

# Review on Ecotourism Potentials and the Challenges for National Park Conservation in Ethiopia

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## Abstract

Ecotourism is defined as responsible travel to natural areas that conserve the environment and improves the well-being of local community. Ethiopia is a country having enormous potential of ecotourism resource including cultural, historical, archaeological and natural resources which are ideal for the development of sustainable community-based ecotourism projects. National parks are areas of land protected to conserve native plants and animals and their habitats, places of natural attractiveness, historic heritage and native cultures. The objective of this review paper was to identify the potentials resource for ecotourism development and challenges affecting conservation and management of national parks in Ethiopia. Based on review results, Lack of sense of ownership, limited awareness, lack of coordination, conflicts over resources, Issues of boundary/Lack of Boundary, invasive species, and poverty are the identified challenges that are affecting the conservation and management of national parks in Ethiopia. Developing sense of ownership within community, awareness creation and development, collaborative approach and consultation among stakeholders, co-management and resolution of border issues, improving incomes, institutional and policy reforms are the suggested strategies that can bring solutions to the problems.

**Keywords:** Ecotourism, National park,Conservation,Ethiopia

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## 1. Introduction

### 1.1 Background Information.

Tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes (UNWTO, 2010). It is the largest and fastest growing industry, which has the best possibility for generating many new jobs worldwide. It could be act as business in rural areas since it does not require year's long vocational trainings (Rannersmann, 2003). Although tourism contributes to the economic development, in latter periods it resulted in very negative environmental impacts due to the large number of visitors (mass tourism) damaging destination areas of tourists. Because of this, since in the 1990s, the tourist concern for environmental issues increased and ecotourism became known and tourism is recognized as an economic sector that needs to develop sustainable (Holden, 2003). Ecotourism has become one of the economic sectors that generates substantial income and maintains conservations of protected areas. In developing countries tourism or ecotourism has become one of the economic sectors that generates substantial income and maintains conservations of protected areas. In case of Ethiopia because of the majority of its population are engaged in agricultural activities instead of on off farm activities like ecotourism, natural resources are exposed to extreme degradations (EFCOT, 2003).For example, the Central Ethiopia Rift Valley (CERV) areas that endowed with a number of lakes and huge potentials of natural resources used for recreation are affected by excessive land degradation, deforestation, and over-irrigation (Legesse et al.2003). Ecotourism is the alternative means of income generations and off-farm activities to minimize degradations pressure on endangered environments in rural areas of Ethiopia (EFCOT, 2003). Ecotourism was known since 1990s when environmental issues of tourist destination areas increased (Sindiga, 1999). It was introduced in Ethiopia as component of soil and water conservation under Land Use Planning of Oromia (LUPO) aims to create alternative income generating options to reduce pressure on natural resources. For example, the Integrated Forest Management Project (IFMP) introduced into Adaba-Dodola in the West of Bale Mountains National Parks in the aim of conservation of natural forest (Sisay, 2004). Ecotourism could be a link between protected areas and local communities by generating income for local communities while conservation goals of protected areas achieved. Ecotourism could be very important where the ecosystem is fragile and other forms of natural resource management might be impossible (Brodnig, 2006). Protected areas are essential for biodiversity conservation. They are the cornerstones of virtually all national and international conservation strategies, set aside to maintain functioning natural ecosystems, to act as refuges for species and to maintain ecological processes that cannot survive in most intensely managed landscapes and seascapes extinct (Dudley, 2008). National parks are areas of land protected to conserve native plants and animals and their habitats, places of natural attractiveness, historic heritage and native cultures.

## 2. Objectives of the review

- ✓ To identify the potential resource of Ecotourism in Ethiopia.
- ✓ To determine the challenges affecting conservation of national parks in Ethiopia.
- ✓ To show the link between ecotourism and national parks in Ethiopia.

## 3. Ecotourism development in Ethiopia

### 3.1 Origin and differentiation of Ecotourism

Ecotourism evolved from growing concerns about the negative environmental and socioeconomic effects of tourism development. Ecotourism has become everything that mass market tourism is not. Rather than five star hotels, it tends to feature smaller facilities, attractively designed using sustainable local materials. In all-inclusive resorts, it features engagement with local culture, nature, and communities rather than isolating tourists from local communities as that of mass tourism. Rather than damaging the environment, it seeks to protect and enhance it (EGA, 2008). Hector Ceballos-Lascuráin (1987) provided one of the first formal definitions of ecotourism, which was later adopted by the International Union for Conservation of Nature as their official definition in 1996, as traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas (cited in State of Ecotourism Nepal, 2004). (Ziffer, 1989) proposes a more restrictive definition with a stronger prescription about the types of activities that can be considered to be ecotourism. The Eco tourist visits relatively undeveloped areas in the spirit of appreciation, participation and sensitivity. The Eco tourist practices a non-consumptive use of wildlife and natural resources and contributes to the visited area through employment or financial means aimed at directly benefiting the conservation of the site and the economic well-being of the local community (Diamantis, 1999). (IUCN, 1996) defined Ecotourism as “environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (including any accompanying cultural features both past and present), that promotes conservation, has low visitor impact and provides for beneficially active socioeconomic involvement of local peoples”

### 3.2 Development of ecotourism in case of Ethiopia

The concept of ecotourism is a new phenomenon and as a result 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. Although, developers and policy makers do not properly take the idea of ecotourism, some investors started to involve in development of ecotourism in different regions of Ethiopia. Bishangari Eco-Lodge located at Eastern of Langano Lake in Oromia Region and Village Ethiopia located at Afar Region (Bilen) is examples of these private ecotourism developments in Ethiopia that initiated the business of ecotourism (Theodros, 2004), LUPO aims to create alternative income generating means such as ecotourism to reduce the pressure on the natural resources of land through conducting a pre-feasibility study of proposed areas on the potentials of ecotourism destinations in Ethiopia (Scwenk, 2002).

### 3.3 Potential of Ecotourism Resources in Ethiopia

Ethiopia is endowed with attractive cultural heritages and natural resources that attract tourists (MOCT, 2006). The country has several parks and reserves to shelter its flora and fauna which can be visited to sight see these animals and explore their natural havens. Ecotourism represents an approach to tourism that emphasizes on environmental and cultural preservation. It highlights opportunities for tourists and other visitors to experience aspects of the country's ecology and natural endowments as well as unique features of its archaeology, history and culture. Ecotourism is responsible travel to natural areas that conserves the environment and sustains the well-being of local people (TIES, 2015). Ethiopia has enormous Ecotourism potential resources both Natural and Cultural attractions. The following category specifies the major highlights of the potential Ecotourism potentials in Ethiopia (MoCT, 2006).

Exotic Ethiopian Mountains: Ethiopia has so many attractive mountains like The Bale and Semien Mountains, mountains in Wag and Lasta, Northeastern Tirai the Irob region, Chilalo Mountains in Arsi, Ziquala peaks and Fantalle in Awash national park. These places are best suitable for individual trekkers, hiking parties and for professional climbers. Ethiopia's lakes have varied features of great interests to Eco tourists: These includes: birds, wildlife, vegetation, colorful ethnic groups, historic churches and monasteries, unusual geologic features and much more. Extensive and nice looking Ethiopia's national parks, like Nechsar, Mago, Omo, Awash, Bale mountain, Semein Mountain, Nechsar national park etc are spectacular places for Eco tourists to watch the real African big wild life and enjoy the breathtaking surrounding landscapes.

The underground caverns and rock arts of Sof Omer in Bale, Lega goda at the vicinity of Dire dawa, Shebe found at a short distance from Dila town are places to admire the works of nature, rock paintings and carvings of

people and animals. Battle sites like Adowa and Maqdala and places of significant political events like Boru Meda, Entoto, and Ankober etc are most interesting sites for history loving Eco tourists.

### **3.4 Ecotourism and National parks of Ethiopia**

Today National park are aimed at conserving biodiversity and large scale of natural ecosystems. However, these national park are increasingly facing a number of challenges (Wearing and Neil, 1999). National park are important destinations for a growing tourism like ecotourism given that it uses diverse nature, landscapes and biodiversity as major attractions. In these national park, there might be a potential threat to, and an opportunity for conservation of natural resources. If properly planned and managed ecotourism may minimize the environmental impacts while significantly contributes to the national park (Strasdas, 2002). (Okello, 2003) showed that the relationship between protected areas and local communities is a key factor in the long term conservation of the natural resources in and around these protected areas. However, in many cases, the relationship faces conflicts. The perceptions of local towards national park are negative. They perceived the protected areas as a burden on their land use. People living near national park have subsistence needs that are direct opposition to the needs of the park. Enough attention was not given to the process of involving local people in decision making and park management activities. On other hand, the conservationist blamed the local people as a major threat to the conservation of the park.

From Ethiopian protected areas (National Parks), of which only two are gazette ones, the Semen Mountains National Park and Awash National Park. The other protected areas including the game reserves, sanctuaries, national forest priority areas etc. are not gazette. The main objectives of these national park are to protect natural resources of the country (Shibru, 1995) but recently most of national parks of Ethiopia are exposed to severe degradations due to failure of creating alternative options like ecotourism, which are off-farm activities.

### **3.5. Role of Protected Area for Sustainable Ecotourism Development in Ethiopia.**

Ecotourism use diverse nature, landscapes and biodiversity as major tourist attractions. National parks are becoming major ecotourism sites. Regardless of their emphasis on conservation efforts, at present Ethiopian national parks are recognized as important places for sustainable ecotourism development (Getahun and Yeshanew 2016). At some ecotourism destinations, residents benefit from revenue sharing programs that either provides cash payments or, more commonly, funding for community projects such as wells or schools. It also provides 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 damaging industry like Agricultures and mining (Birhan and Gebreyes 2015).

Ecotourism creates enormous opportunities for conservation, protection and sustainable use of natural resources through the involvement of the local people. If ecotourism needs to be sustainable, it should make positive contribution to environmental conservation with an emphasis on economic benefit to the local community. (Getahun and Yeshanew 2016), identified that Awash National Park has spectacular scenic resources suitable for sustainable ecotourism development. Among them five distinctive land and physical features used as tourist attractions are Mt. Fentalle, the LalaSala plain, Kudu Valley, the Awash fall and reverie forests, and the hot springs. Availability of cultural and archaeological resources in and around PA is also important for the development of ecotourism in Ethiopia. For Example, Awash national park is not too far from the archaeological site Hadar where Lucy, the fossil of one of the oldest hominid species in Ethiopia was discovered, is located in the Afar Triangle of Ethiopian Rift Valley. Another Late Stone Age anthropological site (11,000-15,000 years ago) is also found around the shores of Lake Basaka in the AWP (Getahun and Yeshanew 2016).

## **4. Challenges of Ethiopian National parks**

### **4.1 Lack of community Sense of Ownership**

Local communities are most affected by the establishment of National Parks (Kebede et al., 2014). Thus, local communities must be involved as equal partners in the development and implementation of conservation strategies and particularly in the establishment and management of National Parks (Beltrán, 2000). The success of the protected area management is entirely dependent on the acceptance and cooperation of local communities in conservation activities. Even though the local community is participating in different activities of conservation and management of national parks in Ethiopia such as in, providing information about illegal activities in the parks (Gashaw, 2015), they are not involved with the park planning and management decisions (Asmamaw & Verma, 2013; Petros et al., 2016). This could create a better understanding among most society members that the park belongs to the government which in turn could affect the acceptance and cooperation of local communities in conservation activities of present and future as well as their sustainability, if local communities are fully compensated for their economic loss resulting from loss of access to natural resources.

Limited Awareness creation should be the first action for any protected area conservation (Gashaw, 2015).

That means the local communities should be aware of the environmental, social and economic importance of these areas before and after their establishment (Kebede et al., 2014). However, the National Parks in Ethiopia are facing problems due to the reason that the society settled around the parks have low awareness (Tesfaye, 2017) of the role of this conservation areas for environmental (soil erosion control and getting reliable rain fall in case of Bale Mountain National Park.

#### **4.2. Conflicts Over Resources usage**

Conflict is a relationship between two or more parties who might have conflicting goals, values, interests, or behaviors (Teferra & Beyene, 2014). In case of the natural resource management, the outcome of competition and potential disagreement between two or more groups over the use of scarce resources indicate conflict (Grimble, 1998). Therefore, conflicts within national parks can be seen to be the result of diverse interests, goals, and ambitions that individuals or groups within legally established and isolated environments have, which all too often resulted in either positive or negative impact on the use value of the resource in the area (FAO, 2000). There are three categories of conflicts which are occurring in National Parks in Ethiopia, namely: (1) conflict between human and wild animals (Berihun et al., 2016), (2) conflict between park managers and communities which live in and around national parks (Asmamawu & Verma, 2013), and (3) conflict between different communities surrounding the park (Ashenafi & Leader, 2005).

Human-wildlife conflict occurs across the globe (IUCN, 2005); however, developing countries are more vulnerable than developed counties (Berihun et al., 2016). The basic causes that have been suggested for the higher human-wildlife conflict in developing countries are poverty and the rapidly growing human populations and expanding settlements that cause habitat loss (Mwamidi et al., 2012). Resource use exclusion, an illegal activity made by local people are the causes of conflict between park managers and community (Asmamawu & Verma, 2013; Kebede, 2014; Berihun et al., 2016).

#### **4.3 Conflict over Boundary/Lack of Boundary**

The boundary of a given national park is important to prepare its management plan and to put down possible conservation strategies of its area and it is also important to improve its management (Council of Ministers Regulations No. 163/2008). According to (Petros et al., 2016; Zerga, 2015;), lack of a well-defined and mutually agreed upon border is among the challenges that affect the conservation and management of National parks in Ethiopia.

#### **4.4 Introductions of Invasive(alien) Species**

Invasive species is a global problem, where exotic species competes for resources and habitat, altering the physical environment in a way that sometimes causes competitive exclusion of native species with great economic and ecological consequences. According to (Muluaem & Tesfahunegn, 2016;) there are about 35 invasive weed species in Ethiopia (e.g. *Opuntia ficus-indica*, *Prosopis juliflora*, *Argemone mexicana*, *Lantana camara*, *Eichhornia crassipes*) so far identified which are posing negative impacts on native species In most of the Ethiopian national parks, there are visible impacts due to invasive species especially in Omo (*Opuntia*), Awash, Babile Elephant sanctuary (*Prosopis juliflora*, *Lantana camara*, *Parthenium hysterophorous*), Yangudirasa and Nechisar national parks (Young, 2012).

#### **4.5 lack of income**

Ethiopia is one of the poorest countries in the world where low income and productivity, weak capital accumulation and investment, high levels of unemployment are the main features of the economy (Moges, 2013). Besides the presence of poverty, the country is one of the top 25 biodiversity-rich countries in the world; hosts two of the world's biodiversity hotspots namely: the Eastern Afromontane and the Horn of Africa hotspots (WCMC, 1994). However, currently, the country biodiversity is under threat and loss due to various reasons. According to (IBC,2014), poverty is one of the reasons of biodiversity loss through people dependence directly upon consumption of biodiversity or other natural resources in the country.

#### **5.Future work of line**

- ✓ Promoting of ecotourism destinations of the country is needed in order reduce more dependence of peoples on natural resource and develop off farm activities like ecotourism.
- ✓ Awareness about the importance of ecotourism and collaborative approach and consultation among stakeholders; is needed in order to develop community sense of ownership over their resources.
- ✓ Reduction of free grazing, invasive species utilization, care during introduction and biological control to prevent new establishment and further encroachment of new areas by invasive species;
- ✓ Improving incomes, institutional and policy reforms that will help to avoid poverty are the suggested strategies that can bring solutions to the challenges of conserving and managing national parks in

Ethiopia.

## 6. Summary and Conclusions

This review attempts to examine the potentials resource for ecotourism and challenges of National park conservation in Ethiopia. The review showed that Ethiopia has huge attractive natural and cultural potential resource needed for ecotourism development. These includes historical, cultural, archaeological, anthropological, scenic, climatic, therapeutic, flora and fauna resources and attractive mountains for mountain trekkers are valuable opportunities that empower development of ecotourism; National parks are becoming major ecotourism sites. Regardless of their emphasis on conservation efforts, at present Ethiopian national parks are recognized as important places for sustainable ecotourism development however, conservations of National park are constrained in Ethiopia due to the following factors:

- ✓ Lack of sense of ownership,
- ✓ limited awareness,
- ✓ , lack of coordination among various stakeholders,
- ✓ conflicts over resources and issues of boundaries,
- ✓ Introductions of invasive species, and poverty are challenges which are affecting conservation and management of National Parks in Ethiopia.

## 7.References

- Ashenafi, Z. T., & Leader, W. N. (2005). Indigenous Common Property Resource Management in the Central Highlands of Ethiopia. *Human Ecology*, 33(4), 539-563. <https://doi.org/10.1007/s10745-005-5159-9>
- Asmamawu, D., & Verma, A. (2013). Ecotourism as a tool for environmental conservation and its implication to community livelihoods, the case of the Bale Mountains National Park, Ethiopia. *Journal of Environmental Science and Water Resources*, 2(8), 250-259.
- Beltrán, J. (2000). Indigenous and Traditional Peoples and Protected Areas: Principles, Guidelines, and Case Studies. IUCN, Gland, Switzerland and Cambridge, the UK, and WWF International, Gland, Switzerland. <https://doi.org/10.2305/IUCN.CH.2000.PAG.4.en>
- Berihun, A., Yirga, G., & Tesfay, G. (2016). Human-Wildlife Conflict in Kafta-Sheraro National Park, Northern Ethiopia. *World Journal of Zoology*, 11(3), 154-159. <https://doi.org/10.5829/idosi.wjz.2016.154.159>
- Birhan, M. & Gebreyes, G., 2015. Veterinary Science & Technology Review on Problems , Prospects and Economic Contribution of Wildlife Management and Ecotourism in Ethiopia. , 6(5).
- Brodnig, G. (2006).Biodiversity Conservation and the Millennium Development Goals: Toward Sustainable Development. *Regional Development Dialogue*, 27(1):1-7.
- Chanie, S. & Tesfaye, D., 2015. Threats of biodiversity conservation and ecotourism activities in Nechsar National Park , Ethiopia. , 7(2), pp.130–139.
- Dgnacheew Legessea ,Vallet, C. and Gasse ,F. (2003) . Hydrological response of catchments to climate and land use changes in Tropical Africa: case study South Central Ethiopia. *Journal of Hydrology* 275:67–85.
- Diamantis, D. (1999). The Concept of Ecotourism: Evolution and Trends: Les Roches Management School, Tourism Research Centre, CH-3975, Switzerland, Bluche, Current Issues in Tourism Vol. 2, No. 2and 3.
- EFCOT, (2003). Ethiopia Forum for Community Based Tourism. A study into recommendations on establishment of Community Based Tourism Organization to promote, support the growth of Community Based Tourism in Ethiopia and to represent those involved in it. Report paper by consultancy team, November/December p.4
- EGA, 2008. Environmental Grant makers Association. Ecotourism as a Conservation Strategy for Funders: a background briefing, New York, USA
- FAO (Food and Agriculture Organization of the United Nations). (2000). Global Forest Resources Assessment (FRA, 2000). Food and Agriculture Organization of the United Nations, Rome, Italy.
- Gashaw, T. (2015). Threats of Bale Mountains National Park and solutions, Ethiopia. *Journal of Physical Science and Environmental Studies*, 1(2), 10-16.
- Getahun, B.T. & Yeshanew, Y.A., 2016. Sustainable ecotourism potentials and its challenges in Ethiopia: The Awash National Park in Focus. *International Journal of Humanities and Social Science Research*, 2(4), pp.2455–2070.
- Grimble, R. (1998). Stakeholder methodologies in natural resource management. London: Natural Resource Institute.
- Holden, A. (2003). *Environment and Tourism*, 1st ed., Rutledge, England: pp.5, 62, 64. 68, 88, 97,165
- IBC (Institute of Biodiversity Conservation). (2014). Ethiopia's Fifth National Report to the Convention on Biological Diversity. Ethiopian Biodiversity Institute, Addis Ababa.
- IUCN. (1996). *Tourism, Ecotourism and Protected Areas*. Ceballos-Lascuráin, H., IUCN, Gland, Switzerland and Cambridge, UK.

- Kebede, A. G., Bekele, M., & Woldeamanuel, T. (2014). Natural resource use conflict in Bale Mountains National Park, Southeast Ethiopia. *International Journal of Biodiversity and Conservation*, 6(12), 814-822.
- MoCT, (2006). Ministry of Culture and Tourism of Ethiopia. Unpublished: Tourism statistics bulletin No.8
- Moges, A. (2013). The Challenges and Policies of Poverty Reduction in Ethiopia. *Ethiopian E-Journal for Research and Innovation Foresight*, 5(1), 94-117.
- Mulualem, G., & Tesfahunegn, W. (2016). Review of Key Wildlife Threats Factors from Literature and Observation Perspectives: A Way Forward for Sustainable Wildlife Genetic Resource Conservation Practices in Ethiopia. *Journal of Zoology Studies*, 3(5), 01-12.
- Mwamidi, D., Nunow, A., & Mwasi, Sh. (2012). The Use of Indigenous Knowledge in Minimizing Human-Wildlife Conflict: The Case of Taita Community, Kenya. *International Journal of Current Research*, 4(02), 026-030.
- Okello, F. (2003). *Tourism and Hospitality Management: Ecotourism in Uganda A Case Study of the Mgahinga National Park*. Master Thesis Graduate Business School of Economics and Commercial Law Goteborg University
- Petros, I., Abie, K., & Esubalew, B. (2016). Threats, Opportunities and Community Perception of Biological resource conservation in Bale Mountains National Park, a case of Dinsho District, Ethiopia. *International Research Journal of Biological Sciences*, 5(4), 6-13.
- Rannersmann, J. (2003). Geographer for the GTZ project. *Community Based Eco-Tourism: Definition and overview of the different approaches and experiences*. Unpublished document, Land use Planning and Resource Management of Oromia Region (LUPO), Ethiopia, p.2
- Shibru Tedla, 1995. Protected areas management crises in Ethiopia. *Journal of the Ethiopian Wildlife and Natural History Society*, 16(1): 20-25.
- Sindiga, I. (1999). *Tourism and African Development: Change and Challenge of Tourism in Kenya*. England: Ashgate publishing company.
- Sisay Asfaw (2004). Adaba-Dodola community-based ecotourism development.
- Strasdas, W. (2002). *Ecotourism Training Manual for Protected Area Managers*. German Foundation for International Development (DSE) Center For Food, Rural Development and The Environment (ZEL) Feldafing And Zschortatu, Germany.
- Strasdas, W. (2002). *Ecotourism Training Manual for Protected Area Managers*. German Foundation for International Development (DSE) Center For Food, Rural Development and The Environment (ZEL) Feldafing And Zschortatu, Germany.
- Teferra, F., & Beyene, F. (2014). Indigenous claims and conflicts in managing the Abijata-Shalla Lakes National Park, Ethiopia. *International Journal of Biodiversity Science, Ecosystem Services, and Management*, 10(3), 216-227. <https://doi.org/10.1080/21513732.2014.942372>
- Tesfaye, S. (2017). Challenges and Opportunities for Community Based Ecotourism Development in Ethiopia. *African Journal of Hospitality, Tourism, and Leisure*, 6(3).
- Theodros Atlabachew. (2004). *Sustainable Tourism Development*. Paper presented on the tourism Symposium on Occasion of the World Tourism Day, Sheraton Addis, September 24.
- TIES, (2015). *Uniting conservation, communities and sustainable travel*.
- TIES, (2015). *Uniting conservation, communities and sustainable travel*
- WCMC. (1994). *Biodiversity Data Sourcebook*. World Conservation Monitoring Centre, World Conservation Press, Cambridge, UK.
- Wearing, S. and Neil, J. (1999). *Ecotourism: Impacts, Potentials, and Possibilities*. 1sted. Reed Educational and Professional Publishing Ltd 1999, Great Britain
- Young, J. (2012). *Ethiopian Protected Areas A Snapshot, A Reference Guide. For Future Strategic Planning and Project Funding*. Addis Ababa, Ethiopia
- Zerga, B. (2015). Awash National Park: Its Degradation Status and Protection Measure. *Palgo Journal of Agriculture*, 2(3), 57-66.