The Contribution of Ecotourism for Sustainable Livelihood Development in the Nech Sar National Park, Ethiopia

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ABSTRACT

Protected areas are biodiversity conservation centers and major tourism assets for a nation, particularly for developing countries like Ethiopia through providing sustainable benefit to the local community while supporting for the maintenance and rehabilitation of the protected areas themselves. A study was made in the Nech Sar National Park which is one of the protected areas of Rift valley areas in Ethiopia. The objective of this study was to assess the contribution of ecotourism for local livelihood development which may be used as an input for sustainable management of protected areas. A three month data of visitors’ information on the tourists date of arrival, place of stay, their origin of country, and number of tourists, days of stays in Arba Minch and Nech Sar areas, and whether they are with a tour group or independent visitors was collected on a daily base from November 1, 2007 to January 31, 2008. The results showed that a total of 2728 tourists visited Nech Sar National Park between 1 November, 2007 to 31 January, 2008 for a three consecutive months and hence about US$ 21646 was collected only from park entrance fee. The income generated has a significant input for the park management and socio economic development of the country. In Arba Minch, several stakeholders obtained various benefits through providing hotel accommodations, transport, communication, tented camps, lodges, labor and generally in trade activities. With respect to the place of stay in Arba Minch, many tourists took accommodation in Swayne’s, Bekele Mola and Tourist Hotels, respectively. Out of the total tourists arrived in Arba Minch during the study period, 33.5% were stayed in Swayne’s Hotel, 22% in Bekele Mola Hotel, 10.4% in Tourist Hotel, 4.7% in Arba Minch Hotel, 4.3% in Abyssina Pension, 2.5% in Hadeluya Pension and the rest in different residences and tented camps. The amount of money derived from the visitors for accommodation ranges from US$8 to US$40 which was only for bed rent per day per person. Income from food items and selling of local materials was also significant which makes a difference on the livelihood improvement of the community. With respect to the origin of tourists, the highest number of tourists was coming from Europe (64.8%) followed by Africa (14.3%) and North America (6.6%). The remaining tourists were coming from Latin America, Australia, Canada, Far East, and Middle East. The results showed that Europe has highest visitors of protected areas in Ethiopia which might be a reflection of its economic development and technology advancement. This has also an implication for creation of Global partnership for the development of protected area governance. The benefit derived from protected areas in terms of ecotourism is a vital component of sustainable livelihood development. Ecotourism is an important industry in creating self employment opportunity for the local community and greater partnership for sustainable management of National Parks. The contribution for the national GDP of the country is also considerable. Therefore, any decision made in developing tourism should pay attention to the preservation of cultural and traditional values of the community at large. Instead of forcing the people to go out from the park by force, it is better to create a partnership with local people for effective management and sustainable benefit sharing from the National Parks.

Key words: Ecotourism, Livelihood, Protected Area, Nech Sar National Park, visitors, Ethiopia
INTRODUCTION
Ecotourism can be defined as travel to relatively intact or historical areas to study, admire, and enjoy sceneries, plants, animals, and cultural heritages (Ceballos-Lascurain, 1987). Originally advocated as a means of promoting both conservation and economic development in developing countries, ecotourism is a major industry in east Africa where Kenya and Tanzania could derive more than 80% of their GDP. The benefits of ecotourism include increased foreign exchange receipts, infrastructure development, job creation, new markets for locally produced goods, increased government revenues through fees and taxes paid by visitors, and serves as insurance for the protected areas from being converted to other land use types (Sherman, 1991; Himberg, 2005).

With a growing concern for the conservation of biological resources through protected areas, coupled with a strong desire to escape from the traditional vacation, many travelers are beginning to discover the benefits and advantages of ecotourism, which has become the fastest growing tourism market in the world (Agrusa and Guidry, 1999). Recent global trends of tourism activities show an increasing fragmentation of the tourist market and an increased demand for specialized types of tourism (Moghal & Agrusa, 1997). Tourists are moving away from the package holiday and instead, they want to engage in ecotourism activities such as recreational and sporting activities, learn about and participate in local cultures, and seek new destinations (Boo, 1990; Inskeep, 1991). Ecotourism is a term that means different things to different people. However, it can best be defined as travel to natural attraction areas that both conserve the culture and the environment while sustaining the wellbeing of the local community. It offers nations the opportunity to get the most out of their natural attractions and to gain all the economic benefits without losing their rich biological resources (Cater, 1993).

Another important aspect of ecotourism is the encouragement of active participation by the local population in the conservation and education dimensions (Hall and Kinnaird, 1994). For effective and sustainable management of protected areas, development must start with the people first, as it is from this basis that the tourism industry will develop, and their involvement will allow them to avoid many undesirable engagement in the environment.

At global level, tourism is significantly contributing to sustainable development, alleviating poverty and the management of natural resources. Tourism is the leading foreign exchange earner for Kenya ahead of coffee and tea (Dine 1992; Harrison 1992). Ethiopia has also all the attributes of Kenya in terms of landscape, climate, safari and wildlife tourism. It is also rich in natural attractions and offers a variety of landscapes ranging from the lowest and hottest Dankel depression to the highest and the coldest Bale and Semen Mountains. Afro-Alpine highlands, the Great Rift Valley lakes, game-filled savannah, giant waterfalls, Monasteries, Church Forests and multiple cultures are assets for the country’s ecotourism industry development. Its many national parks enable the visitor to enjoy the country’s scenery and its wildlife, conserved in natural habitats, and offer opportunities for travel adventure and promotes ecotourism industry for both the benefit of the community’s sustainable livelihood development and for the ecosystem management at large. In Ethiopia tourism contributed ETB 1.77 billion and 17% of export revenue in 2005 with 18% increases of the previous year (FZS, 2007). The study made by the World Travel & Tourism Council (WTTC) indicated that Ethiopia's travel and Tourism economy in 2007 was expected to account for 9.2 percent of GDP and 7.1 percent of total employment (Profit, 2007). Currently, there are many positive opportunities for the expansion of tourism development in Ethiopia. Besides its having 8 World Heritage Sites, the government has declared ecotourism a priority growth sector and created a new wildlife conservation Authority and the wildlife tourism sector is just starting to develop its potential – assisted by partner projects in some of the major National Parks.

The Nech Sar National Park (NSNP) stretches out between the two lakes Abaya and Chamo and with its forty springs it has a unique natural heritage with outstanding beauty, diverse attractions and great tourism potential. It is one of Ethiopia’s protected areas which is modestly contributing to peoples’ livelihood improvement through generating income in various ways and through creating job opportunity for many citizens. Its contribution to the national economic development is also significant. In this regard, big Hotels, Tour Operations and Air lines are the primary beneficiaries in generating incomes from ecotourism. Ethiopian Airlines connects Africa with the world, with new and better infrastructure such as airports, roads, telecommunications and electricity on the ground. For the last 19 years, Ethiopia has been largely politically stable and moving with fastest economic development and it serves as the political capital of Africa. Despite all positive attributes, Ethiopia does not benefit the
most output from tourism and ecotourism. The probable reason could be Ethiopia’s image as a preferred tourist destination has declined since the 1974 revolution. This has been due in part to natural phenomena such as droughts and the many decades long lasting civil war in the north of the country, particularly in Eritrea and Tigray, resulted in a drain on the nation’s scarce resources and the very little attention given for the sector by the previous government (Ethiopian Tourism Commission, 1994).

Even though, national parks, wildlife sanctuaries and reserves are established today to conserve biodiversity and enhance eco-tourism, as well as supporting the livelihood of both the national and local users, the value given to protected areas development is very low as compared to countries which are involved with similar activities such as Kenya, Tanzania and South Africa. Most of protected areas of the country are under serious threat from the surrounding communities which arises from human encroachment. Many of National Parks are not gazetted including Nech Sar National Park and hence there is very limited law enforcement in protecting illegal poaching and forest resources harvesting from the protected areas. Conflicts with competing demand from other sectors of the economy, or with community interests in general, lack of promotion, training and maintenance of facilities for visitor’s attraction are the problems associated with the low level of ecotourism activities. To rescue the protected areas and to boost economic development, appropriate conservation strategy must be put in place. This, however, requires proper valuation of the environment and partnership with the local community. Therefore, the objective of this paper is to assess the contribution of ecotourism for local livelihood development which may used as an input for sustainable management of protected areas.

METHODS

Study area

The study was conducted in Nech Sar National Park which is found in the center of Ethiopian Rift valley which is located 5°51’- 6°05”N Latitude and 37°32’-37°48”E Longitude within the Southern Nations, Nationalities and Peoples Region (SNNP) at an altitude range of 1,108-1,650 m.a.s.l (Bolton, 1970). Nech Sar (meaning ‘white grass’ in Amharic) is situated on the floor of the Great Rift Valley in the Southern region of Ethiopia. The park was established in 1974 in the scenic part of the Rift Valley floor between the two lakes namely Chamo and Abaya. Although it was designated in 1974, the Park has not yet been formally gazetted. Regardless of this, the area has a Category II IUCN classification (APF, 2007). It covers 514 km² of which 78 km² is water. It is “a mosaic of forest, bush land, grassland and fresh water habitat” (Duckworth et al., 1992). Although being 510 km south of Addis Ababa, the park is easily accessible by air (with two scheduled flight of Ethiopian Airlines a week) to Arba Minch, which has an airport less than 10 minutes drive to or from the park entrance. The national park stretches in between Lake Chamo and Lake Abaya (Figure 1) both of which are located in the craters of ancient volcanoes and presumably, the two lakes were connected as a single large lake covering the whole of existing park during the pluvial period (Bolton, 1970).

The Park is bounded to the east by the Amaro Mountains, to the west town of Arba Minch and to the north and south by lakes Abaya and Chamo, respectively. In the far eastern part of the park, hot springs bubble to the surface, while numerous natural springs known as Arba Minch (meaning ‘forty springs’) occur in the western most extreme of the Park. The forty springs where the name ‘Arba Minch’ derived are found within the National Park at the center of the ground water forests and is the best place for tourist destination. There are, two main river systems that flow through the park forming riverine forests and woodlands. Sermelle River crosses nort-south at the eastern part of the park along the grassy plains and acacia woodlands and meets with Miyo River. The Kulfo River flows through the north of Arba Minch and then cuts across the neck of the narrow isthmus of land and ends in a swamp on the shore of Lake Chamo (Mateos, 2003; Tamrat, 2001).

The park is one of the best national parks in the country in terms of its biodiversity. It contains more than 90 mammal species and it supports more than 350 species of birds and acts as the destination of many Palearctic and intra-Africa migrants (Duckworth, et al. 1992). It is classified as one of the sixty-nine Important Bird Areas in Ethiopia. Large mammals currently present are the common Zebra, Swayne’s Hartebeest, Grant’s gazelle, Greater kudu, Guenther’s dik dik, Olive baboon, Guereza Colobus, Hippopotamus, Spotted hayena, Mountain reedbuck, black-backed jackal, Side striped jackal, Golden jackal, Defassa waterbuck, Bushbuck, Klipspringer, Warthog and Bush pig. Leopard and lions are also occasionally seen. Lake Chamo supports a high density of large crocodiles (many individuals in excess of 5m in length) with a particular concentration of them at the beach known as the ‘Crocodile Market’, the largest hippo population in Ethiopia, and abundant fish including

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Nile perch (Whitaker, 2007; Mateos, 2003). The lakes and lakeshore areas are also an interesting component of the great biodiversity of the park. The Arba Minch ground water forests, Kulfo and Sermele riverine forests are located within the vicinity of Nech Sar National Park (Duckworth et al., 1992). The ground water forests and the Sermele riverine forests are located in the western and eastern part of the park respectively, where as the Kulfo riverine forest is located in between the two forests but near to the ground water forests.

Figure 1. Map of the study area

The annual average rainfall of the area is 880mm with most of the rain falling between March to May, and a smaller amount between September to November. The daily mean temperature ranges from 11.8°C to 26.8°C (Hillman, 1993). Since its establishment, there are two major ethnic groups exercising two distinct economic activities inside the park, the Kore and Guji who mostly engaged in Agriculture and animal husbandry, respectively (Tamrat, 2001).

DATA COLLECTION AND ANALYSIS

Data on the eco-tourism activity was collected using a daily recording format and for this study a three month record was used (November, December and January) of 2007 and 2008, respectively. These months were selected purposely because of their being convenience for tourists where they access the Park with minimum difficulties. During this time, the park road is accessible and flooding of both Kulfo and Sermele rivers is unlikely to take place.

Data sheet was prepared to collect information from the tourists with respect to date of arrival, place to stay, their origin of country, and number of tourists, days to stay in Arba Minch and Nech Sar, and whether they are with a tour group or independent visitors. The information was collected at a daily basis from November 1, 2007 to January 31, 2008 for three full months. Having this information, tourism data set was established in Excel sheet for further analysis. Descriptive and inferential statistical tests have been used to present results of the collected data. A comparative analysis has been made between different destinations with respect to the type of tour groups, places to stay, months and country of their origin.

RESULT AND DISCUSSION

Income generated from ecotourism
The results of the study showed that a total of 2728 tourists visited Nech Sar National Park between November first of 2007 to January 31, 2008 for a three consecutive months and $25,169 was collected. This income is only from the individual and vehicles entrance fee. Large amount of money is also generated for the hotel accommodation, transport service, tour operation and other similar activities which increase the country’s national GDP. The study period was the pick visitors’ destination time, because at this time the park areas were very accessible both by vehicle and on foot where visitors have had an opportunity to observe several wildlife and landscapes.

During the study period the National Park was administered by African Parks Conservation (APC). As the information from African Parks foundation 2007 annual report indicates, the number of people visiting Nech Sar has steadily
in Arba Minch, several stakeholders have become beneficiaries through providing hotel accommodation, transport, communication, tented camps, lodges, labor and generally in trade activities. With respect to the place to stay in Arba Minch, many tourists have been observed to stay in Swaynes Hotel, Bekele Mola Hotel, and Tourist Hotel in priority. As a result, out of the total tourists arrived in Arba Minch during the study period, 33.5% were stayed in Swaynes Hotel, 22% in Bekele Mola Hotel, 10.4% in tourist hotel, 4.7% in Arba Minch Hotel, 4.3% in Abyssina Pension, 2.5% in Halebulya pension, and the rest in different residences and tented camps. The amount of money obtained from the tourists’ for accommodation ranges from ETB 80 to ETB 400 which is only for bed rent per day per person. Income from food items and selling of local materials was also significant which makes a difference on the livelihood improvement of the community (wow much money was obtained?). For instance, in 2003 a total of 391,000 nights were spent by non-residents (inbound tourists) in hotels and similar establishments which provide significant contributions for the country’s foreign currency income (Profit, 2007). Ecotourism can also be viewed as a global activity providing service sector employment, revenue, and general economic impact on the livelihood of many people (Dowling and Fennel, 2003; Zeeman, 2006).

Tour operators also have a significance share from ecotourism. In the country more than one hundred tour operators have been involved legally to provide service for the visitors. These tour operators have been involved in car and boat renting as well as serving as a tour guide (Anonymous, 2009). During the study period the car rent was ranging from ETB 500 to ETB 1500 per day per car depending on the type of vehicle and for that of Motor Boat ranging from ETB 280 to ETB 400 depending on the distance traveled and the time spent on the Lake Chamo. Tour operators have been serving both for independent visitors and tour groups. The result showed that the highest tourist number was coming though independent visitor (39.7%) followed by Green Land Tour Operation (6.2%) and Travel Ethiopia (2.3%).

**Temporal movements of visitors**

The tourist flow is progressively increasing to other many parts of the country and the trend showed linear increase of foreign visitors for the year 1995-2005. The tourist flow was documented by Ethiopian Tourism Commission and World Tourism Organization as 103,336 in 1995, 148,438 in 2001, 156,327 in 2002, 179,910 in 2003, 210,000 in 2004 and 227,000 foreign visitors in 2005 were visited the country, respectively. With regard to the national visitor’s expenditure, international tourism receipts has progressively increased which was amounted to an estimated $57 million in 2000, $114 million in 2003, $173 million in 2004 and $204 million in 2005. This compares with half of exports earnings from coffee of approximately $350 million in 2006 (Profit, 2007).
The statistical test showed that there is no significance difference among months on the number of tourists arrived in Nech SAR national Park. But the trend indicated that highest number of visitor was observed in November (38%) followed by December (36.1%) and January (25.9%).

**Figure 2.** Number of visitors along the three months in Nech Sar National Park, Ethiopia

According to the information from the Nech Sar National Park office (2008), the movement of the tourists to Nech Sar National Park is independent of season but influenced by the accessibility of park road during wet season (June, July August) where the flooding of Kulfo and Sermel river is very high and preventing the tourists to move within the park easily. During this time, very low number of visitor is recorded regardless of the tourists’ interest.

**Regional distribution of visitors**

With respect to the region of tourists residence the highest number of tourists was coming from Europe (64.8%) followed by Africa (14.3%) and America (6.6%). The remaining tourists were coming from Latin America, Australia, Canada, Far East, and Middle East and from various regions (Fig.3). The result showed that Europe has highest visitors of protected areas in Ethiopia which might be a reflection of its economic development and technology advancement. This has an implication for creation of Global partnership for the development of protected area governance and sustainable management of national parks with intact ecosystem. At country level, from the estimated number of foreign visitors in 2005, around 46 percent are from other African countries (particularly Djibouti) which might be many Djiboutian people may became for summer vacation and 24 percent from Europe (particularly the United Kingdom, Italy, Germany and France) where Europe shows significant contribution of visitors to Ethiopia (Profit, 2007). It is possible to maximize the number of visitors at region wise through promoting the fast growing economic development of the country, the existing stable political situation, the plain investment policy, the unique cultural heritage and natural attractions of the country through various Medias and ambassadors of the country. Moreover, it is very important to renovate the protected areas’ infrastructure and accommodations within the park area to participate actively the local community and creating partnership for sustainable management and benefit sharing.

**Figure 3.** Number of tourists with respect to their region of residence

**CONCLUSION AND RECOMMENDATION**

The income generated from the ecotourism is significant and promising to improve the livelihood of the community and the country revenue at large. The income from Nech Sar National Park in terms of park entrance fee in relation to other similar national parks of similar management scheme was very high which is a reflection of its being unique tourist destination place. In this regard, with the growing number of travelers coming to the country from other regions, global partnership will increase and contribute to the development of protected area governance as well as contributing to the poverty reduction campaign of the country. The income generated was only from the Park entrance fee, but there are many other income generating opportunities within the National Park such as: accommodation charges, income from various activities; visitors guide fees and food and drinks through improving the National Park infrastructures.

Therefore, to increase the income from the ecotourism activities and to improve the people’s
livelihood at a sustainable base, it is very important to work together with the whole stakeholders through participatory ecotourism activities, promoting the potentials, upgrade the infrastructure of the National Park and sustainable protected area conservation system should be put in place.

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