

Ecotourism as a Tool to Substantially Funding Conservation Endeavors in Ethiopia

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ABSTRACT

This review paper intends to highlight the role of ecotourism in satisfying the funding requirement for effective management of protected areas in Ethiopia. Although, Ethiopia has blessed with charismatic wildlife endowment, ecotourism is yet underdeveloped. Ethiopia has recognized tourism as invaluable tool not only to bring significant financial funds for the maintenance of PAs but also to improve wellbeing of local inhabitants.

Tourism in EWCA PAs has been generating significant direct income to central treasury, for example about in \$300,000 was earned in 2015/16. However, the rough calculation of nature tourist's expenditure has enormously outstripped the direct income, estimated about \$58.5 million in 2015/16. However, in the same year government has allocated about \$3.78 for conservation and development undertakings by EWCA. This has provided a return on investment of about \$15.5 for every \$1 invested. However, if the estimated ecosystem services provision (\$325 million per annum) is accounted the return of investment greatly exceed. Apart from tourism significant amount of income has generated from sport hunting, concession fees, filming, research fees and other royalties. Thus, a well-designed ecotourism development projects are required to meet desired conservation goals and significantly contribute for livelihood development. Recommendations are provided to promote sustainable ecotourism business in PAs of Ethiopia.

Keywords: Protected areas; Ecotourism; Conservation; Income; Wildlife

INTRODUCTION

Wildlife conservation undertakings have long history in Ethiopia. It was started when the endowed wildlife species were plenty and able to meet the needs of people across the country. The charismatic wildlife species and magnificent landscapes are amongst the foremost purposes for establishment of globally valued protected areas (PAs) in Ethiopia. At present, the PAs network are covering more than 17% of the country's land surface [1]. These PAs have been providing significant ecosystem goods and services but they are largely acknowledged as source of provisioning services [2]. Nature tourism has showed significant growth in PAs of Ethiopia but, it is in embryonic platform yet compared to its counterparts such as Kenya, Tanzania and South Africa.

Globally, nature tourism has shown dramatic development since its creation in 1980's and become an important part of the world tourism industry and importantly it is gaining in prominence [3,4]. Lindberg et al. reported that the nature tourism sector accounts for circa 7% of all international travel, but varies significantly with respect to particular regions of the world [5].

Nature-based tourism in southern Africa generating roughly the same revenue as farming, forestry, and fisheries combined [6]. Private ranchers in southern Africa have an important conservation and economic contribution to the region [7]. For instance, the Kruger national park in South Africa is among an exemplary cash cow protected area in Africa. The Park has generated over 1.8 million tourists in 2016/17 [8]. Tourism is recognized as an essential tool for conservation endeavors in the Park in which the income significantly funds the development of infrastructure and park security posts. Though nature tourism considered as an important factor of attracting foreign tourists in many African countries, it is not always a reflection of positive changes. Akama (1996) reported similar experience in Kenya, in which nature tourism stereotypically created by western organisations, in contrary to the needs and expectations of the local population [9].

LITERATURE REVIEW

The aim of this study is to provide a robust assessment of the role of proper ecotourism development for both nature conservation and improvements of human's wellbeing in Ethiopian PAs. This review

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Received: December 26, 2019; Accepted: May 28, 2020; Published: June 04, 2020

Citation: Admasu S (2020) Ecotourism as a Tool to Substantially Funding Conservation Endeavors in Ethiopia. J Tourism Hospit 9:432. doi: 10.35248/2167-0269.20.9.432

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is significantly essential to indicate the principal undertakings to exploit the positive impacts of ecotourism to maintaining PAs of Ethiopia.

Tourism in Ethiopia

The UNWTO recognizes tourism as a significant tool for sustainable development and poverty alleviation and considered as the key instrument to considerably support the transformation and diversification of national economies through creation of decent employment for women, young and marginalized population. It also considerably contributes for infrastructure development in remote areas and harnessing cultural and wildlife heritage of many developing countries for environmental conservation and socio-economic development [10]. In addition the Ethiopian government has recognized tourism as an important socio economic development instrument for poverty reduction activities in the country. The numbers of international tourists arrival has shown dramatic growth from 63,833 arrivals by the early 1970's to more than 933,000 in 2017 (<https://knoema.com/atlas/Ethiopia/topics/Tourism/Inbound-Tourism-Indicators/Arrivals>) [11]. The travel and tourism industry has generated 466,000 direct jobs in 2016 (1.9% of total employment) in Ethiopia. While the total contribution to employment was 1,236,000 jobs in 2016 (5.1% of total employment). The direct and total contribution of the travel and tourism industry to the country's GDP was 2.2% and 5.7% in 2016 (Figure 1) [12].

Ecotourism as a conservation tool

Ecotourism is frequently described as one of the fastest growing sectors of the world's largest industry, and a very important justification for conservation [13]. Although Ethiopia possesses numerous resources to appeal a wide range of tourists, the country has been recognized as a prime cultural and historical destination. A combination of unique attractions within a single country has rarely occur and no match on the African continent. Henze (2007) also has pointed out the ecotourism potential of Ethiopia as: "Ethiopia's mountains are almost untouched by climbers; Ethiopia's lakes have many varied ecotourism features of great interest to tourists; birds, other wildlife, vegetation, colorful ethnic groups, historical churches and monasteries, unusual geological features, caves with local arts and artifacts of the country are among the major ecotourism resources" [14]. Within the ecotourism industry in the country, wildlife is an important tourist attraction. The wildlife tourism from ecotourism perspective providing numerous benefits including direct income to households through employment, ownership, or equity in ecotourism linked businesses, as well as source of foreign exchange, and income through

individual taxation, sales taxes and corporate taxes are among the main direct economic welfares in Ethiopia.

The conservation benefits of ecotourism are argued to be a special tourism that contributes to the conservation of natural resources. Matysek and Kriwoken (2003) noted that ecotourism is different from nature tourism in that ecotourism principally ensures the quality of well protected natural habitats and healthy ecosystems [15]. This is because conservation will help maintain, protect and enhance the quality of the ecotourism destinations from misconduct and inappropriate behavior of related stakeholders (travelers, tourism operators, and local people) [16].

The other significant benefit of ecotourism is promoting environmental conservation endeavors at local level. Zambrano, Almeyda, Broadbent, and Durham (2010) reported that reforestation rate was greater in communities adjacent to natural areas compared to distant communities, due to higher conservation awareness of the residents [17]. Tour operators can make an important contribution to protect environmental and cultural resources as they can positively influence the consumer's preference, the practices of suppliers and the development patterns of destinations [18].

Ecotourism initiatives are vital to make tourism sustainable in Ethiopia in demonstrating significant ecological, economic and social benefits out of it. Similar development has observed from tourism developments in PAs benefiting from both international and national level promotion undertakings. The developments in national transport infrastructure linking regions and major cities has provided immense opportunity in allowing easy accessibility for many remote PAs in Ethiopia but tourism infrastructure development remain poor in many PAs of Ethiopia.

The Travel and Tourism Competitiveness Index (TTCI) overall score ranked Ethiopia 122 out of 140 countries while neighboring counterpart countries such as Kenya and Tanzania are ranked at positions 82 and 96 respectively [19]. The TTCI assesses details of countries competitiveness towards travel and tourism considering a set of factors and policies that enable the sustainable development of the travel and tourism sector which contributes to the development and competitiveness of a country. With regards to enabling environment Ethiopia has ranked 126 while Kenya and Tanzania placed 111, and 120 respectively. Ethiopia has positioned very far away respecting travel and tourism policy and enabling condition than Kenya and Tanzania. Both Kenya and Tanzania positioned 68 and 65 while Ethiopia ranked 116. Infrastructure accessibility is among the key indicator in the TTCI assessment. Even though Ethiopia has shown significant improvement in infrastructure development the county ranked far-off from neighboring counterparts, Ethiopia has located 128 while Kenya and Tanzania ranked 90 and 110 respectively. The natural and cultural resources indicator has an encouraging rank for the region as the result of blessed natural resources endowment. Tanzania has ranked 39 followed by Kenya ranked 42 and Ethiopia positioned 68.

Tourism in protected areas of Ethiopia

The government is hopeful in tourism expansion to be a driving force to bring positive developments towards environmental conservation endeavors through awakening the local and national economy of Ethiopia. The EWCA has endorsed its vision to secure the nation's natural heritage through the instrument of tourism development in PAs. Thus, wildlife heritages are also considered as the nation's soul to unite peoples of Ethiopian and maintains

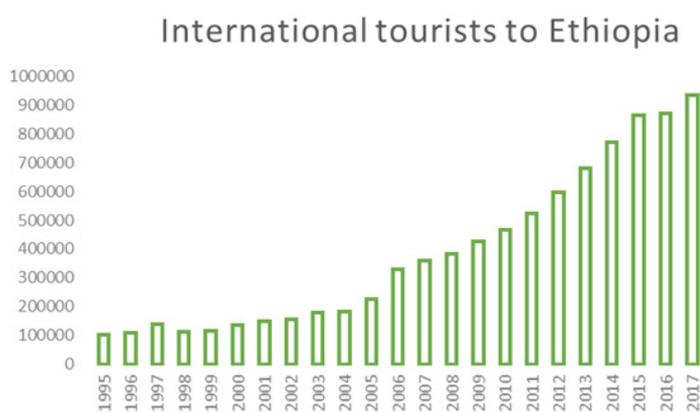


Figure 1: International tourists to Ethiopia from 1995-2017.

harmony. However, the blessed wildlife heritages are declining both in diversity and richness. At present, a total of 8 species are Critically Endangered (CR) out of these Ethiopian Wolf (*Canis simensis*), Guramba Shrew (*Crocidura phaeura*), Haremma Shrew (*Crocidura haremma*), MacMillan's Shrew (*Crocidura macmillani*) and Walia Ibex (*Capra walie*) are endemic to Ethiopia, the endangered wild animals includes Grevy's Zebra (*Equus grevyi*), Mountain Nyala (*Tragelaphus buxtoni*) and Wild Dog (*Lycaon pictus*) and more than 25 species are vulnerable (VU) conservation status in Ethiopia (<http://www.animalinfo.org/country/ethiopia.htm>).

PAs are suffering severe conservation and management complications ranging from chronic human-wildlife conflict to devastating wildlife poaching and trafficking. As proved in many countries in Africa tourism development in PAs has brought dynamic and enormous role in maintaining wildlife heritage and unique ecosystems. Thus, it is a worthy instrument to tackle conservation constraints particularly confronting financial shortfalls that hindered wildlife conservation and development successes in Ethiopia.

According to The International Ecotourism Society (TIES), report the concentration of natural assets of a given destination determines the development of nature tourism in a particular region (TIES, 2003). Although the nature tourism has shown positive growth yet accounts only 13% of foreign tourists in Ethiopia whereas domestic nature tourists are very trifling compared to religious travellers. These domestic nature group are characterized by Scientific, Academic, Voluntary and Educational (SAVE) travellers' mainly dominated by students. The Ministry of Culture and Tourism reported the average daily spend of international visitors to Ethiopia is about \$161 [20]. International tourists' length of stay have a varied range in PAs due to the availability of various tourism products within PAs. The Simien Mountains National Park (SMNP) and Bale Mountains National Park (BMNP) are advantaging the landscapes in developing trekking routes for hiking the steeply mountains thus, average length of stay in these PAs is longer than other PAs known with lack of advanced tourism products. In general we assume international tourists averagely spending two days for nature tourism activities. Thus, our conservative overall expenditure of nature tourists is estimated more than \$58.5 million in 2017/18 (Figure 2).

Total arrivals category

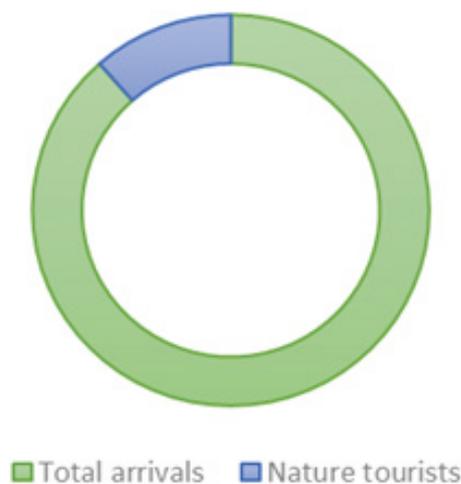


Figure 2: Total arrivals to Ethiopia and its protected areas in 2017/18.

Tourism in EWCA managed PAs has generated direct income more than \$300,000 to central treasury in 2015/16. The income were mainly collected from tourist admission, camping fees, vehicles fees and penalties. With proper tourism planning, improved tourism facility and capacity, Ethiopian PAs can generate substantially more revenue to support both the conservation endeavors and enhance the livelihood of the surrounding community. There are several factors deteriorate the tourism in PAs the major constraints includes lack of accommodation facilities, limitations in skilled man power, poor quality and insufficient tourism infrastructure (Figure 3).

Besides direct income to the government, tourism in PAs is providing significant economic benefits to local communities. The SMNP is an exemplary park supporting the various tourism business associations established in the Park including local guide associations, cooks association, ecotourism association and equipment rental association. In 2015/16, tourism in SMNP have generated direct cash of \$659,102 for 18,991 local individuals [21].

Some PAs of EWCA are generating significant revenue from nature tourism including SMNP, BMNP, Nech Sar, Awash, and Abjita Shalla Lakes National Parks. In essence revenues from these PAs goes to offset budgets for other PAs that are not able to generate significant revenues. Therefore, it is a wise investment to significantly invest on a 'cash cow' PAs operational budget to enable them to generate more revenue. In 2016/17 these PAs have collected more than \$270,000 only from park admission fees. However, in the following year each park has received less than \$25,000 to cover park operations excluding staff salary. The SMNP has presented as the major income maker due to the high proportion of its foreigners visitor with extended tourists stay for trekking activity (Figure 4).

Apart from tourism the wildlife sector is generating a variety of

Tourists to Ethiopian National Parks from 1998 to 2018

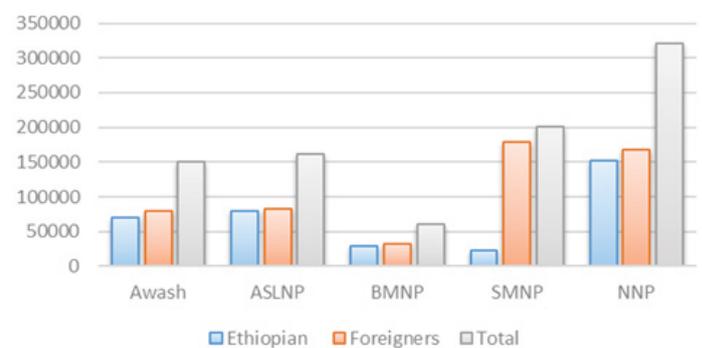


Figure 3: Tourists to some National Parks of Ethiopia from 1998-2018.

Revenue in US\$

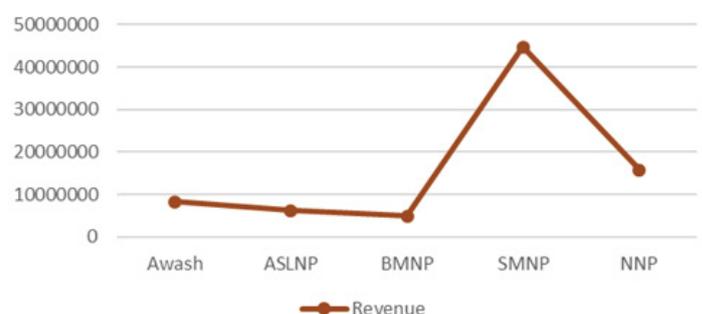


Figure 4: Government revenue from tourism in some PAs of Ethiopia in 2015/16.



Figure 5: Direct total government revenue from wildlife resources between 2013 and 2018.

income including hunting, concession fees, filming fee, research fees and other royalties. The data from EWCA wildlife utilization directorate shows that the total direct revenue to government has shown significant growth, increased from more than \$2 million in 2013 to more than \$4 million in 2018. There is lack of documentation in many PAs to demonstrate the direct income generated to local communities from other income generation activities such as temporary employment and labor (Figure 5).

DISCUSSION

Currently, ecotourism become a popular tool for biodiversity conservation based on the principle that biodiversity must pay for itself by generating economic benefits, particularly for the local people [22]. It can generate significant income for PAs conservation the maintaining the blessed biodiversity endowment, the ecosystem integrity and cultural heritage [23]. Tourism undertakings in PAs also believed to contribute for the wellbeing of local communities; provide incentives to support indigenous people's traditional customs and values, protect and respect sacred sites, and celebrate traditional knowledge. Similarly, properly planned and managed, ecotourism activity expected to minimize the environmental impacts while significantly contributing to the protected area's sustainability [24].

Ecotourism significantly contributes to the conservation of protected areas through financial support for the conservation of relatively undisturbed areas (Weaver, 1998). In addition to its positive impact on biodiversity conservation, ecotourism considerably increases the awareness of host community in protecting the environment [25]. They also indicated that the incidence of hunting has been reduced due to local people acknowledging the value of wildlife for tourism in the Costa Rica Ecotourism Project. Moreover, the number of wildlife in the Eselenkei Protected Area in Kenya significantly increased as witnessed by the doubling of bird species in the area, showing that community based ecotourism and conservation can be combined to benefit both the people and the ecology of a target area [26]. Mulugeta Asteray (2015) states that due to conservation awareness and the benefit from ecotourism, the local community develops sense of ownership and responsibility to conserve the Simien Mountain National Park, a result the numbers of individuals of Walia ibexes (*Capra walie*) and Ethiopian wolf (*Canis simensis*) improved in the Park [27].

Protected area can play significant role in achieving economic development and social well beings. Robust PAs financing models are critical to demonstrate sound PAs management and enhancing their ecosystem goods and service provision. Recent study revealed

that households living near a PAs have advanced wellbeing than distant households from PAs [28]. Therefore, sustainable and long-lasting conservation finance system development is needed in order to achieve the requisite level of funding for PAs. Since many protected area are unable to meet cost requirements with their own earnings.

Ecotourism has been considered as a novel tool to generate significant income for many PAs in Africa. Specifically, its presence in nature based tourism destinations provides financial revenue for nature conservation through maintaining high quality visitor experience. Its exceptional feature as more responsible form of tourism considerably contributes to minimize the undesirable negative impacts of the development in highly sensitive destinations. Ethiopia has supreme potential for nature based tourism development. However the sector remain underdeveloped more remains to be done to ensure the tourism infrastructures, products and services are up to global standards. The significant and increasing inflow of tourists to PAs has expected to increase conservation intervention by international conservation organizations. The avitourism development has also a great potential and considered as an important socio-economic and conservation tool to significantly subsidize for local and national economic development and environmental conservation [29]. Ensuring local community's highest participating in conservation, ecotourism development and PAs management undertakings are able to reduce the incidences of illegal activities towards the protection of biodiversity in BMNP [30-32].

CONCLUSION

The following principal elements can assist minimize the negative impacts of tourism, and enhance its efficacy in promoting long-term sustainable development.

First, there is a need to enhance PAs management and funding opportunities. The EWCA needs to increase admission charges to support conservation and contribute to broader community development in PAs and introduce a management system model significantly assist to effectively manage visitors in PAs.

Second, it is vital to develop tourism products in PAs includes renovating the existing campsites through a private sector concession, developing new campsites and further development of safari and trekking routes, increase low cost community accommodation and high end private lodge development are very important.

Third, the EWCA and its partners are essentially required to invest to improve tourist's services such as improve communications with visitors via a more comprehensive website, and a refurbished visitor center with maps and information. It is also very essential to focus scouts to actively engage in a wider resource protection undertakings. Enhancing the quality of local guides and other service providers will significantly contribute to increase numbers of visitors to PAs.

Forth, community based tourism development is equally important to improve the benefits of tourism to local community development through the increased admission charge would fund initiatives to promote community development and encourage local culture, authentic experiences and support a successful local tourism industry.

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