



environment
& tourism

Department:
Environmental Affairs and Tourism
REPUBLIC OF SOUTH AFRICA

CLIMATE CHANGE – THE SOUTH AFRICAN RESPONSE

Long-term Mitigation Scenarios (LTMS), LTMS
findings, policy directions and way forward

Presentation to the DEAT 5D Meeting, Friday 29
August 2008, Birchwood

PRESENTATION OVERVIEW

- What can South Africa do – the LTMS process
- Cabinet's decisions
- The next steps



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INTRODUCTION

- Climate Change is one of the greatest threats to our planet and to our people.
- Climate change, if un-mitigated, also has the potential to undo or undermine many of the positive advances made in meeting South Africa's own development goals and the Millennium Development Goals.
- In addition it must be noted that escalating international action on climate change presents further threats to our development through imposition of "carbon-footprint" trade barriers.
- While at the same time presenting opportunities to build our future economic competitiveness.

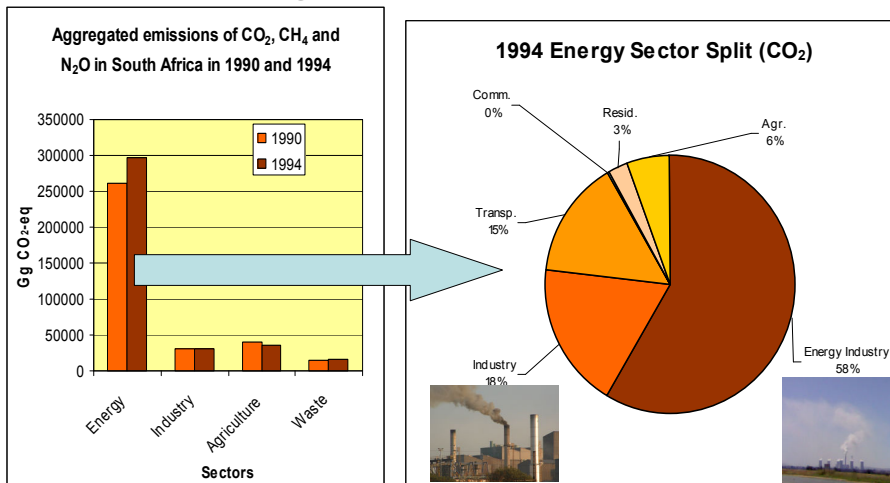
WHAT NEEDS TO BE DONE

- We have to **mitigate and adapt** and we have to **do it now**
 - even if we could stop all GHG emissions now, temperature will continue to rise – so we have to adapt to changes
 - There will come a time when we cannot "adapt" our way out of the problem – so we have to mitigate to avoid unimaginable impacts
- No country, region or continent can go it alone –
Climate Change mitigation needs global action

NEGOTIATING GLOBAL ACTION Unblocking the Negotiations

- Launched 3 track process in Bali - to conclude end 2009:
 - Deeper emission cuts for developed countries responsible for historical cumulative emissions through the renegotiation of Kyoto targets beyond 2012 – **absolute reductions**
 - “Comparability of effort” by non-Kyoto developed countries (USA) - **absolute reductions leveraged through...**
 - Measurable, Reportable and Verifiable (MRV) mitigation responses by developing countries, especially large emitters (e.g. China, India, Brazil and South Africa), enabled/supported by MRV financing & technology – **reductions relative to BAU**

WHAT CAN SOUTH AFRICA DO? Mitigation – Focus Areas



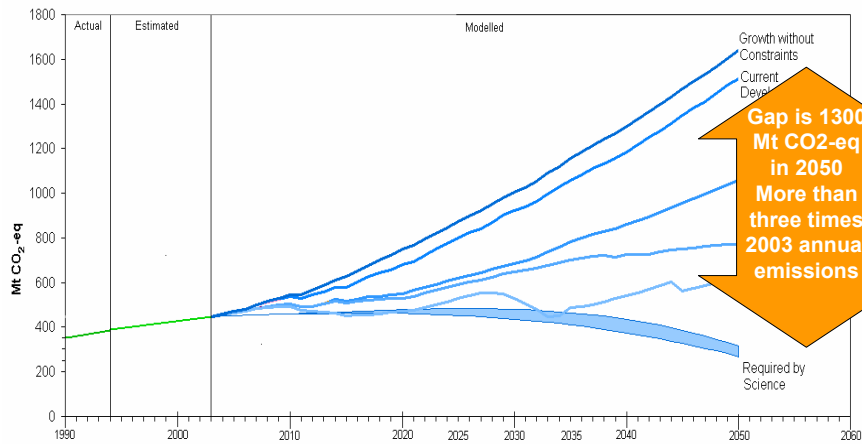
WHAT CAN SOUTH AFRICA DO? Mitigation – The LTMS

- The Long-Term Mitigation Scenarios (LTMS) process has identified potential scenarios for mitigation of climate change
- Key outputs:
 - Robust, broadly supported recommendations for a long-term national climate policy and action plan
 - Sound basis for SA negotiating position for negotiations on post-2012
 - Baseline work on climate impacts

WHAT CAN SOUTH AFRICA DO? Mitigation – The LTMS Scenario Building Team

- | Government | Business | Civil society |
|---|--|--|
| <ul style="list-style-type: none"> ▪ DEAT Environment ▪ DME Minerals & Energy ▪ DST Science & Technology ▪ DoT Transport ▪ Treasury ▪ Foreign Affairs ▪ DTI Trade & Industry ▪ DPE Public Enterprises ▪ DWAF Water Affairs & Forestry ▪ Presidency ▪ SAWS Weather Service ▪ CEF / SA Nat'l Energy Research Institute ▪ NERSA Energy Regulator ▪ W Cape Province (DEADP) ▪ City of Johannesburg ▪ Dept of Agriculture ▪ ARC | <ul style="list-style-type: none"> ▪ SASOL ▪ Eskom ▪ EIUJ Energy Intensive Users Group ▪ Engen ▪ Grain SA ▪ Anglo Coal ▪ BHP Billiton ▪ Chamber of Mines ▪ Aluminium – AFSA ▪ Kumba Resources ▪ Chemical – CAIA ▪ Engen ▪ Forestry SA ▪ AgriSA ▪ Business Unity SA ▪ Sappi ▪ Envitech (Waste) | <ul style="list-style-type: none"> ▪ EcoCity/CURES ▪ Groundwork ▪ SESSA ▪ Labour (COSATU) ▪ SEA ▪ SACAN ▪ COSATU ▪ SALGA ▪ WWF-SA ▪ Earthlife Africa ▪ NEDLAC |

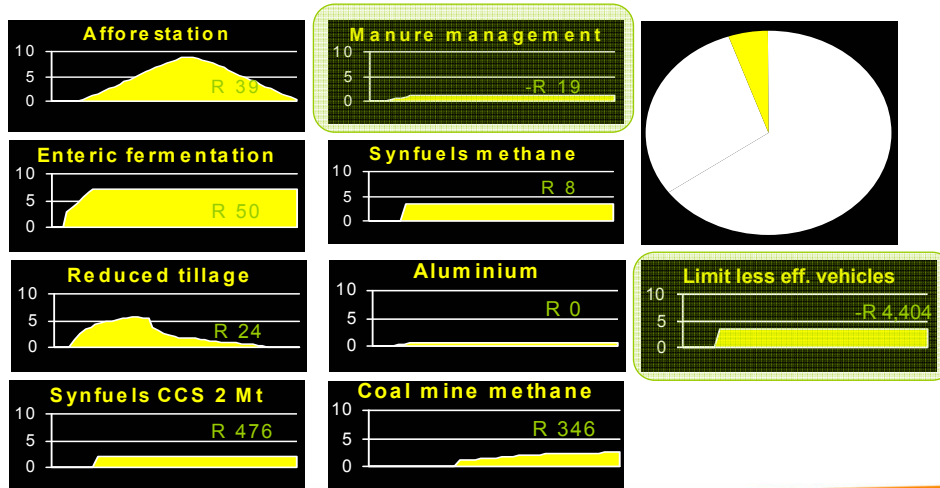
WHAT CAN SOUTH AFRICA DO? Mitigation – The LTMS Scenarios



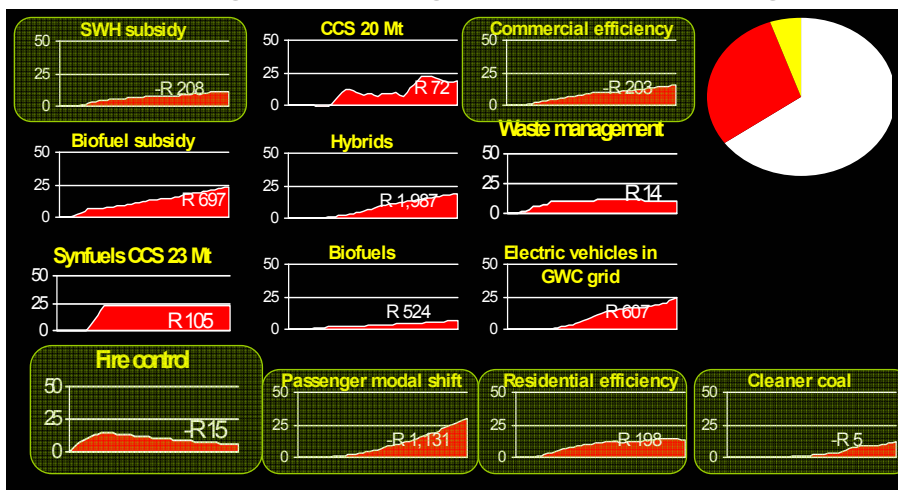
WHAT CAN SOUTH AFRICA DO? Mitigation – LTMS Scenario consensus

- “Growth Without Constraints” is an unacceptable trajectory
- “Current Development Paths” will not significantly change the unacceptable “Growth Without Constraints” trajectory
- “Required By Science” should be our ‘aspirational’ goal

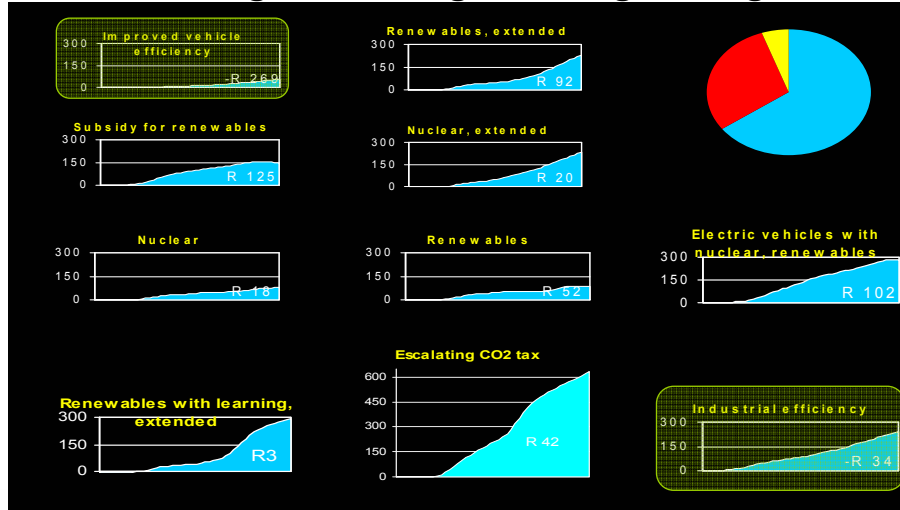
WHAT CAN SOUTH AFRICA DO? The Mitigation Wedges – Small Wedges



WHAT CAN SOUTH AFRICA DO? The Mitigation Wedges – Medium Wedges



WHAT CAN SOUTH AFRICA DO? The Mitigation Wedges – Large Wedges



THE HIGH-LEVEL PROCESS

- The LTMS technical work was signed off in October 2007
- This was followed by a “high-level” engagement process to discuss the LTMS findings and collect insights into possible policy directions from key stakeholders

VARIOUS HIGH-LEVEL EVENTS

- 25 October 2007, NCCC
- 31 October 2007, IPCC – Working Group III Contribution Dissemination Workshop, UCT, Cape Town
- 27 November 2007, Civil Society Round Table Meeting – a formal LTMS event
- 27 November 2007, Labour Round Table Meeting – a formal LTMS event
- 28 November 2007, FOSAD) Planning Workshop
- 28 November 2007, South African Institute of International Affairs conference on African Development, Johannesburg
- 28 November 2007, CEO's LTMS Round Table – a formal LTMS event
- 18 January 2008, Media briefing on the occasion of the Minister of Environmental Affairs and Tourism, Mr Marthinus van Schalkwyk, meeting with Dr Pachauri (IPCC Nobel winner) and Prime Minister Stoltenberg of Norway
- 19 February 2008, KZN Conservancy Association Annual General Meeting
- 20 February 2008, Parliamentary Portfolio Committee
- 22 April 2008, Departmental 4D Management Meeting with the Minister
- 5 May 2008, Portfolio Committee Workshop on the Strategic Plans of the Department and Public Entities, Stellenbosch
- 10 May 2008, The Johannesburg Amandla Collective Climate Change Seminar, WITS, Johannesburg
- 14 May 2008, Cabinet meeting
- 20 May 2008, Budget Vote Media Breakfast
- 20 May 2008, 2008 Budget Vote
- 10 June 2008, Portfolio Committee
- 25 June 2008, Ad-hoc meeting of the EE cluster to discuss Climate Change (including LTMS) FOSAD submission
- 26 June 2008, Climate Change (including LTMS) presentation to FOSAD

FINAL LTMS CABINET SUBMISSION

- The LTMS findings and conclusion were included in a detailed submission to the 2008 July Cabinet Lekgotla
- The Cabinet decisions were presented to the media by the Minister on Monday 28 July 2008

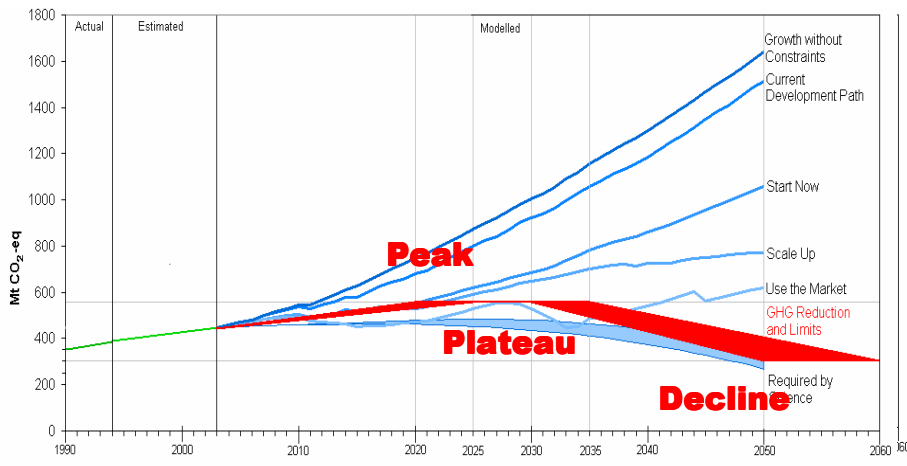
CABINET'S POLICY DIRECTIONS

- The feedback from the LTMS high-level process, taken with Cabinet's direction and a policy alignment analysis, has been translated into **6 broad policy direction themes**.
 - Theme 1: Greenhouse gas emission reductions and limits
 - Theme 2: Build on, strengthen and/or scale up current initiatives
 - Theme 3: Implementing the "Business Unusual" Call for Action
 - Theme 4: Preparing for the future
 - Theme 5: Vulnerability and Adaptation
 - Theme 6: Alignment, Coordination and Cooperation

Theme 1: GHG emission reductions and limits

- Climate change mitigation interventions should be informed by, and monitored and measured against the following "plateau and decline" emission trajectory
 - Greenhouse gas emissions stop growing (start of plateau) in 2020-25
 - Greenhouse gas emissions begin declining in absolute terms (end of plateau) in 2030-35

Theme 1: GHG emission reductions and limits (Cont.)



Theme 2: Build on, strengthen and/or scale up current initiatives

- Current energy efficiency and electricity demand-side management initiatives and interventions must be scaled-up and reinforced through available regulatory instruments and other appropriate mechanisms (*made mandatory*).
- Based on the electricity-crisis response, government's *energy efficiency* policies and strategies must be continuously reviewed and amended to reflect more *ambitious national targets* aligned with the LTMS
- Treasury will study a *carbon tax* in the range modelled by the LTMS, starting at low levels soon and escalating to higher levels by 2018/ 2020, with sensitivity to higher and lower tax levels, and report to Cabinet on its findings.

Theme 3: Implementing the “Business Unusual” Call for Action

- The **renewable energy** sector is identified as a key “business unusual” growth sector and policies and measures are put in place to meet a more ambitious national target for renewable energy.
- In committing to national GHG emission limitation and reduction targets, government must promote the **transition to a low-carbon economy** and society and all policy and other decisions that may have an impact on South Africa’s GHG emissions must take this commitment into regard.
- The **transport sector** is identified as another key “business unusual” growth sector and policies and measures are put in place to meet ambitious and mandatory national targets for the reduction of GHG emissions from this sector.

Theme 4: Preparing for the future

- There is increased support for the new and ambitious **research and development targets** that are being set, especially in the field of carbon-friendly technologies – with the focus on the renewable energy and transport sectors.
- Formal and informal forms of **education and outreach** are used to encourage the behavioural changes required to support the efficient and effective implementation of the climate change response policy.

Theme 5: Vulnerability and Adaptation

- South Africa continues to identify and describe its **vulnerabilities** to climate change.
- We describe and prioritise what **adaptation interventions** must be initiated, who should be driving these interventions and how implementation will be monitored.
- Affected government departments will ensure that climate change adaptation in their sectors are included as departmental **key performance areas**.

Theme 6: Alignment, Coordination and Cooperation

- The **roles and responsibilities** of all stakeholders, particularly the organs of state in all three spheres of government, will be clearly defined and articulated.
- The structures required to ensure **alignment**, coordination and cooperation will be clearly defined and articulated.
- Climate change response policies and measures are **mainstreamed** within existing alignment, coordination and cooperation structures.

GOVERNMENT'S VISION FOR THE ROAD AHEAD ON CLIMATE CHANGE

- **The Socio-economic transition** - Transition to climate resilient and low-carbon economy and society –
 - balance our mitigation and adaptation response
 - In the long-term, redefine our competitive advantage and structurally transform the economy by shifting from an energy-intensive to a climate-friendly path as part of a pro-growth, pro-development and pro-jobs strategy
- **2°C** - Our climate response policy, built on six pillars, will be informed by what is *required by science* – to limit global temperature increase to 2°C above pre-industrial levels

GOVERNMENT'S VISION FOR THE ROAD AHEAD ON CLIMATE CHANGE (Cont.)

- **Adapt to the inevitable** - Continue to pro-actively build the knowledge base and our capacity to adapt to the inevitable impacts of climate change, most importantly by enhancing early warning and disaster reduction systems and in the roll-out of basic services, infrastructure planning, agriculture, biodiversity, water resource management and in the health sector
- **GHG Reduction and Limits** - GHG emissions must peak, plateau and decline - stop growing at the latest by 2020-2025, stabilise for up to ten years, then decline in absolute terms

GOVERNMENT'S VISION FOR THE ROAD AHEAD ON CLIMATE CHANGE (Cont.)

- **6 Policy Themes** - Implementing policy under the six themes will lay the basis for measurable, reportable and verifiable domestic emission reduction and limitation outcomes
- **Contribution to the global efforts** - This would constitute a fair and meaningful contribution to the global efforts, demonstrating leadership in the multi-lateral system by committing to a “substantial deviation from baseline”, enabled by international funding and technology

GOVERNMENT'S VISION FOR THE ROAD AHEAD ON CLIMATE CHANGE (Cont.)

- Our immediate mitigation tasks include -
 - *Start Now* based on accelerated energy efficiency and conservation across all sectors (industry, commerce, transport, residential – incl. more stringent building standards);
 - invest in *Reach for the Goal* by setting ambitious research & development targets focussing on carbon-friendly technologies, identifying new resources and affecting behavioral change; and
 - combine regulatory mechanisms under *Scale Up* and economic instruments (taxes and incentives) under *Use the Market* with a view to -

GOVERNMENT'S VISION FOR THE ROAD AHEAD ON CLIMATE CHANGE (Cont.)

– **Mandatory energy efficiency targets** –

- ambitious and mandatory (as distinct from voluntary) targets for energy efficiency and in other sub-national sectors. In the next few months each sector will be required to do work to enable it to decide on actions and targets in relation to this overall
- Based on the electricity-crisis response, government's energy efficiency policies and strategies must be continuously reviewed and amended to reflect more ambitious national targets aligned with the LTMS.

GOVERNMENT'S VISION FOR THE ROAD AHEAD ON CLIMATE CHANGE (Cont.)

- **Economic Instruments** - Increasing the price on carbon through an escalating CO2 tax, or alternative market mechanism
- **Favouring energy-efficient industry** - Introducing industrial policy that favours sectors using less energy per unit of economic output and building domestic industries in these emerging sectors
- **Promoting carbon capture and storage** - Exploring and developing carbon capture and storage (CCS) for coal fired power stations and all coal-to-liquid (CTL) plants, and not approving new coal fired power stations without carbon capture readiness

GOVERNMENT'S VISION FOR THE ROAD AHEAD ON CLIMATE CHANGE (Cont.)

- **Diversifying the energy mix and laying the basis for a net zero-carbon electricity sector in the long term**
 - Diversifying the energy mix away from coal whilst shifting to cleaner coal, e.g. by introducing more stringent thermal efficiency and emissions standards for coal fired power stations
 - Setting similar targets for electricity generated from both renewable and nuclear energy sources by the end of the next two decades
 - Incentivising renewable energy through feed-in tariffs

GOVERNMENT'S VISION FOR THE ROAD AHEAD ON CLIMATE CHANGE (Cont.)

- **Reducing transport emissions** - Setting ambitious and where appropriate mandatory national targets for the reduction of transport emissions, including through stringent and escalating fuel efficiency standards, facilitating passenger modal shifts towards public transport and the aggressive promotion of hybrids and electric vehicles

THE NEXT STEPS – CABINET’S APPROVED POLICY DEVELOPMENT PROCESS

- National Climate Change Response Policy Development Summit (February 2009) (**Adopt Framework**)
- Sectoral policy development work (February – June 2009)
- **Post-2012 negotiation positions** (Up to July 2009)
- UNFCCC post-2012 negotiations concluded (Copenhagen, December 2009)
- National policy updated for implementation of international commitments (March 2010)
- Green Paper published for public comment (April 2010)
- **Final National Climate Change Response Policy** published (end 2010)
- Policy translated into **legislative, regulatory and fiscal package** (from now up to 2012)

WHAT THIS MEANS FOR US – THE SHORT-TERM (now to March 2009)

- **Prepare for the National Climate Change Response Policy Summit 2-6 March 2009**
 - *Vulnerability Atlas – An atlas of the climate change vulnerability across Southern Africa including, among others, vulnerability to negative impacts on: health; agriculture and forestry; water supply and quality; biodiversity; industry; tourism; infrastructure; land-use; fisheries; etc. for presentation to the Summit, Now to Feb 2009, DST*
 - *Renewable Energy Feed-in Tariff Report – An initial report on the implementation of the Cabinet directed renewables feed-in tariff for presentation to the Summit, Now to Feb 2009, DME and NERSA*
 - *2nd National Communication – the compilation of South Africa’s country report to the United Nations Framework Convention on Climate Change. Initial research findings to be presented at the Summit, Now to Feb 2009, DEAT through SANBI*
 - *Carbon Tax Study – As per Cabinet decision, Treasury will study a carbon tax in the range modelled by the LTMS, starting at low levels soon and escalating to higher levels by 2018/ 2020, with sensitivity to higher and lower tax levels, and/or alternative market mechanisms, and report to Cabinet on its findings. , Now to Feb 2009, NT*

WHAT THIS MEANS FOR US – THE MEDIUM-TERM (March – December 2009)

- **Compile the National Climate Change Response Policy**
 - Facilitate and support input from other key departments.
 - Compile first draft
 - Develop possible organisational arrangements for the efficient and effective implementation of the policy (structures in DEAT and all other key departments and cooperation and coordination structures)
- **Prepare for the post-2012 negotiations in Copenhagen (December 2009)**

WHAT THIS MEANS FOR US – THE LONG-TERM (December 2009 - 2012)

- National policy updated for implementation of international commitments
- Green Paper published for public comment
- Final National Climate Change Response Policy published end 2010
- Policy translated into legislative, regulatory and fiscal package

THANK YOU FOR YOUR KIND ATTENTION