issues of movement and the travel industry as one of the world's biggest financial segments, supporting one out of 10 positions (330 million) around the world, and producing 10.3% of worldwide GDP. Growth of tourism in recent years confirms that the sector is one of the most powerful drivers of economic development. The country’s tourism and travel strongly weighted towards “77% of travel, and tourism spending came from international travelers, with 23% from domestic travel” (Nergiz and Celik, 2015). Though noted for its potential, Africa's underdeveloped tourism sector reaches an estimated 67 million of total tourist arrivals in the world (Naidoo, 2019). Ethiopia’s travel and tourism economy grew by 48.6% in 2018, the largest of any country in the world (WTTC, 2019). In 2018, world travel and tourism reportedly contributed

\$7.4 billion to the country's economy (an increase of \$2.2 billion in 2017). The sector now represents 9.4% of

Ethiopia's total economy (WTTC, 2019). According to WTTC (2019) and Ministry of Culture and Tourism MoCT (2009), "Ethiopia's travel and tourism boom were among the great success stories of 2018". This has been driven by the solid exhibition of avionics in the nation and advancement of Addis Ababa as a dynamic and developing local center (Ethiopia and United Nations, 2015).

According to World Bank (2013), travel and tourism in Ethiopia now account for one in 12 of all jobs. Ethiopian tourism is becoming one of the pivotal sectors contributing a lot to social, cultural, and economic development of the country (MoCT, 2009). Tourism has become one of the main sectors contributing to social, cultural, and economic development aspects of Ethiopia as well as the largest and the most vital industries in the world in terms of employment creation and generation of foreign revenue (UNDP, 2011; MoCT, 2009). It is in a special position to benefit local communities economically and socially, and also raise awareness and support for conservation of environment (UNEP and UNWTO, 2005).

Tourism development can involve many different types of businesses; however, "CBET is not the only area experiencing highest growth in this global industry, it is also becoming recognized and utilized as the most effective way to harness the tourism business in a way that directs its economic benefits toward the generation of equitable and sustainable livelihood opportunities" (Asker, 2010).

Since during the 1990s, the traveler concern for natural issues has expanded, ecotourism is now being talked about, and the travel industry is perceived as a monetary part that gives rise to sustainable development (Holden, 2003). In developing nations, the travel industry or ecotourism has become one of the monetary parts that produce significant salary and ensures preservation of secured territories. 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 (Theodros, 2004). "In the case of Ethiopia, because 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" (EFCOT, 2003).

Additionally, EFCOT (2003) indicated elective methods for money generations and off-farm exercises to limit debasements pressure on jeopardized situations in rustic territories of Ethiopia. Ecotourism could be seen as a genuine case of elective salary age and off-farm exercises which benefits nearby populations while accomplishing the preservation objectives of natural assets. Furthermore, Scwenk (2002) "indicated that assessment of ecotourism or simple nature tourism does not need more facilities but depends on locally obtained facilities or natural capital of the poor that can be managed locally".

"In order to make tourism sustainable in Ethiopia, there was an attempt to introduce ecotourism to rural areas as a component of natural resources management through creating diversified livelihoods for local people" (Van Ter Beek, 2001). Brodnig (2006) also expressed that "ecotourism could be very important where the ecosystem is fragile and other forms of natural resource management might be impossible". Therefore, community-based ecotourism is utilized to depict an assortment of exercises that empower and uphold a wide scope of destinations in monetary and social turn of events 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" (The Mountain Institute, 2000).

“Gorgora particularly, Northern shore of Lake Tana has a significant number of different species of fauna and flora, which is its most rewarding sites especially for bird watchers and for other tourist activities; there are also ancient churches, island monasteries, palace, monument and spectacular coastal sites” (NGCTD, 2009). However, a significant number of these untamed life assets are declining at a disturbing rate because of the wining conduct of humans and, low degree of protection and recovery exertion (DWCTO, 2018).

Hence, Gorgora area communities could not benefit in the tourism industry even though it is a potentially rich area in natural and cultural attractions. Gorgora local communities are now depending on agriculture activities only, as there is no other alternatives/off-farming activity to its source of income. Nevertheless, as can be observed, from this site comes resources and availability of community awareness program and groups to

conserve authenticity to original ones and be beneficial for them (Abraham, 2008).

Thus, introduction of Community Based eco-Tourism (CBET) is the most important business that can contribute to sustainable economic growth.

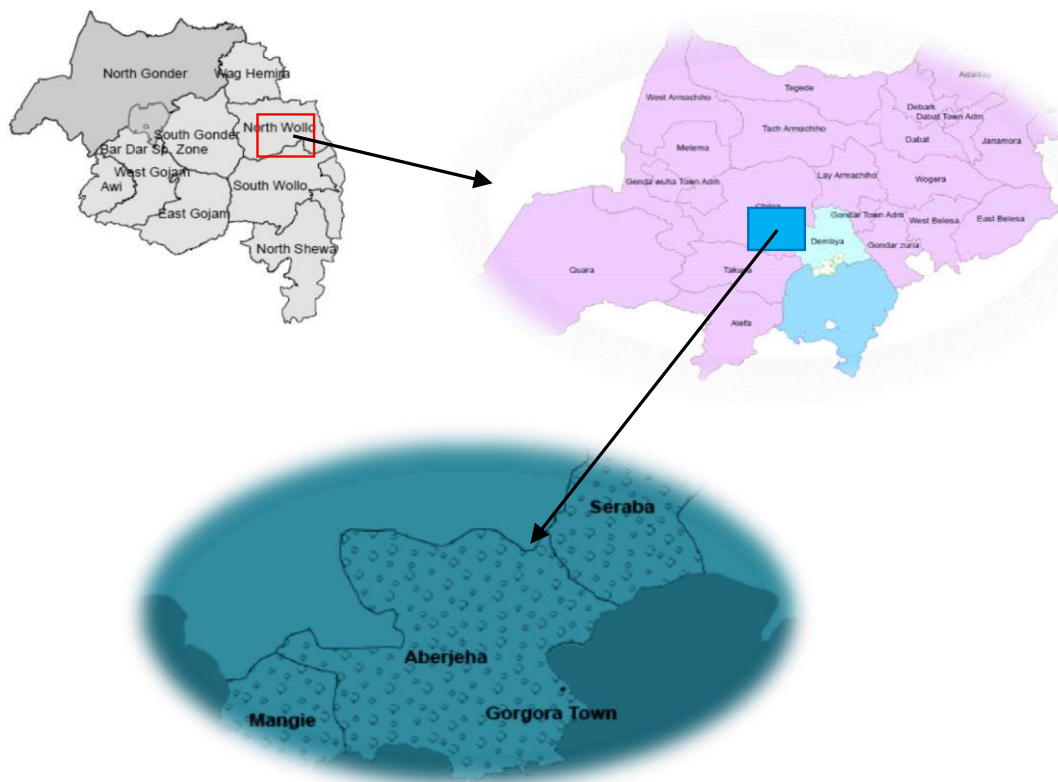


Figure 1. Map of ANRS showing the study area.

Source: ANRSCTB (2018).

RESEARCH METHODOLOGY

Description of the study area

Ethiopia is rich in mosaic culture of people, impressive geological events, scenic beauty landscape, and cradle of humankind formed by complex and old aged natural and anthropogenic factors. The rich

biodiversity intriguing landscape with unique historical events and hospitable cultures are designated for attraction of tourists and historical researchers" expedition (MoCT, 2009).

The Amhara National Regional State, home of age-old monuments and other heritages situated on the "Historic Route" has the Lion's Share of the country's tourist attractions. Three of the seven world heritage sites of Ethiopia (the medieval castles of Gondar, the Simien Mountains National Park and the Rock Hewn Churches of Lalibela, that is, one of the eight wonders of the world) are housed here. The thunderous Blue Nile Falls, Ethiopia's largest lake, Lake Tana dotted with island monasteries, the endemic wild lives like Walia Ibex, Gelada Baboon, Simien Fox etc still adorn this gracious region (ANRSCTB, 2018).

Gorgora is one of the ancient towns, which is positioned 65 km and an hour drive to south western of Gondar city, and has a rich array of natural, cultural and historic attractions that put it at a propitious position to develop the tourism activity in the area (NGCTD, 2009). Gorgora is one of the 45 authoritatively separated kebeles in Demebia woreda (DWCTO, 2018), which has a population of 16,270 people that comprise Amhara and some Negede Woyto people (Central Statistical Agency (CSA), 2007). The study area which covers 110,172 km² comprises three kebeles, viz; Gorgora, Abrejeha, and Mangei (ANRSCTB, 2018). It is significant to note that in Dembia woreda, many places are called by the name Gorgora, such as Gorgora town, Mangia around Susenyos palace, that is, old Gorgora, and some part of Abrejeha that are near to Lake Tana (Abreham, 2008).

According to ANRSCTB (2018), Gorgora is located at latitude of 12°14'4.357"N and longitude of 37°17'28.216"E in Dembia Woreda. Dembia is bordered on the south by Lake Tana on the west Takusa and Chilga, Gondar Town Administration and Gondar Zuria on the East, and Lay Armacho woredas on the north (Figure 1) (North Godnar Culture and Tourism Department (NGCTD), 2009).

Most of the Gorgora area and its surrounding could be a plain area. The only area which can be said to be steep is around Mussolini monument and the altitude rise as high as 2000 m. This can be appreciated from the map area with slope >30 in a very negligible proportion (ANRSCTB, 2018). Some studies have singled out the same 26 species of fish, out of which 17 are endemic species of Lake Tana, at large to Ethiopia (Eshetie, 2003). These endemic fish species constitute 14 large barbs, one small berbs and two gara species (Alayu, 2012).

Dembia woreda, including Gorgora and its surrounding is moist Weina Dega, that is, rainfall ranges between 900 – 1400 mm and altitude is within the range of 1500 – 2300 m (DWCTO, 2018). The temperature in Gorgora and its surrounding varies from 24 – 15°C.

Biophysical resources

Flora

The major vegetations, which can be obtained around Gorgora and nearby islands include *Justicia schimperiana*, *Syzygium guineense*, *Mimusops kummel*, *Rothmannia urcelliformis*, *Juniperus procera*, *Ficus* spp. *Millettia ferruginea*, and *Ehretia cymosa*. Lakeshore and riverine to upland vegetation indicators include *Maytenus arbutifolia*, *Carissa edulis*, *Croton acrostachyus*, *Phoenix reclinata*, *Cordia africana*, *Acokanthera schimperi*, *Diospros mespiliformis*, *Ficus vasta*, *Celtis africana*, *Acacia abyssinica* and *Grewia bicoloruna* (ANRSCTB, 2018).

Fauna

The lakeshore habitats and associated wetlands harbour one aquatic mammal, Hippopotamus (*Hippopotamus amphibious*) whereas other mammals reportedly common in the study area include

Porcupine (*Hystrix cristata*), Jackal (*Canis mesomelas*), Duiker (*Sylvicapra aethiops*), Olive baboon (*Papio anubis*) Vervet monkey (*Cerapithecus aethiops*), Aardwolf (*Proteles cristatus*) and Aardvark (*Orycteropus afer*) (EWNHS, 1996).

Research design and approaches

CBET in the tourism industry revolves around tourism managerial procedure, in distribution of tourism benefits and creating sustainable environment which is in the protection and preservation of natural and cultural attraction. In turn, these crucial features of community-based ecotourism determine the extent to which tourism as alternative means of income contributes to mitigation of extensive poverty, especially among local populations in developing nations.

Therefore, this paper is designed to use a combination of multiple techniques of data collection in order to effectively address the problem of the study questions. In other words, this paper collects detailed data on local population and finds a common understanding that pertains to particular people within the research context.

Additionally, this study seeks to investigate community-based ecotourism development, which implies that conducting this investigation at the community level is an appropriate research strategy. This study is further reinforced through triangulation of both quantitative and qualitative information which are obtained by the questionnaire survey method and meetings with individuals (Michael, 2013).

Here, a combination of qualitative and quantitative approaches was designed to obtain data in Gorgora, an area preferred for its unique untapped potentials. Specifically, the study focused on Abrejeha, Mangia and Gorgora Kebele administrations due to many available areas of tourism potentials: natural, cultural and historical attractions. Such respondents are identified by the use of systematic random sampling, especially for the household survey (Table 2). The strength of the study was on the fact that it brings together perspectives from key tourism stakeholders (local populations, government leaders within the community, and experts (Michael, 2013).

Data types and sources

The questionnaires were distributed to household representatives to complement review of literature, in-depth interviews with tourism officials and related 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 with the help of two data collectors.

Methods of data collection

Here, both primary and secondary data were collected. Primary data are the new/original generated research data, whereas secondary data are existing information collected for a purpose other than that of the researcher (Finn et al., 2000 cited in Michael, 2013). As argued by Veal (2007), “secondary data used in this research, which was mostly quantitative in nature and collected for administrative records or management data, will be obtained from various sources”. Fieldworks are undertaken with the aim of discussing with the authorities and experts of relevant, zonal and woreda offices and for the collection of data through direct observation. Investigation of these documents provides a wider image for tourism, CBET and food security in Ethiopia, thus providing features and some important attractions in the study area.

Interviews with key informants

Information for this investigation was gathered both privately and in semi-organized manner on key informants through balanced meetings with different tourism industry partners accessible in the study area. These include:

i) Some local government leaders who are politicians; ii) North Gondar Administrative Tourism Department Expert; iii) Dembia Woreda Tourism Development Officer.

These people were chosen because of their “extensive knowledge, experience, expertise, and involvement with the tourism sector” in the research area and also “snowball sampling technique was used as an identification tool for the in-depth semi-structured interviews” (Michael, 2013).

A breakdown of a sample size of the respondents is presented in Table 1. Five in-depth interviews are conducted during this investigation.

Questionnaire survey

Household

The household survey was preferred for three major reasons: i) it is generally representative of the community, ii) it is one of the most appropriate research methods designed to convey information about the community as a whole, and iii) it generally represents a complete geographical area” (Veal, 2007). Indeed, the interviewer-completed questionnaire, paying special attention to the possible low literacy rate in the study area. Though the study questionnaires were written in English, they were translated and asked in Amharic, the language that all respondents were familiar with, and the researcher speaks fluently. Questionnaire structure, administration and household design comprised open-ended and closed questions. On choice and recruitment of participants, the investigator did survey 141 households among 2481, who are the members of the local populations that are available in the study area (Gorgora villages) during this research (Central Statistical Agency (CSA), 2010).

The sample size is impacted by a scope of variables, including the longing to test a scope of households in each kebele; however, this was additionally compelling due to the available financial plan and time. The total list showed 2481 households from a local population of 16,270 according to census statistics (CSA, 2010).

Table 1. Breakdown of interviewees.

S/N Name of organization, agency and tourism establishment (key informant)				
	Interviewed	Interview code total		
1	Community representative (elders, religious village leaders)	Government-3		3
2	Dembia Worda Culture and tourism Office	Officer-1	1	
3	North Gondar Administrative Tourism Department Expert	Department-1	1	Total 5

Source: Field interviews for the study, Mar-June 2012

Tourism experts

Survey questionnaires were also used to collect information from Dembia Woreda Tourism Development Officer, North Gondar Administrative Tourism Department experts were interviewed, and all Heritage Conservation and Tourism Development Officers were selected by purposive sampling to get related information.

Observations

Other primary data sources include personal observations in the study area, especially whenever an opportunity arises. The researcher visits all kebeles in the study area and participates at different times in religious tour to observe this site, with the intention to physically assess the community activities

going on there. This step-by-step observation gives the analyst a chance to partake in different community exercises as he visits the study area.

Sample size and sampling technique

A sample consisting of 5 key informants for interviews and 141 household representatives for questionnaires were selected to represent all tourism actors throughout Gorgora. The sample size was determined from the total local community household representatives, concerned tourism officials, village government and household representatives and classified into three categories:

Category 1: There are many tourism officials, but Woreda Tourism Development Officer (1) and North Gondar Administrative Culture and Tourism Department (1) were selected based on purposive sampling technique due to their experience, interest, proximate, knowledge, duties and responsibilities.

Category 2: Kebeles government and community leaders

/"likemenber" / (3) were selected from each study area kebeles using purposive sampling technique based on their voluntariness and occupation employed.

Category 3: Household representatives (141) were selected since they served as a sampling frame and unit of analysis using the calculating method. This 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) (James et al., 2001). Besides, according to Cochran's (1977) sample size formula, on the representation basis, the sampling technique used systematic sampling in probability sampling, this is the reason, it is considered as the best technique for selecting a representative sample.

$$n = Z\alpha^2/2p(1-p)/d^2$$

Where, $Z\alpha^2/2$ =Value for selected alpha level of 0.025 in each tail=1.96. (The alpha level of 0.05 indicates the level of risk the researcher is willing to take so that true margin of error may exceed the acceptable margin of error). This implies that there was normal distribution at 95% confidential interval, where $p(1-p)$ or $(p)(q)$ =estimate variance, $p=0.5$ probability of success; $q=0.5$ probability of failure, d = acceptable margin of error for proportion being estimated (0.08 is the error researcher is willing to except), and n =sample size. Therefore

$$p=0.5 \Rightarrow n = (1.96)^2(0.5)(1-0.5) / (0.08)^2 = 150$$

For a population of 2481 of households, the required sample size is 150. However, since this sample size exceeds 5% of the households (2481×0.05) = 124, Cochran's (1977) correction formula should be used to calculate the final sample size. These calculations are as follows

$$=n_1 = n / (1 + n / \text{household})$$

$$=n_1 = 150 / (1 + 150 / 2481) = 141$$

Where population size=2481, and n = required return sample size which is >5% of the household of population.

Data analysis and presentation

The completed surveys were coded by the researcher and the quantitative information was examined by utilizing the Statistical

Package for the Social Sciences (SPSS) - PC programming. Qualitative information, or more explicitly, free reactions emerging from open-ended inquiries of respondent's answer utilizing their own words are coded into a lot of classification created from distinguished shared characteristics.

"For all the qualitative data, paraphrasing while remaining faithful to the original meaning as given by the respondent and/or selecting illustrative quotes that have been applied in a particular context, were

the two approaches used to display qualitative data that has been collected via in-depth interviews” (Michael, 2013). Besides, it is significant to write that the whole qualitative data had to be interpreted from Amharic to English language. Participants were requested to rate their quantitative study replies based on a 5-point Likert scale where 1- strongly disagree; 2-disagree; 3-undecided; 4agree; and 5-strongly agree, which is depending on a particular request.

To analyze the survey of quantitative data, SPSS software was used to produce percentages, frequencies, means and crosstabulations of each response on each part. Calculation of mean, standard deviation and frequency distribution was done to provide descriptive analysis which is collected on quantitative survey by the questionnaire survey. Quantitative dates have been analyzed, categorized, and examined based on different participants’ clusters such as occupation, education, sex and the position of the kebeles.

RESULTS AND DISCUSSION

Community based ecotourism potentials of Gorgora

Table 3 presents different types of ecotourism potentials in different sites of Gorgora. For example, Lake Tana and its wetland, Dirma, Megech including Gorgora Port Hotel and Lodge are sites for bird watching at shores; water sports at Lake Tana, monasteries and church are used for religious ceremonies; Palace of Susenyos, Mussolini Monument, and Selassie Cave are located at shore of Lake Tana and used to attract tourists for historical tour and recreation.

As observed from Table 3 and Figure 1, there are ecotourism possibilities in and around Gorgora which can pull in travelers and may add to common and social protection in the event that they are created. Ecotourism has the least natural effect, least effect on and most extreme regard for host societies; and greatest financial advantages to the host nation's grassroots (Hetzer, 1965). Ecotourism serves as a connection between ensured regions and nearby local populations by producing pay for neighborhood networks along with accomplished conservation objectives of secured territories. Brodnig (2006) also stated that ecotourism could be significant where the environment is delicate and boasts different types of characteristic asset that the board may find inconceivable.

Natural beauty

As mentioned in the methodology part, the survey includes questions that aimed to measure whether Gorgora had natural beauty for development of CBET. In order to assess the natural beauty of Gorgora area, respondents among the local population were requested to rate the level of agreement or disagreement with a series of statements, using 5-point Likert scale. Table 4 presents the marks of responses for each of these statements, ordered from the highest to the lowest mean. At the point when the outcomes are painstakingly analyzed, obviously the mean scores of all factors are over four, which infers that general reactions spread among concur and firmly concur. It can likewise be seen that the distinction between the mean scores is little, demonstrating comprehensively comparative suppositions about various scope of geographic highlights and greenery study zone recommended by the travel industry specialists.

As regards mean and standard deviation scores, apparently there was most established consent to the explanation that Gorgora has different scope of geographic highlights. Geographical features/highlights got the highest mean scores (4.67) and standard deviation (0.492). Hence, the results of this statement indicated that Gorgora has geographic features such as lake and wetland, which has opportunities for recreational activities. Analysis of the interviews with zone and woreda cultural and tourism offices

supported this. For example, one zone tourism development expert commented, „Gorgora and its surrounding areas hills, landscapes, wetland plain birds, rivers, lake, islands, forests, wild animals, birds, butterflies etc resources have become important attractions for the eco-tourists. The improved standard of life and economic status of lowlevel society has brought ecotourism within their reach“.

The statement that „easily visible variety of wildlife on or adjacent to the properties“ suggests the second highest mean score (4.25) and standard deviation (0.866). Even as these wildlife properties could contribute to ecotourism development, in general, the results indicate that local communities had become aware of the fact that tourism presents an opportunity for sustainable CBET among these three kebeles along with their local communities. In this survey, the results are in agreement with the researcher observation; that tourism in Gorgora has more different wildlife.

Finally, the statement that „Gorgora has endemic wildlife including birds“ species for bird watchers“ has been scored the fourth highest stage. It presented a mean of 3.67 and standard deviation of 1.155. It implies that the Gorgora area has enough natural resources as well as the straight effect that endemic wildlife which includes bird species has on community-based ecotourism. This result matches with the researcher“s personal observations that there are many endemic bird species watching on in the study area such as Watt led Ibis, White Billed Starling and Black Headed Forest Oriole (Abreham, 2008) and is connected to Gorgora CBET.

To investigate perceptual contrasts between respondents, connections were set up among variables, and to stamp the move from simply descriptive to explanatory examination, reactions were categorized, broke down, and analyzed across different respondent groups. Table 5 expresses a breakdown of mean scores of every variable by participant gatherings, which includes sex, location, age, and education. In view of the mean scores of every variable, the outcomes seem to propose that generally, all participants engaged with this investigation review had significant levels of consciousness of common excellence notwithstanding their disparities as far as the area of kebeles they originated from, sex, age, and education is concerned.

A more intensive glance at the outcomes expresses that in any event, incorporating bunch classes with little quantities of respondents, the lowest mean was still just 3.25 and the most noteworthy was 4.75. Curiously, participants who portrayed themselves as respondents had some information about natural beauty.

Comprehension of the results of the travel industry could likewise propose that natural beauty among the travel industry assets in Gorgora has been illustrated.

Table 5. Natural beauty of Gorgora (Mean and Standard Deviation).

Issues related to natural beauty of Respondent Gorgora		Geographical features		Rare natural flora		Wildlife's on or adjacent		Endemic or wildlife's	
		M	SD	M	SD	M	SD	M	SD
Location Zone									
	8	4.62	0.52	4.00	1.2	4.25	1.04	3.88	1.36
Worda	4	4.75	0.50	4.00	1.41	4.25	0.50	3.25	0.50
Sex									
Male	10	4.70	0.48	3.80	1.23	4.20	0.92	3.60	1.17

Female	2	4.50	0.71	5.00	0.00	4.50	0.71	4.00	1.41
Education									
College	5	4.60	0.55	4.00	1.23	4.40	0.55	3.40	0.55
University	7	4.71	0.49	4.00	1.29	4.14	1.07	3.86	1.46
Age									
16-24yrs	3	5.00	0.00	4.67	0.58	4.33	.58	3.33	0.58
25-34yrs	7	4.43	0.54	3.57	1.4	4.14	1.07	3.57	1.4
35-44yrs	1	5.00	-	4.00	-	4.00	-	4.00	-
45-59yrs	1	5.00	-	5.00	-	5.00	-	5.00	-
Total	12	4.67	0.49	4.00	1.21	4.25	0.87	3.67	1.16

Source: Survey result.

Gorgora Wetlands

Gorgora wetland, which is the research site, is located in the southern part of North Gondar. The Lake Tana is one of Ethiopian largest and most important lakes. This waterway has played an important part in the lives of the Gorgora people for centuries. The lake and its surrounding wetlands also make up one of the richest ecosystems.

During observation, the researcher found that the region is a home for variety of animals including one aquatic mammal; Hippopotamus (*Hippopotamus amphibious*) and other mammals commonly reported in the study area include Porcupine (*Hystrix cristata*), Jackal (*Canis mesomelas*), Duiker (*Sylvicapra aethiops*), Olive baboon (*Papio anubis*), Vervet Monkey (*Cerapithecus aethiops*), Aardwolf (*Proteles cristatus*) and Aardvark (*Orycteropus afer*).

Additional animals reported by Nega (2009) “in the Dembia Plain area are Serval (*Felis serval*), Civet (*Civettictis civetta*), Genet (*Genetta* sp.), and Spotted Hyena (*Crocuta crocuta*). Moreover, in the west of Gorgora there are the black and white Colobus monkey (*Colobus guereza*) occurring where there are big trees near the lakeshore and monasteries making it an increasingly suitable tourist destination”.

Birds' diversity

Responses of experts of natural resources of Dembia Culture and Tourism Office, North Gondar Zonal Administrative Culture and Tourism Department including Amhara Culture, Tourism and Parks Development Bureau studies indicated presence of numerous species of birds, attractive Lake Tana, along with wetland and scenery of landscapes around the lake which attract tourists (Negash, 2010). Additionally, in Gorgora so far surveys have identified 193 species of birds of 18 orders and 64 families in the Dembia Plain (Afework, 2007). As can be observed in the appendices, the great majority of these are waterfowls that inhabit, breed and forage on or near the marshes and the water. Some passerine birds (55) were present in farmlands and along the rivers.

The records include Ethiopian endemic: “Yellow-fronted Parrot; four biome-restricted species: Watt led Ibis, White-collared Pigeon, Black-winged Lovebird and Whitecheeked Tura co; one globally vulnerable species, Watt led Crane; and three globally Near-Threatened species, Pallid Harrier, Black Crowned Crane” (ANRSCTB, 2018).

During this investigation of community-based ecotourism resources, the replies of interviewed tourism experts of the area indicated the disturbance of birds by interferences of human beings: over-exploitation of plants (grasses and digging papyrus cutting, fuel-wood gathering), grazing, and farming. So, majority of the bird species in the study area are waterfowls that inhabit, breed and forage in or near the wetland and the Lake; during the rainy season, both the breeding sites and ground nesting areas are affected. Nega (2009) also reported “the disappearance, disturbance and harassment, especially by children, but also by farmers who consider some birds to be pests, predating their crops”.

Cultural and social characteristics

Table 6 presents the social characteristics and cultural resources in and around Gorgora. Among five objects involving the tangible and intangible heritage resources of tourism sustainability, over 90% of respondents either agreed or strongly agreed with 12 of them. The item “Overall, Water sports are good and characterized with facilities for canoeing, boating, and swimming in Gorgora” had the highest mean of 4.25 combined with the Standard Deviation (0.622). During observation, Gorgora along with Lake Tana, has fresh water and is used for outdoor recreational activities; canoeing/boating, fishing sports, swimming and other fresh water-based recreation activities.

The mean for each statement is 4.17 (local material is used for building of tourist accommodation). During observation survey, building of basic tourist facilities and services has promoted lodging and hotel business and has expanded beyond use of indigenous material, knowhow and labor. Cross cultural exchange with tourist gave a mean of 4.00. Thus, to ascertain if the findings of the paper matched with respondents’, tourists are welcomed to visit Gorgora where they will have an opportunity to interact with domestic and foreign tourists including local societies.

The interesting agricultural and fishing process accounts for a mean of 3.92. The communities and surrounding settlements are engaged in traditional method of agriculture. Each attraction site favors this form of tourism. Tourists can visit each village/site and experience the daily life of traditional society. For instance, through observation, the traditional method of plough, weeding, harvesting, and trashing of subsistence crops such as cereals and grains, irrigation fields/farm areas (Toka Agro-Industry investment), the traditional method of cattle husbandry and fishing, as well as the life style of the local community can be understood.

Table 6. Mean and standard deviation for cultural and social resources.

Issues	Mean		Standard Deviation	
	Count	%	Count	%
Good water sports facilities	12	4.25	12	0.62
Cultural and historical features	12	4.50	12	0.67
Interesting agriculture and fishing process	12	3.92	12	0.90
Cross cultural exchange with tourists	12	4.00	12	0.85
Local material used for building	12	4.17	12	0.72

Source: Survey result.

Cultural and Historical resources in and around Gorgora

On the other hand, the field observation or assessment of cultural and historical tourism resources in and around Gorgora showed that there are potentials of monasteries, monument, palace, cultural dances, war site, cave etc (Table 6 and Figure 1). Recently, these sites are visited by school clubs (students and teachers' groups), domestic and foreign tourists. Especially, Debre Sina Mariam and Man Ende Aba Medihanialem monasteries are preferred for visiting by domestic and foreign tourists during annual festivals ceremony. Also, ancient historical sites welcome the influx of many tourists during weekend vacations and holidays where they cross by boat from Bahir Dar to Gondar through visiting Lake Tana monasteries.

According to Dembia Culture and Tourism Office Report (2011), number of tourists is relatively increasing since 2008; presently, 24 natural and cultural attractions are studied and selected. However, monasteries and churches, even historical site of Susenyos Palace are administered by North Gondar Orthodox Church Hager Sebket. Most of them are destroyed and many of the natural areas are now being used for agriculture and free grazing without any restriction even at the monasteries.

In general, CBET is managed and run by the community itself, management decisions are made by local people and profits directly go to the community (ANRSCTB, 2018). Sustainable tourism development meets the needs of the present tourists and host regions while protecting and enhancing the opportunity for the future. It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled, while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems (UNWTO, 2011).

According to the Canadian Tourism Commission on Ecotourism (2002), ecotourism embraces the principles of sustainable tourism. The following principles distinguish it from the wider concept of sustainable tourism: Contributes actively to the conservation of natural and cultural heritage; includes local and indigenous communities in its planning, development and operation, hence contributing to their well-being; interprets the natural and cultural heritage of the destination to the visitor; and lends itself better to independent travelers as well as organizes tours for small-sized groups. Nowadays, this form of tourism is receiving attention like in Gorgora because CBE focus on environmental conservation, spread of the benefits to the local community, satisfaction of tourists and its contribution to sustainable development.

Socio cultural conditions of the local communities

Since cultural differences between tourists and residents are not significant, it was assumed that residents perceive tourism's socio-economic impacts more strongly and more positively than tourism's cultural impacts. Though it is not possible to separate tourism's socioeconomic and socio-cultural impacts, certain impacts are more based on economic or cultural factors than others. In this respect, the discoveries and explanation that

„meeting tourists promotes cross-cultural exchange (a more noteworthy common comprehension and regard of each other's way of life)' had the most elevated score mean (4.00) and standard deviation (8.53). While this trade can be positive or adverse or both, in general, the discoveries infer that neighborhood individuals knew about the way that travel industry presents an open door for social trade among them and the vacationers.

According to respondents and sampled tourism experts, most of those households engaged in agriculture and fishing and depends only on farming and livestock production, leaving no scope for other livelihood options. Agricultural and fishing process is another important livelihood activity for

the local people in the study area. Among all the surveyed area tourism experts, a mean of 3.92% would be interesting to visitors if conducted on the property.

It should be noted that practice is gender orientated with only the males highly involved. As could be observed in Table 7, tourism experts' responses confirmed that agricultural and fishing process would be interesting to visitors in the sense that Lake Tana has potential for development of tourism in relation to fishing. The local community can provide rods and cooking materials for tourists and then tourists will fish and cook by themselves, thereby gaining income (ANRSCTB, 2018). Use of local materials when building the accommodation or recreational facilities, are among the ways by which the local people are linked to the study area.

According to ANRSCTB (2018), the settlements are mostly surrounded by young eucalyptus trees, the universal building material, source of fuel wood and scattered acacia shrub. Eucalyptus trees are of low biodiversity value except as sources of pollen and nectar for honeybees. "Structural diversity and some mature indigenous trees are found in the church compounds scattered throughout the area at distances of several kilometers. Here some remnant Evergreen Montana vegetation may be found (predominantly Olive spp., Cordial spp. and Albizia spp)".

Table 7. Summarized table to natural and cultural potentials for development of ecotourism.

Respondent categories	Descriptive statistics	Natural Beauty	Infrastructure Service and Facilities	Cultural and Social Characteristics	Accessibility
College	Mean	4.1	3.6	4.12	3.24
	SD	0.55	1.04	0.36	0.5
University	Mean	4.18	3.67	4.20	3.63
	SD	0.64	0.64	0.42	0.45
Zone Officer	Mean	4.19	3.54	4.25	3.6
	SD	0.59	0.69	0.41	0.53
Woreda Officer	Mean	4.06	3.83	4	3.2
	SD	0.62	1.04	0.28	0.28
Male	Mean	4.08	3.63	4.2	3.5
	SD	0.6	0.81	0.4	0.54
Female	Mean	4.5	3.67	4	3.3
	SD	0.35	0.94	0.28	0.14
Total	Mean	4.15	3.64	4.17	3.47
	SD	0.58	0.78	0.38	0.49

Source: Survey results.

Tourist facilities and services

“Tourism development includes provision of different facilities and services, either specific like hotels or more general like roads that serve tourists. The service and facilities include all support tourism except transportation/infrastructure, attraction and information” (Gunn and Var, 2002).

The data which was found on researcher observation showed that tourist facilities and services includes foremost road on north east side of Gorgora, 65 km length of pathway in Gondar, water way in Bahir Dar, potable water, mobile networks, electricity, guiding services, security police office, guest rest hotel and lodge at shore of Lake Tana, and sewage drainage services and facilities are offered to the tourists in Gorgora.

According to ANRSCTB (2018) statement on access to transportation, Gorgora and Abrejeha kebeles are more accessible than Mangia kebele which is 30 and 10% respectively in vehicles, while the other alternatives are water way on Lake Tana and Animals (horse and mule).

Public infrastructure to support tourism in Gorgora

In Gorgora, most of the attraction’s ways are off road and inaccessible during raining season, as in the case of Lake Tana near Gorgora (DWCTO, 2018). According to local representatives’ expression, during the raining season, the road to Gorgora direction is usually full of rainwater like a river, hardly passable for any car or Minibus. Additionally, bad road structure has disturbed and harmed local communities’ movements and way of life. From a tourism industry perspective, Gorgora’s offroad attractions harm the competitive position in relation to other attractions which are more developed. Off-road conditions and the underdevelopment of attractions adversely affect tour operators visitation of most of the attractions (ANRSCTB, 2018).

Accessibility of the study area

Road and water transportation are the primary transportation services for Gorgora communities, with daily-round public transport (vehicle) service from Gondar and two-day „Tananeshi“ boat service in a week from Bahir Dar. Most other communities in the area are served by daily, scheduled public transport service. This service is available to all kebeles on a daily basis at one way. Except for roads between Abrejeha and Mangia kebeles, there are no interconnecting kebele roads, whereas passenger ferry service is provided by the Lake Tana Marine Agency Highway System from Bahir Dar to Gorgora and vice versa.

In general, Table 7 depicts the quantitative findings of the mean and standard deviation statements that measure tourism experts’ response regarding who should explain potential assessment about Gorgora and its surrounding areas such as the establishment of natural beauty, tourist facilities and services, cultural and social characteristics, and accessibilities. Hence, the results of every case are ordered based on the importance of mean scores of participants’ levels of argument to each statement.

As per the outcomes, the general mean scores of four out of four articulations inspected are over 3, demonstrating that the respondents’ degree of concurrence with the thoughts proposed by such proclamations was better than expected. The general mean for all statements, „natural beauty; infrastructure service and facilities; cultural and social characteristics, and accessibilities based on the respondents’ characteristics: education, sex, occupation and organization“ are above three. On average, the mean measurements indicate that the participants’ level of agreement with this idea is generally above the average results, which means that the ideas were reinforced by key informants.

When Table 7 was examined based on the ranking of the mean scores of each variable, the results indicate that there was a central tendency among the respondents. At the point when Table 7 is inspected dependent of the positioning of the mean scores of every variable, the outcomes show that there was a focal propensity among the respondents to support the statement that „Gorgora area and its environs are potential areas in cultural heritage resources“ with mean (4.17) and standard deviation (0.38). It indicated the highest mean score.

As revealed in Table 3, the study area cultural attractions such as the monasteries in and around the Lake Tana, palace, monument, cave, and battlement areas are tangible historical sites whereas festivals (religious) and secular music (in wedding, sorrow, working), dance and music are intangible cultural heritages. These potential tourism resources help to develop CBET in Gorgora area by the local people with the collaboration of other tourism components and natural attractions.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

ACKNOWLEDGEMENTS

The authors appreciate all participants, key informants and institutions e.g. Dembia Culture and Tourism Department staffs for providing all necessary information leading to successful completion of this study.

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