



INSTITUTE OF DIRECTORS
SOUTHERN AFRICA

South African Business & Climate Change

Sustainable Development Forum

Position Paper 2 - September 2010

Proudly sponsored by  **Standard Bank**



SUMMARY OF KEY MESSAGES FROM INTERNATIONAL SCIENTIFIC STUDIES

• **Key Message 1:** Climatic Trends

Recent observations show that greenhouse gas emissions and many aspects of the climate are changing near the upper boundary of the Intergovernmental Panel on Climate Change (IPCC) range of projections. Many key climate indicators are already moving beyond the patterns of natural variability within which contemporary society and economy have developed and thrived. These indicators include global mean surface temperature, sea-level rise, global ocean temperature, Arctic sea ice extent, ocean acidification and extreme climatic events. With unabated emissions, many trends in climate will likely accelerate, leading to an increasing risk of abrupt or irreversible climatic shifts.

• **Key Message 2:** Social and Environmental Disruption

The research community provides much information to support discussions on “dangerous climate change”. Recent observations show that societies and ecosystems are highly vulnerable to even modest levels of climate change, with poor nations and communities, ecosystem services and biodiversity particularly at risk. Temperature rises above 2°C will be difficult for contemporary societies to cope with, and are likely to cause major societal and environmental disruptions through the rest of the century and beyond.

• **Key Message 3:** Long-term strategy: Global targets and timetables

Rapid, sustained and effective mitigation based on coordinated global and regional action is required to avoid “dangerous climate change” regardless of how it is defined. Weaker targets for 2020 increase the risk of serious impacts, including the crossing of tipping points, and make the task of meeting 2050 targets more difficult and costly. Setting a credible long-term price for carbon and the adoption of policies that promote energy-efficiency and low-carbon technologies are central to effective mitigation.

• **Key Message 4:** Equity Dimensions

Climate change is having, and will have strong differential effects on people within and between countries and regions, on this generation and future generations and on human societies and the natural world. An effective, well-funded adaptation safety net is required for those people least capable of coping with climate change impacts, and equitable mitigation strategies are needed to protect the poor and most vulnerable. Tackling climate change should be seen as integral to the broader goals of enhancing socioeconomic development and equity throughout the world.

• **Key Message 5:** Inaction is inexcusable

Society already has many tools and approaches – economic, technological, behavioural and managerial – to deal effectively with the climate change challenge. If these tools are not vigorously and widely implemented, adaptation to the unavoidable climate change and the societal transformation required to decarbonise economies will not be achieved. A wide range of benefits will flow from a concerted effort to achieve effective and rapid adaptation and mitigation. These include job growth in the sustainable energy sector, reductions in the health, social, economic and environmental costs of climate change, and the repair of ecosystems and revitalisation of ecosystem services.

• **Key Message 6:** Meeting the Challenge

If the societal transformation required to meet the climate change challenge is to be achieved, then a number of significant constraints must be overcome and critical opportunities seized. These include reducing inertia in social and economic systems; building on a growing public desire for governments to act on climate change; reducing activities that increase GHG emissions and reduce resilience (e.g. subsidies); and enabling the shifts from ineffective governance and weak institutions to innovative leadership in government, the private sector and civil society. Linking climate change with broader sustainable consumption and production concerns, human rights issues and democratic values is crucial for shifting societies towards more sustainable development pathways.

EXECUTIVE SUMMARY

South African business has a crucial role to play in addressing climate change, both in terms of mitigating the possible impacts of climate change, as well as adapting to these changes. Progressive businesses will take advantage of the opportunities provided by the climate change challenge to differentiate themselves from their peers; less progressive businesses will find themselves subjected to increasing legislative and stakeholder pressure.

The role of The Institute of Directors in Southern Africa is to inform its members, who are senior executives and directors in both the public and private sector, and to facilitate dialogue between business, government and civil society. It is also to raise awareness of the changing business landscape and provide recommendations for best practice to its members. This paper, written for the layman, seeks to assist members of The Institute of Directors in Southern Africa and senior executives by providing them with a summary of the key issues and thereby empowering them to ask the naïve questions of their risk managers, scientists and strategists.

Courage a necessity

What is needed is courageous and effective leadership. Choices will have to be made before all the facts are known and this task will have to fall to the leaders. They will be called upon to respond strategically to this challenge and take their companies into a lower carbon world.

The response to climate change involves several role-players, including government, civil society and business. Business must play a crucial role in facilitating the response to change, as it has resources and can change course relatively quickly. It should lobby government to clarify both policy and legislation, particularly with regard to emission reduction targets. Once a stable and transparent price can be established for carbon, business can plan with more certainty to reduce its own emissions and invest in greener technologies and renewable energy.

INTRODUCTION

Climate change poses arguably the single greatest challenge to modern society. Changes will impact not only the biophysical world (including the climate system itself, as well as plants and animals) but will also directly impact the way in which humans live and interact. Most of these impacts will affect vulnerable communities (notably the rural poor) more directly than other groups. Ultimately, humanity will have to adapt to a carbon-constrained world by developing more sustainable technologies that are less dependent on fossil fuels.

Business plays a significant role in society, directly influencing how and where people work and the environment in which they live thereby influencing how society itself operates. As such business is a key role-player in responding to climate change, not only through changing its own operations to become more sustainable, but through influencing how society itself responds. This position paper explores the nature of the climate change challenges and suggests various ways in which business can and should respond.

PROJECTED CLIMATE CHANGES

The climate system is warming. Most of this warming is very likely (> 90% certainty) due to the human-induced increase in greenhouse gases (GHGs). Projected impacts of future climate will affect us all profoundly.

In South Africa, the most likely climate changes during the 21st century are:

- The temperature is projected to increase by 3-5°C over the central interior and by 3°C in coastal regions.
- The western part of South Africa will experience an increase in extremely hot days and during summer and autumn.
- Average rainfall is projected to decrease by 5-10% but changes will vary across the country. During summer, the east of the country is projected to become wetter while the west of the country will become drier. The summer rainfall season will begin later and severe rainfall events will occur more often. The south-western Cape is projected to receive significantly less winter rainfall.



IMPACTS¹

The major impacts of these projected changes in South Africa during the 21st century are:

- Water:** Water resources are already under pressure in South Africa and climate change will lead to a decline in the availability of surface water resources. This will happen at the same time as socioeconomic development increases the demand for water.
- Agriculture:** Agriculture is an important source of livelihood for many rural South Africans and this sector can expect multiple impacts. In some crops productivity will be affected by changes in soils, peak temperature and rainfall changes. In others, there is the potential to amend the growing season or change to more drought-tolerant varieties or substitutes.
- Grasslands:** Grassland pastures will also be vulnerable to invasion by alien plants and conversion to less biodiverse shrub land. The change in range for plant growth will also affect biodiversity, threatening the high number of endemic species found in South Africa such as the fynbos of the Cape Floral Kingdom.
- Health:** The areas at risk from malaria (and other vector-borne diseases) will also increase.

RESPONDING TO CLIMATE CHANGE

Through reducing the nature and extent of GHG emissions, it will be possible to mitigate the severity of the impact of climate change. Even if all emissions could be halted, there will still be a need to adapt to those unavoidable changes that will result from the store of GHGs already in the atmosphere.

i) Mitigation

Mitigation is the main focus of the international policy framework: the United Nations Framework Convention on Climate Change (UNFCCC). Its associated Kyoto Protocol, which came into force in 2005, commits developed countries to reduce their GHG emissions by 8-12% from 1990 levels in the period 2008-2012. Regular meetings are held at which the international law is negotiated, the most recent of which was the highly publicised Copenhagen Fifteenth Conference of the Parties. This was particularly important as a successor to the Kyoto Protocol was being negotiated, with controversy over the levels of reductions required by countries in order to limit climate change to 2°C, (a recognised threshold beyond which the changes will become far more difficult to manage).

Copenhagen was critical in that a framework for managing the international emissions challenge post 2012 is needed. No legally binding agreement was reached in Copenhagen, with negotiations expected to continue throughout 2010, culminating in a conference in Mexico in December 2010. The 17th Conference of the Party will be held in South Africa and it is hoped that at this important meeting legal agreement will finally be achieved. This event will also increase the focus on South African business, given that South Africa is a significant emitter of carbon dioxide and other gases which have similar effects.

Whilst nation states are the signatories to the UNFCCC and its instruments, their policy decisions will necessarily affect the operating environment of businesses through resulting legislation. Many businesses have recognised that it is in their economic interest, as well as being part of their commitment as global corporate citizens, to make their own commitments to mitigating climate change.

Businesses will be affected by the physical impacts of climate change, as well as by the policies and legislation developed to address it. Business will also face increasing competitive pressure as other businesses take advantage of opportunities and adjust their operations. Those businesses that are slow to adapt to the changing business environment will face increasing risk of reputational, as well as litigation exposure².

Government commitment to mitigation

South Africa is a signatory to the UNFCCC and its Kyoto Protocol, although as a developing country it is currently not obliged to reduce its GHG emissions. That said, on a global scale South Africa contributes more GHG to the atmosphere than many developed countries, placing it among the top 20 emitters in the world. This is as a result of our large dependence on coal-based energy.

¹ IPC, 2007: This allows for the applications of sustainable development as the business models in NGO's, Section 21 Companies, whose value creation may relate more to human environmental capital, than to financial.

² Largely based on Llewellyn, J., 2007: If the organisation does not have a board, this can be represented by the senior management structures in the organisation.

Since South Africa is such a large emitter, government has recognised the need to plan for a future of lower carbon development, and led the way amongst the big-emitting emerging economies (China, Brazil, India, Mexico, South Africa) on commitments at the post-Kyoto negotiations in Copenhagen in December 2009.

In Copenhagen, South Africa committed to reduce its GHG emissions by 34% below business as usual by 2020, and 42% by 2025. Actions that bring about this pathway will lead to the country's emissions peaking between 2020 and 2025, and then declining in absolute terms. This commitment reflects several years of debate and research into GHG emissions in South Africa. The government committed to setting a target for GHG reduction at its 52nd National Conference, held in Polokwane in 2007. In 2008, government published the Long Term Mitigation Scenarios (LTMS)³, which uses models to explore the consequences of various policy interventions aimed at reducing GHG emissions. Stakeholder consultation on the policies and legislation required to bring about these changes occurred during a national conference in 2009 and a green paper and domestic policy are due to be introduced in 2010.

Business commitment to mitigation

As in the rest of the world, the sectors of the South African economy that contribute most to climate change are energy, mining, petrochemicals and building and construction. These industries will be required to reduce their emissions by government policies and legislation, taxes and sanctions. It is also in their interests to take a more proactive approach to dealing with the change and ensuring their long-term sustainability. The reward for innovation in these sectors is expected to grow as the pressure to reduce emissions increases.

That said, all businesses contribute to GHG emissions through their operations, for example through energy use in their premises and for the transport of staff and goods. Businesses may therefore strive to mitigate climate change through aiming for carbon neutrality. This involves reducing emissions as far as is possible, and then purchasing offsets to negate the remainder. Several businesses in South Africa have recently made commitments to carbon neutrality.

Beyond meeting their obligations, the firms that will prosper in a climate-changed world will tend to be those that are:

- early to recognise its importance for their business;
- able to foresee at least some of the implications for their industry;
- prepared to act early both to reduce their direct and indirect emissions and to adapt to changes to those impacts that cannot be mitigated; and
- able to take advantage of opportunities that are presented by climate change.

South African business can and should play a role in the development of policy and legislation. The way in which businesses will respond to climate change will be driven in part by compliance with legislative requirements. However, compliance keeps companies in reactive and defensive territory which is at odds with the real pressure to seek opportunity through innovation. In addition, clarity on global and national emission reduction targets are necessary to determine a global price for carbon. Once this is known, the cost of mitigation by individual businesses, as well as the potential returns of investments in green technology and renewable energy can be better determined. Business must therefore be proactive in the ongoing policy debates around energy and climate change within South Africa.

ii) Adaptation

Adaptation has received less attention within the international policy framework than mitigation, but it is arguably more important in Africa, which has been identified as particularly vulnerable to the impacts of climate change. Recent studies suggest that climate change could have serious impacts on many sectors of the South African economy, with the areas of highest vulnerability being the health sector, maize production, biodiversity and water resources (LTMS, 2007).

The aim of adaptation strategies is to reduce vulnerability caused by current climate change conditions and to provide protection against projected future changes, together with developing any new opportunities that may arise from climate change's beneficial effects. Whilst large transaction costs are associated with adaptation, these should be measured against the risks of maintaining business-as-usual.

³ Scenario Building Team, 2007: "Availability" includes the concept of access to resources.



ii) Adaptation - continued

Although vulnerability to the physical effects of climate change varies across business sectors, all sectors may be exposed to property damage, as well as to disruption to services and businesses activities associated with possible damage to infrastructure and utilities.

Adaptation solutions for the sectors in South Africa likely to be most adversely affected by climate change include⁴:

Agriculture:	Requiring changes in management practices, such as time of planting, the use of more drought-resistant crops or shifting from crops to livestock and introducing shade-netting or drip irrigation to reduce reliance on water.
Health:	Extending treatment facilities and preventative measures (such as malaria nets).
Ecosystems protection:	Moving highly threatened species to maintain micro-habitats and seed-banks and protecting indicator species.
Water services:	Requiring more strategic resource management, altered water infrastructure design and the promotion of water-efficient technologies and practice.

Government commitment to adaptation

South Africa launched its National Climate Change Strategy (NCCS) in 2004. It was aimed mainly at government departments who were meant to use it to integrate consideration of climate change (related to energy, agriculture, water and waste management) into their programmes and policies. However, the largely intangible nature of adaptation has hampered its active uptake within government departments. Within the NCCS outline plans for adaptation exist, but it is widely recognised that adaptation is often context-specific, and thus providing generic advice is often of limited use. As yet, there are no government policies or legislation that explicitly promotes adaptation in the private sector.

Business commitment to adaptation

As in the rest of the world, the business sectors most vulnerable to climate change, and thus where adaptation is most pressing, are agriculture, forestry, real estate and insurance. These industries urgently need to assess their strategy and operations in order to protect against physical exposure to climate change. Even if their core focus is not natural resource dependent, all businesses will have to develop adaptation strategies to protect against competitive and reputational exposure.

The pace of a firm's adaptation to climate change and related policy is thus likely to prove to be another of the forces that will influence the long-term sustainability of that business. Their ability to adapt will increasingly become a discriminating factor in their performance and their ability to out-perform their peers.

Corporate social investment should also be reconsidered in light of climate change. Development initiatives that are not "climate proof" run the risk of having any positive effects negated by future climate change. Ideally a business should include consideration of climate change in the criteria used to select investments, in the same way that bilateral donors now do when funding development programmes.

iii) Developing an Effective Climate Change Strategy for Business

A typical climate change response strategy should include the following key elements⁴:

- *Executive understanding and commitment to climate change*, based on an informed assessment of the company-specific risks and opportunities and a sound appreciation of the business case drivers, with the result that climate considerations are appropriately integrated within the company's vision and strategy.
- *A comprehensive assessment of the company's GHG emissions profile* (or "carbon footprint") based on the identification and quantification of relevant and significant sources of GHG emissions. This will also require the definition of a common set of metrics for monitoring, calculating and reporting emissions, and agreeing a process (if any) for external or internal verification of emissions data.
- *Setting and updating GHG reduction targets*, which will require defining the GHG reduction targets for the organisation, with an agreed baseline, reference scenario and target date and integrating these targets within internal key performance indicators and decision-making processes.

⁴ Carbon Disclosure Project, 2009.

- *Identifying and implementing appropriate emissions reduction and adaptation measures.* This involves assessing and implementing internal opportunities relating, for example, to energy-efficiency, renewable energy, transport and logistics and internal behavioural change. It also requires businesses to engage suppliers and customers to identify and implement opportunities through the value chain. Where appropriate, businesses may choose to identify opportunities associated with emissions trading and CDM projects and implement measures associated with adaptation.
- *Integrating climate change consideration in internal governance practices.* This involves ensuring appropriate board oversight on climate change issues, assigning management responsibilities and integrating climate change performance into incentives, providing a regular account of the company's climate strategy and performance (both internally and externally), identifying and realising opportunities for partnerships with relevant stakeholders and engaging positively in policy development processes.
- *Testing strategy, products and technologies against climate change scenarios.*

Institute of Directors in Southern Africa support to members' commitments to climate change

The Institute of Directors in Southern Africa encourages its members to embrace the leadership challenge presented by climate change. It will provide assistance in this regard through:

- Keeping members aware of developments in policy, legislation, science and technology through regular briefing papers.
- Maintaining a database of relevant contact details of those responsible for climate change within companies to promote information sharing.
- Hosting sub-dialogues within the Sustainable Development Forum to promote dialogue and sharing of good practice (including tangible examples of mitigation and adaptation strategies, as well as the internal procedure to follow in order to ensure appropriate buy-in).
- Foster transparent and comprehensive reporting standards.

INSTITUTE OF DIRECTORS IN SOUTHERN AFRICA

PO Box 908,
Parklands, 2121
144 Katherine Ave,
Grayston Ridge Office Park,
Sandown, Sandton

Tel +27 11 430 9900
Fax +27 11 444 7907

Proudly sponsored by  **Standard Bank**