



environment & tourism

Department:
Environmental Affairs and Tourism
REPUBLIC OF SOUTH AFRICA

South African – German Dialogue on Science for Sustainability

17 JUNE 2008

BONN



Overview

- Overview of the National Framework for sustainable development
- 5 focus areas and way forward
- More detail on climate change work and projects



Towards sustainable development

STARTING POINT:

- Key sectors **have started** engaging with sustainable development challenges
- But no single coherent framework that articulates our **development context**, and sets out **common vision** and **priorities** for sustainable development within that context



- *Not* about creating a ‘master plan’.
- *Not* an extended environmental strategy.
- It seeks to build on existing programmes and strategies, and:
 - identify key, short, medium and long–term challenges in sustainable development efforts
 - set the framework for a common understanding & vision of sustainable development;
 - identify strategic areas for intervention



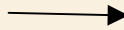
3 Phase Process

- **Phase I - is the National Framework for Sustainable Development**
 - sets the framework for a common understanding and vision of sustainable development; defines strategic focus areas for intervention.
- **Phase II is about preparing and planning for action**
 - includes the development of a detailed action plan and mobilising the necessary resources.
- **Phase III**
 - is about roll-out, implementation, monitoring and review.



PROCESS

Common definition of SD
in African & developing
country context; vision;
principles

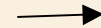


Long term, social, economic
and environmental trends
and challenges



Framework of
5 focus areas

Cross-cutting, Build on
existing programs, respond
- to SA priorities



Detailed
plan



Implement



Natural Resource Trends

- Natural resource trends could undermine investments in growth & poverty eradication.
- Increasing effects of climate change; rising oil price pose risks to our current development path.
- Examples:
 - Threat to water quality and quantity
 - Loss and degradation of biodiversity as natural habitat in aquatic and terrestrial ecosystems
 - Soil loss
 - The threats to coastal and marine resources
 - The nature and impact of declining air quality
 - Rising levels of solid waste destined for disposal



Economic Trends

- Describes the main macro economic trends, and actions to reach the 6% growth rate
- Challenges / trends:
 - Energy demand and electricity generation
 - Keeping inflation down; oil and energy costs are rising
 - Rising household consumption levels & debt
 - Ensure infrastructure expenditure also increases efficiencies - use of sustainable resource use tech
 - Need to upscale interventions that expand employment, create assets, build the skills base and address social problems
 - Need for cleaner production and consumption approaches; decoupling of economic growth from resource degradation
 - Need for increased investment in science, technology, research and development programmes



Social Trends and Implications

Social Trends

- The quality of life of the majority of South African citizens has improved (Macro Social Report)
- Continuing challenges relate to:
 - Economic marginalisation and persistent poverty in urban and rural areas
 - Impact of HIV / AIDS, malaria, TB
 - Need to improve access to basic services; speed up delivery
 - Need to tackle youth unemployment
 - Need to address persistent crime levels



Strategic Areas for Intervention

- Sustaining our **ecosystems** & services
- Economic development thru **sustainable infrastructure**
- Creating sustainable **human settlements**
- Enhancing systems for **integrated planning**
- Responding to **emerging challenges** (eg. climate change)

These interventions are:

- cross-cutting
- build on existing social, economic and environmental programs
- respond to SA needs, priorities and targets for SD
- Respond to international sustainable development targets (including MDGs)



Enhancing systems for integrated planning

Key interventions include:

- Sustainable development principles and approaches integrated in sectoral policies and & planning frameworks (national, provincial, local)
- formulation of a set of indicators to measure progress towards sustainable development



Key interventions include:

- quantifying the **economic value of ecosystem services** to SA economy, aim of internalising this in production and consumption costs and prices;
- **dematerialising** the economy, reducing the quantity of materials and energy required per unit of production, and reducing the quantity of waste outputs;
- development of **market-based instruments** and fiscal mechanisms to contribute to and support sustainable development outcomes.



Key interventions include:

- Promoting sustainable infrastructural investment – design and construction of infrastructure using **technologies** that ensure **efficient and sustainable resource use**
- Developing skills and capacity for building and maintaining sustainable infrastructure



Key interventions include:

- Building on existing programs, including:
 - energy efficiency,
 - water use efficiency,
 - promotion of public transport,
 - limiting urban sprawl,
 - enhancing waste management,
 - improving access to health care,
 - promoting green spaces.
- Linking sustainable resource use, poverty eradication and local economic development



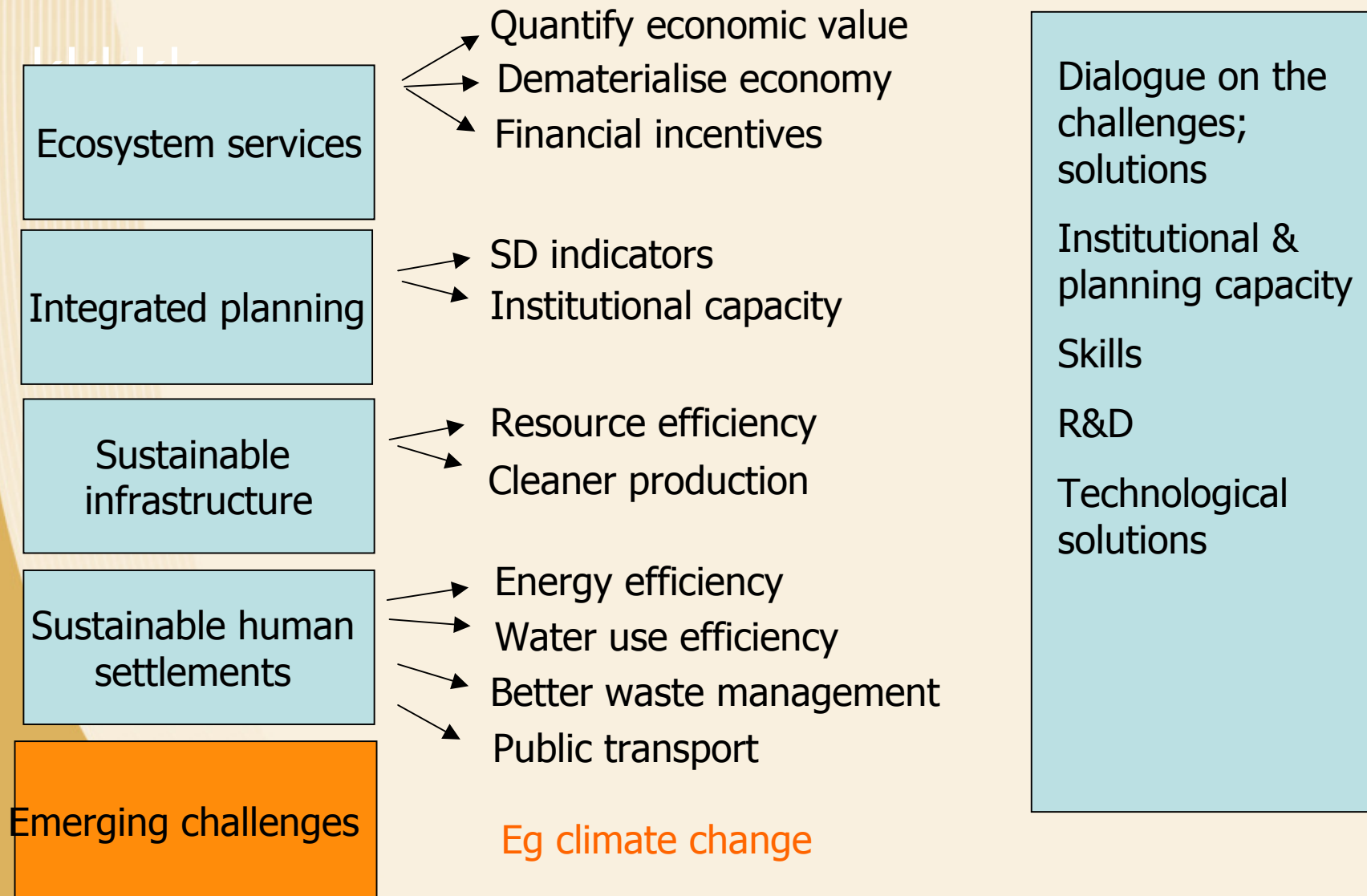
Responding appropriately to emerging human development, economic and environmental challenges

Key interventions include:

- Addressing climate change
- Responding to rising energy prices
- HIV and AIDs
- Promoting international co-operation for sustainable development



NFSD Focus areas





Emerging challenges
(climate change)

Long term mitigation scenario process

Produce the information and options required by decision makers to engage in the formulation of a national approach to greenhouse gas reduction
Includes assessment of cost of options

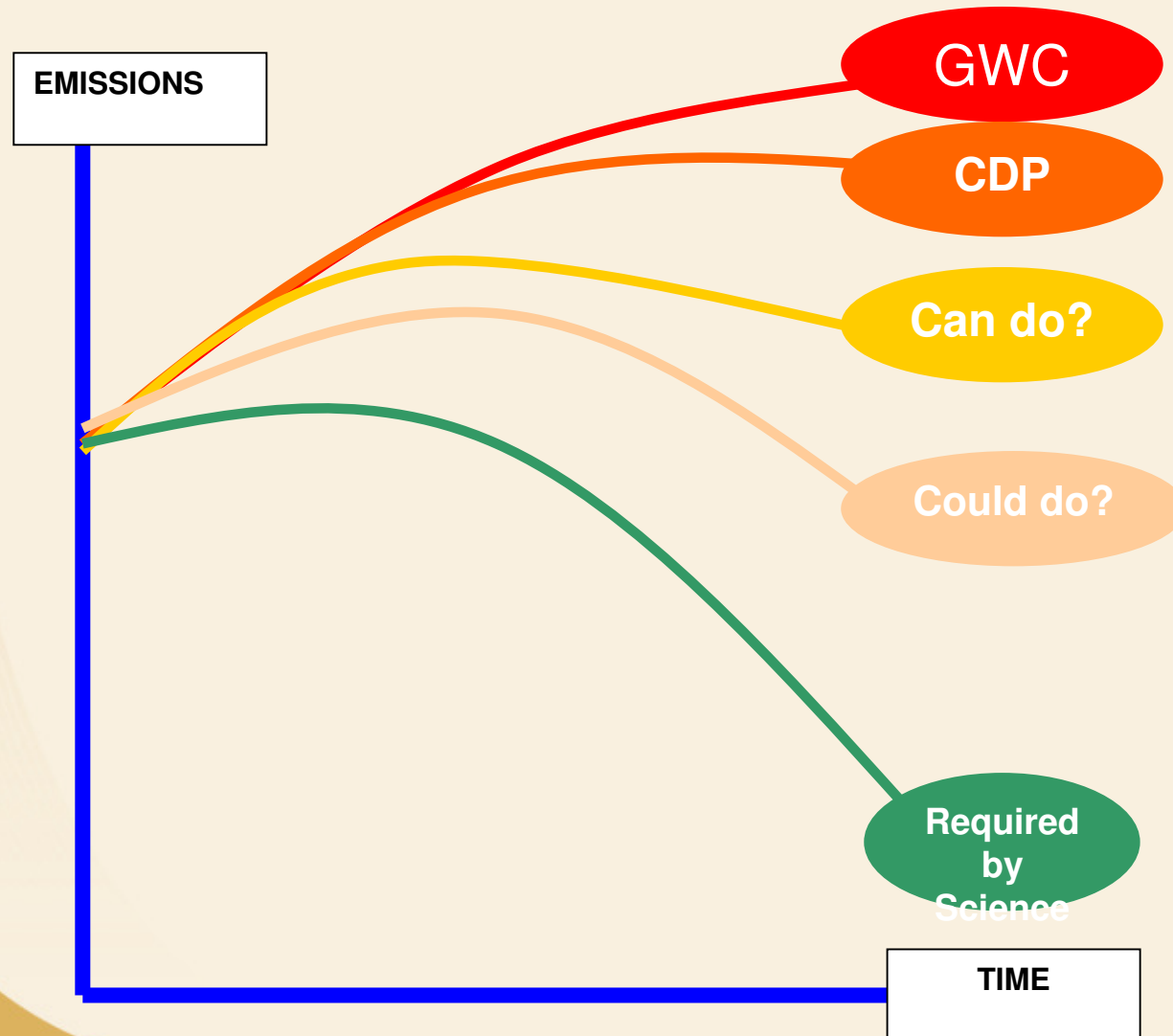
Long term adaptation scenarios and national adaptation strategy

Process initiated

Follow-up projects

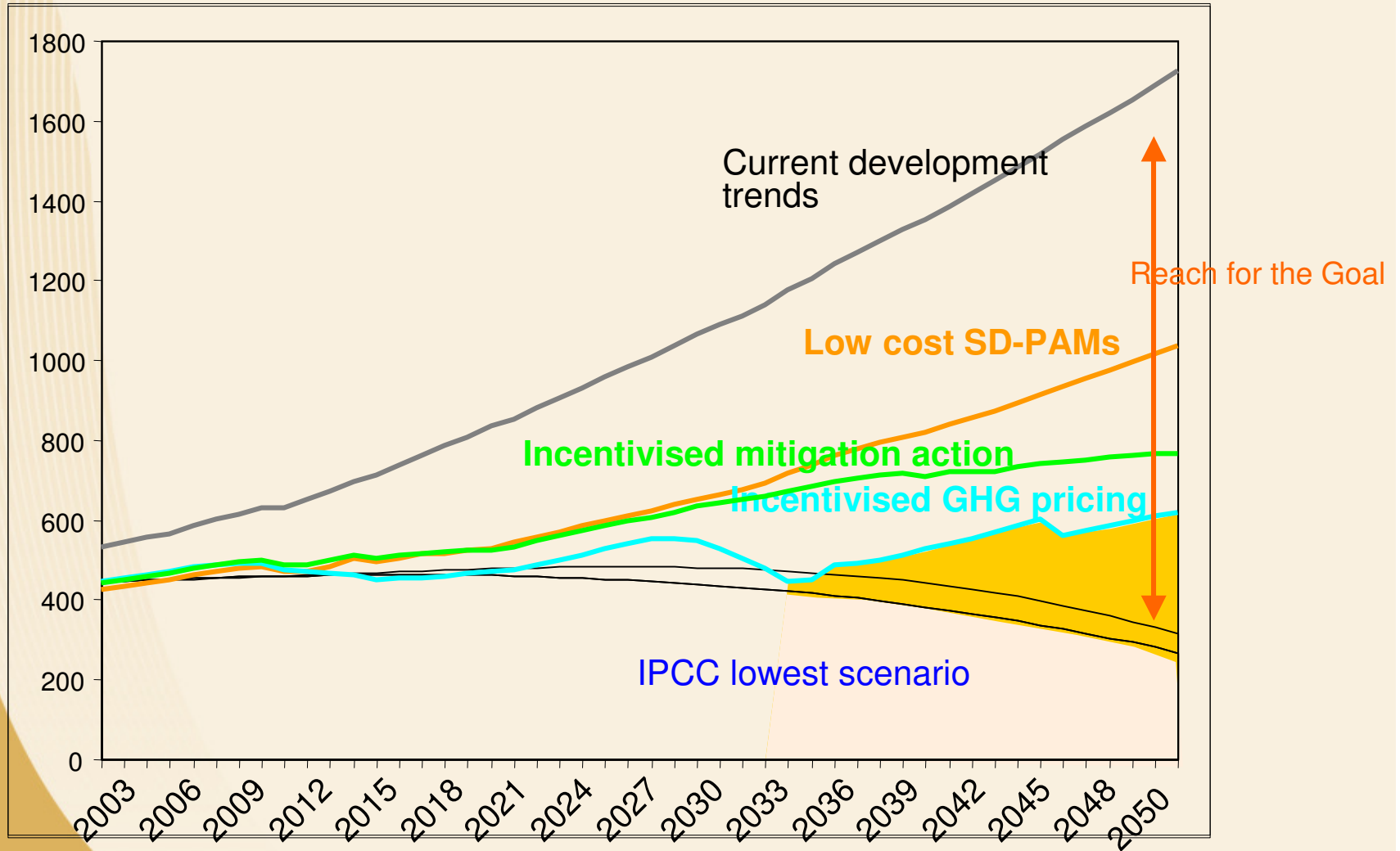


4 SCENARIO framework





2 Scenarios and Four Strategic Options





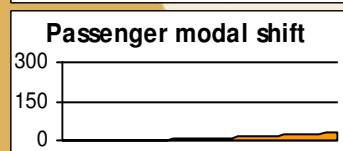
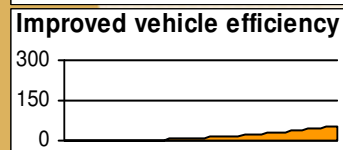
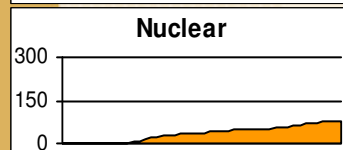
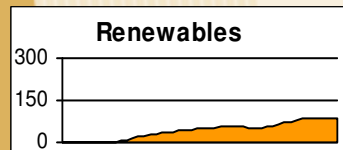
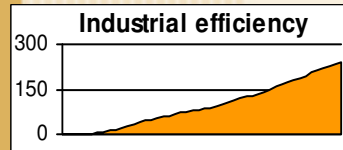
Strategic options

- Start Now: low cost sustainable development policies and measures: a combination of aggressive energy efficiency + X% nuclear and X% renewable energy by 2050
- Scale Up is a combination of Start Now + extension increased nuclear and increased renewables by 2050
- Use the Market is as an additional instrument to Scale Up; it applies a carbon tax (slowing emissions growth)
- Reach for the goal: new technologies, new technology, identify resources, people-oriented measures, transition to a low carbon economy

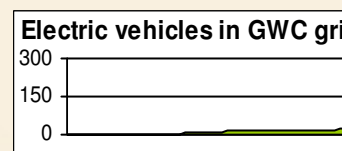
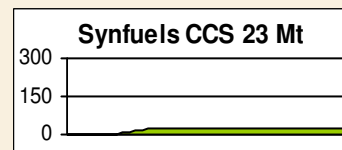
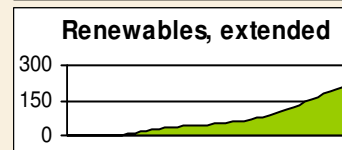
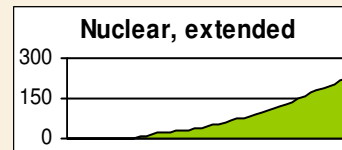
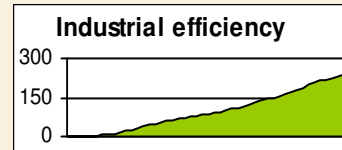


Strategic Options

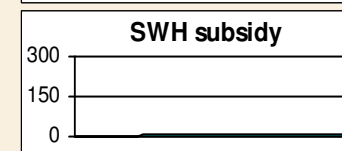
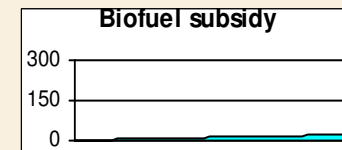
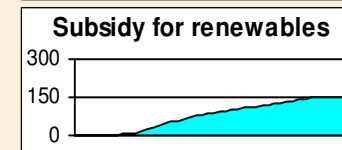
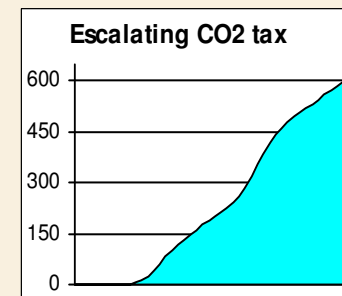
Low-Cost SD-PAMs



Incentivised mitigation action



Incentivised GHG pricing



Reach for the Goal

- New technology
- Identify resources
- People-oriented measures
- Transition to a low carbon economy



Examples of projects

- The National Climate Change Response Database and Annual Report – DEAT
- Baseline assessment and problem analysis
 - Climate Change and Health - 6 month; DEAT/Health
 - Climate Change and Water- 6 months; DEAT/Water
 - Climate Change and Agriculture - 6 months; DEAT/Agric
- The National Atmospheric Emission Inventory
- 3rd Tier Greenhouse Gas Emission Inventory for the Transport sector – DEAT/Transport
- The 2009 National Climate Change Science and Policy Conference



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THANK YOU