



# The Business of Climate Change: A Perspective of Environmental Performance on the Tourism Industry

Ms. M. van der Bank  
Department of Legal Sciences  
Vaal University of Technology, South Africa  
Tel: 016 950 7534  
E-mail: [marjonevdb@vut.ac.za](mailto:marjonevdb@vut.ac.za)

and

Prof. C.M. van der Bank\*  
Faculty of Human Sciences  
Vaal University of Technology, South Africa  
E-mail: [riana@vut.ac.za](mailto:riana@vut.ac.za)

Corresponding author\*

## Abstract

Climate change has increasingly attracted tourist attention in the past decade, because tourism is likely to be affected both by climate change itself and by policies implemented to address it. Corporate reaction could be viewed in three ways to climate change regulations, namely supportive, neutral or defensive. The perspective examines the critical relationship between the tourism sector and sustainable development, examining global trends and the problems they raise, exploring the current set of solutions being implemented, and offering some new ideas for better managing the relationship. The Climate and Sustainable Tourism Model that is a suitable framework encapsulates many of the issues explored and offer insights for policy makers seeking to develop better solutions to vexing climate change issues. Sustainable development is particularly important in the South African context if one considers, for example the fact that Africa has economic uncertainty, intractable conflict, rising prices for food and oil and the effects of climate change on agricultural land and tourism which are all problems that need to be addressed. The government must be the central co- coordinator and leader, because the government holds many tools, which are essential to coordinate and develop and enforce new rules. The main purpose of the regulations is to set up climate change policies, strategies, plans and measures as well as to cooperate with the private sector and with the international actors.

**Keywords:** climate change, ecotourism environmental, sustainable and tourism, South Africa.

## Introduction

As climate change has emerged as one of the most pressing sustainability issues, there has been an increase on the tourism industry's responses to climate change in terms of market and political strategies. Climate change can result in extreme weather events, such as drought, floods, heavy snow, hailstorms, extreme cold, wild fires, heat waves, extreme fog and mist, and many more and all of these have a huge influence on the tourism industry. South Africa has recently identified the health sector, tourism sector, maize production, plant and animal biodiversity and water resources as areas most vulnerable to climate change (Environmental Affairs, 2005-2010).

Climate change has become 'everybody's' business and for corporates and tourism, climate change presents various forms of risks namely reputational, regulatory, physical, competition and



financial. Climate change has increasingly attracted tourist attention in the past decade, because tourism is likely to be affected both by climate change itself and by policies to address it. Climate change and the resulting loss of biodiversity has the potential to harm the tourism sector, which currently contributes R100 billion each year to the South African economy (Environmental Affairs, 2005-2010). The environment is an essential resource for tourism, and especially for the beach, nature and winter sport tourism segments. Changing climate and weather patterns at tourist destinations and tourist generating countries can significantly affect the tourists' comfort and their travel decisions. Active engagement in climate change policy-making is needed, interestingly enough, the main policy responses have diverged from firms that recognised climate risks and climate change regulations (Levy and Kolk, 2002). Biodiversity is important for South Africa because it maintains ecosystem functioning, has proven economic value for tourism, and supports subsistence lifestyles. This research attempts to analyse different preferences for corporate responses to climate change. It asserts that a firm will choose between politically supporting, defending or reacting strategies towards climate change policies based on its organisational resources and its capabilities.

### Corporate response to climate change regulation

Climate change started to become an important policy issue for firms in the early 1990's. Much diversity in corporate responses to climate change has been seen with the split of the international policy regime. The free market fails to limit climate-damaging emissions sufficiently, because polluters do not have to pay for the damage they cause. A basic role of policy in such cases is to "internalise such costs into emitters" cost structures- the 'polluter pays' principle (Llewellyn, Chaix and Griese, 2007) should apply.

Climate change, as projected, would and has in many cases led to an increase in heat waves, exacerbated by humidity and pollution in urban areas (Llewellyn, Chaix and Griese, 2007). Corporates tend to respond in one of three ways to climate change regulations, namely supportive, neutral or defensive as stated in Table 1.

**Table 1. Types of corporate responses to climate change regulations**

<b>Types</b>	<b>Extent of influence in regulation</b>	<b>Main Characteristics</b>
Supportive	Active	Support of climate change measures to reduce emissions Pressuring international or national policy regime Request for a long – term, global climate change regime
Neutral	Inactive	Appreciation of climate change issue Cautious view of the Kyoto Protocol and its related national policy proposals In favour of voluntary initiatives, but lack of active engagement in carbon reduction programs and policy making process
Defensive	Active	Opposition to Kyoto's global emission reduction approach Doubts scientific evidence about climate change Advocacy of voluntary approach to reduce emissions

(Adapted from Kolk and Pinkse, 2007; Jones and Levy, 2007)



A clear regulatory structure needs to be in place in order for tourism to thrive and prosper. Government must continue to set the conditions that will advance the energy renaissance already underway (Wright & Hoffman, 2013). Companies need clear and coherent industrial policies that recognise that South Africa operates in a globalised marketplace competing against countries that heavily subsidise their domestic industries such as tourism and they need a knowledgeable consuming public that can make informed purchasing decisions. Building a platform for policy clarity and greater business innovation is crucial if South Africans are to meaningfully rise to the challenges posed.

### **Climate change in the context of sustainable development**

The world failed to address key issues in the sustainable development space, especially the need to adapt to, and mitigate climate change. South Africa, whose tourism sector also rely on good weather, needs to act urgently to navigate the choppy waters of climate change. Current climate models predict that South Africa will experience increasing temperatures, changing frequency, intensity and distribution of rainfall events, and an increase in ocean levels. Such changes will impact on key regional tourism drivers such as destination attractiveness, product content, infrastructure planning and investment.

The need for sustainable development globally and in Africa is also taken seriously within South Africa. South Africa's National Strategy and Action Plan for Sustainable Development of 2010 ([http://www.Environment.gov.za/Services/documents/Public Participation/NSSD](http://www.Environment.gov.za/Services/documents/Public%20Participation/NSSD)) (hereafter the Strategy) for example provides that two main categories of intervention are proposed in order to support the new social goals that are based on sustainability.

The first main category is the introduction of incentives/disincentives and fiscal measures, and the second main category is education and awareness-raising programmes, which are likely to foster a better understanding of the relationship between human well-being, biodiversity and ecosystems. Some of the incentives/disincentives and fiscal measures proposed to be used in order to promote more environmentally responsible behaviour include: increasing energy efficiency, decreasing the use of fossil fuels, increase usage of renewable energy, decreasing pollution and the generation of general waste and re-localising production as is reasonably possible in efforts to strengthen local economies and lead to the reduction of energy consumption and rising transportation costs (Department of Environmental Affairs, 2010).

The Strategy further states that "in order to achieve the awareness required to support a change in the goals of society will require the enlisting of a wide variety of non-governmental organisations" (Department of Environmental Affairs, 2010). This Strategy also addresses the establishment of sustainable communities. In order to be sustainable, the diverse needs of human settlements must be met; this includes housing, basic services, community facilities, transport and livelihood/job opportunities, while at the same time being sensitive to the surrounding ecosystems and the natural environment.

The specific goals in order to meet these needs are enhancing spatial planning, ensuring universal access to basic and community services, to improve the standard/quality of housing and other structures to optimise resources, promotion of self-sufficiency, food security and equitable access to natural resources that support livelihoods and to improve equity, security and social cohesion. An obvious example such as, "green building" as an approach to construction and development would fit the objectives of this strategy well and the objectives of sustainable development, generally.



### ***The Characteristics of Ecotourism***

Among tourism sectors, ecotourism is unique (Wood, 2002). Ecotourism leads to a better appreciation of the inherent values of different cultures, thereby contributing to the strengthening of world peace (Wood, 2002). Ecotourism can assist in implementing the concept of sustainable development into tourism, conserving biodiversity and cultures, educating visitors about sustainability. Generally, ecotourism requires natural and cultural assets which are optimally performing.

The main elements of ecotourism consists of; travel to undisturbed natural areas; environmentally responsible travel and the promotion of conservation; a low negative visitor impact; the socio-economic involvement of local populations; and the sustainable development of the natural environment (Chataryamontri, 2009). Without good life and health of human beings at the centre and the natural assets of sustainable development, sustainable development cannot be effectively achieved.

### ***The Impact of Ecotourism Development***

There are two sides to Ecotourism. On the one hand, ecotourism constitutes a tool that can contribute to sustainable development. On the other hand, the impact of the development of ecotourism has become increasingly far reaching. The impact of ecotourism might affect the destination area more than any other kind of tourism if the ecotourism process is poorly managed, because ecotourism explicitly uses fragile environments and local cultures as its principal assets (<http://www.un.org/esa/sustdev/esd/wttc.pdf>). Climate change must be taken into account in the context of sustainable development.

The adverse effects of climate change are already evident in examples such as higher temperatures, threats to biodiversity, and the rising sea levels (The Johannesburg Declaration on Sustainable Development, 2002). Climate change affects ecotourism because of its dependency on natural resources such as beaches and mountains. Transportation can contribute to the atmosphere that leads to global warming.

The tourism business should make efforts to reduce atmospheric emissions, especially as tourism increases across the globe. Ecotourism and its economic environment, socio-cultural and climate impacts are highly interdependent. One pillar of the aspects of ecotourism may benefit unilaterally, another pillar can experience cost and degradation. Therefore, it is a continual challenge to ensure that the pillars and related factors are balanced in order to achieve the much desired notion of sustainable development.

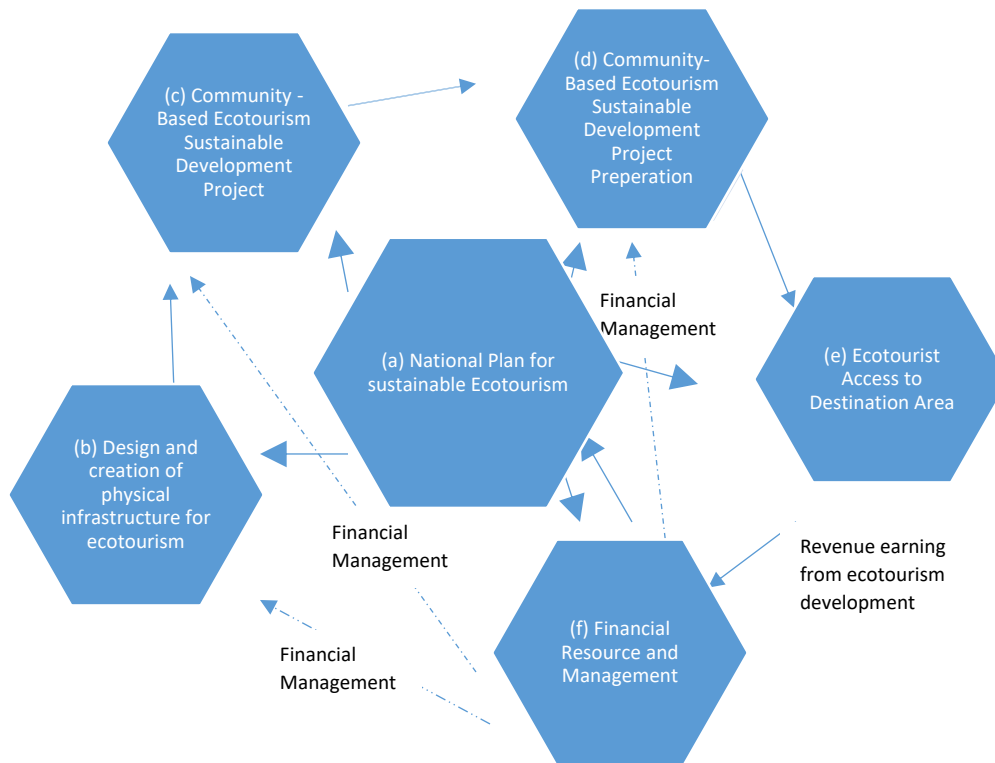


Fig 1.1 The Development Cycle Model for Sustainable Ecotourism (Source: Chataryamontri, 2009).

The cycle consists of six main parts, with the most important part being the National Plan for Sustainable Ecotourism, which is crucial to shaping sustainable ecotourism. Understanding the cycle provides insight into how ecotourism can serve as a tool for sustainable development. The Government can begin to implement parts of the cycle and also monitor it. Once it runs successfully, ecotourism will be well on the path to achieving sustainable development.

The Sustainable Tourism Model establishes a framework to support ecotourism development and achieve the goal of sustainable development. Without Eco tourists, the cycle cannot achieve sustainable ecotourism goals because the cycle will lack the needed economic injection from the Eco tourist. The government should thus vigorously promote the ecotourism destinations via media, television, posters or with carefully crafted tourism drawing events.

## Use of an Environmental impact assessment tool to enhance sustainability on tourism and ecotourism

### ***Environmental Impact Assessment (EIA)***

The National Environmental Act 47 of 1980 (NEMA) makes provision for integrated environmental management by requiring that an environmental impact assessment (hereafter an EIA) be done in order to determine the impact of an activity on the environment (section 24 of NEMA). This requirement is sometimes perceived as mere semantics and therefore often disregarded. Environmental assessment in the broader sense encapsulates the assessment terminology and includes EIA and Strategic Environmental Assessments (here after SEA). It has been argued that an environmental assessment is not a decision-making tool but rather a tool that aids decision-making and provides information to decision makers (Kidd and Retief, 2009). South African



legislation defines an EIA as including the process of collecting, organising, analysing, interpreting and communicating information that is relevant to the consideration of the application (Kidd and Retief, 2009). As an example of the application of an EIA, consider the following - When a proposal is considered for a building to be erected, an EIA should normally be done to see what the impact of this specific building will be on the environment. If the impact of a building on the environment indeed claims to be negative, "greener" methods of building can be attempted in order to minimise the environmental impact. This tool could also eventually be used to make "green building" and "green design" compulsory in South Africa. This same process should be followed in ecotourism.

To have an EIA is to ensure that potential problems are foreseen and it is addressed in the project's planning and design stage, by using the environmental factors and comparing with other factors, including social, health and cultural heritage issues, regarding actions proposed by governments, industry and other institutions/organisations which can save the cost of the mitigation in the future. The EIA is an important tool in bridging the gap between the development and environment issues and is therefore widely recognised as an effective and efficient tool.

Therefore, the EIA in the ecotourism sector must be focused on the different aspects, from the analysis of the EIA in the other business or industrial sectors, and even from the mass tourism sector.

### ***Public Participation as a part of the EIA processes***

Local communities should and will be the ones who benefit both directly and indirectly from the tourists visiting an area. Ecotourism development should respect the constitutional rights of local and indigenous peoples by providing opportunities for the wider community to participate actively in decision-making and management issues that have impact on their own future.

Public Participation should then be a key part of the EIA process. Public participation connects the policies, plans and projects with the public, among other stakeholders. The public will have the opportunity to become involved in the projects and provide input. Public could include the individuals, indigenous people, organisations or communities, in other words all stakeholders who have an interest in or could be affected by the proposed action.

### **International response to climate change: the international framework**

The majority of countries have agreed to take action in addressing climate change. Many nations have signed and ratified the two treaties namely the United Framework Convention on Climate Change (1982) (UNFCCC) and the Kyoto Protocol (1998). The object of the UNFCCC is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The UNFCCC divides participating countries into two main categories: developed countries and developing countries (Annex I and non-Annex I). Developed countries bear a greater historical responsibility for the accumulation of Green House Gas emissions. The Convention constitutes a mechanism to hold regular meetings to draft concrete measures, under which a series of meetings have been held and continue to be held.

The Kyoto Protocol of the United Nations Framework Convention on Climate Change was adopted in 1997 in Japan (Kyoto Protocol, 1998). The Kyoto Protocol established the legal



framework within which Green House Gases and mechanism reduction would take place by maintaining the concept of differentiated responsibilities established by the UNFCCC. It took a long time before the Kyoto Protocol came into force.

### **What are the objectives of sustainable development?**

The relevance of sustainable development in tourism is not limited to its definition only. The objectives of sustainable development can be divided into three categories: the economy, the (social) community, and the environment. Each of these categories relates to certain objectives, and in the process of attempting to achieve these objectives they almost inevitably have a negative influence on one another. Sustainability demands that a balance be struck between social and economic development and the environment (Bouillon, 2003). In the context of the tourism environment sustainability would thus typically demand a balance between social and economic development (development among people and economic growth which necessitates *inter alia* the construction of housing and infrastructure) and the protection of the natural resource base (comprising of *inter alia* water and air) that is by default necessary to be able to construct and develop in the tourism environment.

One of the objectives of sustainable development is to improve the standard of living in a sustained economic development trajectory (Section 2.9 United Nations Conference on Environment and Development, 1992). Sustainable development is ostensibly concerned with the environment and therefore when implemented, it finds its application in local legislation designed to ensure that the sustainability objective is met. Of particular reference here is that studies in public health, which are relevant to a consideration of sustainable development due to the fact that one of the objectives of sustainable development is the promotion of public health, have shown that people in "green buildings" are less susceptible to colds, influenza and asthma as they inhabit buildings where there is access to fresh air, better ventilation systems and environmentally-preferable paint and furniture, for example. Taking into account their kindness to the environment and the social and economic benefits they bestow on the people who live and work in them, the hypothesis at this point is that "green buildings" should undoubtedly be preferred (Green Building Council of South Africa, 2011) to those which are devoid of 'green' content.

Sustainable development is particularly important in the African context if one considers, for example, the fact that Africa has economic uncertainty, intractable conflict, rising prices for food and oil and the effects of climate change on agricultural land and tourism are problems that need to be addressed (UN Non-Governmental Liaison service, 2008). High-level sustained, inclusive and clean economic growth must be promoted in African countries and this is also one of the main focus areas on the continent. However there is an absence of meaningful diversification and transformation in many African countries which are heavily dependent on the informal sector of employment and output. In order to promote economic growth, structural economic transformation involves a process of continuous technological innovation, industrial upgrading and diversification and also the improvement in various types of infrastructure and institutional arrangement which constitute the context for business development and wealth creation (Economic Commission for Africa, 2011). The natural resource wealth of Africa is often associated with distorted incentives to diversity, a problem which is often compounded by the challenges of an increasingly inadequate water supply, climate change, and an unsustainable demand for fossil fuels which must be addressed at the consumer level in both the developed as well as in developing countries (Drexhage and Murphy, 2010).



The need for sustainable development globally and in Africa is also taken seriously within South Africa. South Africa's National Strategy and Action Plan for Sustainable Development of 2010 (Department of Environmental Affairs, 2010) (hereafter the Strategy) for example provides that two main categories of intervention are proposed in order to support the new social goals that are based on sustainability. The first main category is the introduction of incentives/disincentives and fiscal measures and the second main category is education and awareness-raising programmes which foster a better understanding of the relationship between human well-being, biodiversity and ecosystems. Some of the incentives/disincentives and fiscal measures proposed to be used in order to promote more environmentally responsible behaviour include: increasing energy efficiency, decreasing the use of fossil fuels, increase usage of renewable energy, decreasing pollution and the generation of general waste and re-localising production as is reasonably possible to strengthen local economies and reduction of energy consumption and transportation cost (Department of Environmental Affairs, 2010).

The Strategy further states that "in order to achieve the awareness required to support a change in the goals of society, will require the enlisting of a wide variety of non-governmental organisations" (Department of Environmental Affairs, 2010, par.2.2.2). This Strategy also addresses the establishment of sustainable communities. In order to be sustainable, the diverse needs of human settlements must be met; this includes housing, basic services, community facilities, transport and livelihood/job opportunities, while at the same time being sensitive to the surrounding ecosystems and the natural environment. The specific goals in order to meet these needs are enhancing spatial planning, to ensure universal access to basic and community services, to improve the standard/quality of housing and other structures to optimise resources, promoting self-sufficiency, food security and equitable access to natural resources that support livelihoods and to improve equity, security and social cohesion. Obviously, tourism as an approach to construction and development would fit the objectives of this strategy and the objectives of sustainable development, generally speaking.

One can however not perceive the objectives of sustainable development to be a national government mandate or issue only. It is internationally acknowledged that local authorities have a major role to play in sustainable development. One of the international non-governmental initiatives is Local Governments for Sustainability that is committed to sustainable development.

The relevance of tourism and ecotourism in South Africa lies in the direct link between the former's objectives and the need to protect the natural resource base. It is a known fact that the world climate is changing rapidly. Presently the global climate is changing as a result of global warming, among others, the melting of polar and glacier ice, the sea levels rising, ocean acidification, changes in rainfall and snowfall patterns, frequent floods and droughts and increased extreme weather events. Due to climate change, it does not allow the earth's bio-physical systems to adapt to these changes mentioned above, naturally. By promoting tourism and ecotourism, greenhouse gas emissions could be lowered and the phenomenon of climate change can be partly addressed (also in the South African context).

### **Legal Framework for Global Warming at the local level**

In order for local government to actively pursue sustainable development through, inter alia, tourism and ecotourism, it is essential for municipalities to have the necessary legally entrenched powers and functions to govern. Put differently, it is necessary for South African law and policy to create a suitably enabling framework for municipalities to be able to explore locally, the opportunities posed by tourism and ecotourism. This section explains what local government is





and considers the law and policy framework on local government which includes the Constitution, NEMA and White Papers relevant to tourism and climate change.

### **What is local government?**

To answer the question of what a local government is, one must consider its kinetic, formative environment as described in the sciences of geography, political science and public administration, as well as its static, legal structure. This can be seen as the corner posts of local government (Meyer, 1978). Du Plessis defines a government as a group of institutions or people that governs a state (Du Plessis, 2009). This means that the government dictates the general direction of public affairs (Du Plessis, 2009). Local government then is the sphere that is closest to the people (Bekink, 2008).

Its closeness to the people gives rise to the need to apply the principle of subsidiarity to it. De Visser (2008) defines subsidiarity as a general principle that says that governance should take place as close as possible to the citizens. This thought translates into the protection of lower levels of government against unjustifiable interference by national or provincial government. It also translates into a penchant for placing functions and powers at the lowest possible levels of government (De Visser, 2008). Therefore, when applying the principle of subsidiarity, the implementation of building regulations should be delegated to municipalities in order that this function could be fulfilled by the sphere of the state that is close to the people and to where development takes place.

Local government in South Africa has been reformed in many aspects. A total number of 283 municipalities make up the local government sphere (section 40 of the Constitution, 1996). The constitutional mandate of local government is to focus on developmental local government, Du Plessis, (2009) which is described in the *White Paper on Local Government*, 1998, as being committed to "work with citizens and groups within the community to find sustainable ways to meet their social, economic and material needs and improve the quality of their lives"(Du Plessis, 2009).

The characteristics and functions of local government emphasises the idea that local government can play an important role in relation to the environment as one of the pillars of sustainable development. Du Plessis defines local environmental governance as a specific form of governance: "The management process executed by local government and communities to holistically regulate human activities and the effects of these activities in their own and the total environment (including all environmental media, and biological, chemical, aesthetic, cultural and socio-economic processes and conditions) at local levels; by means of formal and informal institutions, processes and mechanisms embedded in and mandated by law, so as to promote the present and future interest human beings hold in the environment. This management process necessitates a collection of legislative, executive and administrative functions, instruments and ancillary processes that could be used by local government, the private sector and citizens to pursue sustainable behaviour within the community as far as products, services, processes, tools and livelihoods are concerned, both in a substantive and procedural sense" (Du Plessis,2009)

The above mentioned definition of local environmental governance highlights the principle of sustainable development, as it states that present and future processes must be promoted and that local authorities should govern people and processes in the environment in a sustainable manner. Local government therefore has a critically important function and role in environmental governance in South Africa, which can be seen in the Constitution and also in the Municipal Systems Act (2000). Due to the principle of subsidiarity municipalities furthermore have the power



to enforce regulatory mechanisms directed at tourism and ecotourism as a dimension of local environmental governance and sustainable development.

## **The Constitution of the Republic of South Africa**

### **The Bill of Rights**

It can be argued that section 24 of the Constitution attempts to achieve two objectives. The first objective of this section is to guarantee that everyone has the right to an environment that is not harmful to either their health or well-being. Secondly, in sub-section 24(b) it is presumed that there is a specific mandate placed on the State (including municipalities) to take the necessary steps to consummate the aim in sub-section 24(a). Furthermore, sub-section (b) assumes that there is a negative obligation on the State to withdraw from measures that may cause environmental degradation or that may generally impair the right guaranteed in sub-section (a) (Section 24 of the Bill of Rights). All of the fundamental rights must be balanced, as suggested by section 24 of the Constitution (Section 24(a) in the Constitution, 1996). As shown above, if natural resources are not correctly managed and energy efficiency is not strived for (including through tourism and ecotourism), this could essentially infringe on people's fundamental human rights.

### **Chapter 7 and Schedules 4(B) and 5(B): Local Government**

The Constitution divides municipalities into different categories which are regulated in the *Local Government: Municipal Structures Act* 117 of 1998 (hereafter the Structures Act). A metropolitan municipality is a category A municipality. The metropolitan municipality has executive and legislative authority within its area of jurisdiction (Section 155(a) of the Constitution, 1996). The areas where a metropolitan municipality has jurisdiction include areas of intensely developed conurbations with high populations and the intense movement of people, goods and services; centres of economic activity with complex and diverse economies; single areas for which integrated development planning is necessary; and areas with strong interdependent social and economic linkages between the constituent units. (section 2 of the Municipal Structures Act) Cape Town is for example a metropolitan municipality and possesses all the above mentioned characteristics.

The Constitution provides that South Africa is divided into municipalities which are established for governance of the whole of South Africa, "wall to wall" (Curie and De Waal, 2007). This has thus necessitated the principle of "smaller" local governments. For example, a category B municipality is a local municipality, and a category C municipality is a district municipality (section 155(1) of the Constitution) Category B and category C municipalities do not have the characteristics of metropolitan municipalities (Section 3 of the Municipal Structure Act). The powers of district and local municipalities are defined in the Municipal Structures Act in section 6. However, section 83(3) of the Municipal Structures Act states that a district municipality must seek to achieve the integrated, sustainable and equitable social and economic development of its area. The district municipality can achieve this objective by ensuring that the whole district has an integrated development plan (IDP); by promoting bulk infrastructure development and services for the district as a whole; by building the capacity of local municipalities in its area to perform their functions and exercise their powers where such capacity is lacking; and by promoting the equitable distribution of resources between the local communities in its area to ensure appropriate levels of municipal services within its area. Section 83 (3) of the Municipal Structures Act (Section 83(3) of the Municipal Act). The distinction between the different types of municipalities is of importance,



because the existence of these distinctions implies that their ability and authority to address tourism and the effect of climate change could differ.

An obligation rests on the municipalities to function according to the Constitution, where, in sections 24, 153 and 156 their duties and responsibilities are established (including an environmental responsibility). When the objectives of local government are taken into consideration, it is evident that a responsibility rests with a local government to ensure that services to communities are delivered in a sustainable manner (Section 152(1) (b) of the Constitution, 1996) and also to promote an environment that is safe and healthy for all to live in (Section 152 (1) (d) of the Constitution). From this, one can derive that there is a duty placed on a municipality to deliver services, which to some extent encapsulates the encouragement of tourism and ecotourism in such a way that the aim of sustainability could be reached as well as the objective of a safe and healthy environment envisaged by the Constitution. Section 24 and chapter 7 of the Constitution place environmental responsibilities on municipalities and it can be seen that these environmental responsibilities are wide enough to include the promotion of tourism and ecotourism (Section 24 of the Constitution).

The achievement of the objectives of a municipality (to promote a safe and healthy environment) depends on the size of the municipality and also the financial contribution the municipality can make to sustaining "green building" and "green design". Despite the fact that municipalities are independent and must fulfil their own duties and responsibilities, municipalities are still dependent on national and provincial government (Section 155(7) of the Constitution, 1996) for income generation and overall policy direction.

The Constitution provides only the basic guidelines for municipalities to follow in fulfilling their duties and responsibilities. Municipalities' powers are divided into two categories, namely executive and legislative. In terms of a municipality's legislative powers it can make by-laws. In terms of its executive powers it can assert these by-laws and in some cases national legislation as well, and administrate the executive body whilst the other duties are divided between the three spheres of government (Bekink, 2008). The fact that both executive and legislative authority is vested in the municipal council at times seems to be problematic. Checks and balances cannot be instituted because this organ of state would then be supervising its own proceedings (Section 152 (2) of the Constitution, 1996). Therefore, it is difficult to reach a conclusion as to how tourism and ecotourism could optimally be promoted in local government, because of the fact that both the executive and legislative authority is vested in the municipal councils, making it difficult for the natural rule of *nemo iudex in propria causa* to be applied (Burns, 1996).

The Constitution of South Africa stipulates in Schedules 4(B) and 5(B) the matters over which a municipality has legislative and executive powers. The Schedules provide an enunciation of the services the municipality must provide (Bekink, 2008). The mandates include regulating air pollution, building, electricity and gas reticulation, and water and sanitation services (which are limited to potable water supply systems and domestic waste-water and sewage disposal systems) (section 151(2) of the Constitution, 1996). The conclusion that could be reached is that municipalities are responsible for implementing building regulations and energy efficiency, both of which are key areas in the "green building" context.

## **Conclusion**

Climate change is an overarching issue. Climate change thus requires a national agenda, which demands cooperation from all sectors. Climate change is interrelated with many topics, because many issues can directly or indirectly impact from climate change. The government must be the



centre and leader in such endeavours, because the government holds many tools which are essential to coordinate and develop and enforce new rules. The main purpose of the regulations is to set up climate change policies, strategies, plans and measures as well as to cooperate with the private sector and with the relevant international actors.

Nationally, the government could develop quicker responses to flood affected regions with effective support. This would allow tourism establishments to get back up and running quickly after a climatic event like a flood. Tourism authorities should work with forecasters to understand weather patterns better – then, armed with accurate scientific information they can draw tourists to the most suitable locations for a particular time of year which is less likely to be negatively affected.

There is a need to integrate vulnerability assessment data with spatial data related to ecosystem services (in particular water-related services) as well as user-specific vulnerability data and needs. Authorities should focus on mainstreaming the potential of biodiversity and ecological infrastructure for achieving adaptation and development benefits across sectors, and for building the resilience of ecosystems and local communities to climate change through Ecosystem-based Adaptation, and climate resilient approaches in protected area expansion. It must be noted that changes likely to result by the end of this century under an unmitigated emissions scenario require careful consideration and further modelling in order to assess the risks for biodiversity and ecosystem services.

## References

- Bekink, B. (2008). Principles of South African Local Government Law. Lexis Nexis, Durban.
- Buoullon, S. (2003). *Geïtegreerde Volhoubare Grondontwikkeling in Suid Afrika met Spesifieke verwysing na Gauteng*, LLD thesis North-West University.
- Burns, I. (1996). Administrative Law, Juta, Cape Town.
- Chataryamontri, N. (2009). Sustainable Tourism and the Law: Coping with Climate Change, Doctoral of Juridical Science Degree. Pace University School of Law.
- Curie, I & De Waal, J. (2007). The New Constitutional and Administrative Law, Juta Cape Town.
- Department of Environmental Affairs 2005-2010. State of the Environment, 2009, South Africa.
- Department of Environmental Affairs 2010 National Strategy and Action Plan for Sustainable Development, South Africa. Accessed on 7 May 2018, [Online] available at <http://www.environmenta.gov.za/Services/documents/PublicParticipation/NSSD.pdf>.
- De Visser, J. (2008). Subsidiarity in the Constitution. Local Government Bulletin, 10 (1), 16-17.
- Drexhage, J. & Murphy, D. (2012). Sustainable Development: From Brundtland to Rio 2012 in High Level Panel on Global Sustainability at its first meeting 19 September 2010, New York, 1-26.
- Du Plessis, A. (2010). Local Environment Governance and the role of Local Government in Realising section 24 of the South African Constitution. Stellenbosch Law Review, 21(2), 265-297.
- Economic Commission for Africa. (2011). Accessed on 8 May 2018, [Online] available at <http://www.uneca.org/era2011/chap6.pdf>.



Green Building Council of South Africa (2011). Accessed on 7 May 2018 [Online] available at [http://www.gbcsa.org.za/system/data/uploads/news/docs/85\\_doc.pdf](http://www.gbcsa.org.za/system/data/uploads/news/docs/85_doc.pdf).

Kidd, M. & Retief, F. (2009). "Environmental Assessment" in Strydom HA and King ND (eds) *Environmental Management in South Africa* (Juta Cape Town), 971-1047.

Kolk, A. & Pinkse, J. (2007). Multinationals' political activities on climate change. *Business and Society*, 46(2): 201-228. Accessed on 15 April 2018.

Accessed 4 May 2018. [Online] available at <http://www.un.org/esa/sustdev/esd/wttc.pdf>. UN Dep't of Economic and Social Affairs, Commission on Sustainable Development, *Tourism and Sustainable Development: The Global Importance of Tourism*.

Accessed on 15 April 2018. [Online] available at <http://www.environment.gov.za/Services/documents/PublicParticipation/NSSD.pdf>. Department of Environmental Affairs, 2010.

Jones C.A. & Levy D.L. (2007). North American business strategies towards climate change *European Management Journal*, 25(6), 428-440.

Kyoto Protocol to the United National Framework Convention on Climate Change, (1998), herein after Kyoto Protocol, Accessed 3 May 2018. [Online] available at [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php).

Levy D.L. & Kolk A. (2002). Strategic responses to global climate change: Conflicting pressures on multinationals in the oil industry. *Business and Politics*, 4(3), 275-300.

Llewellyn, J., Chaix, C. & Griese, J. (2007). *The Business of Climate Change*, Lehman brothers. Accessed on 12 April 2018. [Online] available at [graduateinstitute.ch/files/live/sites/iheid/files/sites/international\\_economics/users/ana-cristina/public/The\\_BusinessOfClimateChange.pdf](http://graduateinstitute.ch/files/live/sites/iheid/files/sites/international_economics/users/ana-cristina/public/The_BusinessOfClimateChange.pdf).

Local Government: Municipal Structures Act 117 of 1998. South African Law.

Meyer, J. (1978). *Local Government Law*, Butterworths, Durban.

Wright, C. & Hoffman, A.J. (2013). *Global business responses to climate change: Where to now The Conversation*. Accessed on 15 February 2018. [Online] available at <http://www.environment.gov.za/Services/documents/PublicParticipation/NSSD>.

Wood, M.E. (2012). *Ecotourism: Principles, Practices and Policies for Sustainability*.

World Summit on Sustainable Development, Augustus 26 – September 4, 2002, The Johannesburg Declaration on Sustainable Development, UN Doc. A/conf. 199/L.6 rev 2 (September 4, 2002) reprinted in Report of the World Summit on Sustainable Development, UN Doc. A/conf.199/20 (2002).

United National Framework Convention on Climate Change (1992) hereinafter UNFCCC [Online] Accessed on 3 May 2018. [Online] available at <http://unfccc.int/resource/docs/convkp/conveng.pdf>, article 4.



United Nations Conference on Environment and Development, 1992.

UN Non-Governmental Liaison service (2008). Accessed on 26 April 2018. [Online] available at [http://www.unngls.org/article.php3?id\\_article=551](http://www.unngls.org/article.php3?id_article=551).

World Tourism Organization, Climate change and Tourism. Accessed on 29 January 2018. [Online] available at <http://sdt.unwto.org/en/content/climate-change-tourism>.