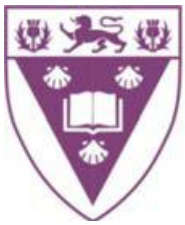

RHODES UNIVERSITY
INVESTEC BUSINESS SCHOOL

A critical analysis of the management of climate change risk among short-term insurers in South Africa: evidence from company annual reports

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Musale Hamangaba Banda

ABSTRACT

This study investigates the extent to which South African short-term insurance companies manage climate change risk, as evidenced in their annual and sustainability reporting. The study context takes into account the fact that the world's climate has been changing at a more accelerated rate since the early 1970s, causing disasters that have negatively affected world economies in the last ten years. Insurers, due to their huge financial resource base, long history of spurring innovation around risk and encouraging loss-reducing behaviour as well as high levels of vulnerability, have been identified as one industry that could lead societies in finding solutions to climate change risk. A key element of such a corporate resolve involves taking a leadership position which makes business sense for insurers. As such, this research analyses how innovative solutions to change-related problems could result in reduced exposure to climate change in line with corporate triple bottom line objectives.

Based on a purposive sampling of short-term insurance companies operating in the South African market during the 2007 financial year, the study uses the companies' annual and sustainability reports in order to critically assess evidence of climate change-related performance. The assessment is undertaken against the best practice indicators of climate change risk management, as defined by Ceres – a global researcher on climate change management in the business context. The data analysis is largely qualitative, consisting of a narrative presentation of the results and a conceptual application of the results to the triple bottom line which forms the theoretical framework of this study.

The study finds that the South African short-term insurers were generally not living up to the climate change management ideals, in comparison to their multinational counterparts. For the South African short-term insurers, corporate strategic product innovation and planning was insignificant. Also negligible was board involvement, as well as CEO involvement, though in at least one case of the 4 local short-term insurance, there was evidence of extensive CEO involvement in climate change risk management. On the whole, these findings represent a lapse in corporate governance inasmuch as climate change risk management is concerned. Local short-term insurers generally performed well in the area of public disclosure, with their scores ranging

from insignificant to extensive. In contrast, multinational short-term insurers' performance with regard to climate change risk intervention ranged from insignificant to integrated, across the five governance areas of board oversight, management execution, public disclosure, emissions accounting and strategic planning.

As such, the study broadly recommends that short-term insurers in South Africa should make climate change part of their overall risk management strategies in order for them to remain competitive in an environment of increased climate change-related risk. More specifically, the research project recommends that the local insurers should proactively lead climate change mitigation measures through, for instance, investing in clean energy projects and incentivising their clients' participation in the carbon market to prepare themselves for possible regulatory restrictions after the Copenhagen climate change conference planned for December 2009. This study also challenges insurers to help communities and as well as other businesses in their value chain to reduce their negative impacts on the world's climate and to be more resilient against disasters which may arise from the high levels of greenhouse gases already in the atmosphere. Further, it recommends that insurers should create internal board and executive level climate change-related structures, as these will facilitate the integration of the proposed initiatives into their overall sustainability strategies. Above all, the study recommends that insurers should enhance the reporting of their climate change-related risk, opportunities and initiatives to improve their integrity.

DEDICATION

I dedicate this dissertation to my mum, Mama Pauline Miyanda and my little boy Chipo, both of whom have since passed on, but will forever be part of my life.

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Declaration

I hereby declare that this research is my original work which has not been previously submitted at any university and that all references have been appropriately acknowledged.

Musale H Banda: _____

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CHAPTER 1: INTRODUCTION

1.0. Introduction

This chapter presents the research problem under study, namely to investigate the extent to which South African short-term insurers are preparing themselves for climate change risk, as evidenced in their reporting. A preliminary observation here is that while such assessments have been undertaken widely in Europe, America and Asia and in the financial sector in general, very isolated attempts have been made in South Africa generally, and none on the insurance sector specifically. As such local insurers have had no comprehensive and coherent framework that takes into account the South African context to help them understand the extent of the climate change risk problem and to guide their response measures. In highlighting the research problem under study, this chapter specifies the rationale underpinning the research, clarifies the specific objectives of the enquiry, and presents the structure of the whole study.

1.1. Problem area and rationale for the study

Climate change-related risks are on the increase and so is their impact. Kunreuther and Michael-Kerjan (2007:5) note that climate related catastrophes have had a more devastating impact on insurers in the past fifteen years than in the entire history, with insured losses growing about twenty-fold. The projected economic costs if business does not act now to reduce GHG emissions are huge. The Stern Review on the Economics of Climate Change, which discusses the effect of global warming and climate change on the economy, concludes that the benefits of strong, early action on climate change considerably outweigh the costs (Stern Review, 2006: iv).

The short-term insurance industry, as aggregators of risk, has been identified as being in the firing line of climate change-related disasters, as they bear not only the threat of their own climate change-related risks but also that of their clients (Mills, 2007a:1). This poses a threat to the sustainability of the industry. The insurance industry's response to this threat has been through implementing internal climate change governance structures and processes, as well as crafting products and services aimed at reducing both the occurrence and the impact of climate-change related risk and capturing the opportunity inherent in these risks.

Despite the fact that the impact of climate change-related risk on business has been significantly researched in Europe, America, Asia and other parts of the world through, for instance, a series of surveys conducted by such industry reputable international researchers as Ceres and KPMG, it has however not received the same amount of attention in Africa generally and South Africa specifically. South Africa's energy intensive industrial and economic activities make her the highest emitter of greenhouse gases (GHGs) in Africa (Odeku and Meyer, 2009:2). South Africa is also among the top 20 Greenhouse Gas (GHG) emitters in the world (Parker and Blodgett, 2009; 8). Furthermore, South Africa, with more than a 2,500km long coastline, is particularly vulnerable to climate change-related disaster, as businesses could face physical, regulatory, litigation, and reputational risk, as evidenced in the USA coastal areas following Hurricane Katrina in 2005 and the 2004 Tsunami in Asia.

Part of South Africa's vulnerability lies in the country's economic interconnectedness with the rest of the world economy (KPMG, 2008a:56). It is thus possible that countries in Europe and other parts of the developed world may pass on the pressure to the developing countries to reduce their exposure to impacts of climate change.

Despite being a source of risk to business, research has demonstrated that proactive management of climate change-related risk through making it a governance priority and product innovation presents an opportunity for companies to meet their sustainability objectives, a concept commonly known as triple bottom line (TBL) in the business context (Porter and van der Linde, 1995; Savitz and Weber, (2006: xiii). Implementing a TBL strategy can be taken as a measure of good corporate governance for business, which is even more pressing in a country like South Africa which faces other important challenges such as poverty and disease (Carbon Disclosure Project[1] [CDP], 2008: 15).

Corporate governance underpins business investment decisions around the world, highlighted by the governance failures of such major global corporations as Enron and WorldCom (Naidoo,

[1] The Carbon Disclosure project is an international effort in collaboration with global institutional investors which encourages corporate efforts to report on and combat global warming.

2002: 8; Williams, 2008: 239). In South Africa, corporate governance is enshrined in the King Code on Corporate Governance, which emphasises that companies, as influential citizens of the broader society, should account for their social and environmental responsibility, apart from their economic performance (Institute of Directors in Southern Africa [IoDSA], 2001; 2009). The King Code, as an empirical basis of the corporate governance framework in South Africa, is extensively discussed in Chapter 2.

Climate change is a major component of the TBL and management of climate change-related risk constitutes a corporate governance challenge around which several international and local policies have been developed. One such international policy framework is the Kyoto Protocol, which limits the emission of GHG by industrialised countries. Locally, the National Climate Change Strategy and more recently, the Long Term Mitigation Scenario released by government in 2008 have focused on climate change mitigation and currently, government is working on comprehensive policy to support climate change risk management. The policy, which is expected be in operation in 2012, will be built on the scenario that the country's emissions are expected to peak by 2020-25, then plateau for about a decade, before starting to decline in absolute terms towards mid-century (CDP, 2008: foreword; RSA, 2009a: 2).

It is against the background of the TBL imperative and the general policy and legislative injunction for corporate environmental risk management that this present study seeks to assess selected insurers' reports to ascertain the extent to which short-term insurers in South Africa are preparing themselves to manage climate change risk. More specifically, the study seeks to answer the following research questions:

1. What evidence exists in the South African short-term insurance companies' annual and sustainability reports of their integration of climate change management initiatives into their risk management structures and practices?

2. What is the degree of comprehensiveness with which such short-term insurers report on their climate change risk interventions when compared against set global best practices as reflected in their annual and sustainability reports?

3. What recommendations could be made to reduce the exposure of South African short-term insurers to climate change risk?

The study hopes that by discussing what are considered best practices in terms of climate change-related disclosure, South African insurers will be guided in their climate change management efforts, especially given government's impending regulation, as well as the possibility of a mandatory GHG cap after the expiry of the Kyoto Protocol.

1.2. Scope and structure of the study

The study explores insurance companies that were operating on the South Africa market during the 2007 financial year. The study undertakes the analysis within the context of the TBL conceptual framework and, as a result, is concerned with critically analysing the dynamics surrounding insurers' integration of environmental protection, social responsibility and economic prosperity into the insurers' corporate strategies and the reporting thereof, in order for them to remain competitive in a world where accelerated climate change is influencing the business landscape.

In seeking to answer the three research questions posed above, this thesis is organised as follows: Chapter 2 sets out the context of the study by, firstly, analysing the concepts of sustainable development/sustainability and corporate governance which provide a framework within which the insurance industry in South Africa can manage climate change risk in terms of the key principles of the TBL – itself discussed in Chapter 2 as a feature of sustainability and governance. Secondly, to further contextualise the study, the chapter outlines the response of the financial sector, and specifically the insurance industry to climate change risk in the context of sustainability and good corporate governance objectives, as defined by the Ceres benchmark study (Cogan, 2008a; Mills, 2009).

Chapter 3 presents the study methodology. The methodology consists in a purposive sampling of South African short-term insurers, collecting qualitative data, and analysing the data set in accordance with the Ceres indicators and SustainAbility's evaluative categories which constitute

some global best practices in climate change risk management and sustainable development reporting.

Chapter 4 presents the findings of the study in terms of how well South African short-term insurance companies are integrating climate change management initiatives into their risk management structures and practices. Specifically, the finding are presented in terms of (i) the prevalence of specific climate change risk management initiatives among the short-term insurers sampled; and (ii) the extent of public reporting of such initiatives.

Chapter 5 undertakes a critical analysis of the reported climate change risk management practices identified in Chapter 4 in terms of the concepts of sustainability and corporate governance, as discussed in Chapter 2. Based upon this analysis, and cognizant of the likelihood of more stringent regulation following the global conference on climate change to be held in Copenhagen December 2009, the chapter proceeds to make specific recommendations to South African short-term insurers on issues that range from forging strategic relationships and engaging with other stakeholders in the industry, to developing innovative products and creating governance structures that facilitate integration of such measures into wider company strategies.

Chapter 6 summarizes the findings of the study and makes some proposals on how future research in the field of climate change as it relates to the insurance industry in South Africa, could build on the finding of this study.

CHAPTER 2: STUDY CONTEXT

2.0. Introduction

As noted in Chapter 1, this study investigates the extent to which short-term insurers in South Africa are preparing themselves for climate change risk, against their peers in the industry, as evidenced in their reporting. This chapter highlights sustainable development and corporate governance, encapsulating the TBL, as a conceptual framework for this study. The TBL framework encapsulates the triune principle of economic, environmental and social sustainability. Related sub-concepts of business risk and climate change risk are analysed in a further effort to build a conceptual case for the need for strategic climate-change preparedness by the insurance industry. This chapter further attempts to contextualise the response of the insurance sector to climate change risk and notes that no comprehensive studies have focussed on the South Africa insurers, with the exception of the JSE Top 100 CDP, which included at least one short-term insurance company in its sample.

2.1. Theoretical/conceptual framework

2.1.1. Sustainable development/sustainability

The origins of the concept of sustainability[2] can be traced to the early 19th century where the focus was on the spiritual link of human beings and nature (Edwards, 2005:14). In the 20th century, the focus shifted to an environmental movement where it was referred to as ecological sustainability. In this sense, the term was used to draw attention to the environmental damage that was caused by certain human activities as a result of the drive for economic growth (Partridge, 2005: 2). Thus, this phase embraced the concept of ethics as an integral part of environmentalism. Contemporary roots of sustainability lie in the 1972 Stockholm Conference

[2] Although a rigorous look at the terms *sustainable development* and *sustainability* tends to draw a distinction between the two, for the purpose of this study, the two terms will be used interchangeably.

which, according to Edwards (2005:15), sought to find positive links between environmental concerns and socio-economic issues like unemployment.

The concept of sustainability was thrust into international prominence by the publication of the Brundtland report — O*ur Common Future* — in 1983, which yielded the most widely used definition of sustainable development. The Brundtland report defines sustainable development as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987: 54). It emphasises evaluating any proposed initiative with reference to the interaction of the environment, the economy and social issues, a concept commonly referred to as the triple bottom line[3] (TBL).

In the narrowest sense, the TBL refers to a framework used for measuring and reporting corporate governance performance against economic, social and environmental parameters. Here, it is used in its broadest sense to mean a whole set of values, issues and processes that a company must address in order to minimise any harm resulting from their activities and to create economic, social and environmental value (Edwards, 2005: 50). The focus on the TBL was reaffirmed by the 1992 Rio Earth Summit which, through Agenda 21, reiterated that "we can no longer think of environmental and economic and social development as isolated fields" (Earth Summit and Agenda 21, 1992: 1).

Veiderman (in Munier, 2005:10) sees sustainability as "a vision of the future that provides us with a road map and helps us focus our attention on a set of values and ethical and moral principles by which to guide our actions". This definition seems to focus on intergenerational equity and the current generation's moral obligation to develop sustainably for the benefit of not only posterity but the environment for its own sake. Veiderman (in Munier, 2005:10) notes that although the term development usually equates to economic development, in the business context, sustainable development has been adapted to mean the three pillars of the TBL encompassing:

- Economic prosperity: This means pursuing economic progress without stretching the natural resources beyond their capacity. It entails long-term economic wellbeing of global, local and corporate economies and not simply shot-run profitability for corporations;

- Social responsibility: This entails social equity and equality of opportunities for everybody. It calls for equitable resource allocation, which is not only ethical but also essential for the well-being of the larger community and the world at large; and

- Environmental protection: This entails ensuring that resources are healthily recoverable, so that they can be enjoyed by coming generations. Thus environmental sustainability requires long-term viability of our resource use.

2.1.1.1. Sustainable development in the South African context

In South Africa, sustainable development is endorsed by various national frameworks, ranging from the non-legislative King Code of Governance, to the Constitution of the Republic of South Africa. In terms of the Constitution, the connotation of sustainable development is quite imprecise, but it is refined in the provisions of the National Management Act (NEMA) 107 of 1998.

Chapter 2, Section 24 of the Constitution states that "everyone has the right to an environment that is not harmful to their health and well-being; and to have their environment protected, for the benefit of the present and future generations, through legislative measures that … secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development." Section 1 (xxix) of NEMA (107/1998) defines sustainability as "the integration of social, economic and environmental factors into planning, implementation and decision making so as to ensure that the development serves present and future generations." The King III Code of Governance Principles in South Africa (IoDSA, 2009: 12) describes sustainability as "the primary moral and economic imperative for the 21st Century and it is one of the most important sources of both opportunities and risks for businesses. Nature, society, and business are interconnected in complex ways that need to be understood by decision makers."

Definitions of sustainability vary, but their common theme is to change the way that resources are exploited or the way that hazards are managed so that adverse impacts downstream (on future generations) are reduced. Also common in the given definitions of sustainability is the focus on the long-term or future outlook. This is consistent with the everyday English definition of "sustainable" which implies *something lasting, enduring and capable of longevity* (Oxford English Dictionary, 2009). This resonates with the concept of resilience, which according to Munier (2005:32) refers to the capacity to absorb change, to react to and to recover from the negative event, and thus last for a long time. Thus resilience in business terms means sustaining nature's resources as well as the company itself and therefore assuring a viable long-term continuation in the face of straining elements such as climate change risk.

2.1.1.2. Sustainability and business resilience

Given that the three aspects of the TBL are accorded equal importance, the question Malovics *et al* (2008: 908) pose is: "To what extent is the use of natural resources and the environment possible, if our economy is to exist on at least the present level in the very long run?"

A possible response to this question would be built around the two conceptions of sustainability, namely weak and strong sustainability. Weak sustainability alleges that manufactured capital of equal value can take the place of natural capital, while strong sustainability assumes that the existing stock of natural capital must be maintained and enhanced because the functions it performs cannot be duplicated by manufactured capital (Dietz and Neumayer, *2006: 618*). The rationale of this value principle is that changes in environmental quality can be evaluated and traded-off against changes in aggregate income, and *vice versa*. Thus under this assumption, technological progresses can increase the productivity of the natural capital faster than it is being depleted (Malovics *et al*, 2007: 908).

However, the proponents of strong sustainability argue that natural capital is greater than produced capital and it is mainly non-substitutable or can only be substituted to a limited extent (Dietz and Neumayer, 2006: 618). According to Hediger (1999: 1125), strong sustainability is a principle of environmental conservation, which may be viewed as:

- A physical criterion of maintaining the economy's material resource base intact for production through time, or an ecosystem principle of protecting the natural environment as our life-support system, or both; or
- A physical principle of production, implying the strong requirement of balancing the depletion of non-renewable resources with enhancing the stock of renewable resources.

Similarly, Dietz and Neumayer (2006: 618) observe that under this scenario, the natural environment must still continue to perform its four primary functions namely (i) the source function; (ii) the sink function: which refers to the possibility of disposing of waste; (iii) the life support function; and (iv) the human health and welfare function. What this entails, among other things, is intensified use of waste materials through recycling processes, investment in technological progress and human capital, and improvement of institutions and social organisations.

Strong sustainability brings about an evaluation of trade-offs among different system goals. Thus, strong sustainability is recommended as the guiding principal for corporate investment decisions. This is because strong sustainability is consistent with ecosystem resilience, and the principle of maintaining the physical stock of ecological capital intact over time can also be justified on economic grounds (Hediger, 1999:1128).

In the business context, the concept of strong sustainability stresses "… adapting business strategies and activities that meet the needs of the enterprise and its stakeholders today, while protecting, sustaining and enhancing human and natural resources that will be needed in future" – a notion of sustainability associated with the International Institute for Sustainable Development (IISD), the World Business Council for Sustainable Development (WBCSD) and Deloitte & Touche (cited in Malovics *et al*, 2008: 908).

The above conceptualisation of sustainability means that economic development must meet the needs of a business enterprise and its stakeholders. Stakeholders include lenders, customers, suppliers and communities who are affected by the organisation's activities, either by suffering the health impact of the business's emissions or in terms of providing labour. Further, the definition also recognises the fact that business depends on human and natural resources, apart

from physical and financial capital and thus economic activity must not degrade or destroy the natural and human resources.

Arguably, the strong sustainability principle embraces the tenets of the precautionary principle[4]. As Hediger (1999: 1128) observes, in the presence of irreversibility and uncertainty, loss aversion felt by many individuals, and the criticality (non-substitutability) of some resources, strong sustainability seems to make more sense. In pursuing corporate sustainability, then, companies are urged to pursue a path of more effective and less-natural resource production methods and systems (Esty and Winston, 2006: 3; Malovics *et al*, 2008: 911). What this entails is that sustainable businesses should put in place mitigation and adaptive measures to "replace" the natural capital by, for instance, investment in wind energy and depend less on fossil fuel. Such measures would facilitate the sustainability of both their businesses and communities from which they draw their human capital, both of which depend on the natural capital.

2.1.1.3. Criticisms of the notion of sustainability

Despite being a seemingly neat concept, based on benign principles, sustainability is not without critics. There are cynics who regard current efforts by business to achieve corporate reform in dealing with environmental and social issues as an inadequate, dishonest ploy to obscure continued corporate malfeasance. There are sceptics who argue that business has no business in getting involved in environmental and social responsibility (Savitz and Weber, 2006:93).

For one thing, argues Partridge (2005: 3), the sustainable development agenda appears vaguely defined, thus acting as a smokescreen behind which businesses continue to operate unhindered by environmental concerns, while paying lip service to the needs of the future. Extending this argument, Jacobs, (cited in Partridge, 2005:3) and Norman and McDonald (2003) suggest that the vague definition "allows business interests to claim that they are in favour of sustainable development when actually they are the perpetuators of *unsustainability"*, especially as there are

[4] The precautionary principle contends that where there are threats of serious or irreversible damage, lack of full certainty should not be used as a reason for postponing cost effective measures to prevent environmental degradation (Giddens, 2009:75); (Pittock, 2005:64).

no clearly defined metrics to measure the TBL. For example, Shell, despite its reputation for scenario planning and seeing into the future, has over the years been rocked by a series of scandals relating to environmental and human rights misdemeanours, among them the Brent Spar and Ogoni land scandal.

For another thing, as Norman and MacDonald (2003:11) point out, some critics contend that most of the supposed investments into sustainability efforts are no more than a publicity stunt. An example is given of General Electric and many others who have spent lots of money on fancy television commercials without any clear attendant action plans for environmental initiatives. Partridge (2005: 4) asserts:

> while the language of sustainability has become ubiquitous in the mission statements and other corporate and organisational public relations material, it is fair to say that such claims are often merely examples of 'green-wash' or 'weasel words'…it is in part the vagueness of the sustainability terms that allows such hypocrisy.

However, Savitz and Weber (2006: 93) contend that some TBL efforts by some companies are genuine. They observe that businesses are under intense public scrutiny to demonstrate their real commitment to the TBL. Increased competition means companies have to produce real value products and services in terms of the TBL, or be left behind. This argument is reinforced by Naidoo (2002: 129) who observes that both internationally and in southern Africa, there is increasing pressure on organisations to incorporate transparency and accountability at all levels of their operations. This was evident in the case of Nike, who were sued and received negative publicity because of their abusive labour practices.

Further, Savitz and Weber (2006: 93-104) observe that some sustainability critics acknowledge the need for corporate reform in dealing with environmental and social issues, although they would want to see governments mandate more responsible behaviour among businesses, including intervening into businesses' TBL efforts, instead of leaving it up to businesses to regulate themselves. The critics argue that, as long as profit maximisation remains the chief gauge of company value, corporate leaders and managers will focus on increasing shareholder value at the expense of the social and environmental issues unless they are mandated by law.

A counter view, according to Norman and Macdonald (2003: 5), would be that even short-term profit maximisers have invested in workers, consumers or communities and have also improved their environment, even if it is for financial reasons. As noted above, business leaders are now realising that corporate responsibility can maximise profits and minimise risk in the long-run. Besides, government effort alone is not sufficient and in fact, businesses suffer when disaster strikes, as did insurance companies following Hurricane Katrina (Ross *et al*, 2007: 278). It was also demonstrated in the case of Hurricane Katrina that business is often better equipped to deal with certain social and environmental issues than government (Savitz and Weber, 2006: 99).

A more virulent attack is located in a neo-liberal view of sustainable development. Neo-liberalism privileges the autonomy of the private sector in the process of development, often opposed to government involvement or regulation (McKay, 2004: 61). As Savitz and Weber (2006:97) point out, neo-liberals attack the TBL paradigm by suggesting that businesses exist to maximise profits and not to pursue other bottom lines. Under this logic, expecting businesses to pursue other bottom lines other than financial profit is illegitimate and would amount to distracting businesses from the reason they exist. Such a view goes so far as to equate sustainability with philanthropy, arguing that "philanthropy is suspect as it deprives shareholders of the right to do what they want with their money" (in Savitz and Weber, 2006: 97). A related argument here is that the concept of sustainability is anti-competitive or anti-free market (Savitz and Weber, 2006: 100).

A counter argument to such neo-liberalism, as Savitz and Weber (2006: 97) point out, is that such an overreaction obscures the social responsibilities which all business people implicitly acknowledge. Furthermore, it discounts the fact that sustainability is not about philanthropy, because a sustainable company that has embraced the TBL conducts its business so that the benefits flow naturally to all stakeholders, including customers, the community and the shareholders and naturally benefits the environment. Naidoo (2002: 127) illustrates the trade-off between socially responsible investment and profits by referring to a survey which showed that companies committed to such sustainability indices as the FTSE4Good and the Dow Jones Sustainable Group Index (which resemble the JSE SRI launched in South Africa in 2004) outperformed those that have not committed to social and environmental sustainability.

Another counter argument is that sustainability produces financial and competitive advantages for those companies that embrace it and make it work for them and not against them, as demonstrated in the case of AXA and Kaiser Permanente insurers who, through sustainably investing in clean energy and supporting carbon trading have made huge profits (Mills, 2009: 30). Arguably, sustainability may be the competitive differentiator in the many years to come as its advocates in the business world are seeking to use free market mechanisms in such initiatives as new markets for trading emissions rights, as a way to reduce air pollution. The global carbon trading market is growing. In 2007, it grew to US$64 billion, doubling over 2006 (World Bank, 2008: 1).

2.1.2. Corporate governance

Sustainability is related to the concept of corporate governance. The long-term outlook of sustainability is built on principles of fairness, accountability, responsibility and transparency. These principles are common to all the three pillars of the TBL and also lie at the centre of corporate governance. Therefore, corporate governance is seen as the foundation in which the TBL is embedded (JSE, 2007: 3). Thus, in pursuing its economic, environmental and social goals, a business should employ corporate governance practices.

This section defines corporate governance before discussing the main tenets of corporate governance as it relates to the management of business in the South African context. It is important to understand the concept of corporate governance because it denotes a purposive corporate decision-making process to engage with the various manifestations of business risk, including managing climate-change risk and engaging stakeholders through a transparent and accountable system of public disclosure.

2.1.2.1. Contextualising corporate governance

The Organisation for Economic Co-operation and Development (OECD) (2004), in its preamble to the *Principles of Corporate Governance*, defines corporate governance as involving:

> a set of relationships between a company's management, its board, its shareholders and other stakeholders ... also the structure through which objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.

Naidoo (2002:1) simply describes corporate governance as the practice by which companies are managed and controlled, encompassing, among other things (i) the implementation of a process whereby risks to the sustainability of the company are identified and managed within agreed parameters, and (ii) the development of practices which make and keep the company accountable to the broader society in which it operates.

While Naidoo's definition, like that of OECD, acknowledges that the boards are accountable to the companies and to the shareholders, it goes further to encapsulate the notion that a good corporate governance structure helps to ensure that corporations take into account the interests of a wide range of constituencies, including those of the communities within which they operate. This definition resonates with the traditional South African view of corporate governance – *Ubuntuism* – which, according to (Naidoo, 2002: 13), emphasises the collective rather than individual good, the spirituality of humanity, a political ideology based on inclusive consultation, a preference for consensus, and a mentality of trust and belief in the fairness of human beings.

Thus corporate governance aims at achieving a balance between the needs of organisational prosperity, the human needs associated with the company's business and the needs of the environment and thus implies responsible development that ''meets the needs of the present without compromising the ability of the future to meet their own needs'' and improves a company's risk management practices (Naidoo, 2002: 132). By improving risk management, corporate governance improves the company's sustainability too.

While the prime responsibility for good governance must lie within the company, overseen by the board, rather than outside it, at the same time corporate governance also depends on the legal, regulatory and institutional environment (IoDSA, 2001; OECD, 2004:14). Thus, the external aspect of corporate governance means accountability and disclosure to other stakeholders, such as customers and the community at large.

Corporate governance underpins business investment decisions around the world, especially in view of the reported governance failures that have wrecked major global corporations such as

Enron and WorldCom, as well as Krion in South Africa. The common feature of these firms was the false image that these companies were low risk and predictable, but in the background they were being undermined by accounting and other corporate malpractices. Following such governance failures, regulators, shareholders, employees and consumers are demanding better ways of tracking the company's performance, through among other measures, emphasising board oversight and increased public disclosure (Dlugolecki and Keykhah, 2008:82).

The primary vehicle through which such transparency and accountability has been expressed is corporate reporting. Williams (2008: 237) defines corporate reporting as:

> any purposeful public release of information – financial, social or environmental – required or voluntary, qualitative or quantitative, that is likely to have an impact on the company's competitive performance and on the strategic decision-making of the internal and external audiences.

Implicit in the definition is the notion of reporting as a competitive medium, a proactive management medium, and a participatory decision-making medium. The definition thus encapsulates the notions of sustainable development and corporate governance which, as noted earlier, emphasise transparency, accountability and inclusiveness.

Traditionally the main avenue of disclosure has been the annual report, which focused mainly on financial reporting. As the corporate governance landscape has evolved, the sustainability report has emerged as a means of disclosing mainly the social and environmental issues and, to some extent, the economic (financial) aspect (Raman, 2006: 313). With technological advances, news media, such as press releases, advertisements and the companies' website have been increasingly used for disclosure (Cogan, 2008b: 20). Further, as companies have started using corporate reporting to drive strategy, emphasis is shifting to physically integrating the two reports to facilitate both integrated management of a company's activities in principle and ultimately in practice, as the King III report suggests (IoDSA, 2009).

Besides the aforementioned disclosure channels, which are internal efforts on the part of the company, externally imposed platforms and guidelines for corporate reporting have emerged. Such frameworks include the CDP, introduced in South Africa for the first time in 2007, the Global Reporting Index (GRI) reporting guidelines as well as the Johannesburg Securities Exchange/Sustainability Reporting Index (JSE/SRI).

2.1.2.2. Corporate governance in the South African context

In South Africa, corporate governance was first institutionalised with the publication of the King I report in 1994. The report introduced the notion that companies do not exist in a vacuum but are in fact influential citizens of the broader societies in which they exist. The 2001 report – King II — expanded the concept of corporate governance, calling for companies to account for their social and environmental responsibility, apart from their economic performance (IoDSA, 2001:109). The King II report also places emphasis on the role of the board of directors and senior management in overseeing the affairs of an institution, including risk management (Naidoo, 2002: 23; IoDSA, 2001: 45).

The King III report, launched in September 2009, further broadens the concept of corporate governance such that it now focuses on issues of leadership, sustainability and corporate citizenship (IoDSA, 2009:13). The third report became necessary because of anticipated changes to South Africa's company laws and new developments in corporate governance. The report suggests that companies' efforts towards sustainability should focus on innovation, fairness and collaboration as the key aspects of any transition to sustainability.

The King III report reiterates the role of the board in overseeing corporate governance issues in an organisation. For instance, the board is charged with the responsibility to, among other things, ensure that:

- An ethical corporate culture is cultivated in the company;
- Strategy, risk performance and sustainability are managed as inseparable matters;
- Sustainability is considered to be a business opportunity;
- They take responsibility for risk management; and
- They act in the best interests of the company (IoDSA, 2009).

Furthermore, the King III report recommends a new, more flexible governance framework based on the notion of "apply or explain", which entails that the board can make judgment whether a specific principle or recommendation is in the best interest of the company, and if not, they can opt for a different principle and just explain it to the stakeholders (IoDSA, 2009:7). This

governance approach demands more transparency and accountability from those running the company. The King III report, unlike its predecessors, applies to all companies, irrespective of their manner or form of incorporation or establishment.

The King III report's emphasis on integrated decision-making is reflected in its recommendation to report statutory information and sustainability information into what is referred to as an "integrated report". This entails that environmental and social information should not just be an appendage to the annual report, but instead, sustainability should be embedded into the organisation. Thus, sustainability reporting and disclosure should be formalised as part of the company's reporting. Further, the King III report recommends that reported information should present a balance between positive aspects and challenges facing the business, it should provide forward-looking information and should be verified by independent parties (IoDSA, 2009). All these aspects are critical to the current study, as will be demonstrated in Chapter 4.

2.1.2.3. Corporate reporting as a strategic business tool

The bulk of evidence adduced in this study is based on an analysis of the short-term insurers who reported their climate change interventions; therefore, it is important to explain the nature of corporate reporting. Various explanations for corporate sustainability reporting are readily available (Williams, 2008:234; Deumes, 2008: 123; Dawkins and Ngunjiri, 2008: 288; Neu, *et al*, 1998: 256). Key among them are the following:

- Reporting may be a company's reaction in anticipation of the changing regulatory landscape and the possible resultant litigation and reputational costs, especially if they do not provide sufficient risk information to investors to assess the current and potential risk. In this sense, companies' reporting serves to satisfy the due diligence process;
- Voluntary disclosures as a reflection of the organisation's corporate values, as values are usually perceived as building blocks for policy;
- Voluntary disclosures as an organisation's moral accountability. This helps manage the perception of key stakeholders as it may pre-empt product or service boycotts by external parties, which may have reputational costs;

- An increasing number of managers are beginning to perceive disclosure as a source of competitive advantage in terms of attracting capital, good labour and customers; and
- Public disclosure helps strengthen risk management systems as well as management of external relationships and thus helps build trust and credibility among those who matter to the company, such as the community.

Because these factors help a company manage some of its risks and ultimately improve a company's performance, corporate governance can be seen as a source of competitive advantage for businesses that embrace its principles. Although corporate reporting has also been criticised for, among other things, being costly from the companies' perspective in terms of its being time-consuming, eroding competitiveness and the possibility of litigation as a result of some disclosure (Deumes, 2008: 123), more and more companies are reporting on their social and environmental performance. According to KPMG (2008b: 2), 80 percent of the world's largest 250 companies were reporting on their social and environmental performance in 2008, representing an increase from 50 percent in 2005. KPMG (2008b:18) notes that the world's top performing companies would not bother to report unless they were benefiting from it. As Henderson, one of the board of directors of the GRI notes:

> effective public disclosure of economic, environmental, and social performance can enable a company to rise above the rest and take advantage of the opportunity to position itself as a forward looking leader among the increasingly sophisticated constituency of stakeholders. No longer is publishing a sustainability report merely a matter of mitigating risk to reputation and costs. More than ever employees, investors and customers are looking to the companies from which they buy, invest in and work for to join them in addressing the critical sustainability issues of the day in an innovative way (in KPMG, 2008b: 14).

2.1.3. Business risk

Sustainability decisions reflect varying degrees of corporate governance. Corporate governance also consists in making strategic decisions about all types of business risk faced by companies. The extent to which such risk management stretches, and the manner in which it is handled, will determine the level of sustainability a company attains. It is for this reason that questions of sustainability, corporate governance and risk management are intertwined.

According to Valsamakis *et al* (1999:35), risk is the variation of the actual outcome from the expected outcome. This definition implies the presence of uncertainty as to the occurrence of an event producing a loss and uncertainty as regards the outcome of the event. Bowden *et al* (2001:3) define business risk as "a condition involving exposure to events that would have an adverse effect on a company's objectives". Business risk may impact on an organisation's income and expenditure, staff and local community welfare, the natural environment, the company's reputation and other aspects, all of which will have an impact on the company's bottom line. Examples of the adverse consequences of risk that may affect a business generally include:

- Costs associated with sanctions, such as fines and personal liability of directors.
- Legal costs in defending criminal and civil actions.
- Natural resource damages claims.
- Adverse publicity (Bowden *et al*, 2001:5).

Risk is classified as either systemic or non-systemic. Systemic risk is macro in nature, which means that it affects the entire economy (Hoffman and Woody, 2008: 6). This study largely focuses on non-systemic risk, which is the type of risk that is unique to a particular firm or industry (Hoffman and Woody, 2008: 6). Wellington and Sauer (2005:4) classify non-systemic risk as follows:

- Industry-specific risk which affects all companies in a sector or industry and includes physical risk and regulatory; and
- Firm or company-specific risk which affects specific companies in a sector or industry and includes litigation risk, reputational risk and competitiveness risk.

Because risk as defined above negatively affects business objectives, there is need for business to manage it so as to avoid the costs that such risks may cause. Here the study identifies some of the general risk management strategies, which are the basis upon insurers in this study are assessed.

2.1.3.1. Risk management in the context of business

There are several strategies through which risk can be managed or reduced. Such strategies include:

- reducing or minimising the likelihood of the loss-producing event occurring, through mitigation efforts;
- reducing or minimising the adverse effects once the event has occurred, through adaptation;
- deferring the risk (do nothing), which means taking a wait and see approach by postponing decisions and actions; and
- Transferring risk, through insurance, which is mainly reactive as it tends to fix the problem after it has occurred (Maynard *et al*, 2009: 55; Valsamakis *et al*, 2005:16; Waring and Glendon, 1998: 9).

Mitigation can conserve or enhance natural capital and prevent or avoid damage to human systems and contribute to the overall productivity of capital needed for socio-economic development (Lovins *et al*, 2007: 173). In this way, mitigation efforts serve to enhance sustainable development prospects, as they are aligned with the notion of strong sustainability discussed earlier. *Adaptation* increases the resilience or reduces the vulnerability to risk without necessarily altering the likelihood that it will occur (Munasinghe and Swart, 2005: 49). Thus, the aim of adaptation strategies is to reduce the impact of the risk. A business' physical relocation is one example of such an actual adjustment.

In contrast, while the *deferment* or *do nothing* scenario may save costs if nothing occurs, it can be costly if a larger magnitude risk than initially expected occurs (Maynard, *el al* 2009: 48). Besides, a company with such risk aversion may miss out on possible innovative solutions it would have capitalised on through either mitigating or adapting to the risk. This suggests that a *do nothing* option is not viable for a company which faces competition.

Insurance has traditionally been reactive and has concerned itself with the financial treatment of the consequences once disaster has struck, but there is evidence that it is increasingly beginning

to embrace proactive measures, such as mitigation and adaptation highlighted above (Valsamakis *et al* (2005:29; Marsh, 2006) and Stahel *et al*, 2009: 49).

Environmental due diligence assessment as the cornerstone of risk management

Proactive management of risk requires information of the potential risks and opportunities a company faces and an environmental due diligence serves the purpose of informing stakeholders in this regard. An environmental due diligence refers to a systematic examination of the interactions between an operation and its surroundings, involving the identification of environmental and regulatory impacts, quantification of impacts and applying appropriate methods of mitigation to reduce environmental impacts (Lee-Andersen, 2008: 1). Such an assessment will help a company to:

- Identify any environmental issues associated with a particular client/transaction.
- Identify and evaluate the financial implications related to environmental issues.
- Minimise exposure to environmental/financial risks.
- Maximise opportunities for environmental benefits and minimise the potential for adverse environmental impacts (such as pollution) associated with clients.
- Protect the client and company agency from reputation risk associated with financing companies with a poor environmental record OECD (2006: 108).

Neu *et al* (1998: 270) observe that institutional investors, such as fund managers for environmental and ethical funds, will usually look at companies' annual reports for information on the organisation's environmental liabilities, environmental litigations and environmental policies. In this way, a due diligence assessment provides an opportunity to identify and evaluate environmental risks that could have a material impact on a business transaction. Company reporting may serve the purpose of a due diligence and thus plays a big role in facilitating risk management measures.

While a due diligence assessment is mainly undertaken at the stage of the purchase of property to help the potential investor understand the potential risk, it may also provide a means of monitoring a company's performance against a previously agreed policy or statutory standards.

Because the results of a due diligence assessment provide a business with a deeper understanding of the potential risks and opportunities, it is also useful for managing risk through insurance.

Harvey and Lusch (1995: 5) note that the demand for conducting environmental due diligence assessments has increased considerably since the pioneering of the concept in the late 1970s, due to the increasing environmental regulation, growing corporate governance pressures and reputational risk. All these factors have an impact on shareholder value. What this entails then is that companies that fail to provide their stakeholders with information relating to the risk they face are likely to encounter litigation and reputational risk, as investors may suffer losses due to undeclared risks and opportunities.

Risk management as a business opportunity

Risk management measures can in fact be exploited to the advantage of the company, giving a company an opportunity to not only reduce costs but also make money through such measures as new product innovations (Porter and van der Linde, 1995; Hart, 2001:14). Similarly, Daub (2007: 78) argues that it is only by concerning themselves with environmental and social issues that companies are able to exploit the potential that lies behind the perceived risk, such as nurturing of new markets in developing and emerging markets, the development of market potential in the sphere of recycling, and the provision of products and services that satisfy ethical requirements.

Porter and van der Linde (1995: 120) note that the view that increased regulation results in a fixed trade-off among the aspects of the TBL has stunted environmental management efforts. They note that it is attempts at resisting regulation that lead to loss of competitiveness, raising costs through litigation in the process. Porter and van der Linde (1995: 130) cite an example of German and Japanese car-makers who captured early mover advantage by making lighter and more fuel efficient cars in response to new consumption standards, while their American counterparts lost billions of dollars in litigation and thousands of jobs were lost.

Arguably, any physical, regulatory, litigation, competitiveness and supply chain risk that affects the sustainability of a company can be exploited, through mitigation and adaptation measures, to

give a company a competitive advantage. As Porter and van der Linde (1995: 130) advise, managers must start to recognise environmental improvement as an economic and competitive opportunity, not as an annoying cost or an inevitable threat. Hart (2001: 8) suggests reframing the concepts of risk reduction, reengineering and cost cutting in the minds of managers to represent the issues of greening as an opportunity for competitive advantage, which should be linked to strategy and technology development. This discussion suggests the opportunities to meet the TBL challenge are endless for those who are proactive in spotting them and integrating them into their company's strategies.

2.1.4. Climate change risk

Having defined the nature of business risk and how it can be managed and turned into competitive advantage, it is important to consider the particular case of climate change risk which is the primary concern of this study. Documented evidence of climate change concerns date back to more than 100 years ago when, in 1896, Svante Arrhenius, a Swedish chemist, first raised the possibility of anthropogenic greenhouse effect occurring as carbon dioxide concentrations from increased burning of fossil fuels accumulated in the atmosphere (Budyko, 1982:7). Budyko (1982: 13) traces the contemporarily roots of anthropogenic-linked climate change to Callender's proposal in 1939, that an increase in CO_2 concentrations were due to modern man's economic activity. Since then, a succession of international summits and scientific media has elevated climate change to one of today's chief environmental concerns. For instance, in 1992, the United Nations Framework Convention on Climate Change (UNFCCC) was put in place at the Earth Summit in Rio de Janeiro with a mandate to stabilise GHG concentrations in the atmosphere. This was followed in 1997 by the Kyoto Protocol, the first substantive framework to mitigate global warming under the UNFCCC. South Africa signed the UNFCCC in 1993 and ratified it in 1997.

Here, it is important to define climate change by highlighting the science and the debates surrounding it. It is also important to discuss how climate change affects business and the latter's response to it.

2.1.4.1. Climate change in perspective

While the change in climate is attributed to both natural forces and anthropogenic activity, emphasis has in this century been placed on anthropogenic effects, attributed mainly to carbon dioxide (CO_2) concentrations (Houghton, 1994: 18; Budyko, 1982: 7). The theory which advances the carbon dioxide cause of climate change argues that the earth is surrounded by a layer of gases, such as carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride, which are responsible for regulating the earth's temperature (Marsh, 2006: 3). These gases are called GHG and are naturally found in the atmosphere in small quantities. Through a natural process, termed the greenhouse effect, GHG trap some of the heat from the sun, making sure that just the right amount of heat is emitted to the earth's surface (Spence, 2005:7; Houghton, 1994: 12). However, if the natural levels of GHG are supplemented by those resulting from accelerated human activity, the greenhouse effect becomes stronger as more heat is trapped and the earth's climate begins to change.

Carbon dioxide is believed to be the most important of these gases in terms of its impact on the atmosphere, constituting 70 percent of the problem (Marsh, 2006:2; Giddens, 2009:18; Esty and Winston, 2006: 36). Since the 18th century, when the Industrial Revolution began, the amount of CO_2 in the atmosphere is said to have increased by 30 to 35 per cent and in fact, it is argued that the concentration of CO_2 is now higher than at any point in the past 650,000 years (Ross, 2007: 275; Houghton, 1994: 18). This accelerated increase in CO_2 emissions is attributed to increased human activity such as burning of fossil fuels like coal, as well as burning of forests and cutting down of vegetation, which are supposed to act as a natural sink of CO_2 (Spence, 2005: 12-13 IPCC, 2007b: 68:).

The IPCC argues that the increases in the level of CO_2 are happening at a fast rate, noting that the largest increase has been between 1970 and 2004 (IPCC, 2007: 36b). IPCC further notes that if emissions of CO_2 continue to grow at current rates, it is very likely that atmospheric levels of carbon dioxide will double or even triple from pre-industrial levels during the 21st century. The consequence of an increase in the concentration of GHG in the earth's atmosphere is a considerable increase in the global temperature and other climate changes. In fact, Spence

(2005:8) and Giddens (2009: 21) estimate that the average global temperature has risen by roughly 0.6^{o} C since 1900 and is expected to rise by 1.8° C to 4.0° C by the year 2100, if GHG are allowed to continue rising at their current pace.

The increase in the temperature is believed to cause changes in climate, affecting cloud cover, wind patterns and duration of seasons and as a result, heat waves and heavy precipitation are very likely to increase in frequency and severity in the 21^{st} century (Marsh, 2006: 3; Spence, 2005: 1). Similarly, Giddens (2009: 176) notes that while no individual weather event is attributed to global warming, scientific data indicate that the rising temperatures are increasing in frequency and so is the intensity of hurricanes, floods, drought and other extreme weather events.

While the hypothesis presented thus far suggests that climate change is driven by anthropogenic factors, there are some who believe that there is nothing unnatural about the current changes in climate, arguing that there has been evidence throughout history that the world's climate is always in a flux (Giddens, 2009: 23). Such "sceptics" argue that the world is just going through a warming phase of the natural climate change cycle driven by shifts in the sun-spot variations. They view the IPCC assertion that climate change is human-driven as a public relations campaign driven by businesses that benefit from the climate change induced investment frenzy. Pittock (2005:30-37) and Budyko (1982: 10) also point to natural causes of climate change, arguing that it is caused by such geophysical and astronomical natural factors as continental drifts, volcanoes, ocean currents, the feedback effect, the earth's tilt, comets and meteorites.

2.1.4.2. Imperative for urgent action

The IPCC, in their 2007 C*limate Change Synthesis Report*, seems to attribute the accelerated increase in climate change more to human activity than natural cause (IPCC, 2007b: 30). The report observes that:

- It is now confirmed that the climate system is warming; and
- The observed warming since the mid-20th century is very likely due to the observed increase in anthropogenic GHG concentrations.

Despite this suggestion however, IPCC's definition of climate change seems to synthesise both the human and natural theories advanced above. The IPCC defines "climate change" as:

> a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity (IPCC, 2007b: 30).

However, whether climate change is due to human-induced or natural forces, societies are faced with the need to better prepare themselves to withstand the disaster losses and to more effectively analyse their exposures and associated uncertainties. Thus, while the debate rages on, it is advisable, as Edwards (2005: 55) observes, that in the absence of any conclusive answer to the questions relating to the causes of climate change, businesses should adopt the precautionary principle by managing their affairs as though it is confirmed that climate change is indeed anthropogenic and is responsible for the natural disasters such as floods, droughts, severe storms and other weather related stresses or catastrophes that have been recorded in recent years. As Sussman and Freed (2008: 1) put it, the question is no longer whether there is human-caused climate change, but rather, what can be done to react and adapt to it.

The need to act is more consequential given IPCC's observation that because of the past and current GHG emissions, climate change will continue to affect the earth's natural systems for hundreds of years even if GHG emissions were reduced now and atmospheric levels stopped rising (IPCC, 2007b: 46).

2.1.4.3. The impact of climate change on business

Currently, climate change is perceived as the most serious environmental risk facing society today and in the years to come (UNEP FI, 2007:19) and as such, it tops the agenda of most businesses, with a myriad of international frameworks and working groups such as UNFCCC, Agenda 21 and others, developed around it. Commenting on the gravity of climate change, Andre Fourie, Chief Executive of National Business Initiative (in CDP South African Report, 2007: foreword), notes that "climate change is the defining challenge of the 21st century and one of the most critical issues that the business world faces today".

Although climate change has been taking place for generations, a spate of natural disasters linked to accelerated climate change in the past ten years, such as Hurricane Katrina in the United States and those reported in South Asia have invoked a response from businesses due to their large costs. For instance, Hurricane Katrina is said to have caused between US$150 and US$170 billion in economic losses, more than four times higher than the most costly hurricanes between 1950 and 2000. In fact, Mills *et al* (2005:2) note that in the US, catastrophic losses have been growing ten times faster than premiums and economic growth.

In South Africa, extensive flood damage has been recorded in the past three years. For instance, in June 2008, the heaviest rainfall recorded in the south coast region of Kwa-Zulu Natal since 1964 (Durban Weather Bureau in *Cape Times*, 2008) led to loss of lives and extensive damage to oil refineries, railway lines, roads, bridges and residential and business buildings. About R3.6 billion (US$500m) was required just for temporary rehabilitation (*The Mercury*, 2008), as the government called on faith-based organisations and businesses to support disaster relief. In 2007, according to *The Independent on Saturday* (January 2008: 3), storms, floods, tornadoes and weather conditions that were described as "never been seen before" in Kwa-Zulu Natal cost the government close to R4 billion (US$550m) in 2007. In the Western Cape Province in 2006, R600m (US$81m) was required for part rehabilitation of roads, houses, bridges, commercial and subsistence farms, sewerage works, holiday resorts and dams (National Disaster Management Centre, 2006/7: 3). Such disasters may be symptomatic of climate change.

For businesses, climate change-related costs are mainly attributed to the direct physical impacts of climate change, as well as the indirect impacts in terms of litigation, regulatory and reputational risks (Hawker, 2007: 27; Lash and Wellington, 2007).

Physical risk is a direct consequence of weather related increases in storms (like hurricanes), floods and strong winds which, according to KPMG (2008b: 49) and Sussman and Freed (2008: 6), are likely to increase in the future. CDP (2008: 30) observes that more companies in South Africa consider climate change to present physical risk than do the Global 500 respondents.

Regulatory risk constitutes of a regulatory response to increased disasters linked to climate change around the world (KPMG, 2008a: 31). Such a regulatory regime includes a myriad of

regulatory measures in the form of permits and energy efficiency requirements and emissions trading. One notable international regulatory framework is the Kyoto Protocol, which puts restrictions on GHG emission by developed countries, also called Annex I countries. In fact, regulation as a climate change management measure is taking root in the business sector, as evidenced through the expansion of the global carbon trading market, which doubled to US$126 in 2008, over 2007 (World Bank, 2009: 1). Specific countries have set their own specific legislative controls. KPMG argues that by implementing all the policies under consideration, global CO_2 emissions would stabilise by 2025 and conversely, if new policies are not adopted, energy-related carbon emissions would increase by almost 60 percent by 2030 (KPMG, 2008a: 31).

Regulatory risk is becoming increasingly important in South Africa considering that the country is a high GHG emitter as noted in Chapter 1 of this study. In fact, the CDP (2008: 16) notes South Africa's GHG emissions per unit of GDP are higher than those of most of the developed countries, while emissions per capita (GHG emissions per person) are higher than China and India, which are also both coal-based energy economies. Furthermore, it is possible that South Africa's levels GHG emissions could quadruple by 2050 (RSA, 2009c) if the country does not react promptly to reduce its emissions. Thus, despite the fact that South Africa is exempt from the Kyoto Protocol restriction due to the fact that it is economically classified as a developing country, it would be prudent for the country to participate in climate change risk management for the following reasons:

- The climate change problem is global and unpredictable. It thus affects high and low GHG emitters alike. Therefore, a country that has prepared itself in terms of integrating climate change management in its wider sustainability policies will suffer less in terms of the negatives impacts of climate change.
- South Africa's more than 2,500km-long coastline makes the country vulnerable to physical risk associated with climate change.
- South Africa's economic interconnectedness with the rest of the world (KPMG, 2008a: 26) makes it vulnerable as it is possible that countries in Europe and other parts of the developed

world may pass on the pressure to the third world to reduce their exposure to impacts of climate change.

- Being a high GHG emitter, it is possible that the Copenhagen post-Kyoto framework will impose GHG restrictions on South Africa despite the fact that it is a developing country. Therefore, the county would do well to prepare for the inevitable. Such an action would put its companies in a better competitive position should this happen. Besides, a show of voluntary action would give the country a better bargaining posture at the Copenhagen conference.
- Besides the regulatory compulsions, as a country that subscribes to morality based sustainability principles as espoused by the King Code on Corporate Governance, the county owes the future generations a development that is environmentally and socially healthy.

Besides the anticipated Copenhagen outcome, at the national level, the signs of stiffer regulation are evident. Government is working to create incentives for reducing GHG emissions, through instituting mandatory instead of voluntary emissions controls (RSA, 2009a: 6; 2009b:1). Among the proposed initiatives are sector specific targets for energy efficiency, higher carbon taxes and more stringent thermal efficiency and emissions standards for coal fired power station.

Litigation risk may arise due to failure in a company's corporate governance duty, which may result in lower levels of trust and a meaningful relationship with the company's stakeholders and thus attract litigation. In the post-Enron, post-WorldCom market place, where investors are wary of undisclosed risks, it is imperative for companies to fully disclose their business risks and opportunities or they may face litigation from various stakeholders, such as shareholders and consumers whose investment and consumption decisions depend on reported information. More stringent regulation too may lead to litigation for companies that fail to comply with GHG limits and other legal and policy prescriptions. The CDP (2008:77) found that companies' concern for litigation risk is globally very low, but growing.

Reputational risk may result from a company's failure to manage its public image. The King III report on corporate governance places a lot of emphasis on companies' management of their

reputation as it is regarded as the most significant asset for a company (IoDSA, 2009). A study by the Carbon Trust, cited in KPMG (2008: 32), indicates that climate change would become a "mainstream" consumers' concern by 2010, although in certain countries it is already. This means that companies run a risk of a decrease in consumer confidence if they are perceived as failing to address climate change risk and to comply with related laws and regulations, as investors increasingly demand that their money be invested in planet and people friendly ventures (Norman and MacDonald, 2003:3). The King III report notes that among the important components of reputation management are a company's performance and behaviour as well as communication. Here, emphasis is placed on public disclosure – a key concern of this study – as a reputation management tool (IoDSA, 2009:87).

Generally, some forms of risk seem to have received more attention in the business world than others. For instance, the KPMG report (2008b: 36) shows that half the reports they reviewed addressed the physical risk of climate change. Only 28 percent paid attention to reputational risk, while even fewer (14 percent) to litigation risk. Regulatory risk, at 72 percent, was the most cited. Perceptions of the degree of exposure to particular risks seem to vary across industries. Lash and Wellington (2007:99) observe that while carbon intense industries like power generation tend to suffer more from regulatory risk, service oriented industries such as insurance, as already noted, are more likely to be affected by reputational risks.

Because of such climate change related risks that have and continue to affect business, it is imperative that businesses act to manage the impact of climate change because the costs of not acting now are higher. The Stern Report (2006: iv) asserts that "if we continue with business as usual", at least 5% of Gross Domestic Product (GDP) will be lost each year due to climate change costs. Under severe scenarios, losses could be as high as 20 percent. The report argues that making changes now could limit the costs to about 1% of the GDP (Stern Report, 2006: iv).

Maynard *et al* (2009) argue that most of these costs associated with the identified risks can be avoided or greatly mitigated. In fact, as already noted, efforts meant to avoid these risks occurring or reducing the severity of their impacts have also been proven to increase companies' bottom-lines. What this implies then is that companies must have appropriate strategies or must

adhere to industry-defined 'best practice' behaviours to facilitate the management of climate change-related risk and exploit the opportunities thereof.

2.1.4.4. Business response to climate change risk

Given the fact that this study seeks to understand how short-term insurers in South Africa incorporate climate change initiatives in their business strategies and governance structures – as evidenced through their reporting practices – it is important to understand the key elements that determine 'best practices' in climate change risk management. Best practice behaviour, as Hoffman and Woody (2008:11) suggest, starts with a company developing a concrete strategy by (i) knowing its carbon exposure; (ii) taking action to reduce its carbon footprint and assessing its business opportunities; and (iii) influencing the policy-development process.

Knowing a company's exposure involves:

- A company taking an inventory of its GHG emissions not only of its direct emissions, but throughout its value chain. It also involves registering the emissions and seeking external verification as a way of reaffirming its commitment to transparency and accountability.
- Understanding the potential impact that a carbon-constrained business environment will have on a company's operations, products and services, and devising innovative strategies for survival.
- Benchmarking the company's climate change-related performance against its peers in the industry in order to identify best practices for addressing climate change and create opportunities that garner recognition and increase its influence in the industry.

Taking action to reduce a company's carbon footprint involves deciding whether the action is mandated by some regulatory measure or is voluntary. Taking such action involves a combination of the following:

- Seeking the support and engagement of senior leadership, such as the CEO, senior managers or the board of directors, as such support is considered critical to facilitating the integration of climate change risk management into the core business objectives using the existing business terms and business metrics.

- Devoting high level personnel to climate change risk management by creating dedicated positions to spearhead climate change management strategies.
- Setting goals and targets, such as baselines, objectives and timetables which should not be too demanding, but stretchy enough to spur innovation.
- Getting engagement through developing programmes that educate and motivate staff and also reward them for good performance, such as climate change linked bonuses and involving staff in internal emissions trading programmes.
- Moving climate change to the centre, by facilitating its diffusion into the company's functional competencies, so that it becomes a strategic issue instead of just being an appendage to such areas as the Environmental Department**.**
- Engaging with NGOs, because, as multifaceted change agencies, they will have an impact on the success of a business' management strategy. NGOs can act as policy advisors to government, strategy advisers to a company's competitor, thought leaders for public opinion and stimulants for a company's investors (Hoffman and Woody, 2008: 38, 69). They can thus be a good indicator of where policy may be headed.

Influencing the policy-development process is considered important for a company to keep control over its future business environment as it enables a company to monitor and anticipate pending GHG policies and how they can affect its business objectives. For South African companies, the challenge at present is to consider how they can participate in developing the new GHG management framework upon the expiry of the Kyoto protocol in 2012. Since the country continues to be over-dependent on coal-generated electricity, it may be mandated to limit its GHG after 2012, a move which would alter the competitive landscape for South African businesses.

These measures constitute initial governance steps towards "best practice" in terms of climate change risk management, which should then facilitate the implementation of practical, performance-based risk management initiatives, such as energy-related product innovations, as well as participation in the carbon market. Thus, ideally, business should respond to climate change risk by considering the above governance measures, as well as performance-focussed

best practice measures. These practices are consolidated into a systematic comprehensive measurement index – the Climate Change Governance Checklist – by Ceres. The checklist classifies these climate change response measures in terms of five governance areas of: board oversight; management execution; public disclosure; GHG emissions accounting; and strategic planning (Cogan, 2008a). The board oversight, management execution and public disclosure elements of the Ceres framework are related to climate change corporate governance, while the emissions accounting and strategic planning categories are performance-oriented.

Ceres employed the climate change governance checklist, in its 2008 study aimed at assessing banks' preparation for climate change. This study revealed that: (i) banks were demonstrating some commitment towards involving their boards; (ii) climate change was commanding more attention of senior executives and that it was translating into more formal policies; (iii) corporate disclosure of climate change risk was growing steadily; (iv) more than half of the responding banks were accounting for their direct, indirect and other indirect emissions and had established general environmental policies and GHG emissions reduction targets; and (v) more than half had crafted new products and services to reduce their GHG emissions and to improve their own resilience and that of their value chain. Ceres has also been using indicators based on the checklist in its annual survey series focusing specifically on the response of the insurance industry to climate change, to define best practice responses (Mills, 2009). These best practice indicators as they apply to the insurance sector will be discussed in the **Section 2.2.3.**

The climate change governance checklist that has been introduced here encapsulates both climate change corporate governance and the performance-oriented best practices employed in the broader financial sector. It will thus be the basis of the methodological framework for this dissertation, as explicated in Chapter 3.

2.1.5. Summary

This section set out to operationalise the key concepts and sub-concepts used throughout this study. It defined, and gave contextual illustrations of the concepts of sustainable development/sustainability, corporate governance and climate change, relating all three to the TBL. In turn, the TBL presented itself as a key element of the sustainability-governance matrix

of businesses. Extending the concepts of sustainability and corporate governance, the section undertook an analysis of how business risk in general and climate change risk in particular impact on the financial sector. A key conclusion here is that climate change is unprecedented for all companies, especially those in South Africa, which face more pressing developmental challenges. It is clear that companies the world over are reacting to these challenges by incorporating into their overall corporate governance agenda the question of how climate change risk can be used to innovatively reposition themselves sustainably – economically, environmentally and socially, an imperative for South Africa.

As this study focuses on short-term insurers in South Africa, it is important to understand how the insurance industry has responded to the challenges of climate change against the known global best practices – a subject of the next section.

2.2. Response of the insurance industry to climate change risk

The previous section discussed sustainability and corporate governance as a conceptual framework in which business responses to risk are embedded. As an additional attempt at contextualizing this study, this chapter analyses the response of the insurance industry to climate change risk. The contextual analysis should provide a more specific benchmark against which the discussion of short-term insurers' climate change interventions can be mounted in Chapter 4. Key observations here are that insurers can proactively manage climate change risk and meet their TBL objectives through mitigation and adaptation efforts focusing on: (i) managing of their own environmental footprints; (ii) facilitating of public awareness programmes and developing products or policies aimed at reducing GHG emissions; (iii) helping to reduce supply chain emissions; and (iv) building internal governance structures and processes to facilitate climate change risk management efforts.

2.2.1. The state of the insurance industry

The insurance industry is part of the financial services sector which encompasses the banking industry, asset management and other financial services. It is the largest industry in the world,

with an annual global revenue of US$4 trillion in premiums and another US$1 trillion in returns from their investment (Mills, 2007b:5), representing 7.6 percent of world GDP (Swiss Re, 2009).

The objective of the insurance industry is to manage risk, mainly through underwriting the risks. Insurance involves payment of periodic rates by the insured person to gain financial compensation from an insurer in case of injury or loss of property, income or life (Valsamakis *et al,* 2005: 253). Thus, insurance companies "buy" risk in exchange for compensation or another benefit to the insured upon the occurrence of a specified problem. Thus, the primary mission for insurance companies is to secure a sufficient level of solvency and make payment promptly to customers who suffer damage. For insurers to be adequately solvent and be able to pay out premiums on demand, they invest the money that they receive from their clients into various business ventures such as real estate for profit (Stahel *et al*, 2009). Thus, insurers are not only risk underwriters, but also direct investors.

Insurance comprises several segments classified according to the fundamental characteristics of its business. The two main segments are the property and casualty segment, called "short-term insurance" in South Africa as well as the life and health segment. Short-term insurance is a type of insurance that provides protection to commercial property such as office buildings, government structures, shopping malls, manufacturing plants and their contents as well as residential properties and their contents, against physical damage from such risks as fire, floods and earthquake (UNEP FI, 2007: 14).

Both short-term (non-life) and life and health insurance are affected by climate change, but to varying degrees. For instance, the life and health sector may suffer from an increased number of claims as a result of an increase in vector-borne disease, associated with climate change (Esty and Winston, 2006:35; Marsh 2006: 4). The short-term insurance segment, however, is seen as being more vulnerable since it serves as a risk aggregator for other businesses that suffer the whole range of climate change risks that were discussed in **Section 2.1.4.3** (Bosse and Leidtke, 2009: 14). This study focuses on the short-term insurance segment in part because of its unique vulnerability. As Bosse and Leidtke (2009: 14) observe, the impact on the life and health sector is yet not very visible.

The South African insurance market is the largest on the African continent, accounting for about a 90 percent share in life premiums and 50 percent in non-life premiums in 2008 (Swiss Re, 2009:29). Its total premium volume grew by 4.43[5] percent in 2008 over 2007 (Swiss Re, 2009: 37). South Africa also has the highest levels of insurance penetration (insurance premium to GDP ratio) as well as insurance density (insurance premium per person) on the African continent. The insurance penetration for South Africa in 2008 was 15.3 percent, higher than that of most developed countries. According to Swiss Re's Sigma (2009: 36), the total amount of insurance density for South Africa in 2008 stood at US$870, of which US$870.6 related to life and only US$163.6 was non-life. In spite of the proportion for non-life being small, it was still the largest on the African continent.

This entails that insurance solutions in South Africa are more readily available and the consumption of insurance services by the general public is relatively high compared to other African countries and even some developed countries. As a result, insurers could play a big role in championing GHG mitigation measures and helping society adapt to climate change risk.

2.2.2. Impact of climate change on the insurance industry

The increasing frequency and intensity of hurricanes, floods, drought and other extreme weather events attributed to extreme weather events have a direct impact on private and commercial properties and therefore affect short-term insurers through both unanticipated shifts in return on assets as well as through catastrophic claims. In fact, according to Ernst & Young (2008), climate change tops "the top ten" list of strategic risks insurers face today.

Insurers have actually suffered losses related to climate change. According to Kunreuther and Michael-Kerjan (2007:5), weather-related insured losses have shown an upward trend ranging from US$3 to 4 billion between 1970 and 1980 to about US$83 billion in 2005 due to large hurricanes, such as Katrina, Wilma and Rita in the US. The three hurricanes are said to have produced an estimated 2.8 million insurance claims and US$49.2 billion in insured damages

[5] These figures are In US$ adjusted for inflation.

(Marsh, 2006:4). In fact, Giddens (2009: 173) notes that these losses relate to the greatest disasters and may thus only represent half of insured losses world-wide. In Australia, Hawker (2007:22) reports that 19 out of the 20 most costly natural disasters, in terms of property insurance losses, have been weather related. Europe's largest insurer, Allianz, observes that accelerated climate change stands to increase losses from extreme weather events by 37 percent within just a decade. Allianz's estimation could mean that losses in a bad year could reach US$400 billion, while the United Nations Environmental Programme Finance Initiative (UNEP) estimates these losses to reach US$1 trillion (Mills, 2007b:1). In fact, Mills *et al* (2005) warns that the problem is already at a level where it is threatening the solvency and insurability of businesses, and thus their sustainability.

The challenge is even greater for insurers in developing countries, like South Africa. Such countries have been identified as having a low adaptive capacity, usually determined by economic resources, technology, information and skills, infrastructure, institutions, and equity (Munasinghe and Swart, 2005, 187; Sussman and Freed, 2008:4). Besides, South African insurers too have had their own share of weather-related claims in the last few years. For instances, following record-breaking floods in 2008 in Kwa-Zulu Natal, insurance companies were inundated with hundreds of calls, with estimated damage caused by floods as high as R100-million (US$13, 000, 000). Most of the damage was for contents and buildings and motor vehicles were submerged in water and as Santam's regional Kwa-Zulu Natal regional manager observed, the levels of under-insurance were high, attributing this to an increase in the rate of inflation and escalating building repair costs (*The Mercury, 2008*).

Apart from such from physical risk suffered by their clients, and the resulting high compensation pay-outs that insurers are consequently exposed to, insurers have also suffered regulatory risk, mainly as a result of insuring high risk clients, as international and national regulation has been enacted in an attempt to manage climate change. Further, shareholders and consumers are becoming more sensitive to issues of public disclosure as a strategy to avoid possible litigation risk (Kunreuther and Michael Kerjan, 2007:35). Ross *et al* (2007: 260) observe that in the US, for instance, insurers are faced with the most and also the largest lawsuits of all sectors, spending on average $36 million in litigation defence costs in 2005.

Such lawsuits may tarnish the public reputations of insurers, and could negatively affect the insurers' business prospects. As the Carbon Trust (cited in UNEP FI, 2006:16) observes, albeit in the case of the banking sector, reputation is a valuable asset for industries whose product is intangible. Further, insurers as aggregators of risk may find themselves facing reputational and litigation risk as a result of non-disclosure and other risky actions of their clients and their suppliers. Such supply chain risks could compromise the clients' ability to afford insurance and in some cases would require insurers to cover the costs of their non-compliance (Lash and Wellington, 2007:98).

The aggregate impact of such risk on insurers, beside increase in costs and reduction in revenue in the short-run, is the long-term impact of eroded competitiveness, for companies that fail to capitalise on the opportunities inherent in climate change risk. As Hawker (2007: 6) and Sussman and Freed (2008: 4) note, amidst these risks, there are opportunities to save money, earn money, enhance reputations, preserve the environment and contribute to solving social problems, for insurers who respond quickly by creating sound governance structures and practices and develop innovative products.

2.2.3. Response of the insurance industry

Insurers are faced with several response options. Firstly, they could do nothing and continue to face consequences as they come. Secondly, they could facilitate mitigation measures and thus avoid the risk of climate change before it occurs. Thirdly, they could facilitate society's adaptation to the effects of climate change that cannot be mitigated and thus reduce the impact of climate change related losses when they occur (Valsamakis *et al*., 2005: 29; Ross *et al*, 2007).

The *deferment* or *do nothing* option is more costly than the other two options, as the Stern Review suggests and as demonstrated through the adverse financial stresses exerted on insurers in the wake of hurricanes Katrina, Rita and Wilma, which led the US insurance industry to near bankruptcy in 2005. The *do nothing* scenario entails that, when disaster has struck, insurers would deploy any of the following options:

- Withdraw their coverage of risky markets, as was the case following Hurricane Katrina in the US, where Allstate Insurance downsized the number of policies from 1.2 million to 400,000 and later to 100,000 when the hurricane wiped out all the profits it had garnered for 75 years (Mills, 2007b: 2).
- Increase their premiums, as in th**e** wake of the 2005 hurricane season in the US, where premiums increased a 10-20 fold, translating into about 500% in the energy sector (Ross *et al*, 2007: 278).
- Cover selectively, as does *Sompo* Japan, who cover mainly risks associated with renewable energy products and energy efficiency, such as hybrid cars (Mills, 2007a).

All these are reactive measures and they have a negative impact on the TBL of organisations that stick to them. But, as Marsh (2006) and Stahel *et al* (2009: 49) observe, insurers are increasingly realising that a more proactive, holistic approach presents an opportunity to grow revenue, reduce risk and improve brand value. They are thus moving towards mitigation and adaptation measures. Largely, mitigation measures entail using energy efficiently and generating it in a cleaner manner (Marsh, 2006; Ross *et al*, 2007). This is an imperative for insurers, given that as Mills (2009: 4) observes, the global insurance industry emits about 12 million metric tons of CO_2 equivalent each year, which is equivalent to the emissions from 2.5 million U.S. cars or 60,000 train cars full of coal and this related only to its direct emissions or scope 1 emissions.

Given the scenario that the impacts of the GHG already in the atmosphere will continue to influence climate in the foreseeable future in spite of the mitigation measures instituted now, mitigation policies are not effective in the short-term and thus the need for adaptation measures, to prevent shock losses by increasing resilience and providing solutions when disaster strikes. Such measures could include: building settlements in safe zones; developing early warning systems, such as the use of a Geographical Information Systems (GIS); instituting better building designs and improving insurance coverage (Sussman and Freed, 2008: 24).

It is evident from the above discussion of the possible response measures that neither of them applied suggests is robust enough to address climate change-related risk. Thus insurers who are proactively responding to climate change are embracing both adaptation measures and mitigation

responses measures. This is demonstrated by several industry studies, such as those by Ceres, the CDP and several other isolated studies, which have attempted to highlight some of the mitigation and adaptation initiatives that insurers are taking in response to climate change.

Of these studies, perhaps the most systematic and comprehensive study of the insurance industry's response to climate change is conducted by Ceres. Captured in the Ceres' annual report series –*From Risk to Opportunity: Insurer Response to Climate Change* – the study series mainly cover the US and Europe but not Africa. The 2008 edition of Ceres studies posits some possible "best practices" against which insurers' climate-related risk performance can be assessed (Mills, 2009). It must be noted that Mills, like Hoffman and Woody do in **Section 2.1.4.4** also suggests a set of initial governance measures required by business to drive climate change management and to incorporate them into core business. These governance measures have been incorporated as part of best practice indicators in **Table 2.1** below.

Table 2.1.: Insurance industry best practice checklist (Adapted from Mills, 2009)

1	**Approach climate change as an enterprise-risk management (ERM) issue.** ERM improves decision-making and creates value by managing hazard, financial, operational, and strategic risks and opportunities ac**ross** business units and stakeholder groups. ERM provides a portfolio framework for managing risk in a holistic manner and elevates the practice to higher levels within organizations.
2	**Establish a "climate champion" from the company's Board.** This will help mobilize internal resources, keep the issues on the company's radar, and enable a crosscutting effort including underwriting, operations, asset management, and corporate governance rather than a piecemeal approach limited to specific "silos" within the company.
3	**Appoint a point-person on climate.** This person helps to develop corporate position on climate change, assists with internal fact-finding and education efforts, and serves as liaison to the Board. The climate champion also should track trends and developments in the outside public science and policy domain, and make the company visible as deemed appropriate. This person also can take the lead on voluntary or mandatory climate reporting and disclosure. Ideally, this person will be resourced to assemble a broader climate-management team.

4	**Develop a written corporate position on climate change.** These can be "evergreen" documents that evolve along with the company's strategy. Such statements prove useful for internal education and communicating with external stakeholders, and respond to disclosure requests.
5	**Prepare annual environmental report.** Such reports can be used to establish and benchmark baseline performance, set and track progress towards goals, catalog activities from across the organization, and communicate corporate initiatives to potential employees, shareholders, and other stakeholders. This might be integrated into a broader Corporate Social Responsibility report (if the company produces one).
6	**Listen to and support customers.** Customers are increasingly embracing "climate-friendly" technologies and practices, and are actively seeking insurance that fits these activities. In addition to meeting these stated needs, insurers can extend their traditional role in supporting customer-side risk management to incorporate existing and emerging climate risks, e.g. through improved construction technology and business-continuity planning. Meanwhile, insurers can add value by supporting customer desires to reduce their GHG emissions.
7	**Forge partnerships**. Insurers needn't operate in a vacuum or otherwise "reinvent the wheel." In particular, insurers can play a role in educating and enlisting the support of their agents and brokers on the issues, while at the same time listening to what brokers have to say about customer needs with respect to climate change. There are many natural allies outside the insurance arena as well—such as energy utilities, nongovernmental organizations, state and local agencies—with years of experience in this domain. These entities are constantly looking for partners to help deploy new initiatives.
8	**Walk the talk.** Companies attempting to mount a climate-change initiative should learn through first-hand application of appropriate responses within their own organizations. This should include assessment of GHG emissions and implementing an emissions-reduction plan, as well as assessing the climate vulnerability of investments and real-estate holdings. All stakeholders will look to insurers to lead by example
9	**Improve the theory and practice of modeling** and other methods of analysing climate change risks and climate science. Particular effort should be made to conduct "what-if" stress tests over a range of plausible scenarios, rather than limiting their investigations to predictive point estimates.
10	**Make concerted efforts to restore and maintain the insurability of extreme weather events**. This might require partnerships with governments, in for instance implementing enforced building

	codes.
11	**Utilise terms and conditions to foster the right decisions by customers.** This could range from rewarding risk-minimising behaviour to excluding climate change liabilities for those who make imprudent decisions either as emitters of GHG or managers of risks associated with climate change.
12	**Develop new products, services, and financing offerings** to facilitate maximum customer utilization of climate-friendly technologies and practices, especially in cases where they yield loss prevention co-benefits. Craft disaster-resilient approaches that are sustainable and sustainability strategies that are disaster-resilient.
13	**Actively participate in emerging markets** for carbon-free energy and carbon trading, both as investor and risk manager.
14	**Take an active role** in the education of customers about climate-related risks and opportunities for minimizing them.
15	**Actively engage in public policy discussions** about climate-change.
16	**Tighten terms and conditions**, withdraw from markets, or increase insurance prices only when the aforementioned best practices have been exercised to their fullest cost effective potential.

The best practices for the insurance industry identified by Mills, as listed in **Table 2.1** constitute part of the specific activities and actions envisaged under the five governance areas in Ceres general climate change governance checklist introduced in **Section 2.1.4.4,** broadly classified as board oversight, management execution, public disclosure, emissions accounting and strategic planning. As such, the Ceres checklist – used to report the findings of this particular study – would seem to provide a more comprehensive, coherent and systematic framework for describing and analysing climate change risk management by the insurance industry.

2.2.3.1 Studies on insurers' response

The Ceres (Mills, 2009) survey on the response of the insurance industry to climate change risk management highlights the following as some of the main responses measures and patterns among the surveyed insurers:

- Some insurers were engaging their boards, notably through educating them about the potential liabilities and strategic business opportunities global climate change can create for companies;
- The number and variety of partnerships with other insurers as well as with non-insurers was growing;
- The number of insurers responding to the CDP was increasing;
- Insurers also were increasingly getting involved in the public policy discussion about responses to climate change at the national and international levels;
- Insurers had begun to embrace an integrated approach to climate change, increasingly recognizing the issue as one of "enterprise risk management";
- Insurance coverage for green buildings, renewable energy, carbon capture and storage and carbon trading was reaching the highest levels ever. Auto and transportation offerings were also becoming more numerous and diverse;
- Insurers' investments in businesses that are developing and offering low- and no-carbon technologies was increasing;
- Industry leaders were driving forward improvements in the climate science, among other things, engaging actuaries and catastrophe modeling firms, to help governments and other stakeholders better understand and prepare for future risk;
- Insurers were increasingly participating in carbon markets, which had grown to include carbon trading, insurance for credit risks, political risks, and others as well as advisory services, and carbon neutral products;
- Insurers were increasingly recognizing the importance of addressing their own carbon footprints.

Ceres details the specific examples of the measures highlighted above in its 2009 report, *From Risk to Opportunity: Insurer Response to Climate Change*. Similarly, Ross *et al (2007)* and Marsh (2006) reinforce these observations and comprehensively highlights specific examples of insurers' innovations around climate change.

It should be noted here that none of the studies referred to above covers South Africa. The response of the South African insurance industry to climate change is largely unexplored, with the exception of the JSE Top 100 2008 CDP survey, includes at least one short-term insurance company in its study sample and attempts to highlight the climate change-related challenges and responses facing the South African insurers. However, even the range and depth of the coverage in the CDP report is inadequate to represent the enormity of the climate change-related challenges that South African insurers are faced with and the responses they could have possibly undertaken. The main highlights relating to insurers' response to climate change-related risk include the following: (i) Santam, the only short-term insurer included in the CDP Top 100, had reported on certain GHG emissions, but the CDP itself observes that Santam's reporting was not sufficient to give any meaningful insight into the company's response to the climate change challenge; (ii) Several South African non insurance companies in the CDP JSE Top 100 expressed concern over the affordability and availability of insurance due to the likelihood of higher insurance premiums (CDP, 2008: 38).

A general conclusion, based on the studies that were reviewed and the Ceres best practice indicators in **Table 2.1** above, is that proactive climate change risk management has benefits for the insurers. This is reinforced by Hawker (2007: 22) who declares that weather and climate are ''core business'' for the insurance industry. Implicit in this statement is the fact that insurers should play a leading role in managing climate change. Also implicit is the fact that managing climate change yields some benefits for the industry. Thus, insurers who seek to proactively manage energy and other GHG management initiatives, reinforced by robust governance measures highlighted above, will have a competitive advantage over their peers who do not.

2.2.5 Summary

This section was concerned with contextualizing the insurance industry's response to climate change risk, both globally and in South Africa. It is clear that disasters associated with climate change are growing in intensity and frequency and thus require serious attention from insurers too. This is because climate change risk can expose insurers to physical and reputational damage, as well as create liabilities for insurers mainly through the exposure of those in their value chain. The study has however noted that climate change risks, when proactively managed, can at the same time help insurers achieve their TBL objectives.

The section has demonstrated how companies are attempting to pursue climate change risk mitigatory and adaptive measures that integrate ecological limits, social equity and economic profitability into their overall sustainability strategies and core business areas, reinforcing the fact that the TBL framework is influencing the way decisions are made regarding climate change risk management. While some industry studies which demonstrate various practical climate change management measures by insurers have been highlighted, South Africa has not been adequately covered by these studies. This is despite the fact that the country is presented as not only being high risk but also one that would benefit from insurers' involvement in developmental issues due to its pressing developmental challenges. The next chapter discusses the methodology that is be employed by this study, with the aim of providing an insight into levels of the South African insurers' preparedness, vis-a vis, climate change.

CHAPTER 3: METHODOLOGY

3.0. Introduction

The literature review in Chapter 2 focused on defining sustainability and corporate governance as the bedrock principles underlying business responses to the risk posed by climate change. This chapter discusses the processes and the tool used to analyse climate change risk management by selected short-term insurance companies operating in the South African market in 2007, as evidenced in their reporting. It identifies the study population and outlines the sampling procedure used. Methods of data collection and analysis employed and procedures for dependability and credibility of the research are explained. The research design consists of a triangulation of the tools conceived by Ceres and SustainAbility/UNEP, both of which are reputable researchers in the area of sustainability. The first part of the tool seeks to establish the presence of the various governance steps that companies can take to proactively address climate change. The second part measures the extent of the application of the identified steps by insurers. Data analysis is mainly qualitative, but some aspects of quantification are employed in order to obtain basic descriptive statistics.

3.1. Objectives of the study

The objectives of the study are to:

- Establish the existence and prevalence of the reporting of climate change management initiatives among the sampled South African short-term insurance companies.

- Establish the degree of comprehensiveness with which such short-term insurers report on their climate change risk interventions in comparison to set global best practices as reflected in their annual and sustainability reports.

- Make recommendations on how South African short-term insurance companies can reduce their exposure to climate change risk.

3.2. Research design

This study approaches the research problem within the post-positivistic philosophical framework. Although there is recognition of readily available data, information and knowledge *external* to the researcher, the researcher is also part of the process of constructing data, information and knowledge (Guba & Lincoln, 1994: 110). Rather than assuming a singular research approach, this study is based on a triangulation of elements of (quantitative) positivism and (qualitative) interpretivism (Levy, 2006; Golafshani, 2003: 603), resulting in what Guba calls "the alternative paradigm dialog" (Guba, 1990: 27). The research process proved *interactive* in the sense that the researcher was actively involved in classifying, interpreting and judging what defines the various levels of corporate reporting of climate change risk management. The researcher's classifications, interpretations and judgments were based upon what could be regarded as objective standards that constitute nationally and internationally agreed "best practices" of reporting climate change risk management.

These standards are derived from the Ceres *Climate Change Governance Checklist* and consist of five governance areas, which include: board oversight; management execution; public disclosure; GHG emission accounting; and strategic planning and performance (Cogan, 2008a and 2008b). The scoring was based upon SustainAbility's[6] five-point scale. This scoring system enabled the researcher to judge consistently which companies scored the highest with regards to the extent of the reporting (SustainAbility, 2006). Annual and sustainability reports for the year 2007 were purposively selected from among the websites of the short-term insurers operating in the South African market. The reports were used to score the companies against the Ceres standards.

Given that this research deals with multiple cases in the insurance sector, it is predicated upon a multi-case study design. Because of its preoccupation with determining the relative climate-

[6] Established in 1987, SustainAbility is a strategy consultancy firm that advises corporates on the risks and opportunities associated with corporate responsibility and sustainable development. They have undertaken a lot of research in areas of corporate sustainability in general and sustainability reporting specifically, mainly in partnership with UNEP.

change reporting performance of each case under study, the research design assumes an evaluative-interpretive approach. As such, it critically assesses the selected companies' annual and/or sustainability reports for evidence of climate change response measures. A multiple case-study approach, as opposed to a survey approach, is more ideal for this type of study since, as Cogan (2006: 19) notes, no two companies are the same and their possible responses to climate change are likely to vary. It would thus make little or no sense to undertake a simple extrapolation of findings from one case to another. The research design adopted in this study is based upon a multiplicity of data-collection methods, including document analysis of short-term insurers' reporting of their climate change responses, as evidenced through their annual and sustainability reports.

3.2.1 Sampling

For data collection, this study uses purposive sampling. The sampling is consistent with the overall purpose of the research – to critically analyse the reported climate-change management practices of the insurance companies. Purposive or judgmental sampling, as opposed to probability sampling, is centred on the idea that it is sometimes appropriate to select one's sample on the basis of one's own knowledge of the population, its elements, and the nature of one's research aims. In a nutshell, purposive or judgmental sampling is based on the researcher's judgment and the purpose of the study (Babbie & Mouton, 2007: 166). Kumar (2005: 179) puts it more expansively:

> the primary consideration in purposive sampling is the judgment of the researcher as to who can provide the best information to achieve the objectives of the study. The researcher only goes to those people who in his/her opinion are likely to have the required information and be willing to share it.

The reason for using purposive sampling, rather than random or probability sampling, was because the 'subjects' were selected for their relevance to the aim of the research, rather than for their representativeness or generalisability (Levy 2006: 384).

3.2.1.1 Sampling units

The target population for this study consisted of all members of the South African Insurance Association (SAIA). This study realises that most of the studies that have sought to assess

reported information have sampled companies that are publicly listed, due to their availability, given that publicly listed companies are mandated to publicly report (Deumes, 2008; Dawkins and Ngunjiri, 2008; Neu *et al*, 1998; Wilmhurst and Frost, 2000: 8). These studies have also argued that such companies are usually expected to have more comprehensive reporting than non-listed ones. However, this study opted to sample SAIA members, most of whom are not listed on the JSE because a preliminary investigation suggested that sampling SAIA members would yield a more comprehensive sample. Besides, it was observed that in fact, websites for SAIA registered members could be accessed from a central point – the short-term insurance gateway. Furthermore, SAIA represents almost all short-term insurance companies in South Africa and requires all its members to abide by the short-term insurance Code of Good Business Practice. The Code of Good Business Practice requires members to, among other things: (i) conduct business in good faith, with integrity, fairness, honesty, and in a transparent manner; and (ii) promote the general public's understanding of insurance through education and disclosure (SAIA, 2002).

Apart from their SAIA membership, these companies are also corporate subscribers to the Insurance Institute of South Africa (IISA), also accessible through the insurance gateway. One of the main objectives of IISA as listed in its constitution is to promote, encourage, support or oppose any legislation or statutory measures affecting its members and to represent to government or public authority the necessity or otherwise for the enactment or amendment of legislation or policy (IISA, 2008: 4). Besides, IISA has been engaging its members on climate change-related issues. An illustration of this is the institute's annual conference, which has been known to address issues related to climate change and its impacts on insurance underwriting (IISA, 2009). This fits in with the purposive sampling that this study employs, aiming, as it does, at finding readily available insurance companies and analysing their climate change reporting patterns.

A total of 53 companies were considered in this study. These companies constitute the whole population of SAIA registered short-term insurers and are also among the corporate members of IISA. All the 53companies were eligible, regardless of the ownership structure, whether public or private. In fact, it was noted that all the short-term insurance companies listed on the JSE are

also members of SAIA and were thus part of the sample. The 53 companies are listed in **Table 1** of **Appendix 1**.

The selection of SAIA members to be included in the final sample was stratified, based on the availability of desired characteristics. To begin with, of the 53 companies, 27 companies listed in **Table 2** of **Appendix 1**, were excluded from the sample, either because they did not have active websites or, in cases where the websites were accessed, the researcher was not able to access their annual reports from the websites. Written requests via email to obtain the reports from the companies were largely unsuccessful, as only three of the 27 companies that were approached responded. It must be noted that non-JSE listed members are not obliged to make their reports publicly available. This could perhaps explain why more than half of the SAIA member company reports were not accessible.

Thus, after excluding the 27 insurers as explained above, a total of 26 SAIA member companies remained in the sample. Three bank-affiliated insurers – ABSA Insurance Company Limited, Nedgroup Insurance Company Limited and Standard Insurance Limited – were also excluded from the sample. This is because they operate within bank structures and have neither independent annual reports nor sustainability reports. Thus only 23 were finally analysed in keeping with the aim of the study after excluding the above two categories of companies.

3.2.1.2 Company reports as a unit of analysis

Ceres identifies the various avenues through which companies can discuss climate change, among them, annual reports, sustainability reports, corporate websites and security filings, as well as external reporting mechanisms such as the CDP (Cogan, 2008b: 20). The current study involved collection of data from corporate annual and sustainability or corporate governance reports, collectively termed company reports in this study. Both of these reports are considered a company's formal way of communicating to stakeholders. In their annual and sustainability reports, companies usually follow a standard way of reporting (Williams, 2008: 238).

Specifically, what legitimates a company's annual report as a credible source of company information, as Wilmhurst and Frost (2000: 8) note, is that it is a statutory report, incorporating

both statutory and voluntary disclosures, is produced regularly, and management exercises editorial control over it. Similarly, Ngunjiri and Dawkins (2008) and Raman (2006: 317) argue that as a primary form of corporate communication to investors, the annual report is the most significant form of communication a company has with stakeholders.

The sustainability report as a source of corporate information has gained its prominence with increased industry pressure for corporate reporting, following corporate governance failures and the demand for TBL reporting. In the South African context, the sustainability report finds its legitimacy as a source of corporate information through the King Code of Governance's IoDSA, 2001; 2009) requirement for companies operating in South Africa to report and disclose their sustainability efforts.

Furthermore, the sustainability report has been utilised in this study because climate change, being an environmental issue, renders a company more likely to report it in the sustainability report as opposed to the annual report, which has traditionally focused on financial information. This study takes cognisance of the recent drive towards integrated reporting, but in cases where companies have stand-alone sustainability reports, such reports are a good complement to the annual report in terms of providing climate change risk related information.

As both the annual and sustainability reports are formal, the interest of this study is not so much to do with which one of the two reports is scored as it is in assessing whether a company has a policy or board representation for climate change, for instance, and if so, whether that policy or board involvement is written down or acknowledged somewhere in a formal public document. In this sense, these two documents as utilised in this study are meant to complement each other in such a way that one fills-up any gaps that may be left by the other one in terms of reporting the company's efforts.

Company websites were originally considered as a unit of analysis for the study. This is because while the website may be less formal than annual and sustainability reports, it is usually updated more often and could thus capture more recent reporting or policy developments. However, due to the non-standardised nature of reporting styles and structuring of the sites by companies, it proved problematic to give each company a fair assessment. This difficulty is also echoed by

Barac (2004, 3) who observed "that it may often be difficult to find the desired information on the company websites because many corporate websites are large and complex or employ counter-intuitive or complex navigation strategies". Thus, some information may be missed. For this reason, the company websites were excluded as a unit of analysis.

3.2.2 Data collection method

This research involves the collection and collation of documents and can thus be classified as document research. Document research is, as proposed by Hitchcock and Hughes (1995: 223), characterised by three interlocking phases namely; (i) the location phase; (ii) the classification and evaluation phase; and (iii) the interpretation and meaning phase.

3.2.2.1 Data location phase

As part of the first phase of data collection, the publicly available annual and sustainability reports were located and downloaded from the websites of the short-term insurers operating in South Africa during the 2007 financial year. In some cases, locating such reports took the form of personal communication with the companies concerned.

3.2.2.2 Classification and evaluation phase

The second phase constitutes a process of content analysis[7] of the documents, (Hitchcock and Hughes, 1995: 226), which entailed assessing the reports for authenticity, credibility and comfirmability. As Wilmhurst and Frost (2000: 8) argue, annual reports incorporate both statutory and voluntary disclosures and are exposed to managerial editorial scrutiny and thus should be a trustworthy source of company information. For studies of a qualitative nature, such as this one, it is not statistical generalisation that matters; it is the extent to which the data gathered provides thickness of understanding of the phenomenon under study. For such understanding to be attained, there is need for the measuring instrument or tool to be 'trustworthy' in terms of *credibility*, *dependability* and *confirmability*. 'Credibility' refers to the degree of compatibility between the constructed realities that exist in the minds of respondents

[7] Content analysis can stand on its own as a research design, but in this case it is used as a process of classifying and evaluating data in keeping with the predetermined categories developed by Ceres.

and those that are attributed to them. 'Dependability' refers to the notion that an inquiry must also provide its audience with evidence that if it were to be repeated with the same or similar respondents (subjects) in the same (or similar) context, its findings would be similar. 'Confirmability' means the degree to which the findings are the product of the focus of the inquiry and not the biases of the researcher (Babbie & Mouton, 2007: 277-278).

Thus, based on Levy's (2006: 383) suggestions on how credibility, dependability and confirmability can be achieved, this particular study endeavoured to:

- Carefully use, interpret and examine the appropriate literature on climate change,
- Carefully justify the qualitative research methodologies employed,
- Carefully structure the data analysis to ensure full and descriptive evaluation and assessment, particularly in relation to data of key significance to the research questions.

In addition, readers could also undertake an audit trail (Levy 2006: 384) to ascertain trustworthiness. In this study, the research documentation will be available to any interested parties for possible verification. Some of the documents have been attached to this document as appendices. Triangulation and ongoing researcher reflexivity (Babbie & Mouton, 2007: 277) also enhance the elements of credibility, conformability and trustworthiness. Researcher reflexivity is the process of becoming aware of own perceptual biases (Golafshani, 2003: 602). In this study, there has been triangulation of research tools to enhance their robustness. Besides, the tool that has been employed in this study consists of predefined categories, such that each insurer is measured against relatively uniform categories.

3.2.2.3 The interpretation and meaning phase

Phase three of the study's data-collection technique centred on the researcher taking into account the context in which the documents were written and presenting a "true" picture by separating marketing window-dressing material from genuine attempts at reporting actual company efforts. However, as Wilmhurst and Frost (2000: 8) note, this cannot be guaranteed in annual reports which, they argue, "are often self-laudatory in nature." Besides, this study makes no attempt to

judge the quality of the reporting and thus the use of a pre-defined tool in an attempt to arrive at a "true" picture within the defined parameters.

In keeping with creating a thick understanding of each case under study, the company reports were subjected to document analysis. This approach is employed within the context of Bowman's (1978: 65, in Wilmhurst and Frost, 2000: 8) conceptualisation of such an approach as "an enquiry [which does] not [rely] on casual reading but rather on explicitly counting and coding of particular lines of prose, of word usage and disclosure."

The researcher in the current study started by reading each of the sampled annual reports, highlighting statements in the reports which were thought to represent companies' climate change risk management measures. A second review was meant to determine whether the identified statements were best allocated to board oversight, management execution, public disclosure, GHG emissions accounting, or strategic planning and performance categories. The specific indicators that were assessed in each of these five governance areas are listed in **Appendix 2**. In the third phase, the researcher assessed the extent of the companies' reporting of the identified efforts, in terms of whether it was *sketchy*, *systematic*, *extensiv*e, *integrative* or, if none of these applied, *nothing/insignificant.* Each company's performance was then awarded a score on specific indicators using the tool discussed below.

3.2.3 The assessment tool

As part of phase three – analysing, interpreting and making sense of the nature of climate change reporting – a research tool was developed based upon the climate change management indicators from the Ceres *Climate Change Governance Checklist* introduced in Chapter 2. In addition, and as a complementary measure, a scoring scheme was developed based on the SustainAbility's *Global Reporters Methodology* (SustainAbility, 2006) to facilitate the assessment of reported climate change initiatives.

While the GRI is the most utilised tool for assessing sustainability issues (KPMG, 2008b:4; Raman, 2006:315), it was considered inappropriate for this study because its indicators are generic and meant to assess sustainability issues in general. Using the GRI tool in this case

would mean assessing companies on issues that are not relevant to them, and trying to adjust it to suit the climate change reporting would miss out on some vital issues. Similarly, SustainAbility's methodology could not be adopted in its entirety because it is meant for assessing companies' reporting on wider sustainability issues, and not specific to climate change. A similar observation is made for the JSE/SRI Index.

Thus, the Ceres checklist, which specifically assesses companies on their climate change performance, was selected for this study and was supplemented by the SustainAbility's scoring framework. Besides, the Ceres' checklist encompasses the best practices for the insurance industry proposed by Ceres (Mills, 2009) in Chapter 2, as well as indicators that have been employed in other landmark studies on business' response to climate change responses, such as the CDP. The Ceres framework is thus viewed as the comprehensive, coherent and systematic framework for describing and analysing climate change risk management by the insurance industry.

The main reasons that motivated the adoption of the SustainAbility framework can be set out as follows. Firstly, the scoring framework employed by Ceres on the banking sector is not available to the public. Only Ceres' indicators were available and these were adopted for this study. Unavailability of the Ceres scoring framework called for an alternative well-established scoring method. Secondly, the fact that the SustainAbility framework has evolved out of a decade of rigorous research (SustainAbility, 2006) suggested that it would be a robust tool for assessing business sustainability issues. Thirdly, the SustainAbility scoring framework is informed by and fully compatible with the GRI's Sustainability Reporting Guidelines (SustainAbility, 2006: 4). Its association with such institutionally enshrined and industry-credible reporting standards as the GRI gives the SustainAbility tool substantial credence. In fact, the SustainAbility tool adds a different dimension to the assessment of corporate reporting, as SustainAbility (2006: 4) notes that "while GRI seeks to encourage reporting against a standard framework, SustainAbility seeks to add a rigorous and credible external analysis of the levels of that reporting". Finally, this methodology is designed primarily to assess companies' printed or online sustainability and annual reports and company website content (SustainAbility, 2006: 6), mirroring the units of analysis in this particular study.

Thus, the Ceres/SustainAbility hybrid tool was meant to search for evidence of climate change management measures by insurers, against the standards set for the financial sector, primarily developed and employed by Ceres. As SustainAbility (2006:4) and Ceres (Cogan, 2006: 19) observe, such a tool should not explicitly judge whether an organisation's efforts are good, bad, sufficient or fast enough in sustainability terms. Similarly, Daub (2005: 83) argues, such an analysis could be viewed as an assessment of a company's reporting skills and does not reflect what the company does or does not do or how it behaves generally, in the real world. Thus, the tool, as used in this study, does not seek to undertake a simplistic ranking of "best and worst" companies, but is mainly meant to facilitate the assessment of how well an organisation's disclosure enables a stakeholder to draw comprehensive and accurate conclusions around a company's:

- commitment and ability to contribute to sustainable development in a real and strategic way, in both the short and long term;
- ability to innovate and provide transformational solutions to sustainable development in ways that are financially attractive;
- operational performance over a reporting period;
- likely future performance and impact, as judged from the quality of the organisation's leadership, structures, systems and incentives; and
- ability to ensure the integrity of the reporting and disclosure process itself (SustainAbility, 2006: 5).

More specifically, the tool is meant to measure the companies' perceptions of the risk and opportunities posed by climate change, the governance actions and the specific innovative measures that they take in response to those risks and opportunities, as reflected in their reporting.

3.2.3.1 Defining the tool

The tool developed for this particular research consists of two main parts. The first part requires a simple 'Yes' or 'No' response with regard to the existence or non-existence of a particular

categorical indicator in the company's reporting of climate change initiatives. As noted already, the indicators that were scored are adapted from the Ceres climate change governance checklist. Part I of the tool is presented in **Table 3.1** that follows.

Table 3.1.: Definition of response categories for Part I of the research tool

Response category	Definition
1 = Yes	Applies where there is evidence of a company reporting on a given indicator.
0 = No	Applies where there is no evidence of a company reporting on a given indicator.

Part II of the tool measures the level of performance of a company in a particular indicator in comparison to predetermined indicators. The performance measurement tool is fashioned after SustainAbility/UNEP's *Global Reporters Methodology*. This tool defines how each company can be scored against the *Ceres* indicators for assessing climate change response in the financial sector (Cogan, 2006:19; 2008a). Further, decisions regarding specific scores to be awarded to companies against the individual indicators were informed by Ceres' best practice principles for the insurance industry (Mills, 2009: 66) as well as Hoffman and Woody's (2008: 24) recommendations for creating a climate change strategy, which were discussed in Chapter 2. The Ceres' and SustainAbility assessment techniques complemented each other to form a hybrid tool for analysing selected short-term insurance companies' reported levels of preparedness for climate change risk.

Ceres Climate Change Governance Checklist

The Ceres Climate Change Governance Checklist is a tool developed by the RiskMetrics Group, in consultation with Ceres in 2003, to analyse corporate response to climate change (Cogan, 2008b: 9). It consists of five governance areas of board oversight, management execution, public disclosure, GHG emission accounting and planning and performance (Cogan, 2008a: 9, 2008b: 1). These governance areas consist of specific indicators which measure the specific activities that companies could undertake in response to climate change. A list of the specific indicators is attached as **Appendix 2.**

Ceres' landmark study of the banking sector's response to climate change risk (Cogan, 2008) groups the specific indicators in **Appendix 2** into 19 broad activity areas, based on specific steps that companies can take to proactively address climate change risk. In the current study, the indicators in **Appendix 2** are categorised into 11 such areas, which are deemed applicable to the insurance sector instead of the 19 that were applied to the banking industry. While the grouping of specific indicators in the 11 activity areas was informed largely by Ceres (Cogan, 2008a), it was also influenced by the SustainAbility framework (2006), Hoffman and Woody's (2008: 24) recommendations for creating a climate change strategy, as well as other recurring themes identified in the literature review. The 11 activity areas are listed in **Table 3.2** that follows.

Table 3.2.: Classification of activity areas

Governance area	Activity area
Board oversight	Board oversight over climate change risk management
Management execution	Executive leadership and climate change policy orientation
	Executive leadership structures
	Integration of climate change into risk management and core business
	Compensation link to climate change risk management
Public disclosure	Securities filings and/or MD&A disclosure of material risks and opportunities
	Public policy communication
Emissions accounting	GHG emissions savings and offsets from operations
	Targets or GHG emissions reduction
Strategic planning	Energy efficiency measures
	GHG trading and other products and services

The climate change governance checklist, as developed by Ceres, assigns different weights to each of the five governance areas. This is done in order to reflect the number of options available

and their relative importance to the overall score, given that the tool was developed for a broad range of industries (Cogan, 2008a: 5).

The insurance industry follows the same weighting as that assigned to the banking sector (Cogan, 2008: 6). However, it does not assign numerical weighting to the five governance areas, like Ceres did, but instead adopts Ceres' ordinal categorisation of the five governance areas. The idea to adopt the categorisation scheme applied to the banking sector is based on the assumption that insurance companies, being part of the financial sector, will be affected by climate change in a similar manner.

Thus, in the insurance sector, the five governance areas are prioritised as follows:

- Strategic planning and performance
- Management execution
- Public disclosure
- Board oversight
- Emissions accounting

This means that strategic planning and performance issues are more important to the insurance industry than are those relating to board oversight and public disclosure. The assumption here is that the insurance industry, being a less intensive GHG emitter, would not require rigorous GHG emissions accounting procedures (Cogan, 2008b). Instead, it would benefit more from strategically investing in projects that go beyond reducing its climate change risk to also enhancing its financial opportunities, while at the same time taking care of natural resources through, for instance, insuring cleaner energy technologies as well as communities, through job creation. The issue of the relative importance of the five governance areas is re-emphasised in Chapter 5, where this study attempts to link the finding to the TBL conceptual framework.

SustainAbility's scoring and the assessment method

The SustainAbility scoring and assessment tool has evolved out of a series of benchmark surveys of corporate environmental and sustainability reporting conducted by SustainAbility. The tool as it is employed here was consolidated in 2006. While the methodology is generic, in the sense that it focuses on assessing a set of generic business processes and the extent to which these

processes take account of sustainability impacts and performance, it is adaptable and thus suitable for systematically assessing and scoring climate change risk management responses against the Ceres indicators.

According to the SustainAbility scale, the scores range from 0 to 4, with "0" being the lowest possible score and "4" the highest possible score (SustainAbility, 2006: 4). The scoring tool, as adapted from the framework, is tabulated in **Table 3.3** on the next page:

Table 3.3.: Report scoring framework

0 = Nothing/ Insignificant	The report provides no information on the criterion, or nothing sufficiently significant to suggest the company understands or takes the criterion seriously. Overall, any statements appear generic or formulaic, without specific links to the company and its own activities or impacts.
1 = Sketchy	Coverage suggests that the company recognises the criterion to some degree, and is attempting to present it in a serious way. **But:** The company does not (yet) address [the criterion] in a systematic way. Without assurance of the existence of a systematic approach, a reader cannot be sure that the coverage is not due to a good report writer and/or the company's desire to be seen in a favourite light, rather than a true reflection of actual reporting activities under way within the company. Overall, there is evidence of effort, but it is difficult to tell whether the company is really moving in the right direction, because the overall pattern does not come into view.
2 = Systematic	Coverage suggests the company is taking the criterion seriously and seeking to represent the information systematically. Overall, you get the sense that the company is on the right track in terms of satisfying the criteria. **But:** Even though the systems and processes are robust, they have not yet been fully developed or rolled out across the company, across divisions and across issues, all of which takes time.
3 = Extensive	Coverage is serious AND systematic AND not suffering from major gaps in coverage, presentation of interpretation – a systematic treatment that has been rolled out across the company and across a range of issues and concerns. N.B. This is not to require explicitly that every single company activity, major issue and individual site has achieved the same level of sophistication in issue management, information gathering and presentation. The 'preponderance of evidence' shows a significant, widespread level of success in rolling out systems and processes. **But:** The information is not explicitly or fully linked to core business decision-making. Overall, while reporting in this area is very good, there is insufficient evidence that the company in general at the highest levels takes to heart the results of reporting in this area and alters course accordingly.
4 = Integrated	Reporting is serious, systematic and extensive, AND evidence is given that shows how reporting in this area is linked to general business decision-making and core processes to improve sustainable development (SD) effectiveness. The reader is confident that the company at the highest level takes to heart the results of reporting in the area and alters course accordingly.

3.2.3.2 Scoring the companies

In Part I of the analysis, the companies that did not show evidence of climate change reporting were excluded from further analysis. Those that showed some evidence of climate change management reporting in were subject to basic numerical analysis to show the prevalence of the reporting of climate change management initiatives. In Part II, the companies were scored against the SustainAbility scoring tool in **Table 3.3** and Ceres' indicators in **Appendix 2.** The companies that ranked highest when scored against this tool were used as a benchmark to indicate what companies should ideally be doing in terms of climate change risk management. These "best-practice" companies were the basis of the recommendations in Chapter 5.

Background information about each of the companies that were assessed is presented in **Appendix 3.** The profiling is based on the information given in the introductory pages of company reports that were assessed, as well as web pages. This effort at contextualisation was meant to give the reader a clear sense of the company's size and geographical spread, portfolio of products and services, and segments served and thus facilitate the reader's assessment of the appropriateness of the report's coverage and materiality of the issues highlighted (SustainAbility, 2006).

3.2.4. Data analysis

Data analysis was largely qualitative, although some elements of quantification were called for, primarily for descriptive purposes. The simple quantitative analysis relied mainly on basic descriptive statistics, such as frequency, tabular and graphic distributions (Babbie & Mouton, 2007), to enable comparison within the industry. The rationale for such a comparison is that shareholders, as investors, are interested in how their company ranks in relation to their industry peers. Such comparison allows investors to determine a company's competitive advantage in a carbon-constrained economy (Cogan, 2006: 19) and is essential for informing company policy.

The qualitative data analysis attempted in Part II of Chapter 4 seeks to undertake a "thick description" and analysis of data based on Ceres' predetermined categorical indicators and SustainAbility's reporting scoring framework. Such data analysis mirrors the 2008 Ceres survey

(in Cogan, 2008a). The critical analysis in Part II is further strengthened in Chapter 5, where the findings are correlated to the conceptual framework of the TBL, as explicated in Chapter 2 of this study report.

3.2.5. Methodological problems

Although the overall methodological design, as suggested at the stage of proposal development, was maintained, it was altered somewhat to reflect the realities of actual data collection. Some problems that were not anticipated in the initial proposal cropped up. The following are some of the problems that were encountered, and how they were resolved:

- The Ceres scoring tool, which is part of the Ceres methodology, which should have been used for this analysis, is not publicly available. The researcher thus employed SustainAbility's *Global Reporters Methodology* to supplement the Ceres framework.
- Initially, the proposal was for the study to include company websites as a unit of analysis. However, it was later noted that company reporting on the website is not standardised. It thus proved difficult to decide which web page to analyse and the company website was excluded from the study.

3.3. Summary

In this chapter, the researcher defined the research tool which was used to score companies in Chapter 4. It also defined the data collection methods and the measures meant to enhance the quality of data collected. The chapter emphasised the fact that the data analysis and presentation attempted in this study mainly consist in thick descriptive narrations the findings. The next chapter employs the tool defined here to score the short-term insurers in terms of their corporate responses to climate change related risk, in addition to presenting and analysing the findings.

CHAPTER 4: PRESENTATION AND DISCUSSION OF RESULTS

4.0. Introduction

This chapter presents an analysis of the findings of the study, using the assessment tools described in Chapter 3. Part I of this chapter is concerned with answering the question about the availability or non-availability of corporate reporting on climate change management initiatives, as well as the prevalence of such initiatives among the samples companies. Thus, in Part I, companies that registered "0" reporting were eliminated from further analysis. Those that showed evidence of climate change reporting were subject to a basic statistical presentation, giving an overview of the prevalence of the companies' self-reporting across the eleven activity areas highlighted in **Table 3.2** of Chapter 3. Part II of the chapter gives a thick assessment of the extent of the companies' self-reported performance in climate change risk management in terms of the analytical categories established in **Table 3.3** in Chapter 3. Here, an attempt is made to unravel the *depth* of such reporting in terms of how companies measure up against the global best practices.

4.1. Part I: Existence and prevalence of climate change management initiatives

4.1.1 Existence of climate change risk management initiatives

Part I of the research tool described in **Section 3.1.3.1** of the previous chapter sought a simple "Yes" or "No" response with regard to the existence or non-existence of reporting on climate change risk management initiatives. Thus, the sampled companies in this section were scored against this tool.

A total of 23 companies were sampled for this study. Of the 23 companies, 12 of them showed some evidence of publicly disclosing the existence of some climate change management initiatives, while the other 11 showed no evidence of reporting in this regard. The 11 companies – shown in **Table 4.1** that follows – were thus awarded a score of zero, and excluded from further analysis.

Table 4.1.: Companies that did not show evidence of climate change reporting

Company name	Website address
Cardiff-Pinnacle (Pinnafrica)	www.cardifpinnacle.co.za
Compass Insurance Company Limited	www.compass.co.za
Credit Guarantee Insurance Corporation of Africa Limited	www.creditguarantee.co.za
GenRe Company Limited	www.genre.com
Guardrisk Insurance Company Limited	www.guardrisk.co.za
HDI Gerling Insurance of South Africa Limited	http://www.gerling.com
Hollard Insurance Company Limited (The)	www.hollard.co.za
Mutual and Federal	www.mutualandfederal.co.za
Lion of Africa Insurance Company Limited	www.lionsure.com
Regent Insurance Company Limited	www.regent.co.za
SASRIA Limited	www.sasria.co.za

Table 4.2 on the next page shows those 12 short-term insurance companies which showed evidence of climate change management reporting. These companies were subjected to a further analysis to establish the extent of their self-reporting on climate change risk management – a subject of Part II of this chapter.

Table 4.2.: Companies with evidence of climate change reporting

Company Name	Website address
Ace Insurance Limited	www.aceinsurance.co.za
African Reinsurance Corporation (SA) Limited	www.africa-re.com
AIG South Africa Limited	www.aig.co.za
Allianz Insurance Limited	www.allianz.co.za
Hannover Reinsurance Africa Limited	www.hannover-re.co.za
Lloyd's South Africa (Pty) Ltd	www.wwb.co.za
Momentum Short-Term Insurance Company	www.momentum.co.za
Munich Reinsurance Company of Africa Limited	www.munich-re.com
OUTsurance Insurance Company Limited	www.out.co.za
Santam Limited	www.santam.co.za
Swiss Re Africa Limited	www.swissre.com
Zurich Insurance Company South Africa Limited	www.zurich.co.za

4.1.2. Overview the prevalence of self-reporting

The scoring of the 12 companies in Part I yielded frequencies, representing how the companies performed in relation to the eleven activity areas. The results are summarised in **Figure 4.1** that follows.

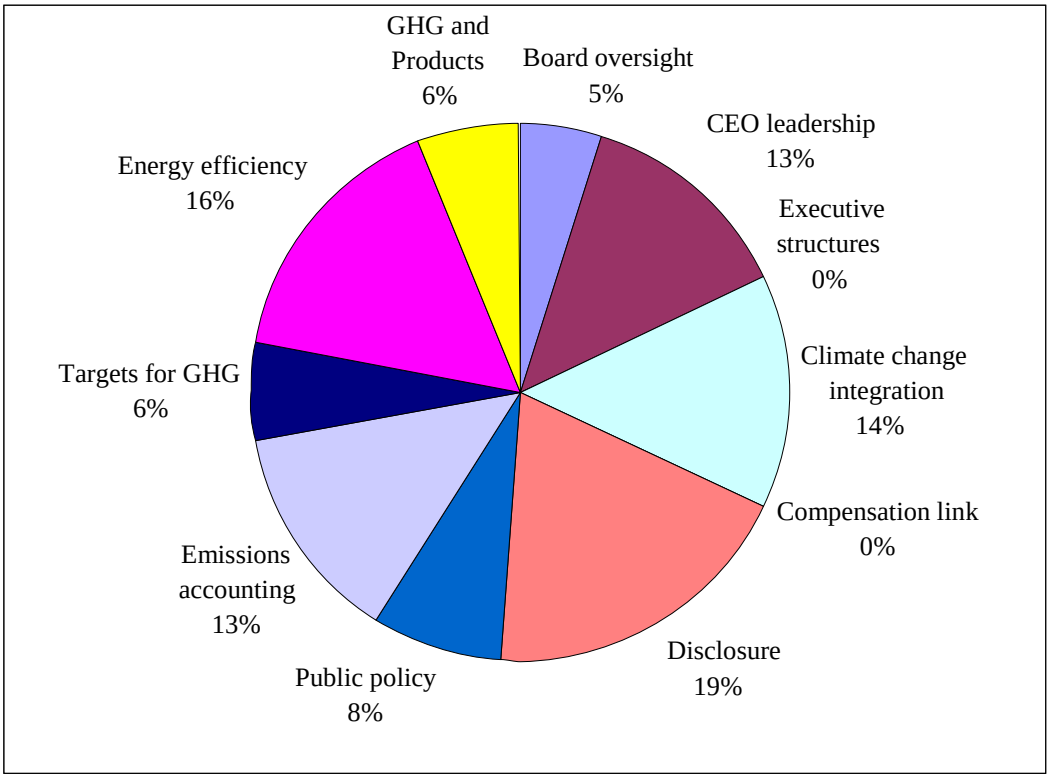

Figure 4.1.: Overview of self-reporting

From **Figure 4.1** it can be concluded that public disclosure through company reports, with a 19 percent score, was the most practiced activity area among the short-term insurers under study, followed by energy efficiency measures, at 16 percent. Integration of climate change initiatives into financing decisions was the third most popular theme of disclosure. About 14 percent of the companies in their annual report had some mention of integration efforts. There was no evidence of either executive leadership structures or staff compensation linked to climate change related performance. These two activity areas will not be analysed further in this study.

4.2. Part II: Extent of self-reporting

This section provides a much more nuanced analysis of the evidence above. The results are analysed in terms of the levels of performance in **Table 3.3**, namely understanding how self-reporting of climate change risk management activities among the companies tends towards being “insignificant”, “sketchy”, “systematic”, “extensive”, or “integrated”.

4.2.1. Board oversight

Board oversight is an aspect of climate governance, relating to the levels of involvement of boards of directors in setting out a strategic policy framework within which management can execute climate change policy. Such oversight is expressed in terms of the monitoring role of the board and assignment of specific climate change-related duties to specific board members. Furthermore, it entails insurers training their board members to facilitate their participation in climate change risk management, as noted in the Ceres' (Mills, 2009) study discussed in Chapter 2 of this study, which observed that some insurers were actively educating their boards about the potential liabilities and strategic opportunities that climate change can create.

Of the 12 companies assessed in the study, 95 percent or 11 of them either did not present any evidence at all, or the evidence they presented was insufficient to suggest that they understood the value of involving the board in managing climate change risk. For these companies, the information presented was insignificant. Only eight percent of the companies assessed presented information that suggested the companies recognise the importance of board involvement to some degree. Thus these companies reported their initiatives in a systematic manner. This is shown in **Figure 4.2** below.

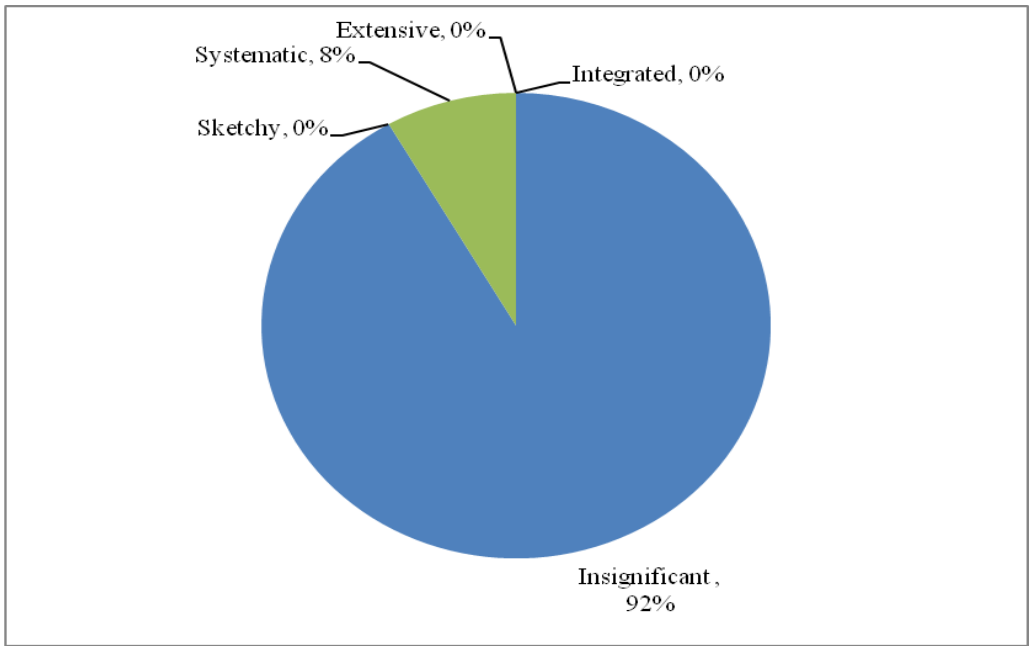

Figure 4.2.: Aggregate reporting of board oversight

Table 4.3 gives a disaggregated analysis of the type of insurance company by the level of reporting of board oversight over climate change risk management.

Table 4.3.: Board oversight

Multinational[8] companies	**Level of reporting**
Ace Insurance Limited	0
AIG South Africa Limited	0
Allianz Insurance Limited	2
Hannover Reinsurance	0
Lloyd's South Africa (Pty) Ltd	0
Munich Reinsurance	0
Swiss Re Africa Limited	0
Zurich Insurance	0
Local[9] companies	
African Reinsurance Corporation	0
Momentum Short-Term Insurance	0
OUTsurance Insurance	0
Santam Limited	0

As **Table 4.3** shows, all the four local companies – African Re, Momentum, OUTsurance and Santam – were among the 11 that were awarded a score of "0", for not providing significant information regarding the involvement of their boards in climate change management.

Only Allianz, with a score of "2", reports the involvement of its board in climate change risk management. Allianz reports that in 2007, its Executive Board had, as part of the group's climate

[8] Multinational companies were taken to be those that have their main operations and policy-making headquarters in countries outside Africa, and operated in South Africa only through their subsidiaries. Local ones were basically headquartered either in South Africa itself, or elsewhere on the African continent.

[9] Although African Re underwrites some businesses outside the African continent, such as in the Middle East and Asia, it has been classified as a local African company because most of its operations are in Africa and is mainly managed from subsidiaries located on the African continent. Its head office is in Lagos, Nigeria.

change strategy, established an initiative called "climate change solutions" to offer customers "green" products and services. Further, Allianz reports that its board was involved in developing the group's new Environmental Management Team Structure, which was targeted for implementation in December 2007.

Allianz's reporting demonstrates board commitment in terms of concrete climate change-related initiatives and structures that the board has initiated. This suggests that the company is taking board oversight over climate change management seriously and is seeking to present the information systematically. However, the reporting neither indicates the board as being the ultimate overseer of climate change activities, nor does it specify any specific targets or goals the board could have set itself. In addition, it does not indicate whether the board's involvement is linked to broader sustainability or risk management issues. Thus, in terms of the evidence presented, Allianz does not yet seem to manage climate change in an integrated manner *vis-à-vis* board participation.

The sketchy evidence of board oversight in climate change management reinforces Ceres' (Cogan, 2008: 16) argument that companies that produce the least Scope 1 emissions are not as likely to have established board-level oversight structures for climate change as large GHG emitters, such as utilities and other heavy industries. This is further confirmed by Ceres' ranking of governance areas highlighted in Chapter 5**,** whereby board oversight does not feature as prominently as other governance areas in the hierarchy of critical governance factors in climate change management in the financial sector (Cogan, 2008).

4.2.2. Management execution

In this study management execution is discussed within the context of two activity areas already highlighted in Chapter 3. The two areas relate to whether a company's executive leadership assumes a leadership role in articulating and executing climate change policy and whether a company's climate change initiatives are integrated into its risk management and mainstream business activities.

Executive leadership in policy articulation and implementation

Overall, the information presented concerning executive leadership commitment to climate change policy formulation and implementation ranges from being insignificant or nothing, to integrated. The information provided by 42 percent of the insurance companies suggests that their executive leadership's involvement was insignificant, while that by 25 percent of the companies was integrated, as shown in **Figure 4.3** below.

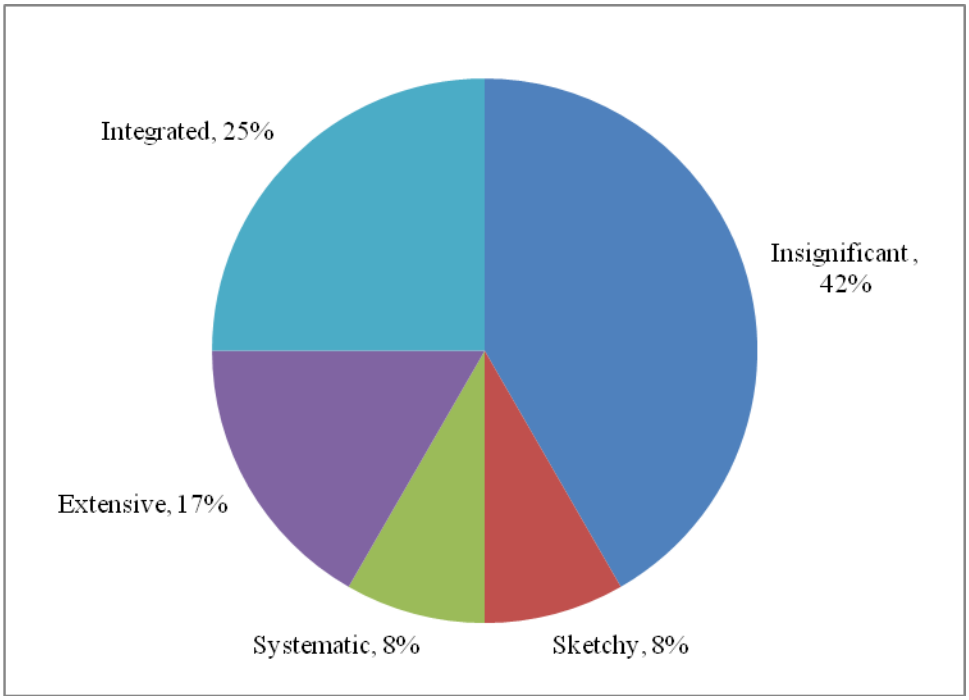

Figure 4.3.: Level of CEO leadership in climate policy implementation

There are conflicting results with regard to the levels of performance of CEO leaders in multinational and local short-term insurance companies. Three of the four local companies – African Re, Momentum and OUTsurance – are among the 42 percent whose reported information was insignificant in **Figure 4.3** above. This is also reflected in **Table 4.4** below. The reason for this is because Momentum and OUTsurance did not provide any information regarding the involvement of their executive leadership in climate change management; neither did they report anything on climate change policy. African Re provided some information that suggests that the company leadership is aware that climate change has an impact on the

insurance industry. The chairman's statement notes that in 2007 the African Reinsurance Forum, which African Re initiated (currently organised under the auspices of the African Insurance Organisation), took place in Madagascar under the theme "Climate Change and the Insurance/Reinsurance Industry". While this statement does make reference to climate change, it is quite formulaic, with no reference to the company's own impacts and is thus *insignificant.*

The reporting by the fourth local company, Santam, suggests that the company generally addresses climate change through executive leadership commitment and policy. Santam is among the 17 percent of companies in **Figure 4.3** whose reporting suggested *extensive* levels of CEO commitment to climate change risk management and policy.

The statement by Santam's sustainability committee's chairperson suggests that Santam's leadership understands the need to proactively manage climate change risk and to innovate in the process. She acknowledges the risk and opportunities posed by climate change in her statement: "…We must anticipate the effects of climate change on our business and manage this risk by adopting creative sustainability efforts." This leadership commitment is reinforced by the company's policy reform. The company reports that in 2007 it was reviewing its incumbent environmental policy in order to devise one which would seek to achieve greater management commitment and active participation in reducing the company's environmental footprint.

However, Santam's reporting does not explicitly demonstrate that the company realises that climate change risk management, when integrated with other sustainability issues, presents opportunity, like Swiss Re does. Swiss Re's leadership sees climate change as an opportunity to build the group's image by managing its carbon footprint while taking responsibility to care for disadvantaged communities. Similarly, Allianz sees opportunity in their responsibility to help their customers mitigate potential climate change risk while at the same time embracing opportunities such as renewable energy development.

It is clear that the poor performance by the local insurers in terms of executive leadership and policy articulation and implementation put them at a disadvantage. Senior leadership is identified as one of the most critical issues in climate change risk management, as noted by Hoffman and Woody (2008) and Cogan (2008) in Chapter 2. Arguably, the absence of top leadership

commitment could perhaps explain why the local short-term insurers have not done as well as their multinational counterparts in other areas of climate change risk management discussed here.

Table 4.4.: Chairman/CEO leadership in climate change policy articulation and execution

Multinational companies	**Level of reporting**
Ace Insurance Limited	2
AIG South Africa Limited	4
Allianz Insurance Limited	4
Hannover Reinsurance	0
Lloyd's South Africa (Pty) Ltd	0
Munich Reinsurance	1
Swiss Re Africa Limited	3
Zurich Insurance	4
Local companies	
African Reinsurance Corporation	0
Momentum Short-Term Insurance	0
OUTsurance Insurance	0
Santam Limited	3

Several multinational insurers however reported better performance than did local ones. Zurich, AIG and Allianz's reporting, as the scores in **Table 4.4** suggest have, to some extent, integrated climate change management initiatives into their core business and sustainability efforts, through executive leadership involvement in climate change management. Thus, these companies constitute the "best practice" with regards to CEO climate change leadership and policy. They could thus serve as a benchmark for insurers like African Re-insurance, Momentum and OUTsurance whose reporting was insignificant or even for those like Santam, whose reporting suggests positive efforts, but with some gaps in executive leadership commitment to climate change management and policy.

Further, Zurich, AIG and Allianz's reporting demonstrates how the CEO/chairman's involvement in climate change policy links up to the companies' general decision making and core processes aimed at sustainable development. For instance, Zurich's CEO, in his letter to shareholders, acknowledges that the policies and practices the company adopts will affect the lives of future generations and that it is important for his company to go beyond such legislative prescriptions as the Kyoto Protocol and exercise its responsibility to manage its direct impacts on the environment through innovative strategies. The company's CEO makes reference to a climate change advisory council, which focuses on the climate management strategy meant to examine the economic, financial and policy issues related to climate change.

The joint statement by Swiss Re's board chairman and CEO observes that climate change is one of the priority areas in terms of building Swiss Re's corporate image, further indicating that the company's strategy in this regard focuses on mitigation and adaptation measures, which have been extended even to developing countries. The statement further refers to the company's efforts in terms of managing its own footprint through its Greenhouse Neutral Programme. Through this programme, the company has set itself specific targets to cut down its carbon footprint.

Like Santam, Allianz's CEO remarks on the importance of proactively addressing the challenge of climate change "from a position of responsibility and opportunity". This pronunciation ties in with the group's policy which states that:

> …we feel it is our responsibility to help our customers mitigate potential climate change risk and to embrace opportunities such as renewable energy development …we have carried out extensive research to help understand climate change risk.

This commitment further ties in with the observation made by Ceres (Mills, 2009) , which has been highlighted in Chapter 2, that industry leaders were driving forward research to facilitate stakeholders' decisions' regarding climate change management.

Allianz also reports that, as part of its vision statement, it was working to fully integrate climate change initiatives into business units to ensure a sustainable world through combining its long-term economic value, environmental stewardship and social responsibility. The group reports

that the core of its climate change strategy is integration of climate change risks into its internal governance procedure and policies.

Integration of climate change into risk management and core business practices

In this study, companies' integration of climate change initiatives into their risk management and mainstream business activities was assessed in terms of the extent to which a company's reporting demonstrates integration of climate change in (i) its overall risk management/financing decisions; (ii) devising staff training and education programmes; (iii) its strategic relationships with external players, such as other companies in the industry as well as coalitions with NGOs; and (iv) research decisions, so as to inform its decision-making regarding climate change management (Cogan, 2008a).

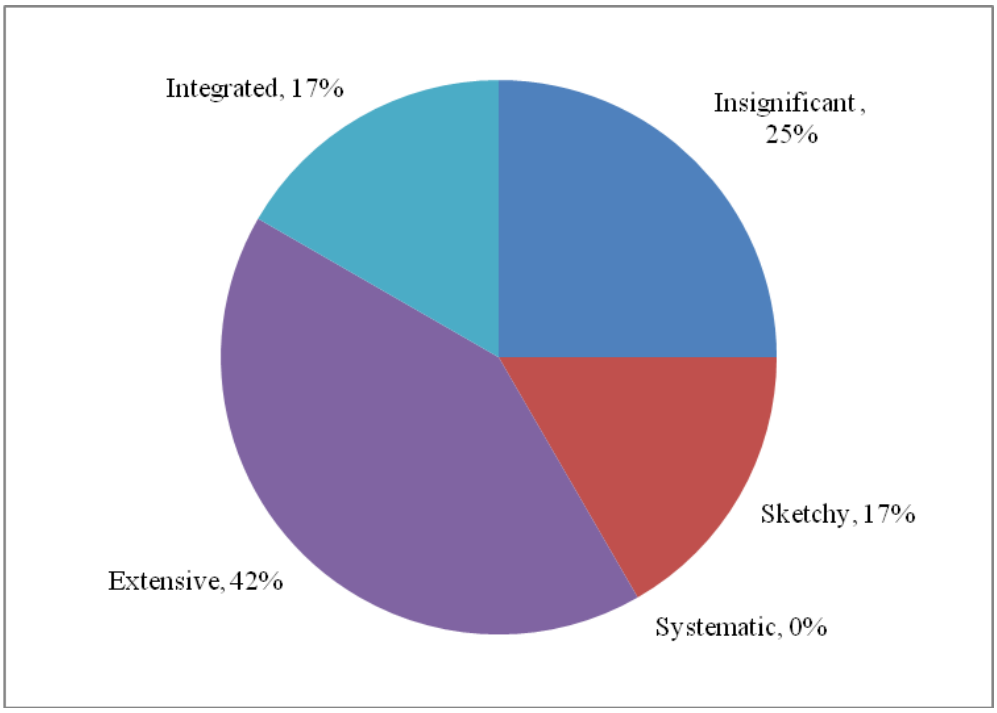

Figure 4.4.: Level of reporting climate change integration

It can be deduced from **Figure 4.4** above, that there is generally insufficient information to suggest that most of the insurance companies understand or take seriously the need to integrate their climate change initiatives into mainstream risk management and core business decisions.

As is deducible from **Table 4.5** on the next page, where there is evidence of such an approach, it must be analysed in terms of the type of insurance company at play. In general, multinational companies appear to have a more extensive approach than local companies.

African Re, Momentum and OUTsurance are the three local companies who are part of the 25 percent in **Figure 4.4** above, whose reporting suggests insignificant integration of climate change intiatives into risk management and mainstream business activities. Momentum and OUTsurance do not provide any information in this regard.

African Re, however, implicitly makes reference to climate change as a source of business risk, but the company's statement is generic. Its annual report indicates that African Re had joined the initiatives taken by some of its traditional partners to establish a reinsurance company to underwrite weather and other natural catastrophe risks, in response to the need for cover in that specialised domain. In this statement, African Re does not provide sufficient information to suggest that it understands the need to localise climate change issues to its own impacts and to integrate these into its overall business risk management efforts.

The fourth local company, Santam, seems to take an extensive approach to integrating climate change risk management into overall business management in a manner that suggests it is taking the need to incorporate climate change into its wider risk mitigation efforts seriously. Its presentation suggests that climate change risk management efforts have been treated systematically and have been rolled across the company and across a range of issues and concerns. The information presented gives the reader the sense that the company is on the right track in terms of mitigating the risk and harnessing the opportunities that climate change presents.

For instance, Santam commits itself to taking a leadership role in the insurance sector in meeting the climate change challenge through their own management strategy and in collaboration with other parties. Following its consultations with re-insurers, Santam has committed to making the impact of climate change part of its business strategy, and plans to implement geographic information systems for accurate responses to climate change risk. Further, Santam reports undertaking a survey meant to assess its clients', commercial brokers' as well as reinsurers'

understanding of climate change issues. Following this survey, Santam formed a task team comprising members from the product development, marketing, underwriting and strategy departments to inform climate change policy. In addition, its 2007 survey, meant to estimate its GHG emissions for that year, informed its efforts towards cutting down on travel, saving energy and water as well as actively participating in recycling initiatives.

Evidently, Santam has undertaken consultations regarding climate change management with its traditional risk management partners, such as its brokers. This is a demonstration of the company's attempts at facilitating the integration of climate change risk management into its already existing risk management structures and relationships. Further efforts at integrating climate change into its mainstream risk management are reflected in the composition of its task force and its use of technology to facilitate climate change management. Additionally, Santam reports that in 2007 it qualified for the JSE Limited's Responsible Investment Index (SRI)[10]. Clearly, Santam's practices are in line with Ceres' (Mills, 2009) findings of the climate change management practices among the global leaders in this regard, highlighted in **Section 2.2.3.1** of Chapter 2.

However, unlike the best practice companies in this area, it is not stated in the case of Santam whether its recognition by the JSE/SRI specifically takes into account climate change management performance, especially given the fact that the index, at the time of the reporting, had not yet explicitly defined climate change indicators. Further, Santam does not demonstrate engagement with non-business stakeholders. This contrasts with Allianz and Swiss Re, as will be demonstrated in Table 4.5 on the next page.

[10] The JSE/SRI is a sustainability benchmark framework that recognises those companies listed on the JSE incorporating sustainability principles in their everyday business management. It also facilitates investors' assessment of company's performance (JSE/ SRI Index, 2007: 2).

Table 4.5.: Climate change integration into risk management and core business

Multinational companies	Level of reporting
Ace Insurance Limited	0
AIG South Africa Limited	3
Allianz Insurance Limited	4
Hannover Reinsurance	1
Lloyd's South Africa (Pty) Ltd	3
Munich Reinsurance	3
Swiss Re Africa Limited	4
Zurich Insurance	3
Local companies	
African Reinsurance Corporation	0
Momentum Short-Term Insurance	1
OUTsurance Insurance	0
Santam Limited	3

In comparison, as can be seen from **Table 4.5**, Allianz and Swiss Re constitute the 17 percent of companies in **Figure 4.4** above, whose reporting suggests that their efforts at integrating climate change risk management into mainstream risk management and core business structures were integrated. As such, these two multinational insurers can be treated as a case of best practice.

These companies identify specific opportunities presented by climate change and highlight relationships and structural arrangements to take advantage of the opportunities and how these link to the company's TBL efforts. For instance, besides its plans to fully integrate climate change initiatives into its business units, Allianz reports that integration of climate change risks into its internal governance procedures and policies would be at the core of its climate change strategy as evidenced through the work of its Climate Core Group. To facilitate the mandate of its Climate Core Group, Allianz has strategic partnerships with, among others, the World Food

Programme (WWF) and UNEPFI's Global Roundtable on Climate Change, which Allianz chairs.

Internally, Allianz seeks to train its staff to embrace climate change-related initiatives in their everyday personal and work life, through the use of its intranet and a communications programme aimed at increasing employee awareness of environmental issues. Allianz also reports that it was working on publishing its first employee sustainability report in 2007, with information on what individuals can do to reduce their contribution to climate change. As Hoffman and Woody (2008) suggest in Chapter 2 of this study, such engagement of employees facilitates buy-in and guarantees that every department in the company understands the company's GHG management goals, besides equipping employees to manage GHG emissions at a personal level.

Through its partnerships, Allianz reports undertaking research and analysis meant to facilitate a global understanding of climate change and reports on several publications aimed at raising awareness regarding climate change risk management. Such publications include:

- The *UNEP FI Study Carbon Crunch*, whose key message is to urge policy makers to adopt reduction targets beyond 2012 and to use this as a clear mandate for action;
- Allianz's brochure produced in 2007, highlighting what can be done to mitigate against the increasing risks of global warming;
- *Hedging Climate Change*, which calls for new approaches to risk diversification in the insurance industry and specifically looks at how to insure catastrophes caused by climate change; and
- *Dresdner Kleinwort Research*, focused on energy and emission trading.

Allianz reports that its integrated approach to managing sustainability issues, such as climate change, have been acknowledged externally through (i) inclusion in the CDP5 Climate Index and (ii) stocks appearing in the "FTSE-4-Good", "Climate Disclosure Leadership" and "Dow Jones Sustainability". The company took the leadership slot in the Dow Jones Sustainability Index in 2007.

Swiss Re, like Allianz, has sought to incorporate climate change risk management into the everyday work and personal lives of its employees, has undertaken extensive research and has received formal external acknowledgment for its efforts. Swiss Re also reports incorporating climate change risk into its core business through the development of investment products, especially in the developing world. This risk management philosophy is reflected in the joint executive statement by the board chairman and CEO, who stress that Swiss Re attempts to promote solutions to challenges relevant to their business and to support the communities where the company operates. The leadership statement also observes that climate change, as a global environmental challenge, creates risk but also new business opportunities.

As for its climate change investment products, Swiss Re developed a framework in 2007 to formally integrate ESG-related information into the equity analysis process. Further, Swiss Re reports that as part of its Green Investment Initiatives, it is in a partnership with the Generation Investment Management (GIM) Global Equities Fund, formed by former US Vice President Al Gore and David Bloods, whose focus is on green energy and environment related industries in emerging markets.

Swiss Re has also developed external relationships focused on facilitation of the integration of climate change into overall sustainability goals. For instance, the group reports that it has developed products that support economic progress in emerging markets by extending insurance cover to such areas, thus offering a combination of protection against the effects of climate change with poverty alleviation. Further, Swiss Re reports that, in partnership with the Millennium Promise Alliance and Earth Institute at Columbia University, it has developed weather derivative contracts protecting several African villages against severe drought. The payment scheme for these derivatives was based on a climate index developed by the Earth Institute.

Other climate risk management initiatives that Swiss Re has embraced into its core business include its strategic partnerships to raise awareness and influence how governments and other key players respond to weather related disasters. For instance, working in cooperation with Caritas Switzerland, the International Committee of the Red Cross and Vivamos, Swiss Re

provides risk know-how and financial support either through offering instant relief to people affected by natural catastrophes or supporting prevention measures.

Clearly, the range and depth of the measures presented by the best practice companies in this study span across the range of insurers' response measures noted in **Section 2.2.3.1.** It is fitting therefore that these companies should serve as examples for local companies, who have generally come out as low performers, save Santam.

4.2.3. Public disclosure[11]

Public disclosure is discussed in the context of a company's efforts at communicating its climate change risk management initiatives to its stakeholders through annual and sustainability reports, as well as through external reporting framework such as the CDP and in keeping with international guidelines, such as the GRI (Cogan, 2008a). Public disclosure also entails that companies should not only disclose their climate change initiatives, but should also be transparent about their views on climate change regulatory actions and the kind of policies that they support (Cogan, 2008: 21). Thus, public policy support, both country-specific as well as that relating to international commitments such as the Kyoto Protocol, constitute part of companies' sustainability commitments.

Disclosure through company reports

None of the 12 companies demonstrated an integrated disclosure of information relating to risks and opportunities that they face as a result of climate change and GHG regulation. The responses among the other four of the five response categories are evenly distributed, at 25 percent in each case, as **Figure 4.5** that follows shows.

[11] With regard to public disclosure, the analysis in this study is dependent on the information that companies have placed in the public domain. Therefore, companies with more information on their climate change governance responses as presented in their annual and sustainability reports will score better.

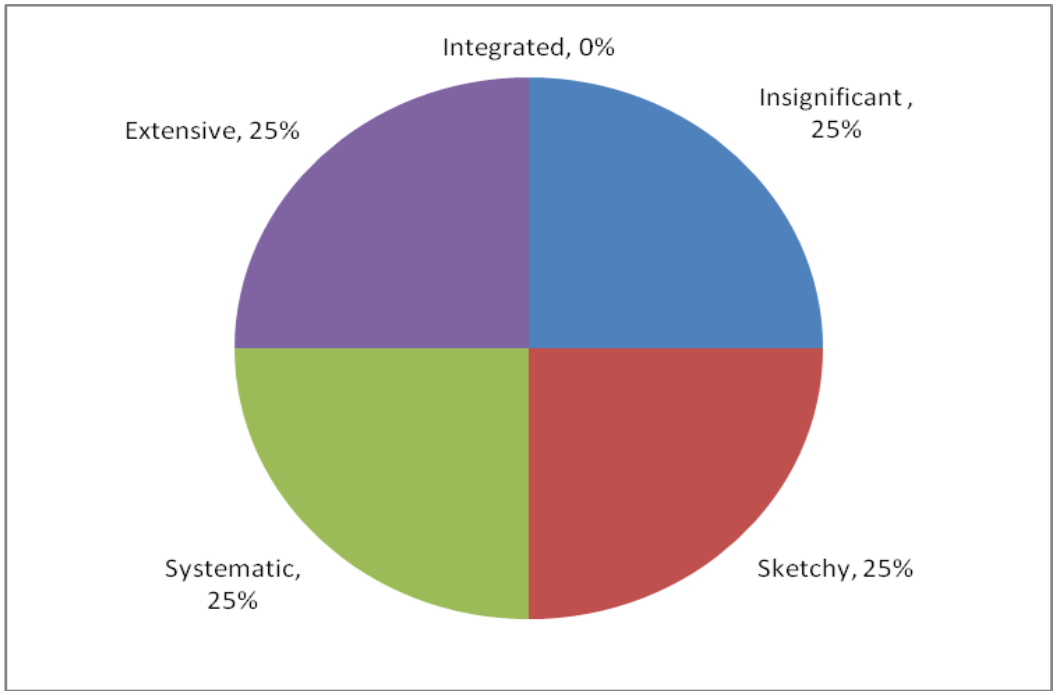

Figure 4.5.: Level of public disclosure in company reports

Of the four local companies, African Re, Momentum and OUTsurance's disclosure was insignificant as these companies provided insufficient information to suggest that they understand the risk and the opportunities that may result from climate change and its attendant regulation. While the companies demonstrate a general awareness that climate change is a source of business risk, their overall reporting is meagre and generic and does not sufficiently refer to their own impacts and activities.

For instance, African Re's sustainability report was not available online. The highlight of its climate change reporting in its annual report is its statement that "flood statistics reveal an increase from 100 floods at the beginning of the previous decade to 250 in the mid 2000s, thus confirming the already known fact of climate change and subsequent global warming, caused mainly by human activities such as deforestation." Such reporting is formulaic as it does not link to the company's own activities or impacts.

Momentum and OUTsurance shared the same annual report, which showed no evidence of climate change-related reporting. Their individual sustainability reports focused on reporting

social issues and any attempts at reporting environmental issues were generic, with no specific targets, no quantification of efforts and little reference to climate change specifically.

Santam is the only local company among the three whose reporting was extensive, with a score of 3 as shown in **Table 4.6.** Santam, together with two multinational companies, Allianz and Swiss Re, represent best practice in terms of disclosure through company reports. Santam acknowledges the reality of climate change and highlights its commitment to making the impact of climate change a part of its business strategy. Further, Santam highlights some activities it focused on in 2007, which include the raising of environmental awareness and engaging its stakeholders, actions to understand future impacts of climate change, and creating energy efficiency. Additionally, Santam demonstrates its commitment to transparency principles through its application of both local and international governance standards.

For instance, Santam's CEO notes that most of the company's sustainability decisions were guided by Section 4 of the King II Report on Corporate Governance. In addition, Santam's CEO reports that the company is committed to the JSE/SRI and GRI reporting guidelines. Its recurrent admission to the JSE/SRI, and its efforts to report in compliance with the King Code Governance principles, is evidence of the company's efforts at comprehensive and transparent communication. Through such reporting, Santam also demonstrates how its disclosure links not only to sustainable development efforts but also to general risk management principles. Santam does not, however, report on the CDP[12], which was extended to South African companies in 2007 – the year on which the study focuses.

[12] The scoring in relation to the CDP takes cognisant of the fact that the CDP was only introduced in South Africa during the year under view and only one insurance company, a life insurance one was included in the sample. Thus, a conscious attempt is made not to disadvantage local South Africa companies in scoring.

Table 4.6.: Public disclosure through company reports

Multinational companies	Level of reporting
Ace Insurance Limited	1
AIG South Africa Limited	2
Allianz Insurance Limited	3
Hannover Reinsurance	1
Lloyd's South Africa (Pty) Ltd	1
Munich Reinsurance	2
Swiss Re Africa Limited	3
Zurich Insurance	2
Local companies	
African Reinsurance Corporation	0
Momentum Short-Term Insurance	0
OUTsurance Insurance	0
Santam Limited	3

For their part, Allianz and Swiss Re present the best-practice cases, evidencing an extensive approach to their disclosure efforts. The reporting seems systematic and serious, demonstrating the companies' commitment to transparency. These companies discuss the potential risk associated with climate change. They not only identify climate change risk as a strategic business opportunity but also discuss GHG regulation in the context of opportunity for innovation and reputation management. They provide evidence which suggests that they have been innovative in harnessing these opportunities. They further highlight their progress towards specific targets and goals. They also demonstrate how they have integrated climate change into their overall risk management structures and processes, to enhance their performance in terms of growing their profits, as well as taking care of the environment and communities.

However, none of them discusses the potential risks associated with climate change. Without such recognition, it becomes difficult to integrate climate change as part of broader risk management structures and processes. It is possible then that climate change could be relegated to just being exploited as a commercial opportunity.

Swiss Re's board chairperson and CEO highlight the group's roadmap and affirm the group's commitment to addressing climate change-related risk and harnessing opportunities in measurable terms. Swiss Re reports specific measurable GHG management targets, reports that it is actively involved in the carbon trading market based on the Kyoto Protocol and highlights specific innovative products it has crafted to reduce its GHG emissions. The group demonstrates a linkage of climate change management to sustainability through, for instance, its products which also address the needs of the developing world. Swiss Re also reports on the basis of the GRI provisions and further highlights some of the GRI indicators that have guided the group's reporting. Swiss Re further reports that it is a member of the CDP.

Similarly, Allianz comprehensively reports its climate change management initiatives in both its annual and sustainability reports and explains its efforts at managing its environmental footprint, reporting against the G3 indicators, and sustainable energy. Allianz reports, for instance, that it is financing and insuring renewable energy and trading in emissions through its bank, with its technology centre providing research regarding such opportunities. As for its CDP participation, the group reports that it has been in the Climate Leaders index of the CDP since 2005 and that, as a member, the group has been reporting its GHG emissions and its approach to addressing risks and opportunities arising from climate change. Further, Allianz reports on its involvement in GHG emissions reduction advocacy in developing countries as its contribution to sustainable development.

Public policy communications

Beyond reporting of their internal initiatives through annual reports, companies also need to be transparent about their views on regulatory actions and what kind of policies and regulations they support (Cogan, 2008b:21). Here, companies' public policy communication responses are analysed in terms of their levels of transparency and comprehensiveness with regard to how the

companies express their views on climate change regulatory proposals and related public policy measures.

The level of disclosure of support for public policy relating to climate change was insignificant for 50 percent of the companies assessed. Only 17 percent of the companies publicly demonstrated an integrated level of policy communication, as shown in **Figure 4.6.**

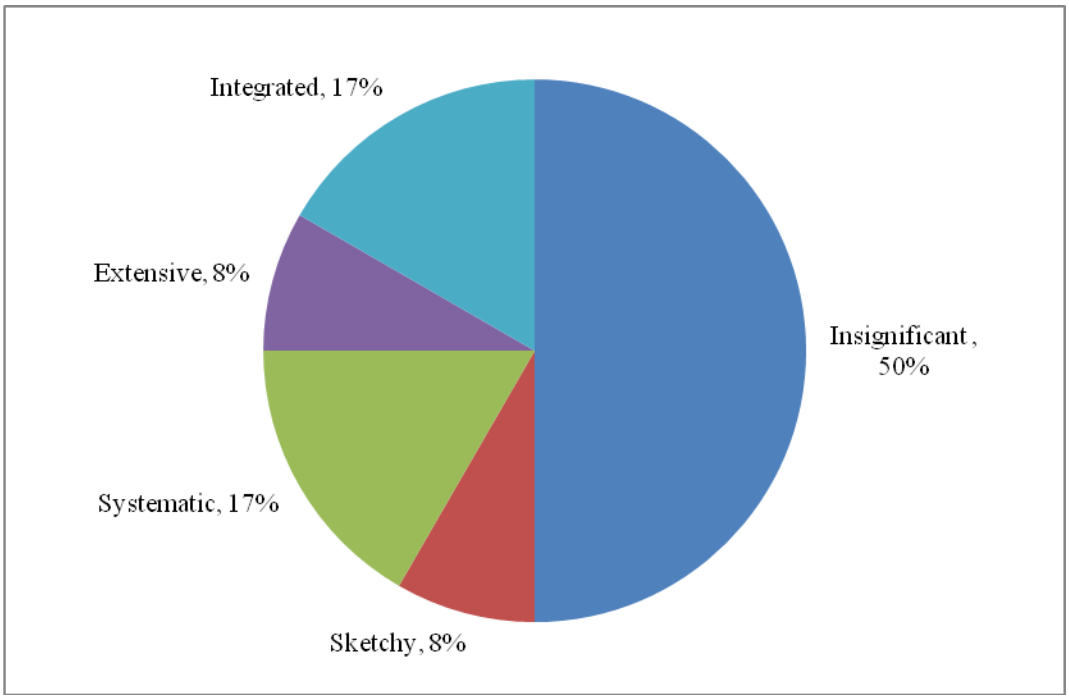

Figure 4.6.: Levels of policy communication

It is evident in **Table 4.7** on that follows that three local companies were among the more than 50 percent whose presentation regarding public policy support was insignificant. Santam, however, is the only local company that presented an extensive narration of their support for public policy relating to climate change, surpassed only by two multinationals, AIG and Allianz. Santam reports its plans to lobby for climate change legislation and other related public policy measures. Santam's reporting also gives some evidence of systems for managing and disclosing public policy activities.

In its public policy statement, Santam sums up its perceived responsibility to be part of the wider climate change impact management framework as expressed in its statement: "We understand that managing the causes and consequences of climate change will require collaboration between government, business and individuals. We are committed to meeting this challenge through our own management strategy, collaboration with relevant parties, and to leading the entire sector in this regard".

The company reports that it subscribes to global benchmarks and regulations and that it conducts research to ensure that it lives up to its ideal regarding sustainability practices. Santam also reports that, through its environmental committee, it manages the company's responsibility to: (i) meet the legal requirements, such as those of Section 4 of the King II Report on corporate governance and the Financial Sector Charter; and (ii) minimise risks associated with social, economic and environmental impacts including stakeholder activism and government regulation.

However, Santam does not report a specific target area for its advocacy efforts; neither, unlike Allianz, does it give an indication of how positive public policy outcomes would benefit the company's sustainability efforts, especially in relation to the wider community. Allianz, for instance, through its membership to a group of leading global businesses that has called on the US Congress to tackle the issue of climate change, is advocating a 60 to 90 percent GHG reduction.

It can be concluded that lack of involvement in policy formulation among the local insurers discounts the observation by Hoffman and Woody (2008) that influencing the policy-development process enables a company to monitor and anticipate pending GHG policies and how they can affect its business objectives. It is through proactive engagement with the public policy process that a company is able to keep control over its future business environment. Besides, Ceres (Mills, 2009), in its study of insurers' response to climate change referred to in Chapter 2, indicates that insurers are increasingly involved in public policy discussion at the national and international level. A general lack of involvement by local insurers thus puts them at a disadvantage, as their interests might be left out of international policy decisions, such as the impending Copenhagen conference.

Table 4.7.: Public policy communication

Multinational companies	Level of reporting
Ace Insurance Limited	0
AIG South Africa Limited	4
Allianz Insurance Limited	4
Hannover Reinsurance	0
Lloyd's South Africa (Pty) Ltd	0
Munich Reinsurance	2
Swiss Re Africa Limited	2
Zurich Insurance	1
Local companies	
African Reinsurance Corporation	0
Momentum Short-Term Insurance	0
OUTsurance Insurance	0
Santam Limited	3

Two multinational companies, AIG and Allianz represent the best practice in their declaration of support for public policy. These companies' reporting seems integrated enough to suggest that their public policy lobbying efforts are underlined by their values and principles of pursuing broader sustainability. The companies made a commitment for future action in this regard.

AIG's CEO reports that the group was the first U.S. insurance organisation to issue a policy statement that publicly recognises the impact of climate change, and to call for federal legislation to reduce GHG emissions. Further, AIG reports that as part of its Environmental Responsibility initiative, it would continue to advocate for stronger public policy to limit GHG emissions. The group also reports about its focus on increasing its energy efficiency, advocating for climate change legislation and helping clients improve their environmental stewardship. For instance, in terms of lobbying for legislative support for climate change, AIG reports about its partnership with the United States Climate Action Partnership (USCAP), an alliance of all major businesses

and leading environmental groups that is calling on federal government to promptly enact legislation requiring reductions of GHG emissions to be implemented through a "cap and trade" mechanism.

In a similar vein, Allianz pronounces its commitment to continue raising awareness of climate change issues across the sector and with the public as a whole, as well as lobbying for legislative measures to manage climate change. Some of the initiatives highlighted in its company reports include its: (i) participation in an initiative called "Call on G8 to Cut Emissions" aimed at cutting GHG emissions in order to avoid high costs caused by global warming and to help developing nations to adopt a climate-friendly path for economic development; and (ii) involvement in a group of 12 companies – including HP, Sony and Nokia – to sign the Tokyo Declaration at the WWF's Climate Savers Summit 2008 in Tokyo. The declaration emphasises that the world's GHG gas emissions must be reduced by more than 50 percent by 2050.

4.2.4. GHG emissions accounting, savings and offsets from operations

GHG emissions accounting is an aspect of internal GHG management**.** As Cogan (2008b:24) argues, this constitutes a company's first line of defence. In this section, companies are assessed in terms of their accounting for their GHG emissions. The assessment is also based on companies' setting and reporting of GHG emissions targets or their initiatives aimed at achieving carbon neutrality. More specifically, climate change reporting here is assessed in terms of whether a company undertakes an inventory of its Scope 1, 2 and 3[13] GHG emissions from its operations and whether it has reported some GHG savings and offsets. The assessment also relates to whether the GHG emissions are verified by a third party as well as to whether the company is undertaking some GHG offsetting initiatives.

A key finding here is that the largest proportion (33 percent) of the short-term insurance companies provided insignificant information, implying that they did not sufficiently understand or take seriously the need to account for their GHG emissions. Seventeen percent of the companies' efforts were considered integrated, as **Figure 4.7** shows.

[13] GHG emissions are divided into Scope 1, 2 and 3 emissions. These represent (i) direct emissions such as those from a company's office lighting or standby generation (ii) indirect emissions mainly from purchased electricity (iii) and other indirect emissions mainly business travel and waste disposal, respectively.

It is not surprising that a relatively large proportion of companies (33 percent) did not show significant levels of accounting for their emissions considering that it is this area which is the least prioritised in the hierarchy of the five governance areas encapsulating the triple bottom line. As Cogan (2008:5) notes, companies in the financial sector may not see this as a priority. Being low GHG emitters, such companies may think that they are not directly affected by regulatory restrictions. However, Hoffman and Woody (2008) argue that accounting for GHG emissions is the foundation of all other climate initiatives and thus defines the success of any such measures.

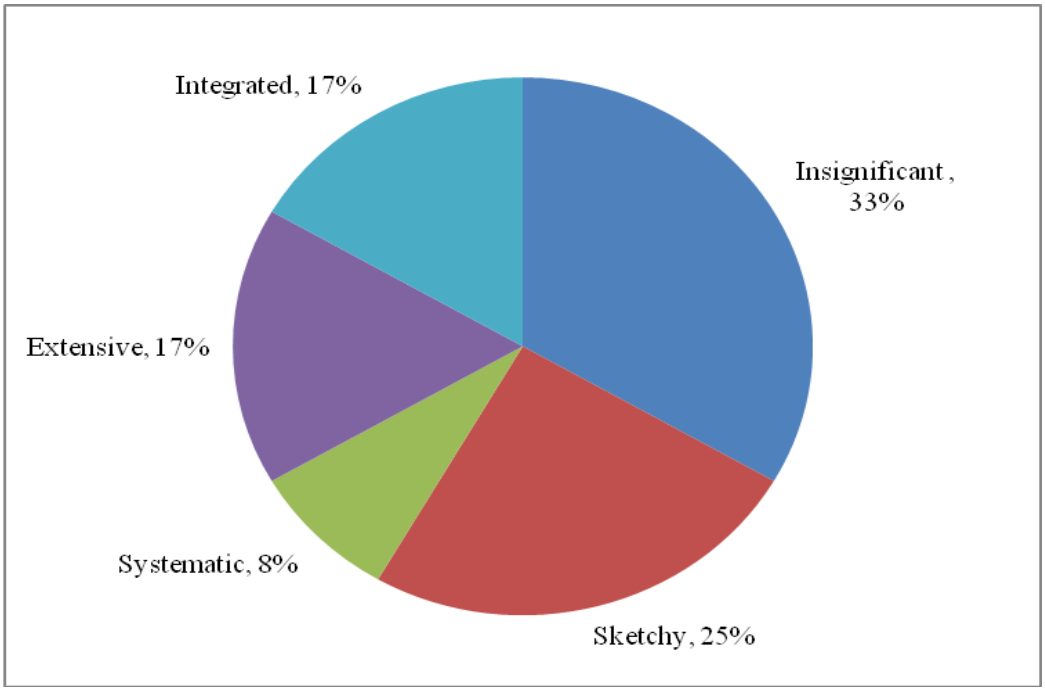

Figure 4.7.: Level of emissions accounting

On the one hand, among the four local companies that were assessed, African Re's reports did not provide any evidence that they were taking account of their GHG emissions, with their reporting largely recorded as insignificant. On the other hand, the reporting by the other two local companies – Momentum and OUTsurance – suggests that these companies sketchily recognise the value of GHG emissions accounting, and are attempting to present it in a serious way. Both Momentum and OUTsurance reported on the fact that their largest GHG emissions emanated from their respective head offices, mainly as a result of their energy consumption.

Further, OUTsurance suggests that paper and water consumed at their head office also contribute to their carbon footprint.

While these two companies seem to acknowledge that their activities contribute to GHG emissions, the GHG accounting information they provided in their reports does not demonstrate that the emissions accounting efforts are linked to the companies themselves in terms of their overall business decisions and strategies. Further, the companies do not show evidence of disaggregating their emissions as Scope 1, 2 or 3, or any form of numerical indication. It can thus be argued that, without numerically quantifying their GHG footprints, it is very difficult for these companies to devise GHG abatement programmes and to independently verify the levels of emissions. Arguably, although there is evidence of effort, it is difficult to tell whether these companies are really moving in the right direction because the overall pattern does not come into view.

For its part as a local company, Santam's reporting suggests that the company takes the task of accounting for its emissions seriously and is systematically presenting the information. From its extensive reporting on GHG emissions, it can be tentatively concluded that the company is on the right track in terms of managing its GHG emissions. More specifically, Santam reports that, as its first step towards accounting for its GHG emissions, it commissioned a survey in 2007 aimed at estimating its GHG emissions for the 2007 calendar year. The survey divided Santam's GHG emissions into: (i) direct emissions from standby generators (Scope 1); (ii) indirect electricity GHG emissions (Scope 2); and (iii) other indirect emissions, such as those from business travel and waste disposal (Scope 3). Most of Santam's emissions were from indirect emissions, as quantified below:

- Scope 2 - electricity: 4, 000 tonnes of CO_2, or 241kg/m^2 of floor space at the two head office buildings in Cape Town; and
- Scope 3- business travel: 1, 800 tonnes of CO_2 and contractor vehicles: 2, 400 tonnes of CO_2. The total CO_2 emissions from these sources were estimated at 8, 200 tonnes.

Despite the extensive reporting efforts, Santam does not report on whether it seeks external verification for its efforts. Further, the company reports neither a baseline nor an estimate forward projection for GHG emissions.

Overall, these findings, to some extent seem to contradict the observation by the CDP, as noted in Chapter 2 of this report that Santam's reporting of its GHG emissions was not sufficient to give any meaningful insight into the company's response to the climate change challenge. While Santam would have done better by reporting baselines and targets, its efforts here were still sufficient to demonstrate that the company was moving in the right direction in terms of accounting for its GHG emissions, especially in comparison to the other three local companies that were assessed.

Table 4.8.: GHG emissions accounting

Multinational companies	Level of reporting
Ace Insurance Limited	0
AIG South Africa Limited	2
Allianz Insurance Limited	3
Hannover Reinsurance	0
Lloyd's South Africa (Pty) Ltd	1
Munich Reinsurance	4
Swiss Re Africa Limited	4
Zurich Insurance	0
Local companies	
African Reinsurance Corporation	0
Momentum Short-Term Insurance	1
OUTsurance Insurance	1
Santam Limited	3

Compared to the local companies analysed above, Swiss Re and Munich Re demonstrate integrated efforts in accounting for their GHG emissions. For instance, Swiss Re accounts for the full range of its GHG emissions – Scopes 1, 2 and 3 emissions – and does so in numerical terms, as illustrated below:

- Scope 1 emissions 21% reduction from 2003

- Scope 2 emissions — 50.4% reduction from 2003
- Scope 3 (business travel) — 15% reduction from 2003

Swiss Re also reports its emissions against a base year – 2003 – and attaches GHG emissions certificates to its report, verified by Pricewaterhouse. Swiss Re further reports that in 2007 it bought and retired high-quality voluntary emissions reductions certificates for 23,000 tons of CO_2 to compensate for all the emissions it had caused since the start of the GHG reduction programme. The purchase criteria for these certificates favour projects that have advanced renewable energy or energy efficiency as opposed to sinks. Also favoured are those projects focusing on social benefits in poor countries. In this way, the company demonstrates a linkage between its emissions management and its sustainability goals.

The Munich Re Group equally explicitly reports its Scopes 1, 2 and 3 GHG emissions and clearly explains the reasons for the observed variations in specific indicators. In terms of its Scope 3 emissions, Munich Re takes account of its business travel emissions, but goes a step further to consider its emissions relating to its paper consumption. The group reports that its paper consumption had reduced by 35 kilograms per person per year, from 94 kilogrammes in 2005 to 59 kilogrammes per person per year in 2007. While paper consumption had reduced, the group still recorded an increase in Scope 3 GHG emissions, due to the increase in the number of kilometres travelled per person in 2007. The group attributed the increase to the fact that it was expanding its business operations in Asia and America. Additionally, Munich Re reports that its emissions had been certified annually by third parties since 2000. In terms of offsetting its emissions, the group reports that in 2007 it was working on energy restoration and heat recovery projects, mainly at its head office.

4.2.5. Strategic planning

Here companies are assessed in terms of whether they have a strategic plan that (i) sets GHG emission reduction targets for their facilities, energy use, business travel and other operations; (ii) reports a base year against which they are measuring their targets; (iii) outlines whether they have achieved these targets on schedule. The companies are also assessed in terms of their reported energy efficiency measures, their support for renewable energy as well as whether they

were participating in such GHG management measures, as carbon trading markets and climate change-related innovations in the form of products and services.

Targets for GHG emission reduction

A majority of the companies (67 percent) presented either no information or insufficient information on targets. Only 17 percent of the companies evidenced integrated reporting of targets, which suggests that they perceived the setting of targets as part of the overall business strategy. Another 17 percent of the companies presented information on the GHG target in a sketchy way, but none presented either systematic or extensive levels of information in this regard. The fact that 67 percent of the companies did not report significant information to suggest that they have set up targets for their GHG emissions and energy management measures implies that companies are rushing into creating new products without adequately measuring their impacts. Such a strategic lapse could erode their competitiveness in the event that more stringent measures are imposed at the Copenhagen conference in December this year.

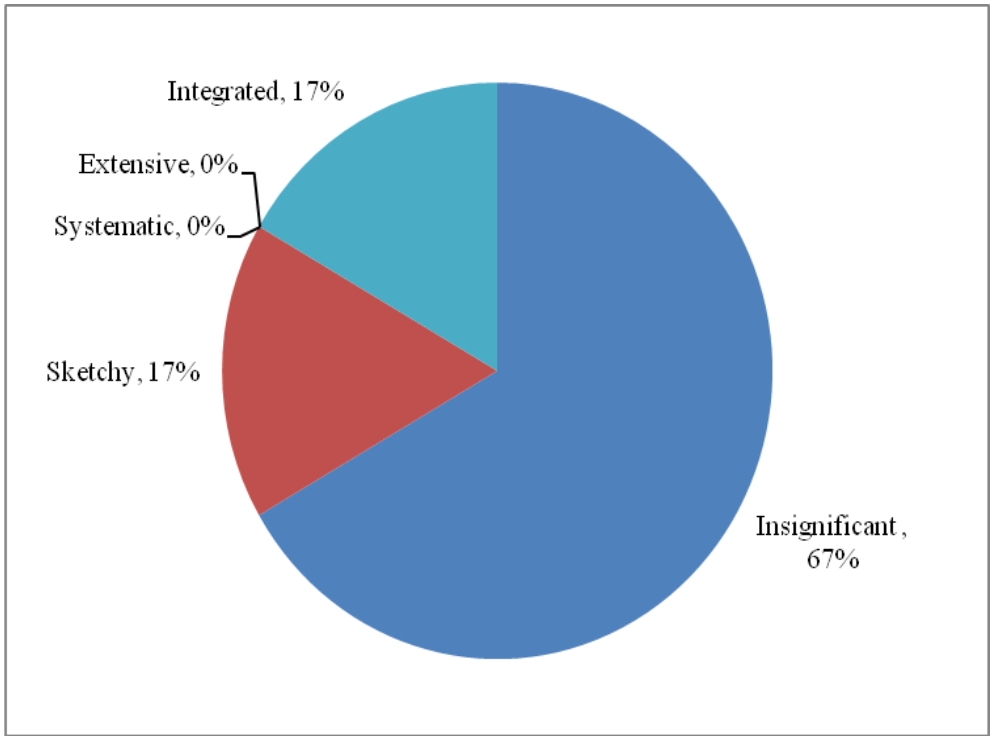

Figure 4.8.: Targets for GHG emission reduction

In comparative terms, three of the four local companies – African Re, Momentum and OUTsurance – are among the 67 percent in **Figure 4.8** above that do not provide any information on GHG targets. However, Santam shows evidence of systematic information on targets, suggesting that it recognises the need for setting GHG targets as an important aspect of climate change management and is attempting to present it in a serious way.

For instance, Santam has set an explicit energy management target "to effect a total energy saving of 10 percent in 2008, in comparison to the 2007 consumption." Clearly, this target is specific and measurable and encapsulates one of the company's largest impact areas: energy consumption. However, the company provides such insufficient information that it was difficult to understand the strategic nature of this objective. It could not be ascertained how the target fitted with management priorities and how it would be verified subsequently.

Table 4.9.: GHG reduction targets

Multinational companies	**Level of reporting**
Ace Insurance Limited	0
AIG South Africa Limited	0
Allianz Insurance Limited	2
Hannover Reinsurance	0
Lloyd's South Africa (Pty) Ltd	0
Munich Reinsurance	4
Swiss Re Africa Limited	4
Zurich Insurance	0
Local companies	
African Reinsurance Corporation	0
Momentum Short-Term Insurance	0
OUTsurance Insurance	0
Santam Limited	2

From **Table 4.9**, it is deducible that the multinational insurance companies show more comprehensive evidence of setting GHG targets, setting them apart as exemplars in this area. Munich Re, Swiss Re and AIG present targets which are specific, measurable and attainable, demonstrably fitting with management priorities. Generally, the targets are provided within sufficient context for the reader to understand their strategic nature. Thus, the information presented is serious, systematic and extensive, and highlights the linkage of these targets to general business decision-making and core processes to improve sustainable development.

Munich Re explicitly reports adopting a climate change neutrality concept in June 2007, as part of the group's steps to reduce CO_2. The group also indicates that during the same period, it formulated a working group to implement the carbon neutrality strategy, which includes a 10% cut in CO_2 emissions per staff member by 2012 compared to the base year, 2006. Specifically, the group's plan was to make the Munich office operations climate-neutral by 2009 and the other more than 50 locations worldwide by 2012.

Similarly, Swiss Re reports that in 2003, the company embarked on an ambitious voluntary programme to become fully GHG neutral by 2013. It combines two commitments: to reduce the company's emissions intensity by 15% and to compensate the remaining emissions through investing in offsetting projects. At the time of reporting, the company had achieved their initial GHG target of 15%. They reported that they had doubled the target to 30% per employee against the 2003 baseline, to be reached by 2013. Ultimately; their goal was to have 100% energy from renewable sources by 2013. Swiss Re goes a step further to indicate that it had achieved its initial target ahead of time and had set up new, more aggressive targets.

Energy efficiency measures

With regard to the specific area of energy efficiency measures – a key variable in this study – a key concern was to assess the levels of information that companies presented with regard to whether they purchased renewable energy for their own use or sponsored renewable energy initiatives and whether they practiced energy efficiency in their operations.

The presentation of information regarding companies' implementation of energy efficiency measures is varied across all the levels of reporting, as **Figure 4.9** shows. The results in **Figure 4.9** correspond to Mills' (2009) observation that insurers are generally increasingly recognising the importance of addressing their own footprints. Notably, only 17 percent of the companies assessed showed insignificant levels of energy efficiency efforts in their reports.

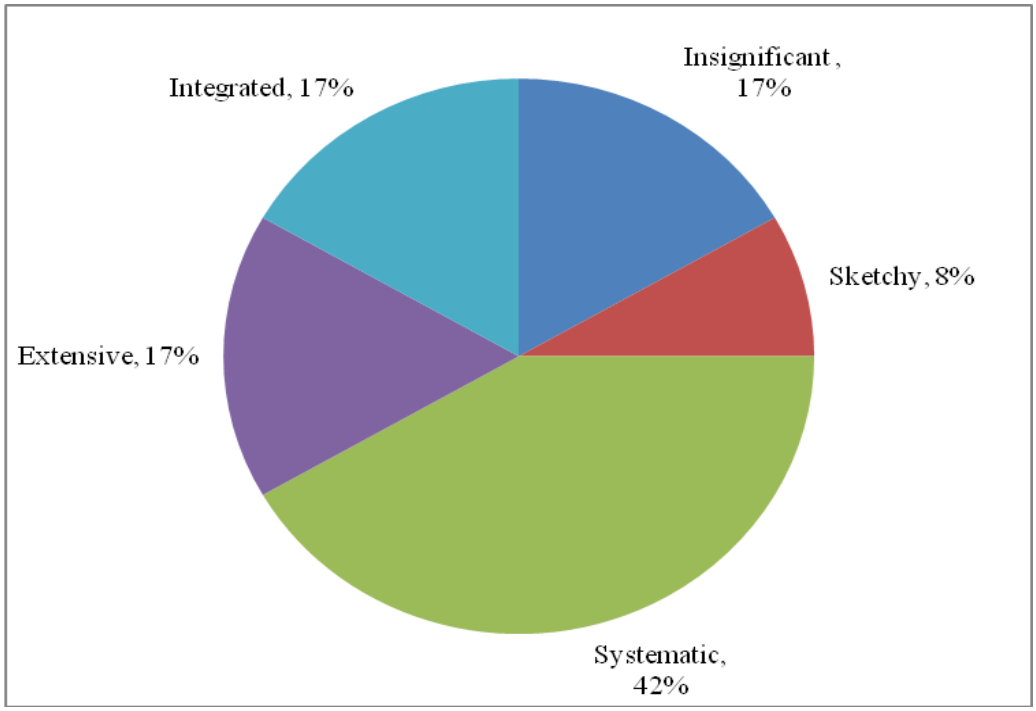

Figure 4.9.: Energy efficiency measures

A comparative analysis of the findings indicates that one of the four local companies, African Re, did not provide any information regarding either the existence or implementation of energy efficiency measures. However, three of the companies – Momentum, OUTsurance and Santam – presented their information about energy efficiency measures in a manner that suggested that they were taking the implementation of energy efficiency measures seriously, with evidence of systematic reporting in this regard, as **Table 4.10** demonstrates.

The three companies – Momentum, OUTsurance and Santam – report some efforts at saving energy in their offices, through encouraging routine measures like switching off office lights, air conditioners and office equipment instead of leaving them in the standby mode at the end of the day. Managing a company's computer network, for instance, can considerably reduce a

company's CO_2 emissions. As Stahel *et al* (2009: 69) argue, computer centres worldwide produce more CO_2 than the aviation industry. Momentum reports that it utilises automatic gadgets to control its lighting system, air conditioners and water features and makes maximum use of natural lighting through its building designs. Similarly, OUTsurance reports the existence of a cooling mechanism which only uses fresh air in favourable weather conditions.

For Santam, efforts focus on encouraging its staff to craft energy-saving measures. Encouragement has taken the form of internal communication, such as developing a dedicated email address to which suggestions are sent.

All three companies report that they have been using energy-saving bulbs. However, the companies do not indicate any strategic measures which link their energy-saving measures to broader sustainability issues, such as those focused on the purchasing of renewable energy, for example. An additional finding is that their reporting does not present measurable information. As such, the reporting does not appear to demonstrate how, if at all, such efforts as are reported above have reduced the companies' costs or contributed to GHG reduction. Finally, the companies do not highlight any plans on how to further reduce their energy consumption.

Table 4.10.: Energy efficiency and renewable energy use and support

Multinational companies	Level of reporting
Ace Insurance Limited	0
AIG South Africa Limited	3
Allianz Insurance Limited	4
Hannover Reinsurance	3
Lloyd's South Africa (Pty) Ltd	2
Munich Reinsurance	2
Swiss Re Africa Limited	4
Zurich Insurance	1
Local companies	
African Reinsurance Corporation	0
Momentum Short-Term Insurance	2
OUTsurance Insurance	2
Santam Limited	2

Here again, best practice is evident among the multinational insurers. Allianz and Swiss Re show an integrated reporting of their energy efficiency measures. The serious, systematic and extensive reporting provides sufficient evidence to suggest that the companies are making an attempt to link their energy efficiency measures to wider sustainability goals. Unlike the local companies discussed above, Allianz and Swiss Re's reported efforts go beyond routine actions, to more strategic measures.

General CO_2 reduction measures for Allianz have included use of public transport and use of conference call and email facilities to reduce travelling, beyond routine turning off of computers. In 2006, 1.5% of the energy consumed by Allianz was from renewable sources.

Like Allianz, Swiss Re reports implementing several energy efficiency measures in its various locations. Most of these measures have one of the following three objectives: (i) optimising lighting control systems; (ii) adjusting the operating times of air conditioning and ventilation to

find the right balance between energy efficiency and user comfort; and (iii) training of users of technical equipment. The other energy saving measure reported is the consolidation of its offices.

Swiss Re's reported efforts go beyond office energy management to take account of Scope 3 GHG emissions. Such management includes working on reducing its paper consumption, the processing of which, Swiss Re believes, consumes a lot of energy. Further, in terms of reducing its business travel emissions which have been increasing, Swiss Re reports that it plans to introduce a new booking system that would automatically calculate and state emissions for each trip to facilitate controlling. Additionally, as part of managing its environmental footprint throughout the supply chain, the group reported that it would implement new purchasing guidelines by 2008.

Swiss Re also reports that it has been working to reduce its carbon footprint through increased use of energy from renewable sources. For instance, its use of renewable energy had reportedly grown from four locations in 2005 to a total of 11 locations by the end of 2007. In 2007, Swiss Re headquarters purchased 100% energy from renewable sources, growing from 33.3% in 2005.

Supporting renewable energy

A key finding here is that no single company could be described as offering best practice. However, there are isolated efforts that the short-term insurers have undertaken in this regard. For example, AIG reports that (i) it is sponsoring and participating in conferences and forums on the business implications of climate change and renewable energy development; and (ii) it had formulated five employee committees around the world, working to identify and implement a number of measures related to energy efficiency, renewable energy, procurement practices, recycling, water use, and travel.

A specific example of a solar power initiative supported by AIG is an 18-megawatt solar plant in Spain's Badajoz region. This project uses technology that tracks the sun as it moves across the sky, which can deliver more energy than traditional designs.

Allianz's efforts include financing of wind and solar energy projects, with specific future targets and specifically earmarked funds. Allianz reports that it has been funding renewable energy and

has set itself a goal to invest €300 million in renewable energies before the end of the decade. It also reports that it had already invested €150 million in Germany and Italian wind farms. An example of Allianz's renewable energy source is its photovoltaic system which generates 90,000kWh of environmentally friendly electricity a year as well as the use of recycled waste heating.

For Hannover Re, support for renewable energy has been facilitated by its CO_2 offset measures. To compensate for the pollution caused by its business flights, Hannover Re pays a carbon offset levy for each kilometre flown to an international organisation that puts the funds collected towards climate protection, which primarily funds renewable energy in developing countries.

GHG trading and other investment and retail products

Here the concern was to assess the company's practices aimed at ensuring the long-term sustainability of their business and also of the community and natural resources. In this regard, such sustainability issues focus on the implementation of innovative products and services around climate change risk. Attention is also paid to the companies' involvement in GHG trading markets.

As **Figure 4.10** below shows, a majority of the companies assessed (67 percent) either did not provide any information at all, or provided too little information to suggest that they understand the potential benefits of proactively managing climate change risk through new products and participation in GHG markets. Only 25 percent of the companies evidenced an integrated reporting of their management of climate change through new products and services and carbon trading.

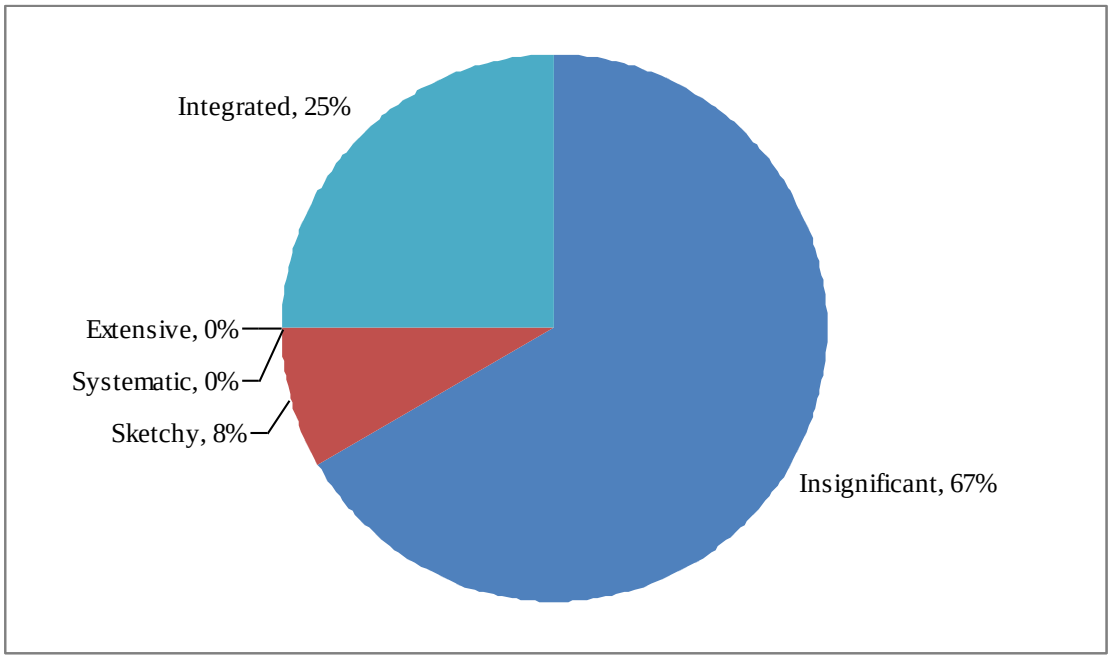

Figure 4.10.: GHG emissions trading and other investment and retail products

In comparative terms, none of the four local companies provides any information regarding GHG trading or investments in climate change-related products as a climate change risk management measure. This finding suggests that the local insurers are not participating adequately in addressing TBL concerns. As noted in Chapter 2, it is usually investment in new products and services that creates jobs, reduces companies' environmental impacts, and builds the resilience of communities.

Table 4.11.: GHG trading and other investment and retail products

Multinational companies	Level of reporting
Ace Insurance Limited	1
AIG South Africa Limited	4
Allianz Insurance Limited	4
Hannover Reinsurance	0
Lloyd's South Africa (Pty) Ltd	0
Munich Reinsurance	0
Swiss Re Africa Limited	4
Zurich Insurance	0
Local companies	
African Reinsurance Corporation	0
Momentum Short-Term Insurance	0
OUTsurance Insurance	0
Santam Limited	0

In contrast, the three multinational companies, Swiss Re, AIG and Allianz, show evidence of an integrated reporting effort, suggesting that they not only highlight the initiatives they have undertaken but also demonstrate how the initiatives are linked to their core business of risk management and overall sustainability efforts. The companies also describe how their new innovations in products and services are delivering improved performance against the TBL. They report on a range of retail and investment products, from those focusing on managing their own impacts, to those meant to manage impacts in their value chains.

Swiss Re reports that it has developed a number of new sustainable products, which address climate change in different ways. Some of these products, tabulated in **Table 4.12**, aim to reduce climate change, while others support adaptation measures.

Table 4.12.: Swiss Re's climate change-related product innovations

Product	Focus area
Weather risk transfer products	Weather derivatives for climate change adaptation and for emerging markets.
Catastrophe bonds launched in 2007	These are usually uncorrelated to the broader financial markets and are thus cushioned against market volatility. They are meant for climate change adaptation, emerging market development and other sustainability issues.
CDM based carbon markets	Swiss Re has built an emissions team that provides innovative solutions to sellers of carbon credits. Swiss Re has bought credits from a project introducing solar cookers to the rural population in China, as part of CDM activities.
Green investments	This investment focuses on alternative energy, carbon emissions and the different risk-return profiles are provided. All Swiss Re's new and refurbished buildings have to meet the MINERGIE standards (The MINERGIE is a Swiss quality label specifying high levels of energy efficiency coupled with superior comfort).
CO_{you2} Reduce and Gain Programme	Internal innovative product, where Swiss Re employees are compensated for climate change initiatives they undertake at a personal level. Launched in 2007 and applies to all Swiss Re locations worldwide.

For its part, AIG reports that it has dedicated its resources to pursuing new business opportunities and other initiatives that support market-based solutions to address climate change. These are specified in **Table 4.13** that follows.

Table 4.13.: AIG's climate change-related product innovations

Product	Focus area
Private Equity and Hedging products	AIG's Global Emerging Market Viaduct Fund which has acted on new opportunities in the rapidly growing carbon markets. AIG is a direct investor in micro-finance and a developer of GHG abatement projects.
Real Estate specification	Emphasises environmental innovation and energy efficient technologies in the acquisition and development of properties, following LEED guidelines.
Alternative Energy Practice	Aims to deliver insurance, engineering and financial resources to respond to risks posed by alternative and renewable energy technologies and climate change. Also insures operations like hydro, solar, wind, geo-thermal, waste-to-energy, biomass, landfill gas and bio-fuel facilities worldwide.
Sustain-a-Build	To help builders, owners and operators become better stewards of the environment and manage their environmental risk in a more effective manner. Unveiled in 2007, offers customers discounts of up to 10% on premiums or pollution legal liability policies for properties certified under the US Green Building Council's LEED® rating system.
Other insurance products, investment & financial solutions	(i) The AIU's ecoPractice; (ii) Global Marine and Energy's Advanced Energy Solutions; (iii) Lexington's EcoSurance suite of products; (iv) AIG Risk Finance's Carbon Credit Delivery Insurance; and (v) System Performance Insurance for alternative fuels, and other products in the personal lines. These are meant to help clients mitigate causes of climate change and improve environmental stewardship.

Like Swiss Re and AIG, Allianz reports that, through its subsidiary *Allianz Climate Solutions GmbH* formed in 2007, it was working to implement product innovation in insurance and investment and adapt to risk management by focusing on developing tailor-made climate-change products and services. Examples of Allianz's innovations are given in **Table 4.1.4** on the next page.

Table 4.14.: Allianz's climate change-related product innovations

Product	Focus area
The Green Bond	Returns are linked to the performance of a new index of companies investing in renewable energy and energy efficiency products.
Emissions Trading and Advisory services	Involves provision of emission trading certificates and advisory services to customers in exchange for companies to sell and buy emissions permits.
Certified Emissions Reduction insurance	For companies that have reduced their CO_2 emissions and are able to sell their emissions certificates.
Renewable energy project financing	Consumers can offset their car emissions when purchasing insurance.
Eco-bonus	Offering a 10% discount on annual car insurance for customers that hold an annual public transportation pass.
Certified Green Buildings insurance	An initiative which involves offering a 5% discount to insurance of certified green buildings.
Wind Energy Consulting Services	Involves offering consultancy around the development of wind energy stations, from due diligence to project management to technical consulting.

The key observation here is that multinational insurers are living up to the best practices defined by Ceres in terms of creating product and services and thus provide lessons for local insurers, none of whom has shown any evidence of participating in carbon markets or investment in product innovations.

4.3. A summary of the key findings

The key findings of this study can be summarised as follows:

- There is evidence of companies reporting across nine of the 11 activity areas. There was no evidence of companies reporting the presence of executive level positions dedicated to

climate change management and none of the companies assessed had linked their executives' compensation to climate change management.

- In all the nine activity areas where there was evidence of effort, multinational companies showed evidence of best practice examples in terms of managing climate change risk. This is in line with Daub's (2005: 83) observation that multinational companies generally top the list of international assessments of reporting practices due to the fact that responsibility for global problems and inequality is usually placed on the shoulders of large multinationals. Local companies generally do not show any evidence of considering any of their climate change management initiatives within the wider context of sustainability goals.
- In all the areas where there was evidence of effort from local companies, Santam was the best-scoring local company in terms of the extent of climate change management initiatives.
- Overall, only four of the 12 companies assessed reported offering investment and retail products and services as a response to climate change management. All the four companies are multinationals and three of them provide a comprehensive coverage of their effort.
- Generally, participation in GHG trading is low, with only three of the 12 companies showing some evidence and giving details of their trading mechanisms. None of the local companies show evidence of participating in GHG trading markets.
- Only one local company shows evidence of publicly declaring support for public policy relating to climate change.
- Most of the companies show some evidence of undertaking some form of energy efficiency measures. However, the local companies' reporting suggests that they are mainly implementing routine measures and make no attempt to link these to a strategic triple-bottom-line focus.
- Overall, multinational companies show more comprehensiveness and transparency with regard to communicating their climate change management efforts. Among the local companies, Santam seems to have embraced governance principles, as evidenced in its widespread use of external frameworks and guidelines for public communication, in addition to its 'internal' reports.

CHAPTER 5: THEORETICAL/CONCEPTUAL DISCUSSION AND RECOMMENDATIONS

5.0. Introduction

This study conceptualises climate change risk management responses observed in Chapter 4 in terms of the TBL framework. In order to understand the extent to which the above findings correlate with the theoretical assumptions of the TBL, it is important to demonstrate how the evidence adduced seems to reflect how the insurance companies have integrated climate change issues into their core economic concern of profit-making. More specifically, it is important to assess how the climate change initiatives implemented are underpinned by key socio-environmental concerns which border on the governance structures and processes of the short-term insurance companies studied. As noted in Chapter 2, the idea of an environmentally integrated business enterprise is even more consequential given consumer demand for people and planet-friendly investment (IoDSA. 2009; Norman and MacDonald, 2003: 3). It was also noted in Chapter 2 that in South Africa, corporate governance, which has been enshrined in the King Code of Corporate Governance, emphasises that companies as influential citizens of the broader societies should account for their social and environmental responsibility, apart from their economic performance.

Thus, building on the research questions posed in Chapter, and related to the conceptual assumptions of the TBL discussed in Chapter 2, the following aspects of the findings can be conceptually analysed:

- To what extent can the findings in Chapter 4 be extrapolated to the concept of the TBL? Put differently, what tentative conclusions can be made about how the climate change risk management activities of the short-term insurers reflect the inevitable linkage between their environmental, social and economic concerns?
- What recommendations can be made for local short-term insurers to reduce exposure to climate change risk?

5.1. Theoretical/conceptual extrapolation

Here, the conceptual analysis is framed in terms of how the TBL principles speak to the empirical evidence presented in Chapter 4, across the following variables: board and CEO leadership; integration of climate change risk management and core business; public reporting of initiatives; public policy position; carbon trading; energy efficiency; and investment in climate change-related products and the implications of these findings, vis-à-vis local short-term insurers' climate change management.

5.1.1. Low levels of board and CEO representation

The general lack of board oversight and executive level positions dedicated to climate change management suggests that companies have not yet adequately integrated climate change in their governance structures. This should be cause for concern, especially the lack of CEO positions committed to factoring climate change risk into the overall governance agenda of the short-term insurers. As noted in Chapter 2, CEO leadership is a key success factor in the implementation of climate change initiatives. Without such CEO support, it becomes difficult for companies to incorporate climate change into broader sustainability agendas.

Given the lack of specific executive positions to oversee climate change management, it was hardly surprising to see that the companies did not report any integrated linkages between executive compensation and climate change related performance. Ceres (Cogan, 2008b:7) argues that when companies integrate climate change management into their board structures and practices, they are far more likely to maintain long-term commitment to effectively addressing climate change risks and opportunities across their entire business structures.

5.1.2. Lack of integration of climate change in risk management and core business

As noted in Chapter 2, Hoffman and Woody (2008) suggest that top leadership commitment is vital for integrating climate change issues into the overall structures and processes of a company. Thus, the low levels of board and CEO leadership related to climate change can be used to explain the failure of the local companies to incorporate climate change into their core business, An important conclusion here is that such a lack of integrated approach to climate change

management can result in any of the three risks: (i) missing out opportunities such as industry support to be gained from external relationships; (ii) missing out on building awareness and knowledge which facilitate the workforce's involvement in energy and other climate change management activities; and (iii) missing out on economies of scale that would be achieved through managing risk as a composite issue encapsulating environmental, social and governance issues (ESG) concerns. Such an integrated approach would help a company reduce physical, regulatory, litigation and reputational risk and even risk along the supply chain, allowing the company not only to save but also make money.

5.1.3. Lack of extensive reporting by local companies

A key aspect of the TBL is the need for transparency and accountability in reporting climate change management efforts. The lack of extensive coverage – mainly by local companies – seems to suggest that the short-term insurers' climate change management reporting systems fall short of the standards for transparent and comprehensive public communication set out in the King III report. This is cause for concern as such reporting is considered a mark of accountability and is a cornerstone of managing climate change related risks, such as reputational risk. Without such integrity, a company will be overtaken by its peers, especially those that manage governance issues in a more integrated way. It is possible that local companies will now disclose more information given that, as noted in Chapter 2, the King III code of governance now applies to all companies regardless of their manner or form of incorporation.

5.1.4. Lack of support for public policy

A lack of clear, coherent and comprehensive strategic thinking and planning about climate change, often associated with the lack of board and CEO leadership, can result in failure to publicly take a position on climate change. Hoffman and Woody (2008), as noted in Chapter 2 of this study, argue that corporate influence on the public policy process is valuable for a company's efforts towards managing climate change as it not only ensures that their interests are taken care of but also enhances a company's image among potential customers, as a company that cares and also among its peers, who may view them as pioneers to be emulated. Lack of evidence of such public support among local insurers denies them such opportunities and thus

may expose them to such climate change-related risk as litigation and reputational risk. This may erode their competitiveness, which in turn makes it difficult for them to advance their TBL.

5.1.5. Energy efficiency

Local companies generally performed better at internal energy management than in most activity areas. Their activities are mainly routine office-based ones, but they are still likely to reduce costs and contribute to reducing GHG emissions. They would, however, do better with more strategic initiatives, such as changing their travelling behaviours, making use of renewable energy and managing paper waste as a way of taking care of supply chain emissions. The TBL requires an integrated approach, rooted in the overall governance of the company, as opposed to isolated energy-saving measures implemented without recourse to the totality of the company's activities.

Notable, however, is the fact that this is the one area where local insurers seem to have done well, compared to the other areas discussed in Chapter 4. This should be considered a positive effort considering that, as Mills' (2009) study referred to in Chapter 2 suggests, energy efficiency is the quickest and cheapest way to decrease global GHG emissions. An example cited by Mills is Kaiser Permanente which has trimmed its costs by $10 million per year through energy-saving strategies. Such saving might ultimately translate into benefits for the environment and for communities.

5.1.6. Lack of participation in carbon trading

As observed in Chapter 4, several multinational insurers are involved in GHG trading. The Ceres study of the insurers' response to climate change, conducted by Mills (2009), which was highlighted in Chapter 2 also indicates that globally, insurers are increasingly participating in carbon markets and that the product range has continued to expand, to include carbon trading, insurance for credit risks, political risks, and others as well as advisory services, and carbon neutral products. Besides, the carbon trading market, as noted in Chapter 2, has continued to grow in terms of the amount of investments, doubling to US$126 in 2008, over 2007 (World Bank, 2009: 1) and projected to reach US$550 billion by 2012 and US$3 trillion by 2020.

Therefore, non-participation in GHG markets by the local companies, notwithstanding the fact that this is not their core business, is likely to put them at a competitive disadvantage, especially if South Africa is mandated to limit its emissions after Copenhagen. In a globalised world, many of the South African short-term insurers will be competing against global companies with experience in GHG trading and will thus be disadvantaged. This might result in the local short-term insurance companies incurring higher costs and registering a reduced profit margin.

5.1.7. Low levels of investment in climate change-related products and services

Triple-bottom-line considerations require that a company invests in innovations aimed at repositioning it for business opportunities likely to emerge from managing climate change risk. The fact that none of the local companies reported on innovative climate change-related products and services would seem to suggest that they are missing out on opportunities to earn money through such products and services. They are also missing out on reputation-building. Building a company's reputation comes as they help communities to adapt to climate change. Further, such companies are failing to help their clients build their own resilience against physical damages, which increases insurers' exposure to physical risk. These companies are also at risk of regulatory costs post-Copenhagen. Such missed opportunities could help a company to pursue a TBL which companies like Allianz, AIG and Swiss Re have enjoyed – thorough such products as green bonds, private equity and hedging products and many more, highlighted in Chapter 4.

5.2. Recommendations

In view of the foregoing conceptual analysis, two sets of recommendations can be made for the attention of the local short-term insurance companies. These relate to (i) mitigation measures; and (ii) adaptation measures, that the insurers could adopt in their own operations or which they could disseminate both up and down their value chain.

5.2.1. Mitigatory recommendations

As noted in Chapter 2, mitigation measures are meant to reduce the amount of GHG emitted into the atmosphere. This entails that insurers should try to reduce their own GHG footprints, as well

as encourage their clients to manage their emissions. In this regard, it is recommended that local insurers should:

- Undertake due diligence assessments to establish their GHG footprints since, as Hoffman and Woody (2008) suggest in Chapter 2 of this study, this is the fist step towards addressing a company's climate change risk exposure. Since insurers are low GHG emitters, their focus should be on taking stock of the extent of their suppliers' and consumers' footprints in order to understand the levels of their "indirect" exposure. Beyond establishing GHG footprints, the companies should seek third-party verification of their GHG footprints as this is likely to enhance transparency and accountability, and thus help them manage reputational risk.

- Purchase renewable energy for their own use, to further reduce their GHG footprint. There is some evidence in this study that the local insurers are already managing their use of electricity, but more strategic efforts like purchasing energy form renewable sources, could also help them advance their other bottom lines.

- Seek to reduce their GHG footprint through cutting down on air and land travel. In terms of land travel, for instance, the companies could consider pool transport options. Air travel could be replaced with a more robust use of green information and communication technologies, such as conference calls. Munich Re, presents a good example of such efforts, through investing the carbon flight offset levy into funding renewable energy.

- Emulate their international counterparts by participating in the carbon market either as direct investors or through insuring carbon trading related projects. Some of the products insurers could offer in the carbon market carbon delivery policies credit guaranteeing as well as conducting consultancy services, such as Aon's assistance to companies in designing carbon management strategies. Local insurers would benefit from implementing such initiatives and replicating those by AIG, Allianz and Swiss Re as reported in Chapter 4. Such involvement in the carbon market is likely to stand them in good stead in the face of tougher regulation likely to result from Copenhagen.

- Encourage responsible investment behaviours among their clients, by for instance providing incentives to those that practise responsible investment behaviour and penalising those that

do not. They could for instance consider providing special premiums to clients who insure hybrid cars or use fuel from renewable sources, as illustrated by Mill's study (2009) in Chapter 2. Mills study (2009), observes that some insurers offer as much as 60 percent discounts for policy holders who drive less than the average driver through the pay-as-you-drive (PAYD) insurance initiatives.

- Invest in new products, such as covering, or directly investing in renewable energy. Considering that there is likely to be mandatory regulatory restrictions on using coal – the main source of power in South Africa. Already, Eskom is proposing huge tariff increases due to its limited capacity. Insurers could help fill in the gap through their innovative offerings. This makes business sense for South Africa given that, as Odeku and Meyer (2009:9) observe, investing in energy from renewable sources, such as wind and solar energy, may provide a cheaper and suitable alternative option for rural South African populations. Besides, the global market for renewable energy has been growing, from US55 billion in 2006, to a projected US$225 billion in 2016 (Mills, 2009: 57).

5.2.2. Adaptation recommendations

Insurers should seek to support communities and other businesses develop their resilience to climate change risk and thus reduce damage and business interruptions in case of disaster. As noted in Chapter 2, South Africa has a low adaptive capacity. Therefore, it is recommended that local insurers should:

- Consider initiatives that have a strong public-educational component, as did AXA, a French insurer which has issued a publication with suggestions on how small businesses can prepare for the impacts of climate change (Mills, 2009). Moreover, as noted Chapter 2, generation of risk-related information is one of the core competences of insurers.
- Invest in products that improve the insurability of vulnerable communities, such as Alternative Risk Transfer (ART) which include catastrophe bonds and derivatives as a way of further spreading the risk. This is important given the fact that South Africa has a low adaptive capacity. Besides, as noted in Chapter 2, businesses in South Africa have expressed concern about the availability and affordability of insurance in the near future.

- Incentivise businesses that invest in green buildings, or physically relocate to less risky areas. Efforts here could replicate those by Swiss Re for instance, who through its *Green Investment* initiative offers incentives to companies that follow the specified building quality labels. Locally, Santam, through the use of GIS technology is reportedly developing differentiated underwriting rates which would impose higher premiums for developments in coastal and other high risk areas (*The Herald*, 2008).

The above mitigation and adaptation measures do not go far enough. As Cogan (2008) suggests, they need to be supplemented by strong internal governance measures. It is recommended therefore that the local short-term insurers should consider pursuing the following governance measures:

- Creating internal governance structures dedicated to climate change management, such as specific board and executive-level management positions. Such dedicated positions as noted in Chapter 2 facilitate the integration of climate change into overall company strategies.
- Enhancing their reporting of perceived risks, opportunities and efforts in order to improve their integrity, give confidence to their potential investors and consumers as well as avoid litigation, reputational and other risks. To this end, it is recommended that the companies pursue integrated reporting, as proposed by the King III report and make use of such reputable and comprehensive reporting frameworks and guidelines as the CDP, JSE/SRI and GRI, as Santam is doing.
- Participating proactively in public policy formulation, engaging with government, and making alliances with peers so that the industry's interests are heard, especially as the country prepares itself for Copenhagen and beyond. To this end, it is worth mentioning that Santam became the first local insurer to sign up as a member of ClimateWise[14] in June 2009 (ClimateWise, 2009). This represents a positive move on the part of local insurers, as it means that Santam will now have a voice at the conference in Copenhagen.

[14] ClimateWise is aimed at policy-makers as a platform for debating and influencing public policy.

CHAPTER 6: CONCLUSION

This study set out to answer the following research questions:

1. What evidence exists in the South African short-term insurance companies' annual and sustainability reports of their integration of climate change management initiatives into their risk management structures and practices?

2. What is the degree of comprehensiveness with which such short-term insurers report on their climate change risk interventions when compared against set global best practices as reflected in their annual and sustainability reports?

3. What recommendations could be made to reduce the exposure of South African short-term insurers to climate change risk?

To answer the questions, the study set out the context of the enquiry by analysing the concepts of sustainable development/sustainability, corporate governance and climate change. A key conclusion is that the short-term insurers' responses to climate change risk can be conceptualised in terms of the key principles of the TBL – itself a feature of sustainability and governance.

In answer to the first, second and third questions, the study has established (i) the prevalence of specific climate change risk initiatives among the short-term insurers sampled and (ii) the extent of public reporting of such initiatives. With regard to the first aspect, of the 23 companies selected for this study, 12 of them show some evidence of publicly disclosing the existence of some climate change management initiatives, while the other 11 show no evidence of reporting in this regard.

As for the second aspect, it is generally evident that multinational – as opposed to local –short-term insurance companies show more comprehensiveness and transparency with regard to communicating their climate change management efforts. It can be concluded that the multinationals exhibit best practice, albeit to varying degrees. Among the local companies, Santam seems to have embraced climate change governance principles as proposed by Ceres (Cogan, 2008a) and logically then, wider corporate governance principles. This is evidenced in,

among other things, its widespread use of external reporting frameworks and guidelines for public communication, in addition to its 'internal' reports on climate change.

More specifically, the study finds that the South African short-term insurers are generally not living up to the climate change management ideals, in comparison to their multinational counterparts. For all the South African short-term insurers, board involvement in climate change management was insignificant. Also negligible was corporate strategic product innovation and planning and participation in public policy formulation. However, in at least one case of local short-term insurance, there is evidence of extensive CEO involvement in climate change risk management. On the whole, these findings represent a lapse in climate change corporate governance as espoused by Ceres (Cogan, 2008a). Be that as it may, local short-term insurers seem to have generally performed well in the area of climate change, public disclosure and internal energy efficiency, with their scores ranging from insignificant to extensive.

In contrast, multinational short-term insurers' performance with regard to climate change risk intervention ranged from insignificant to integrated, across the five governance areas of board oversight, management execution, public disclosure, emissions accounting and strategic planning.

In trying to extrapolate the findings to the theoretical/conceptual framework of the TBL, it is evident that the multinational insurance companies show more evidence of tackling climate change risk from all the three vantage points of the TBL – social, environmental and economic – than their local counterparts. This clearly represents a more coherent and comprehensive approach to risk management. The limited adherence to the Ceres' climate change governance principles by the local short-term insurers in their climate change risk management would seem to fall short of the King I, II and III codes of practice, which emphasises integrated management, through on linking the core business to the TBL.

Based upon the empirical and conceptual analyses, this study, cognisant of the likelihood of more stringent regulation following the Copenhagen conference to be held in December 2009, has ventured a set of mitigation and adaptation recommendations for reducing the occurrence and/or the impacts of climate change risk by local insurers. Many of the recommendations centre

on forging strategic relationships, investing in climate change risk management products, improving the resilience of communities and other businesses to climate change related risks and shocks, as well as creating internal governance structures that facilitate integration of such measures into wider company risk management strategies.

An important conclusion of this study is that there is limited research focusing on climate change risk as it affects the short-term insurance business in South Africa. This study thus sets an analytical framework for pursuing further studies in this field. However, such studies would need to consider four issues, as a way of remedying the shortcomings of this particular research project.

- Any future research should consider collecting data from the companies themselves as opposed to report content analysis in order to have a more complete or composite analysis and understanding of the motivations and behaviours of the insurers. This would also reduce the subjectivity associated with the researcher having to make personal judgements in scoring the companies. It would also allow for the collection of more up-to-date information.
- Any such research should consider the size of the companies, such as their market capitalisation, product portfolios and geographical spread, as these independent variables may have a bearing on how a company responds to climate change risk.
- It would be revealing for future research, using the same assessment tool developed in this study, to focus on the four local insurers in order to understand how they would have progressed against the best practices referred to here.
- Any future research could benefit methodologically from being undertaken in partnership with such companies as Ceres. Such an academic-industry partnership could ensure that the student enjoys the full benefit of the methodological tools that Ceres has developed for analysing climate change risk management in the financial sector. In turn, Ceres could benefit from an academic review of its toolkit.

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Appendices

Appendix 1

Table 1.: Total sampling units-SAIA/IISA registered short-term insurers

Serial No.	Company name	Website address
1.	ABSA Insurance Company Limited	www.absa.co.za
2.	Ace Insurance Limited	www.aceinsurance.co.za
3.	African Reinsurance Corporation (SA) Limited	www.africa-re.com
4.	AIG South Africa Limited	www.aig.co.za
5.	Alexander Forbes Insurance Company Limited	www.afi.co.za
6.	Allianz Insurance Limited	www.allianz.co.za
7.	Auto & General Insurance Company Limited	www.autogen.co.za
8.	Cardif-Pinnacle (Pinnafrica)	www.cardifpinnacle.co.za
9.	Centriq Insurance Company Limited	www.novariskpartners.com
10.	Coface South Africa Insurance Company Limited	www.cofaceza.com
11.	Compass Insurance Company Limited	www.compass.co.za
12.	Constantia Insurance Company Limited	www.constantiagroup.co.za
13.	Credit Guarantee Insurance Corporation of Africa Limited	www.creditguarantee.co.za
14.	Customer Protection Insurance Company Limited	
15.	Dial Direct Insurance Limited	www.dialdirect.co.za
16.	Emerald Insurance Company Limited	www.emeraldsa.co.za
17.	Enpet Africa Insurance Limited	www.alexanderforbes.com
18.	Escap Limited	
19.	GenRe Company Limited	www.genre.com
20.	Guardrisk Insurance Company Limited	www.guardrisk.co.za
21.	Hannover Reinsurance Africa Limited	www.hannover-re.co.za
22.	HDI Gerling Insurance of South Africa Limited	http://www.hdi-gerling.de/en
23.	Hollard Insurance Company Limited (The)	www.hollard.co.za
24.	Imperial Reinsurance Company Limited	
25.	Indequity Specialised Insurance Limited	www.indequity.com
26.	Intermediaries' Guarantee Facility Limited	www.igfsec45.co.za

27.	Kingfisher Insurance Company Limited	www.alexanderforbes.com
28.	Legal Expenses Insurance SA Limited (Legalwise)	www.legalwise.co.za
29.	Lion of Africa Insurance Company Limited	www.lionsure.com
30.	Lloyd's South Africa (Pty) Ltd	www.wwb.co.za
31.	Lombard Insurance Company Limited	www.lombardins.com
32.	McSure Limited	www.mccarthy.co.za
33.	Momentum Short-Term Insurance	www.momentum.co.za
34.	Monarch Insurance Company Limited	www.lewisgroup.co.za
35.	MUA Insurance Company Limited	www.mua.co.za
36.	Munich Reinsurance Company of Africa Limited	www.munich-re.com
37.	Mutual & Federal Insurance Company Limited	www.mutualandfederal.co.za
38.	Nedgroup Insurance Company Limited	www.nedbank.co.za
39.	New National Assurance Company Limited	www.newnat.co.za
40.	OUTsurance Insurance Company Limited	www.out.co.za
41.	Regent Insurance Company Limited	www.regent.co.za
42.	Relyant Insurance Company Limited	
43.	Renasa Insurance Company Limited	www.renasa.co.za
44.	SAFIRE Insurance Company Limited	www.safireinsurance.com
45.	Santam Limited	www.santam.co.za
46.	SASRIA Limited	www.sasria.co.za
47.	SaXum Reinsurance Limited	www.saxum.net
48.	Standard Insurance Limited	www.standardbank.co.za
49.	Swiss Re Africa Limited	www.swissre.com
50.	Unitrans Insurance Limited	www.iua.co.za
51.	Unity Insurance Limited	www.unity.co.za
52.	Zurich Insurance Company South Africa Limited	www.zurich.co.za
53.	Zurich Insurance Risk Financing Limited	www.zurich.co.za

Table 2: Companies excluded from the sample due to unavailability of reports

Serial No.	Company name	Website address
1.	Alexander Forbes Insurance Company	www.afi.co.za
2.	Auto & General Insurance Company Limited	www.autogen.co.za
3.	Centriq Insurance Company Limited	www.novariskpartners.com
4.	Coface South Africa Insurance Company Limited	www.cofaceza.com
5.	Constantia Insurance Company Limited	www.constantiagroup.co.za
6.	Customer Protection Insurance Company Limited	No website presence
7.	Dial Direct Insurance Limited	www.dialdirect.co.za
8.	Emerald Insurance Company Limited	www.emeraldsa.co.za
9.	Enpet Africa Insurance Limited	www.alexanderforbes.com
10.	Escap Limited	No website presence
11.	Imperial Reinsurance Company Limited	No website presence
12.	Indequity Specialised Insurance Limited	www.indequity.com
13.	Intermediaries' Guarantee Facility Limited	www.igfsec45.co.za
14.	Kingfisher Insurance Company Limited	www.alexanderforbes.com
15.	Legal Expenses Insurance SA Limited (Legalwise)	www.legalwise.co.za
16.	Lombard Insurance Company Limited	www.lombardins.com
17.	McSure Limited	www.mccarthy.co.za
18.	Monarch Insurance Company Limited	www.lewisgroup.co.za
19.	MUA Insurance Company Limited	www.mua.co.za
20.	New National Assurance Company Limited	www.newnat.co.za
21.	Relyant Insurance Company Limited	No website presence
22.	Renasa Insurance Company Limited	www.renasa.co.za
23.	SAFIRE Insurance Company Limited	www.safireinsurance.com
24.	SaXum Reinsurance Limited	www.saxum.net
25.	Unitrans Insurance Limited	www.iua.co.za
26.	Unity Insurance Limited	www.unity.co.za
27.	Zurich Insurance Risk Financing Limited	www.zurich.co.za

Appendix 2.: Climate change indicators (Adapted from Ceres [Cogan, 2009])

	Board Oversight
1	**Board has explicit responsibility for environmental affairs/climate change.**
	Board Committee-Environmental Oversight: Board of Directors designates a board-level committee with explicit oversight of the company's environmental affairs.
	Board Committee-Climate Change: Board designates a board-level committee with explicit oversight of the company's climate change policy and initiatives.
	Board Member-Climate Change: Board designates a specific board member with explicit oversight of the company's climate change policy and initiatives.
	Board conducts periodic review of climate change and monitors progress in implementing strategies.
	Board Role: Board has taken specific actions to initiate, approve and /or monitor the company's environmental affairs and climate change initiatives.
	Board training
	Management Execution
2	**Chairman/CEO assumes leadership role in articulating and executing climate change policy.**
	CEO Leadership Statements: Chairman/CEO assumes leadership role in articulating the company's climate change strategy, including shareholder communications and participation in external initiatives.
	Company Policy: Company produces a policy statement addressing climate change and/or broader sustainability issues.
3	**Top executives and/or executive committee assigned to manage climate change response strategies.**
	Chief Environmental Officer: Company designates a corporate-level executive with explicit responsibility for managing environmental affairs.
	Climate Change Executive: Company designates a corporate-level executive with explicit responsibility for managing climate change policy and initiatives (may be the same person as chief environmental officer).
	Executive Committee: Company has executive level committee, task force or working group to address climate change issues (including environmental/CSR/sustainability departments of committees).
4	**Climate change initiatives are integrated into risk management and mainstream business activities.**
	ESG Factors in Risk Management/Financing: Company issues formal policy and governance procedures to incorporate environmental, social and governance (ESG) factors in its risk management function and/or financing decisions.
	Board Staff Training/Education: Staff receives training and education addressing environmental, climate change and/or sustainability issues.

	External Initiatives: Company participates in external coalitions, working groups or initiatives to mobilise action on climate change and incorporation of ESG factors in financing decisions.
	Investment Research: Company publishes research and analysis of climate change-related issues for shareholders and/or clients.
	Executive officers' compensation is linked to attainment of goals and GHG targets.
5	**Compensation Link:** Company explicitly links executive officers' compensation to attainment of environmental and/or climate related goals.
	Public Disclosure
6	**Securities fillings disclose materials and opportunities posed by climate change response.**
	Annual Report: Company discusses climate change risk, opportunities and initiatives in most recent annual Report (e.g. CEO letter to shareholders, front section or Management Discussion & Analysis).
	King III Code of Governance Statement: Company discusses material climate change risk and opportunities as prescribed by the King III Code of Governance.
	Sustainability Report: Company publishes a Sustainability Report or equivalent public document that discusses climate change risk, opportunities and initiatives.
	GRI Accordance: Company's Sustainability Report is "in accordance" with independent standards established by the Global Reporting Initiative (GRI).
	Carbon Disclosure Project: The Carbon Disclosure Project (CDP) is a non-profit organisation that conducts an annual climate change survey on behalf of institutional investors.
	Member: Company actively supports CDP survey and on-line data collection instrument.
	2007 Signatory: Company signed letter requesting corporate responses to CDP5 survey.
	CDP5 (2007): Company completed CDP5 survey and did (or did not) publicly release results.
	CDP5 Risk Disclosure: Company assesses climate change-related risk in CDP5 response.
7	**Public communications offer comprehensive, transparent presentation of response measures.**
	Public Policy Statements: Company expresses its views on climate change regulatory proposals and related public policy measures.
	Emissions Accounting
8	**Company calculates and registers GHG emissions savings and offsets from operations.**
	GHG Emissions Inventory: Company conducts an inventory of GHG emissions from its operations.

	Scope 1: Direct GHG emission from combustion in company-owned or controlled sources (boilers, furnaces, vehicles, etc.).
	Scope 2: Indirect GHG emissions from generation of electricity purchased for use by company facilities.
	Scope 3: Other indirect GHG emissions from company activities (e.g., employee commuter travel; business travel by air, rail or motor vehicles; other indirect emissions from product use or supply chain).
	Accounting Methods: company documents accounting methods used for GHG emissions inventory.
9	**Company conducts annual inventory of GHG emissions and publicly reports results.**
	Company has an emissions baseline by which to gauge future GHG emissions trends.
	Company has third-party verifications process for GHG emission data.
	Third Party Certification: Company employs third-party reviewer of GHG emissions data.
	Certification Year: Most recent year of third-party review.
	Emissions Savings and Offsets: Company seeks renewable energy purchases and or/energy efficiency savings to reduce GHG emissions and offset inventory totals.
	2007% Renewable Energy: Percent of electricity delivered from renewable energy sources in 2007.
	Energy Efficiency Savings: Savings from energy efficiency measures (as calculated by company).
	Certified C02 Offsets: Certified emission reductions and credits to offset company GHG emissions.
	Strategic Planning
10	**Company sets absolute GHG emission reduction targets for facilities, energy use, business travel and other operations (including indirect emissions).**
	GHG Emission Targets: Company sets targets to reduce GHG emissions or related energy use.
	Renewable Energy: Company purchases renewable energy for its own operations and/or finances/invests in the renewable energy sector.
	Energy Efficiency: Company takes measures to improve energy efficiency of its own operations and/or finances/invests in energy efficiency measure available to clients.
11	**Company participates in GHG emissions trading programmes / pursues business strategies to reduce GHG emissions, minimize exposure to regulatory and physical risks, and maximise opportunities from changing market forces and emerging controls.**
	Emissions Trading: Company engages in voluntary or mandatory GHG emissions trading programmes to offset its own emissions and/or provides emissions trading services to others.
	Other Climate-Related Investment Products: Company offers climate-related investment and/or retail products.

Appendix 3.: Company profiles

ACE Insurance Limited

The ACE Group of Companies is a global insurer and re-insurer, which operating through its member companies dates back to more than 200 years ago. ACE is headquartered in the USA and conducts its business worldwide, with operating subsidiaries in more than 50 countries. As a global commercial property and casualty insurance and reinsurance company, ACE serves a diverse group of clients, in a broad range of industries. The company also offers accident and health insurance, as well as life insurance. In South Africa, ACE is represented by ACE South Africa and has been trading in the South African market since 2006. The South African subsidiary provides a similar portfolio of products and services, as those provides by the bigger group.

African Reinsurance Corporation (SA) Limited (African Re SA)

African Re SA is a wholly owned subsidiary of African Reinsurance Corporation, a Nigeria-based composite re-insurer which was established in 1976 with the aim of fostering the development of the insurance and reinsurance industry in Africa. African Re SA oversees the insurance business emanating from Mozambique, Botswana and Angola. The South African portfolio is significantly weighted to short-tail property and motor risks.

AIG South Africa Limited

The American International Group, Inc. (AIG) is headquartered in the USA and operates in 130 countries and jurisdictions. AIG serves commercial, institutional and individual clients through a network of extensive Property and Casualty and Life Insurance as well as retirement services, financial services and asset management around the world. AIG South Africa Limited (AIG SA), the South African member company of the American International Group, Inc. (AIG), was established as a general insurance (short-term) company in South Africa in 1962. It provides commercial and consumer insurance services throughout South Africa to companies, both large and small. On the consumer side, AIG SA provides Accident and Health and personal lines insurance products covering buildings, contents as well as motor and identity thefts for households and individuals.

Allianz Insurance Limited

Allianz Insurance Limited is a wholly owned subsidiary of the Allianz Group, a European based global insurer. Allianz operates in more than 70 countries worldwide, in four main segments, namely: Property and Casualty, Health/Life, and Banking and Asset Management. Under the Property and Casualty segment, the company provides commercial and industrial coverage.

Hannover Reinsurance Africa Limited

The Hannover Reinsurance Group's headquarters is in Germany, but it holds a worldwide network consisting of more than 100 subsidiaries, branches and representative offices in around 20 countries. Hannover Reinsurance Africa Limited, based in South Africa is the locally registered subsidiary of the international group. Hannover Re Africa Ltd transacts in the non-life and life/health segments. Hannover Re Africa offers property, casualty, marine, aviation and space and agricultural risk reinsurance in the non-life division.

Lloyd's South Africa (Pty) Ltd

Lloyd's is a specialist insurance company, who do not view themselves as insurers in the strict sense, but a society of corporate and individual members, who underwrite in syndicates. Lloyd's houses 46 managing agents and 75 syndicates. Together, the syndicates underwriting at Lloyd's form one of the world's largest commercial insurers and a leading re-insurer. Lloyd's South Africa (Pty) Ltd is the representative office of Lloyd's of London. The South African market is the largest source of revenue for Lloyd's on the African continent. Lloyd's business in South Africa is dominated by transportation, property and liability segments.

Momentum Short-term Insurance Company

The Momentum Group a wholly-owned subsidiary of FirstRand Limited. FirstRand Limited, founded in 1998, is an integrated financial services group listed on the JSE. It provides financial products and services to the South African markets and niche products in certain international markets. Momentum Insurance offers both short-term and long-term insurance products to the South African market, long-term insurance being their stronghold. In the short-term segment, Momentum Insurance offers products to both individuals and businesses. For the individual, Momentum offers short-term insurance for vehicles, including cars, motorbikes, boats and caravans as well as home insurance, where the home itself and the contents within can be insured. Momentum offers business a number of options with regard to short-term insurance products, among them, products to insure a business' buildings, building contents, electrical equipment, stock and money in transit. Business coverage also extends to coverage against business interruptions, employee dishonesty and employer liabilities.

Munich Reinsurance Company of Africa Limited

Munich Reinsurance Company of Africa Limited is a subsidiary of the Munich Re Group, based in Munich, Germany. The Group was founded in 1880 and offers its products and services through 5,000 insurance companies in about 160 countries. Its main business lines are reinsurance, primary insurance and asset management. The company's reinsurance products include property-casualty reinsurance, and life and health reinsurance. Munich Re reinsures losses arising from natural catastrophes, major construction projects, third-party liability cases, personal injuries and other hazards. Its primary insurance products comprise life, health, and property-casualty insurance, as well as legal expenses insurance.

OUTsurance Insurance Company Limited

Launched in 1998, OUTsurance offers both business and personal short-term insurance products. OUTsurance offers several short-term insurance options, from vehicle and building insurance to employee and contents insurance. The company also offers building insurance that covers immovable structures and their contents against fire, explosion and acts of nature like. OUTsurance also offers business insurance to manage risks with tailor made insurance packages.

Santam limited

Santam provides short-term insurance products and services aimed at specific markets, and capitalises on efficient use of their broker network as the main delivery channel. The company focuses on the corporate, commercial and personal markets. Santam also has business interests in Zimbabwe, Malawi and Zambia. The Group's principal activity is providing short-term commercial, motor, personal and alternative risk insurance solutions. It provides services in the areas of personal, commercial, agriculture, corporate and specialised insurance. The commercial segment provides property, casualty and motor insurance and risk management solutions aimed specifically at addressing the complex insurance requirements of the larger corporate sector of business. The specialised segment focuses on advanced loss of profits, plant all risk, electronic equipment (large risk/exposure), public liability, lateral support and machinery breakdown as well as loss of profits and deterioration of stock.

Swiss Re Africa Limited

Founded in Zurich, Switzerland, in 1863, Swiss Re operates from 79 offices around the world and serves clients in over 160countries. Swiss Re is a highly diversified global re-insurer which offers financial services and products to manage risk and capital. The company's traditional reinsurance products and related services for property and casualty as well as for life and health business are complemented by insurance-based corporate finance solutions and supplementary services for comprehensive risk management. Swiss Re has been in operation in Africa for more than 50 years. Swiss Re South Africa offers Life & Health and Property & Casualty lines of business. In the property & casualty segment, Swiss Re SA transacts in property, casualty, marine, credit and surety, aviation and engineering classes of reinsurance.

Zurich Insurance Company South Africa Limited

Zurich is an insurance-based financial services provider, with headquarters in Zurich, Switzerland. Founded in 1872, Zurich now serves customers in more than 170 countries. Its core business is in General Insurance and Life Insurance, offering products and services for individuals, small businesses, commercial enterprises, mid-sized and large corporations and multinational companies. Zurich Insurance Co. S.A. Ltd., formerly known as South African Eagle Insurance Co., is a short-term insurance company headquartered in Johannesburg and listed on the Johannesburg Securities Exchange. The company was founded in 1965. It markets its products almost exclusively through brokers and agents, and has a network of offices throughout South Africa, subsidiary insurance companies in Botswana and Zimbabwe, and an associate insurance company in Mauritius. Its principal activity is providing insurance products and services to commercial and corporate and individual customers. For commercial and corporate customers, besides the conventional offerings of motor, building and machinery insurance, Zurich SA also offers specialist products, such as marine, engineering and aviation insurance. For individual customers, Zurich offers motor insurance as well as home and accident insurance.