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Review on Economic valuation and conservation of national park of Ethiopia

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Abstract: Ethiopia is endowed with various cultural and natural attractions from the tops of the rugged Simien Mountains to the depths of the Danakil Depression. About 14% of the total land area of country is covered by officially defined protected areas and national parks for wildlife and forest. National parks play an integral role in the conservation and preservation of biodiversity and the provision of other benefits associated with the maintenance of ecological integrity currently the most crucial policy poser in Ethiopia is sustainability and conservation of environmental resources, for their economic valuation is an effective operational tool for designing policies in relation to their sustainable use. When a market for a certain good is suitably competitive, economic behavior can be studied all the way through the market-pricing instruments but in the case of natural resource and environmental goods and services, non-marketing approach like travel cost method and willingness to pay are particular methods of economic valuation of national parks. In Ethiopia 6.8% national GDP gain by tourism and consecutively Ecotourism is on the progresses of development for the nation. The core aim of this review to provides analytical opportunities from the perspectives of conserving national park and the development tourism industry and tourism entrepreneurship. Therefore, both government and non government organization of Ethiopia has recognized development and promotion of ecotourism and provided consultancy services for conserve and potentially developers of ecotourism sites. Increasing the awareness of local communities and around attraction area towards ecotourism or nature tourism is very important.

Key words: Economic valuation, National park, Ecotourism, Conservation and Ethiopia

I. INTRODUCTION

1.1 Background and Justification of the Review

Ethiopia is endowed with various cultural and natural attractions from the tops of the rugged Simien Mountains to the depths of the Danakil Depression, at 120 meters below sea level with high aesthetic value(Nurhssen,2016). About 14% of the total land area of the country is covered by officially defined protected areas for wildlife and forest conservation (Girma and Till, 2015).Despite the fact that the country is richly endowed with various picturesque cultural and natural heritage properties, it is one of the least beneficiaries of the burgeoning tourism industry in Africa (Oktavia & Rani, 2015).The Yellow stone act of 1872, which was established by Congress and signed in tolaw by President Grant, set a side over one million acres of land in what would become Wyoming, Montana, and Idaho as the world's first National Park. The purpose of this designation was to preserve this scenic land, and to allow it and all of its amenities to be enjoyed by the public, even though Ethiopia's national parks enable the visitor to enjoy the country's scenery and its wildlife, conserved in natural habitats, and offer opportunities for travel adventure unparalleled in Africa (*www.selamta.com, 2019*).

According to (Young, 2012) Noted that protected areas in Ethiopia are gifted with unique wildlife marvelous topographic land features with accompanying cultural manifestations that are compatible for wild life tourism and wildlife conservation

which in return help keep the functioning and healthy ecosystems which are essential for sustainable development. According to (Dudley, 2008) national park are the cornerstones of national and international conservation strategies protect wild species and maintain ecosystems health to ensure the long-term survival of endangered species and storing and sequestering carbon in soils and standing biomass and they are called 'natural solution' for climate change adaptation. Therefore conserve national park of Ethiopia one form tourism industry and also economic activities which have higher capacity to generate employment and attracting investments and foreign capital and also the capacity to generate direct and indirect effects in the local economy(Roberts *et al.*, 2012).

Ethiopia's tourism potential is diversified and that will help the country to benefit more from the tourist sector(Abreham 2016). For example, natural attractions that include some of the highest and lowest places in Africa along with immense wild life including some endemic ones; a very old and well preserved historical traditions with fascinating steal, churches and castles are all a significant tourist attraction places are also very important(EWCA, 2018).Visitor exports are compared with exports of all goods and services Domestic Travel & Tourism spending is compared with GDP Government individual Travel & Tourism spending with total government spending Internal Travel & Tourism consumption of total internal consumption. The share of conserve national park under Travel & Tourism spending or employment in the equivalent economy-wide to the total GDP is 6.8% in 2018, and to rise by 4.9% from 2018-2028, to ETB84, 872.4mn (USD3, 546.5mn), 2.4% of total GDP in 2028 (IUCN, 2018). Thought is believed that the growth of tourism contributes to the growth of household incomes and government revenues, available empirical evidences on the link between tourism industry and economic growth has not yet been clear. Therefore, it is necessary to examine empirically whether conserving national park for tourism growth and it actually caused the economic increase or, alternatively, did economic expansion strongly contribute to tourism growth instead?

1.2 Objective of the review

1. Review on the valuation techniques of national park of Ethiopia.
2. Review on opportunity and economic importance of conserving national park of Ethiopia.

II. METHODOLOGY

This article is based on exhaustively with the basic concepts, and the empirical findings consisting of studies made earlier on valuation technique and conservation practice of tourism of published and un published materials like books, articles, worldwide wave (WWW) and other scholarly materials. The data were presented in figurative, tabular and narration form.

III. LITERATURE REVIEW

3.1 Valuation techniques of national park of Ethiopia

According to Pearce *et al.* (2002), "economic valuation refers to the assignment of money values to non-marketed assets, goods and services, where the money values have a particular and precise meaning" and refers not only to what people actually pay (direct contribution to the economy), but also includes what people are willing to pay (or give up).The total economic value (TEV) that people attach to an environmental good is the summation of use value and non-use value. Use value refers to the benefit people get by making actual use of the good now or in the future. Use value is derived from the actual use of the environment while non-use values are non-instrumental values which are in the real nature of the thing but unassociated with actual use, or the option to use the thing (Tarfasa, 2007). Use benefits include both direct and indirect uses. Direct use values accrue from the physical use of the good, such as fishing in a river, visiting a national park or production of forestry products. Indirect use values include the service provided by an environmental resource such as water purification, reduced soil degradation, and reduced flood damage. National parks are the prime locations of wild and untamed nature in many countries they are the most exiting places to visit, in many developing countries, the protected areas are still difficult to get to(Sharma *et al.*, 2013). That is the reason why local travel agencies are often reluctant to take you there, while others have their own agenda, favoring a lodge in a private reserve with insignificant forest or nature. Ethiopia nearly has 24 national parks, 24 controlled hunting areas, 4 biosphere reserves, 80 national priority forest areas,2 wildlife sanctuaries and many other commercial ranches, botanical gardens, community conservation areas, and also wildlife reserves (Berhanu & Endalkachew, 2018).

Table 1: National park of Ethiopia (EWCA, 2016; MCT, 2018)

National Park	Region	Established	Area	Image	Administered by
Awash National Park	Oromia, Afar	1958	756 square kilometers (292 sq mi)		Federal Government
Simien Mountains National Park	Amhara	1959	412 square kilometers (159 sq mi)		Federal Government
Alatish National Park	Amhara	2006	2,666 square kilometers		Federal Government
Bahir Dar Blue Nile River Millennium Park	Amhara	2008	4,728 square kilometers		Regional Government
Borena Saynt National Park	Amhara	2001	4,325 square kilometers		Regional Government
Bakusa national park	Amhara	2004	517.96 square kilometers		Regional Government
Bale Mountains National Park	Oromia	1962	2,200 square kilometers		Federal Government
Abijata Lakes National Park	Oromia	1963	887 square kilometers		Federal Government
Omo National Park	SNNPR	1959	3,566 square kilometers		Federal Government
Allidege national park	Oromo & Afar	2006	1099 square kilometers		Both regional gov.t
Nech Sar National Park	SNNPR	1966	514 square kilometers		Federal Government
Mago National Park	SNNPR	1974	1,942 square kilometers		Regional Government

Chebera Churchura National Park	SNNPR	1997	1,190 square kilometers		Regional Government
Maze National Park	SNNPR	1997	202 square kilometers		Regional Government
Benjmazi national park	Benishangul gumize	2006	1685		Regional Government
Yangudi-Rassa National Park	Afar	1969	4,731 square kilometres		Federal Government
Gambela National Park	Gambela	1966	5,061 square kilometres		Federal Government
Geraille National Park	Somali	1998	3,558 square kilometres		Regional Government
Dati Wolel National Park	Oromia	1998	431 square kilometres		Regional Government
Yabello National Park	Oromia	1978	2,500 square kilometres		Regional Government
Arisi mountains national park	Oromia	2002	1200 square kilomters		Regional Government
Gibe Sheleko National Park	SNNPR	2009	248 square kilometres		Regional Government
Loka Abaya National Park	SNNPR	2001	500 square kilometres		Regional Government
Kafeto Shiraro National Park	Tigray	1999	5,000 square kilometres		Federal Government

3.1.1 Why Economic valuation?

People also value goods and services that cannot be produced without exploiting or damaging natural resources (most market goods). Unlike market goods, the value of environmental goods goes largely unmeasured because markets do not provide these goods due to two common market failures, (1) The perceived need to take account of environmental damage in measuring economic performance, (2) Economists' valuations of environmental damage are now admissible evidence in fixing the compensation to be paid by those the courts hold responsible for the damage. In general it commences with the breakdown into the two classifications of 'market' and 'non-market' based approaches to the valuation of national parks. Further consideration is then given to the specific valuation approaches and their applications. Whilst the emphasis is placed on the valuation methods relevant to national parks, a brief overview of the other methods is also included. These most commonly used techniques are market based approach (SPM) and non-market based approach (RPM) (Barata *et al,* 2014).

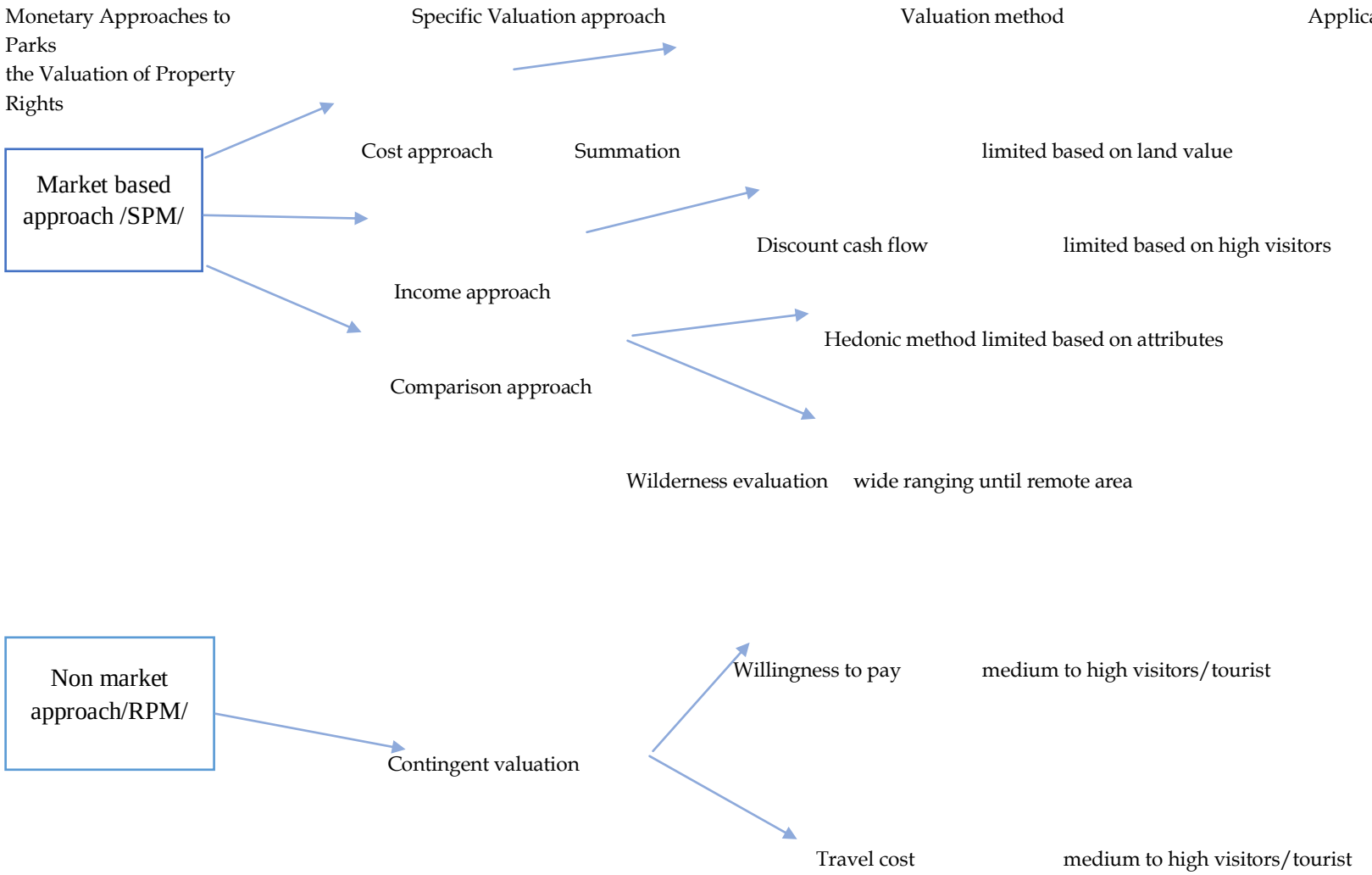

Figure 1: Methods of Valuation of National Parks

Market Based Approaches/SPM/: Market based valuation principles are designed to ascertain the overall value or worth of a property (including improvements) through a hypothetical sale scenario. Mostly these method focus on identifying value based, characteristics of the comparable and comparing it to the total price or value of the park i.e. value based characteristics to total value of outstanding share of the park with an appropriate evaluation technique to estimate the worth or' value' of park amenity and habitants. In this type of situation there is a heavy reliance on recent sales or market evidence. Therefore the valuation was the estimated amount an asset should exchange for on the date of sale between a willing buyer and a willing seller after proper marketing, where both parties acted knowledgeably, prudently and without compulsion (Koller *et al.*, 2010).

Cost Approach: This method of valuation relies on the principle that the value of the property will be reflected in the sum of all the costs or value of the components that make up park based on the principle of 'substitution/summation/'. The value of the park is estimated by considering it as vacant land and using the market approach to establish its value and then added the cost of all the improvements which should also include the costs associated with financing the project (Camille, 2002).

Income Approach : According to (Saari, 2017) both the 'Capitalization' and 'Discounted Cash Flow' are income-based methods of valuing national parks. Centered on assessing the present worth of the future benefits forthcoming from the property, priority is placed on the monetary charges paid by users of the national park. This is based on the premise that investors will buy an investment property based on the quantity and quality of the income stream the property will produce. The terminal value does not assume the actual termination or liquidation of the business, but rather represents the point in time when the projected cash flows level off or flatten (which is assumed to continue into perpetuity). Although certain National Parks may produce cash flows of some substance, there is no evidence to suggest the net cash flows produced would be sufficient to reflect their true monetary value in the market context. An exception would be for a hypothetical cash flow scenario produced by the development and extraction of their natural resources. As such, the income approach would appear to have limited application in establishing a monetary value with respect to the existing use value of national park.

Hedonic Method: Hedonic modeling is able to accurately predict the value of a property using a regression analysis based on the particular characteristics of the park (Adair & McGreal, 1996). For example, in regards to real state this approach has successfully determined the value contributions of factors such as building size and materials, availability of public transport, access to schools and parks views and the quality of a neighborhood (Harrison et al, 2000). In this respect the method has the potential to estimate the value of visual amenity and other qualities of natural landscape that might be present in National Parks and it relies on highly developed property markets in the vicinity of the national park (Troy & Grove, 2008).

Wilderness Evaluation System: According to (Hoover, 2018),the Wilderness evaluation system defines as an area where the earth and its community of life are untrammeled by human, where a visitor who visit National Park does not remain. Congress intended wilderness areas and Wildlife Refuge to be different than the vast majority of federal public land in contrast with those areas where human and their own works dominate the landscape. The evaluation further specifies that wilderness area having four essential characteristics those are the forces of nature, with the imprint of man's work substantially unnoticeable, by outstanding opportunities for solitude or a primitive and unconfined type of recreation, by sufficient size as to make practicable its preservation and use in an unimpaired condition and by ecological, geological, or other features of scientific, educational, scenic, or historical value.

Non market based approach/RRM/: Non-Market based approaches to the monetary valuation of environmental amenities such as national parks are generally referred to as contingent valuation techniques or methods. This approach employs surveys to create a hypothetical market for the benefits people derive from the environment (Chee, 2004).

Travel Cost Method: The travel cost method is the oldest non-market valuation technique and was developed for use in environmental valuation(Kjær,2016).The travel cost method is an indirect valuation technique mainly used for the valuation of environmental services which has recreational sites (De Groot, Wilson, & Boumans, 2002). This method measures the benefit (WTP) for a recreational experience by examining household expenditures on the cost of travel to a desired recreational site (Cesario & Knetsch, 1976). The costs associated with travelling to the resource (fuel, mechanical maintenance of vehicle, time spent travelling there) become the variables to be used to determine the value of a resource (Dlamini, 2012).

Contingent Valuation Method: According to Hoyos and Mariel (2010), the economic valuation of national park using stated preference information has come to be known as contingent valuation. It is a direct non-market valuation method in which

respondents of the relevant population are asked questions about their WTP or WTA for use or conservation of ecosystem goods and services. It is called „contingent valuation" because the valuation is contingent on hypothetical market given for the respondents during the survey process (Jantzen, 2006).

Choice experiment: In choice experiment (CE), monetary value is included as one of the attributes, along with other attributes of importance, when describing the profile of the alternative presented. Thus, when individuals make their choice, they implicitly make trade-offs between the levels of the attributes in the different alternatives presented in a choice set (Alpizar *et al*., 2001).

Summary of stated preference techniques

Criteria	**Contingent valuation**	**Choice experiment**
Cost of survey	Low	High
Time scale	Shorter	Longer
Complexity of design	Less complex	Highly complex
Software and analysts	Less sophisticated	sophisticated
Complexity of task for respondents	Less complex	More complex
Valuations	Total package	individual attributes
Compliance bias	High	Low
WTP questions	Directly asking individuals their WTP	Estimate WTP by use of price variables of each attribute
WTP estimation	Total WTP for the good or service	Relative WTP values for different attributes of a good
Response efficiency	Respondents provide a single response	Each respondent may provide multiple responses for estimating WTP

Adapted from Boxall *et al.* (1996).

3.2. Review on opportunity and economic importance of national park of Ethiopia

The expansion of the economic activity influences positively the economic growth of a country; however, the most important issue for the country in question is whether this economic growth is able to set in motion of economic development of the population. The relationship between the economic growth resulting from tourism activity/conservation of national park/ and the economic development of the country in which this activity takes place has not been so common.

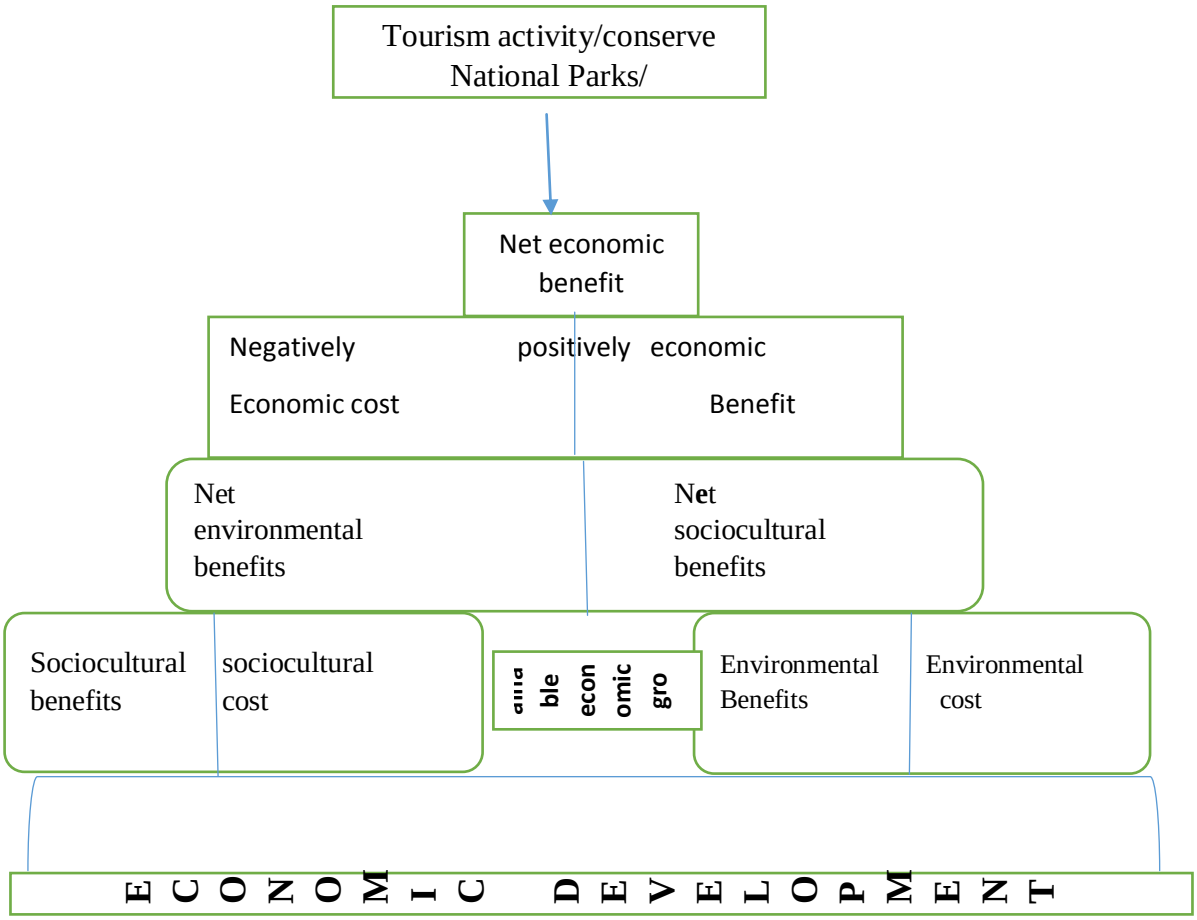

Figure 2: Framework Transformation of tourism into Economic development.

Source: Adapted from (Cárdenas-García *et al.*, 2015)

National park has the potential to significant contribute to both local and national economies, and also major aesthetic value to tourists who want to see and appreciate habitant of wild life and their game species especially if this can be done within their natural environment/ecosystem or some approximation if not establishing zoo is equally horns, meat traditional medicine and subsistence hunting. The non-consumptive use includes eco-tourism development that the country has still great potential, if facilities for suitable accommodation and other services are available, and properly marketed(Herlocker, 1999).

Creating new jobs and Development of infrastructure: Tourist expenditures on lodging, transportation, accruing from investment in infrastructure, superstructure as air ports food, guides and souvenirs is an important source of income for local communities by providing supplemental income to rural farmers, women and young people in to greater economic efficiency.

Diversifying regional economies and Catalyst for development: It is relatively decentralized industry that is highly capable of diversifying regional economies of less developed countries which are dependent of primary activities and also it act as catalyst for the development of other sectors of the economy by provides strong forward and backward linkages and finally Ecotourism stimulates profitable domestic industries.

Transfer of income and Alleviate poverty: -tourism is an excellent vehicle for transferring income from wealthy nations and persons to the poorer sections of society. Then properly managed tourism has the potential to alleviate poverty, preserve cultural heritage and protect natural resources and International tourism is a relatively high-growth industry and transfer in to Ecotourism and this transfer since travelers often venture in to remote, economically disadvantaged regions(Mosammam

et al., 2016).For example, in year2005 about 227,398 tourist arrivals reached Ethiopia and about 1,202,368,339 Ethiopian Birr generated from these tourists (Timothy, 2011). Intergovernmental Authority on Development (IGAD) member have supported tourism development and ecotourism is slowly but steadily developing in most member countries and it states that weak policy, legal and regulatory framework, Low level of community involvement, market penetration, Limited product development and diversification, limited financial incentives, Inadequate research and skills base, Inadequate infrastructure stock and Environmental degradation are the major constraints affecting the ecotourism growth in the IGAD region (Himberg, 2011). the government's strategic intent is to make Ethiopia one of the top ten destinations in Africa by 2020, while attracting low-impact high-value tourists (United Nations Development Program (Eshetu, 2014).

Social sustainability: ensures that development increases people's control over their own lives is compatible with the social values of people affected by it, and maintains and strengthens community identity. A socially sustainable development must achieve distributive equity, adequate provision of social services including health and education; gender equity, and political accountability and participation. Ethiopia. However lack of exposure to tourism markets is a significant challenge in attempting to carve net market share in the region and optimize on the rents that can be obtained from these assets and it is in general an important vehicle for promoting cultural exchanges (Gobena, 2008)

The concept of ecotourism is a new phenomenon to and it is difficult to explain its Significance achievement since the approach of ecotourism is not widely disseminated in Ethiopia. The government of Ethiopia also has recognized development and promotion of ecotourism and provided consultancy services for a number of potential developers of ecotourism sites (Sefrin, 2012). There are some promising community based ecotourism initiatives like Adaba-Dodola, which is financial and technically supported by the German Agency of Technical Cooperation or GTZ (now GIZ) on the northern slopes of the Bali Mountains in Oromia National Regional State and Semien Mountain (a pilot ecotourism project on SMNP) (TIES) . The Ecotourism Association of Ethiopia (EAE), which was founded in 2003 by committed organizations of the private sector, is basically formed to promote the principles ecotourism and eco-efficient initiatives in order to address the challenges faced by the tourism sector (Debelo, 2012).

According to Fayissa *et al.* (2008) there are only few empirical studies that investigate the contributions of tourism to economic growth and development for African economies. Some of the available empirical evidences on the continent are presented as follows: Using a panel data of 42 African countries for the years that span from 1995 to 2004, then he try to explore the potential contribution of tourism to economic growth and development within the conventional neoclassical framework. Their findings show that receipts from the tourism industry significantly contribute both to the current level of gross domestic product and the economic growth of sub-Saharan African countries as do investments in physical and human capital. They argue that African economies could enhance their short-run economic growth by strategically strengthening their tourism industries.

Lemma (2012) using panel data set for the period 1995-2005 for forty-two African countries find that there is a positive correlation between economic growth and tourism sector. According to her findings the tourism sector contributes significantly to the economic growth of the countries. On the other hand economic growth is vital for the development of tourism sector.

Mann (2006)conducted a research for government of Ethiopia entitled Ethiopia towards a strategy for pro-poor tourism development. By collecting quantitative data on tourism-centric locations, the organization conducted a comprehensive work in the country. Under the objective of responding to the government of Ethiopia request to define a strategy for tourism growth that commensurate with its vision for tourism, they report that the industry is under–performing relative to its tremendous potential value of its cultural heritage as an anchor for a tourism industry. They argued that this is attributed to weakness in Ethiopia's image, market presence and penetration resulting in a demonstrable weak demand for its products; a severely under-valued cultural and natural resource base; uncompetitive supplier and support services. Finally, absence of efficacy coordinating and communicating governance framework to guide and integrate the many stakeholders at both the national and sub national levels is also considered as one among the many factors for the low performance of the industry.

Yabibal (2010) using a panel data of 40 countries identify main determinants of tourist flows in Ethiopia. The study showed that the lagged tourist arrivals are a statistically significant determinant of tourist flows in Ethiopia in addition to per capita

income of sending countries, CPI ratio of Ethiopia and Kenya, urbanization rate and distance from Addis to capital cities of the sending countries.

Elias and Abdi (2010) also indicated alternative means of income generations and off-farm activities to minimize degradations pressure on endangered environments in rural areas of Ethiopia. Ecotourism could be as a good example of alternative income generation and off-farm activities which benefit local communities while achieve the conservation goals of natural resources. Chen and Swain (2014) stated that there is large potential of geothermic energy in addition to solar energy which can be as alternative sources of energy and drinking water in Ethiopia rift valley areas including Lake Shala and Laka Langano areas for further utilization.

IV. Conclusion and future implication

National parks being a part of ecosystem provide number of services and goods which are beneficial to living organisms. The review is an effort to highlight some use values of national park of Ethiopia and it has very beautiful and distinctive ecosystems and is gifted with a wide variety of remarkable resources and sites. Travel cost and willingness to pay has been used to measure national park value. The findings from review indicated that the direct use values (like recreational values) of National Park are quite high. Using estimates from the park, it is shown that annual recreational value for GDP (USD 3, 546.5mn)in 2018 gained for given number of visitors. The recreational value estimated in this study underscore the importance of conservation of nature.

The inclusion of local people and increased local community participation in the management of the park will go a long way to mitigate challenges facing the park. It is clear that the park can be an open air museum for wildlife conservation, and also serve as a green belt in averting the expansion of both native and foreign visitors and investors. The park should provide outdoor recreation and camping opportunities and also poverty reduction as well as courses designed to educate the local population on the importance of conservation and the natural wonders of the land of Ethiopia to achieve ecotourism in which the national park is located.

FUTURE PROSPECTS

- Therefore, any program designed to conserve the national park, should consider a joint community involvement for its successful implementation.
- Awareness creation and capacity-building efforts could be extended training is recommended to give to the neighborhood households on efficient conservation of biodiversity and recreational area through shared efforts of all stakeholders.
- Programmers which are presented in the hypothetical market scenario are recommended to be implemented with the collaboration of the park office and community to sustainably conserve the park, and to attract both domestic and international visitors.
- To mitigate human instigated threats to wildlife survival, there is an urgent need for biodiversity conservation to be formally addressed as an issue at all levels of society.
- To avoid clashes between policies and programs, there should be an effective integration and collaboration amongst all governmental bodies and other stakeholders.
- There should be a regular inventory check and monitoring of the endangered parks and plant and animal species by professionals and they should be recruited and employed on a permanent basis to ensure sustainability and preservation for future generations to enjoy

Reference

[1.] Abreham , B. (2016). Vegetation composition and deforestation impact in Gambella National Park, Ethiopia. *J. Energy Nat. Resour, 5*(3), 30-36.

[2.] Alpizar, F., Carlsson, F., & Martinsson, P. (2001). Using choice experiments for non-market valuation. *Working papers in economics/Göteborg University, Dept. of Economics; no. 52*.

[3.] Berhanu, K., & Endalkachew, T. (2018). Opportunities and Challenges for Community Based Ecotourism Development: The Case of Alatish National Park; Northwest Ethiopia.

[4.] Boxall, P. C., Adamowicz, W. L., Swait, J., Williams, M., & Louviere, J. (1996). A comparison of stated preference methods for environmental valuation. *Ecological economics, 18*(3), 243-253.

[5.] Cárdenas-García, P. J., Sánchez-Rivero, M., & Pulido-Fernández, J. I. (2015). Does tourism growth influence economic development? *Journal of Travel Research, 54*(2), 206-221.

[6.] Cesario, Frank J, & Knetsch, Jack L. (1976). A recreation site demand and benefit estimation model. *Regional Studies, 10*(1), 97-104.

[7.] Chee, Y. E. (2004). An ecological perspective on the valuation of ecosystem services. *Biological conservation, 120*(4), 549-565.

[8.] Chen, H., & Swain, A. (2014). The Grand Ethiopian Renaissance Dam: Evaluating its sustainability standard and geopolitical significance. *Energy Development Frontier, 3*(1), 11.

[9.] Costanza, R., Farber, S. C., & Maxwell, J. (1989). Valuation and management of wetland ecosystems. *Ecological economics, 1*(4), 335-361.

[10.] Debelo, A. R. (2012). Contesting views on a protected area conservation and development in Ethiopia. *Social Sciences, 1*(1), 24-43.

[11.] De Groot, Rudolf S, Wilson, Matthew A, & Boumans, Roelof MJ. (2002). A typology for the classification, description and valuation of ecosystem functions, goods and services. *Ecological economics, 41*(3), 393-408.

[12.] Dlamini, Cliff S. (2012). Types of values and valuation methods for environmental resources: Highlights of key aspects, concepts and approaches in the economic valuation of forest goods and services. *Journal of Horticulture and Forestry, 4*(12), 181-189.

[13.] Dudley, N. (2008). *Guidelines for applying protected area management categories*: Iucn.

[14.] Elias, E., & Abdi, F. (2010). *Putting pastoralists on the policy agenda: Land alienation in Southern Ethiopia*: IIED London.

[15.] Eshetu, A. (2014). Ecotourism as a viable strategy for livelihood diversification and sustainable natural resource management in Ethiopia from eco-development paradigm point of view. *Journal of Environmental Science and Water Resources, 3*(2), 40-52.

[16.] EWCA. (2018). The Ethiopian Wildlife Conservation Authority The Value of the Ethiopian Protected Area System:Increasing isolation of protected areas in tropical forests over the past twenty years. *Ecological applications, 15*(1), 19-26.

[17.] Fayissa, B., Nsiah, C., & Tadasse, B. (2008). Impact of tourism on economic growth and development in Africa. *Tourism Economics, 14*(4), 807-818.

[18.] Gobena, A. (2008). Assessment of ecotourism potentials for sustainable natural resources management in and around Abijata-Shala Lakes National Park in the central Ethiopian Rift Valley. *Addis Ababa University*.

[19.] Herlocker, D. (1999). Rangeland Resources in Eastern Africa: Their Ecology and Development, GTZ, Germany Technical Co-operation, Nairobi. *Google Scholar*.

[20.] Himberg, N. (2011). Traditionally Protected Forests Role within Transforming Natural Resource Management Regimes in Taita Hills, Kenya.

[21.] Hoover, K. J., Sandra L. . (2018). *Wilderness: Issues and Congressional Research Service,Ecosystem management for parks and wilderness* (Vol. 65): University of Washington Press.

[22.] Hoyos, D., & Mariel, P. (2010). Contingent valuation: Past, present and future. *Prague economic papers, 4*(4), 329-343.

[23.] IUCN. (2018). International Union for Conservation of Nature ,Global protected area expansion is compromised by projected land-use and parochialism. *Nature, 516*(7531), 383.

[24.] Kjær, T. (2016). A review of the discrete choice experiment-with emphasis on its application in health care. 2005. *University of Southern Denmark: Odense*, 143.

[25.] Koller, T., Goedhart, M., & Wessels, D. (2010). *Valuation: measuring and managing the value of companies* (Vol. 499): john Wiley and sons.
[26.] Lemma, A. (2012). A project paper submitted to the school of graduate studies of Addis Ababa University in partial fulfillment of the requirements for the degree of masters of Art in economics.
[27.] Mann, S. (2006). Ethiopia: Towards a Strategy for ProPoor Tourism Development. *World Bank, Washington, DC*.
[28.] Mosammam, H. M., Sarrafi, M., Nia, J. T., & Heidari, S. (2016). Typology of the ecotourism development approach and an evaluation from the sustainability view: The case of Mazandaran Province, Iran. *Tourism Management Perspectives, 18*, 168-178.
[29.] Nurhssen, S. (2016). The Role of Tourism on Local Economic Development of Gondar City, Amhara Regional State, Ethiopia. *Journal of Global Economics*.
[30.] Oktavia, R., & Rani, F. (2015). Upaya United Nations World Tourism Organization (Unwto) Menangani Sex Tourism Di Thailand (2009-2013). *Jurnal Online Mahasiswa (JOM) Bidang Ilmu Sosial dan Ilmu Politik, 2*(1), 1-10.
[31.] Pearce, D., Özdemiroğlu, E., & Britain, G. (2002). *Economic valuation with stated preference techniques: summary guide*: Department for Transport, Local Government and the Regions London.
[32.] Roberts, E. K., Lu, A., Bergman, T. J., & Beehner, J. C. (2012). A Bruce effect in wild geladas. *Science, 335*(6073), 1222-1225.
[33.] Saari, S. (2017). The Income Approach to Valuation – Discounted Cash Flow MethodValuation approaches and metrics: a survey of the theory and evidence. *Foundations and Trends® in Finance, 1*(8), 693-784.
[34.] Sefrin, C. (2012). Ecotourism in Lake Tana Region. *Ethiopia–Potentials for the Implementation of Community-Based Ecotourism, Bonn University*.
[35.] Sharma, T., Kurz, W. A., Stinson, G., Pellatt, M. G., & Li, Q. (2013). A 100-year conservation experiment: Impacts on forest carbon stocks and fluxes. *Forest Ecology and Management, 310*, 242-255.
[36.] Tarfasa, S. (2007). Household's willingness to pay for solid waste management options: the case of Yekka sub city, Addis Ababa, Ethiopia. *Unpublished doctoral thesis). School of graduate studies of Addis Ababa University, Ethiopia. Retrieved from http://etd. aau. edu. et/dspace/bitstream/123456789/564/1/Solomon% 20Tarfasa. pdf*.
[37.] TIES, T. (2006). Global Ecotourism Fact Sheet: Washington DC, 2006. *URL: www. ecotourism. org*.
[38.] Timothy, D. J. (2011). *Cultural heritage and tourism: An introduction* (Vol. 4): Channel View Publications.
[39.] Troy, A., & Grove, J. M. (2008). Property values, parks, and crime: A hedonic analysis in Baltimore, MD. *Landscape and urban planning, 87*(3), 233-245.
[40.] Yabibal, M. (2010). Tourist flows and Its Determinants in Ethiopia: EDRI Working Paper 001. Ethiopian Development Research Institute Addis Ababa, Ethiopia. *Author. Retrieved November 15, 2016) from http://www. edri. org. et/. pdf*.
[41.] Young, J. (2012). Ethiopian Protected Areas: A "Snapshot". *A reference guide for future strategic planning and project funding, 46*.