

IMPLICATIONS OF CLIMATE CHANGE FOR TOURISM IN AFRICA

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Abstract: Tourism has grabbed the attention of the policy makers and politicians in Africa to bring about labour intensive jobs, economic growth and act as a catalyst for other industries. Although the tourism industry is sensitive to external conditions in terms of its performance and it is often referred to as a contributor to climate change (UNEP and WTO, 2005). With tourism growth as an almost certainty, tourism share of pollution will increase. Climate change remains a threat towards sustainability of the tourism sector globally, and has negative impacts at the destination area, which must be managed to improve the standard of living and quality of life for the host community. This paper identifies the immediate constraints to the tourism sector regarding climate change in the African continent by juxtaposing the benefits and the drawbacks poised by climate change. There is evidence on Africa's reliance on the tourism industry. The mitigating, amicable and practical solutions on combating climate are highlighted.

Key words: climate change, tourism, Africa, sustainable development, aviation

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INTRODUCTION

Climate has an influence in the tourism industry and plays a crucial role as a motivating factor to the tourists and the tourism destinations. The tourism sector is recognised as one of the most important sectors in the economy. The direct contribution of the travel and tourism sector to the Gross Domestic Product in 2014 was 3.1% globally and is forecasted to rise by 3.3% in 2025 (World Travel and Tourism Council, 2015). The socio-economic benefits of the travel and tourism sector are noted widely as the tourists travel from one place to another. Although the natural environment of the destination offers opportunities for tourism development through natural resources such as marine, land etc; the United Nations Environment Programme (UNEP) and World Tourism Organization (UNWTO, 2012) indicated that tourism contributes to human-induced climate change and to the effects that climate change is having on the distribution of biodiversity as a consequence of changes in rainfall patterns, water availability,

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temperature and related factors. The tourism sector accounts for around 5% of global carbon dioxide emissions into the atmosphere (UNWTO, 2012).

Human capital plays a crucial role as a determining factor on benefiting from the tourism sector and dealing with the impacts of climate change.

Climate change is a major factor impacting upon local economic development futures (Rogerson, 2016). According to Wegner, Allison and Trembley (2009), climate change provides a generic category of threat that arises out of global human actions (in which tourism participates) but is predominantly external to the tourism system - both in terms of its causes and the remedies that are likely to mitigate it. Continuous conversations around climate change remain at the centre of negotiations in the world.

Climate change affects the entire world and its species negatively, hence the existence of the United Nations Climate Change Conference (UNCCC) held on a yearly basis forms part of an intervention by different countries to finding out solutions towards sustainable practices of adapting to the changing conditions. Climate change is recognized as a major global issue. UNCCC's objective is to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system (United Nations Framework on climate change, 2005). Several countries benefit in terms of hosting such events, countries such as Lima in 2014, Paris in 2015 etc. The participation and the response of the countries differ due to the resources and the deep impact of climate change.

TOURISM AN AS IMPORTANT FACTOR TO THE ECONOMY IN AFRICA

Tourism remains an underlying force in the African continent. Tourism is receiving more focus from governments, globally, as a growth strategy and a developmental tool (Sifolo, 2015). Tourism is promoted as a result of its positive economic impact that will hopefully flow to the citizens and the economy if there was proper tourism planning to ensure that tourism improves the standard of living and the quality of life of the country. Tourists in most countries could be seen as a means of diversifying the economy. Hinch (1990: 217), states that the 1970s saw Cuba return to international tourism primarily because it was anxious to diversify its economy so as to reduce its dependence on the sugar cane industry. In the case of South Africa, Henama (2014) noted that tourism was identified by the governing African National Congress (ANC) as an engine of growth as traditional industries such as mining and agriculture had a declining share in employment and contribution to the Gross Domestic Product (GDP). Considered as part of a country's export industry, with importers such as tourists visiting the country, "tourism has the potential to unlock unnumerable economic opportunities for a country; from increased foreign currency receipts to the generation of jobs from allied industries" (Mauela, Jr & De Vera, 2015:11).

Tourism has a greater economic impact on an economy, as the injection of tourism revenue has a direct, indirect and induced impact on the economy. According to Rusu (2011), the demand for local products increases as tourists often buy souvenirs, which increases secondary employment. Tourism uses "free" resources such as coastline, mountains, and natural beauty which are abundant in the developing countries of the world. Tourism is able to redistribute money as a result of tourism expenditure, hence it's imperative that tourists are geographically dispersed in a country. Tourism is a catalyst for other industries such as agriculture and construction, only if pro-poor tourism was the planning guideline for the industry. The United Nations Conference on Trade and Development (2010:7) noted that "tourism linkages to other economic sectors are diverse and deep. The sector requires support, for example, to build and operate hotels, restaurants, and other tourism-related facilities through backward linkages with basic

infrastructure services such as, energy, telecommunications, environmental services, agriculture, manufacturing and construction services”.

The labour intensive jobs created by tourism, mean that the growth of the tourism economy is associated with the growth in employment. This is a result of the character of the tourism product offerings, which is essentially a service supported by tangible physical attributes to deliver an intangible tourism experience that is simultaneously produced and consumed. A country is free to attract tourists from any country in the world, as it's impossible to put in trade barriers on tourism. Governments are able to increase tax coffers as they can tax non-citizens, and this taxation of non-citizens can go towards the state revenue for the creation of public infrastructure and super-structure that can be used by both locals and tourists. It is for this reason, that tourism is promoted by both developed and developing countries.

The industry is highly favoured by many countries owing to its ability to boost the economic confidence. Europe was leading in international tourist arrivals at 582 million and had 509 US\$ billion when it comes to tourism receipts (World Tourism Organisation, 2015). The table below indicates tourist arrival forecast by different regions (Table 1).

Table 1. Forecasts of International Tourist Arrivals Worldwide and by Region: 2010-2020
(Source: United Nations World Tourism Organization, 2009)

Regions	Tourist Arrivals (millions)		
	2000	2010	2020
Europe	390	527	717
East Asia/Pacific	116	231	438
Americas	134	195	284
Africa	27	46	75
Middle East	19	37	69
South Asia	6	11	19
World	692	1,047	1,602

The above table predicts an increase in international tourist arrivals from Europe within the next 4 years. South Asia is at the bottom with a forecast of only 19 million tourist arrivals. Tourism unfortunately happens primarily between developed countries in the West, with Africa receiving less than 10% of global tourism receipts. This means that the tourism benefits the countries that needs it the least, and therefore limiting the developmental ability and potential of tourism. It must however be noted that tourism is disproportionately important for African economies that are weak, and dependent primarily on extraction industries that have suffered due to the drop in commodity prices. Tourism is usually promoted for its positive economic impacts, which politicians usually over emphasise. However, the negatives should also be observed. Tourism has negative impacts at the destination area, which must be managed. Tourism has the responsibility to improve the standard of living and quality-of-life for the host community. There is still a big challenge in the developing countries, particularly, the African countries, regarding marshalling political commitment and technical capacity on climate change and tourism policies. Yet, the governments from different countries play a key role towards dealing with the adaptation of the sustainable practices towards minimising the risk on climate change policies.

IMPACT OF CLIMATE CHANGE TO THE TOURISM SECTOR

Climate change has an impact to the tourism sector, particularly in developing economies. According to the UNEP and UNWTO (2012), tourism is a significant contributor of greenhouse gas (GHG) emissions at the global scale, hence the African

continent participates in global efforts for climate change mitigation that support and broaden the policy space for sustainable development on the continent (African Union, 2014). The UNEP and WTO (2012) identified key challenges that are facing the tourism industry and its sustainability as (1) energy and greenhouse gas (GHG) emissions; (2) water consumption; (3) waste management; (4) loss of biological diversity; (5) effective management of built and cultural heritage; and (6) planning and governance.

Given the fact that the GHG emissions are highlighted as a major challenge, perhaps understanding the impact and finding ways to participate is crucial. There are measures in place like carbon tax, which is one of the economic instruments that can be used to achieve a cost-effective reduction in emissions. According to OECD Environment Policy paper (2013), carbon tax is a form of explicit carbon pricing; it refers to a tax directly linked to the level of carbon dioxide (CO₂) emissions, often expressed as a value per tonne CO₂ equivalent. According to OECD (2013), the international community agreed that deep cuts in global emissions would be needed to limit the increase in global average temperature as a result of human activity to 2°C above pre-industrial levels in 2100. Hence, there is an international call for governments to be ambitious and act through the policies to achieve a net zero emissions from fossil fuel combustion in the second half of this century (OECD, 2013).

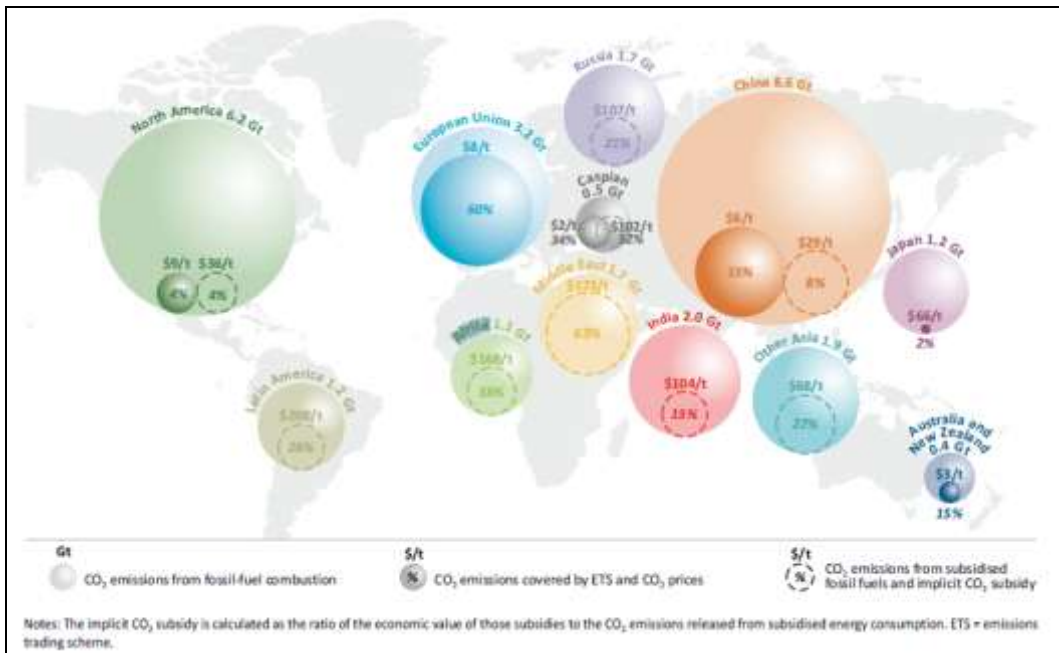


Figure 1. Energy-related CO₂ emissions in selected regions, 2014
(Source: OECD/IEA, 2015)

There are countries that are implementing the carbon tax already. The British Columbia adopted the tax rate at the Subnational level in 2008, whereas all of the following countries applied the tax rate at the national level; Chile (2014), Costa Rica (1997), Denmark National (1992), Finland (1990), France (2014), Iceland (2010), Ireland (2010), Japan (2012), Mexico (2012), Norway (1991), South Africa (2016), Sweden (1991), Switzerland (2008) and the United Kingdom (2013). Figure 1 below indicates the energy-related CO₂ emissions in selected regions, 2014 which covered 3.7 Gt (11 %) of global energy-related CO₂ emissions and an aggregate value of \$26 billion.

From the countries mentioned, Norway and Sweden were the pioneers; South Africa is the only country in the African continent that has introduced the carbon tax. This is evident as it is reflected in the insight series of the International Energy Agency (2013). According to Newham and Conradie (2013) the South African government has emphasised the need for a 'developing country' solutions to climate change that simultaneously pursue GHG reductions and socio-economic development.

The Rio+20 UN conference titled "the future we want" drew attention to the green economy (Reddy & Wilkes, 2015); stresses the holistic and integrated approach to sustainable development (Livina and Atstaja cited in Reddy & Wilkes, 2015), the UNEP and WTO advocated for greening of the tourism industry as a solution (UNEP and WTO, 2012); one may raise a question as to whether the entire concept of the green economy or greening of the tourism industry clearly stipulated and understood by other developing economies that are still facing intense issues such as poverty, inequality, recession, natural disasters, wars and conflicts, terrorism just to name a few.

Based on the above statement, in the developing world, the construction of knowledge about climate change vulnerabilities is still at a minimum scale. Consequent framing of climate change adaptation policy is largely driven by international actors and generic world views. Majority of developing countries remain the recipients of information from the developed countries due to the persistent challenges they are facing. As a result one is probed to ask a question on the involvement of the African countries.

EVIDENCE OF CLIMATE IN THE AFRICAN COUNTRIES

There has been confirmation on climate change effects within the African countries such as South Africa with a decrease in rain fall and high temperature and flooding disaster in the northern Algeria resulted in about 800 deaths and economic loss of about \$400 million, a severe drought in the entire East Africa region said to be "the worst drought in 60 years", Mozambique etc. (Deonarain, 2014). The Climate Change Vulnerability Index for 2015 demonstrated that Zimbabwe, Sierra Leone, Madagascar, Mozambique, Democratic Republic of Congo and Malawi are at risk from climate change in Africa (Maplecroft report, 2011). The same list includes other countries from emerging markets. Africa has seen a decrease in rainfall over large parts of the Sahel and Southern Africa, and an increase in parts of Central Africa. Over the past 25 years, the number of weather-related disasters, such as floods and droughts, has doubled, resulting in Africa having a higher mortality rate from droughts than any other region.

According to Deonarain (2014), there are eight ways in which climate change is already affecting Africa (1) impacts on weather patterns, (2) Impacts on Water Supply and Quality (3) Impacts on Agriculture and Food (4) Impacts on Human Health (5) Impacts on Shelter (6) Impacts on Vulnerable Population (7) Impacts on National Security and (8) Impacts on ecosystems. One may therefore raise a question as to whether, should the African continent be worried?

According to Seneker (2012), the true motivation underlying the global warming movement is almost certainly ideological and political in nature. Based on the explanation provided by Wood, et al., 2016, there is already a poor 'fit' between policy design, UN-led support programmes, and Least Developed Country (LDC) implementation contexts means that Clean Development Mechanism– climate-compatible energy access (CDM–CCEA) beneficiaries tend to be higher-income developing countries (UNEP-Risoe, 2013d). On the other end, Eriksen et al., 2011, indicated that the developed countries are committed to the goal of jointly mobilizing USD30 billion for the period 2010–2012 (and an additional USD100 billion a year by 2020) to address the climate-related challenges of developing countries.

One may argue that based on the above mentioned ideologies, the developed countries have indicated the possible solution and are participating toward the mitigation on the effects of climate change. Eriksen et al., 2011 state that for sustainable adaptation to take place there are principles that need to be followed. These principles observe the current status of all the countries as follows; (1) recognize the context of vulnerability, including multiple stressors, (2) acknowledge that different values and interests affect adaptation outcomes, (3) integrate local knowledge into adaptation responses and (4) consider potential feedbacks between local and global processes. Consistent mitigation and adaptation issues can be attained and observed by the international community.

Perhaps paying attention and trying to find solution towards addressing pertinent issues such as the poverty rate in Sub Saharan Africa which is just under 50% of the population (UNEP & WTO, 2012) is key to warrant sustainable adaptation principles. Countries like Rwanda, Cape Verde, Zanzibar, Tanzania, Tunisia, or 300 million people (with the threshold for extreme poverty is now US\$ 1.25 a day) poverty prevails (UN, 2008). The question may arise as to where should the focus be? Based on Eriksen et al., suggestion for sustainable adaptation to take place, addressing issues like poverty remain a priority. Africa was the lightest polluter and yet would suffer the worst effects of global warming. Moreover, the research by Dator and Yeoman, titled "Tourism in Hawaii 1776-2076: futurist Jim Dator talks with Ian Yeoman", raised a question as to where will the money, energy, and time come from to adapt effectively to climate change? The Pan African Parliament is hoping to speak with one voice regarding adoption and the mitigating issues related to climate change. Despite the challenges and diverse predicaments facing the African continent, the rest of developed countries have been instrumental in reducing and adapting to the means of climate change, through finance, technology as well as human capacity.

However, the opposite is true in the developing countries. This is evident from the G 77 People don't have enough knowledge and therefore must be protected against these impacts at the regional, national and international structures and speak with one voice through platforms like the Pan African Parliament (PAP). Such a platform can ensure that there is justice. Another way forward is that the African states should speak with one voice to defend the African interests because of climate change towards the mitigation and adaptation of sustainable practices.

FUTURE DIRECTION

There is a dire need for amicable and practical solutions on combating climate change whilst benefiting from the tourism industry; although the inclusion and participatory governance are not always straightforward and achievable in the context of climate policy making (Ojha et al., 2016). Perhaps sustainable tourism practices at the local level in each country and practical actions are eminent to address environmental issues such as climate change, sea level rise, water shortages, food shortages, new and renewed diseases, environmental refugees.

According to the African Union agenda 2063, the first aspiration for the continent is that "we want a prosperous Africa based on inclusive growth and sustainable development". One may argue that as part of a sustainable practice, the households in general or home dwellers must know their direct effect towards climate change. Moreover, government planning is crucial in emphasizing sustainable practices through adequate education, training and awareness. Moreover, government creates an enabling environment for tourism opportunities whilst prompting legislation on sustainable tourism practices, for example, South Africa. This includes basic issues like encouraging the use of public transportation systems and efficiency in the consumption of water and electricity. According to the AU Agenda 2063, Africa shall address the

global challenge of climate change by prioritizing adaptation in the actions, drawing upon skills of diverse disciplines and with adequate support (affordable technology development and transfer, capacity building, financial and technical resources) to ensure implementation of actions for the survival of the most vulnerable populations, including islands states, and for sustainable development and shared prosperity.

- Africa will participate in global efforts for climate change mitigation that support and broaden the policy space for sustainable development on the continent. Africa shall continue to speak one voice and unity of purpose in advancing its position and interests on climate change.

- Africa shall have equitable and sustainable use and management of water resources for socio-economic development, regional cooperation and the environment.

The Agenda 2063 (2014: 15), further brings forth the programme of action on how to address climate change and preserve the environment which are as follows:

1. Identification of five regional technology centers, linking with national designated climate technology entities;

2. Programmes on climate change targeting women and youth;

3. A climate resilient agricultural development programme as CAADP;

4. A sustainable forest management programme;

5. National adaptation plans, systems and structures (National Designated Authorities and Implementation Entities). Given the above mentioned mitigating plans as identified in the Agenda 2063, researchers continue to differ in-terms of the leading roles and the implementation.

According to the Tourism in the Green Economy Report by UNEP and WTO (2012), the drivers of investment in sustainable strategic areas involves the sustainability drivers such as being concerned about the customer base on footprint, Host government to pay attention on policies and priorities regarding climate change mitigation and energy, uptake of Corporate Social Responsibility (CSR) and to observe the climate change impact on tourism sites. The report also highlights the implications such as increased substitution of fuels toward electricity, particularly increased investment in passive solar collectors and PV, alternative fuels for vehicles, increased number of project developers orienting business strategies toward, lower-carbon footprint, expectations of broader stakeholder base and the demand for carbon offsets and other mechanisms.

„We can't solve climate change by throwing money at it because we don't have enough money – and now enough credit – to throw anything at it but hard work and prayer” Jim Dator (2015).

Aknowlegments

Achas Safari. A Community-based Tourism, Conservation and Business Magazine. Tourism and Climate Change in Africa: Qua Vas Dis? By Pearl Portia Siyanda Sifolo in March-June 2016. Edition No: 001.

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