



## **National Roundtable on a National Strategy for Sustainable Development for South Africa**

*Emerging Trends in the Environment Sector and Implications for Economic Growth and Social Development*

**August 4, 2005**

### **Hosted by:**

Department of

Environmental Affairs & Tourism (DEAT)

Pretoria

South Africa

German Technical Cooperation (GTZ)

Pretoria

South Africa

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2. Summary of the discussion paper by **Mark Swilling**
3. Water resources by **Bill Rowlston**
4. Climate change by **Joanne Yawitch**
5. Waste generation and management by **Chris Buckley**

## **1. INTRODUCTION**

This report provides an overview of the results of a national roundtable on South Africa's National Strategy for Sustainable Development (NSSD). The focus of the workshop was on emerging long-term trends and projections in the environment sector and their implications for economic growth and social development in the country. The workshop was jointly hosted by the Department of Environmental Affairs and Tourism (DEAT), South Africa and the German Technical Cooperation (GTZ), South African Office.

The aims of the roundtable discussion were articulated as follows:

- a) to explore the use of trends and projections in selected environmental sectors to identify long-term challenges, opportunities and risks and their relevance for South Africa's NSSD
- b) to contribute to South Africa's input to the international exchange of experiences on the development of NSSD

This report has been structured into two components. The first sections provide context to the roundtable discussions including a rationale for the approach followed in engaging with stakeholders on the topic; an overview of the process of developing South Africa's NSSD and; a summary of the environmental sector review. This is followed in the second component by the results of the roundtable discussions and an indication of how this material can be taken forward in the process of developing South Africa's NSSD.

We gratefully acknowledge the contributions by all the stakeholders to the roundtable both in written and presented material, as well as verbal contributions to the discussions (Appendix 2). It must be recognised that this document serves as a record of the discussions and the necessity to summarise key information means that the richness of many of the debates are not all presented.

## **2. CONTEXT FOR THE ROUNDTABLE DISCUSSION**

### **a) South Africa's commitment to Sustainable Development**

The concept of national strategies for sustainable development is developed out of a recognition that the successful implementation of Agenda 21 is "first and foremost the responsibility of governments. National strategies, plans, policies and processes are crucial in achieving this. International cooperation should support and supplement such national efforts." (UNCED, 1992). South Africa, as a signatory to Agenda 21 and of most of the international and multinational environmental conventions, has committed to developing a NSSD.

National strategies for sustainable development have been described as "a coordinated set of participatory and continuously improving processes of analysis, debate, capacity-strengthening, planning and investment, which seeks to integrate the short and long term economic, social and environmental objectives of society – through mutually supportive approaches wherever possible – and manages trade offs where it is not possible." (OECD, 2001). At the World Summit on Sustainable Development in Johannesburg in 2002, countries made a commitment to "take immediate

steps to make progress in the formulation and elaboration of national strategies for sustainable development and to begin their implementation by 2005.” (Johannesburg Plan of Implementation, 2002).

South Africa has already made significant progress in responding to this target and is in the process of conceptualising the final stages of developing a national consensus on sustainable development priorities. This will be formulated in a final product which would be used by government and stakeholders to enhance South Africa’s long term planning capacity (DEAT, 2005).

It is proposed that the objectives of a NSSD would be to:

- Contribute to the establishment of an encompassing framework that provides a basis for policy integration and coordination towards poverty eradication and economic growth through sustainable development;
- Strengthen existing planning frameworks by lengthening the time horizon, and specifically by identifying long term trends that may influence (positively or negatively) the intended development outcomes; and
- Identify synergies, tensions and contradictions at the interface between efforts aimed at achieving economic growth, social equity and integrity of the natural resource base (DEAT, 2005).

#### **b) The role of BRICS+G**

Recognising the need for international cooperation to support and supplement national efforts in South Africa, the GTZ has partnered with DEAT to facilitate mutual learning on national strategies for sustainable development. The GTZ, in partnership with the German Council for Sustainable Development, have initiated the BRICS+G programme in Brazil, Russia, India, China, and South Africa as a platform for inter-country exchange. The idea of the project is to probe the interaction of sustainability and growth by examining, exchanging and comparing experiences made with national strategies for Sustainable Development in Brazil, Russia, India, China, South Africa and Germany.

The objectives of BRICS+G are therefore to:

- Create a forum for dialogue for different countries on NSSD.
- Encourage the creation of a knowledge network for the exchange of practices and a platform for mutual learning thereby contributing to a vision of one world where there is recognition that environmental issues and their impact on economic and social sectors is a global issue (Hubert, 2005).

The roundtable discussion was established as a forum to obtain inputs from key stakeholders to inform both the NSSD and the BRICS+G international exchange. Using the inputs from the roundtable, South African representatives will take the findings to an international dialogue exchange with participants from Brazil, Russia, India, China and Germany in order to share practices and learn from each other’s experiences

### 3 APPROACH TO STAKEHOLDER ENGAGEMENT ON THE ENVIRONMENTAL SECTOR REVIEW FOR SOUTH AFRICA'S NATIONAL STRATEGY FOR SUSTAINABLE DEVELOPMENT

The development of a NSSD, by its very nature, has an extensive scope and draws on a wide range of stakeholders. Various mechanisms are available to obtain inputs on aspects of the social, economic and environmental spheres in South Africa and to engage with stakeholders on the development of the strategy itself.

The roundtable discussion was devised as a means to obtain focused and meaningful inputs from key stakeholders and experts on specific environmental sectors influencing sustainable development in South Africa. The environment sector was identified as a lens that could be used to approach issues at the interface between social, economic and environmental parameters and their implications for sustainable development. Changes to the environment are useful indicators of the impacts of development and whether development itself is sustainable or unsustainable. By considering emerging trends in the environment sector, it is possible to create a picture of how sustainable South Africa's development will evolve. This is achieved through considering the environmental trends and projections, their potential impacts and importantly, their implications for economic growth and social development.

The use of trends and projections for environmental change are especially important in developing a coherent and consistent NSSD as they allow planners and policy-makers to introduce the concepts of futurity and intra-generational equity into planning and decision-making. The NSSD therefore must consider how the work undertaken in the present can start to address questions relating to the 10-year, 20-year and even longer timeframes associated with environmental change so that the conclusions and strategies recommended are robust into the future (Yawitch, DEAT). Adopting a long-term perspective to government's planning by the NSSD can be used to encourage decision-makers to adopt a similar perspective in policy-making and planning.

The formulation of the approach to stakeholder engagement was based on the need to encourage long-term thinking in participants for the NSSD. A sector review was jointly commissioned by DEAT and GTZ to highlight trends and long-term projections and their implications for sustainable development in South Africa in selected sectors (Moosa and Swilling, 2005). For the purposes of this first roundtable discussion, environmental trends and projections were considered for *water resources, climate change and waste generation and management*. These sectors were used to test the applicability of the approach for further analysis of other sectors of significance for the NSSD (such as biodiversity, air quality, marine and coastal resources, land use etc.) which will be analysed next.

The debates of the roundtable and within the working groups were informed and initiated by the discussion paper, a presentation of relevant background information on the current status of the development of South Africa's NSSD and additional and somehow provocative inputs on the selected sectors. The presentations included:

- South Africa's approach for a NSSD by **Blessing Manale**
- Summary of the discussion paper by **Mark Swilling**
- Water resources by **Bill Rowlston**
- Climate change by **Joanne Yawitch**
- Waste generation and management by **Chris Buckley**

The working groups were expected to find answers to a set of four questions (see section 5) and present their findings to the plenary. This approach allowed for intensive debate between experts in the respective particular fields and for a broad range of perspectives to be put forward and broadly discussed.

#### **4 PROCESS IN THE DEVELOPMENT OF SOUTH AFRICA'S NATIONAL STRATEGY FOR SUSTAINABLE DEVELOPMENT**

DEAT through the Sustainable Development Coordination Directorate has invested substantial resources in the development of South Africa's NSSD already. The NSSD has not been outlined in detail yet and will most probably be tabled for decision only later this year or beginning of 2006.

The approach adapted to the NSSD recognizes that sustainable development must be integral to South Africa's "Vision 2014" and to the country's economic growth path. Development scenarios must respond to long term trends, and address the need for a balance of social, economic and environmental parameters, and explicitly recognize the trade-offs that are being made at any particular time (DEAT, 2005).

DEAT has also recognised that the NSSD should not be developed outside the context of what the *Ten Year Review* (Presidency, Oct. 2004) refers to as an encompassing framework that would provide the basis through which policy coordination and performance management can take place. It is not understood to be a new 'super policy' but rather a framework that builds on existing programmes and strategies, extends the planning time horizon beyond 10 years to 20 years, and addresses synergies and tensions at the interface of social, economic and environmental priorities.

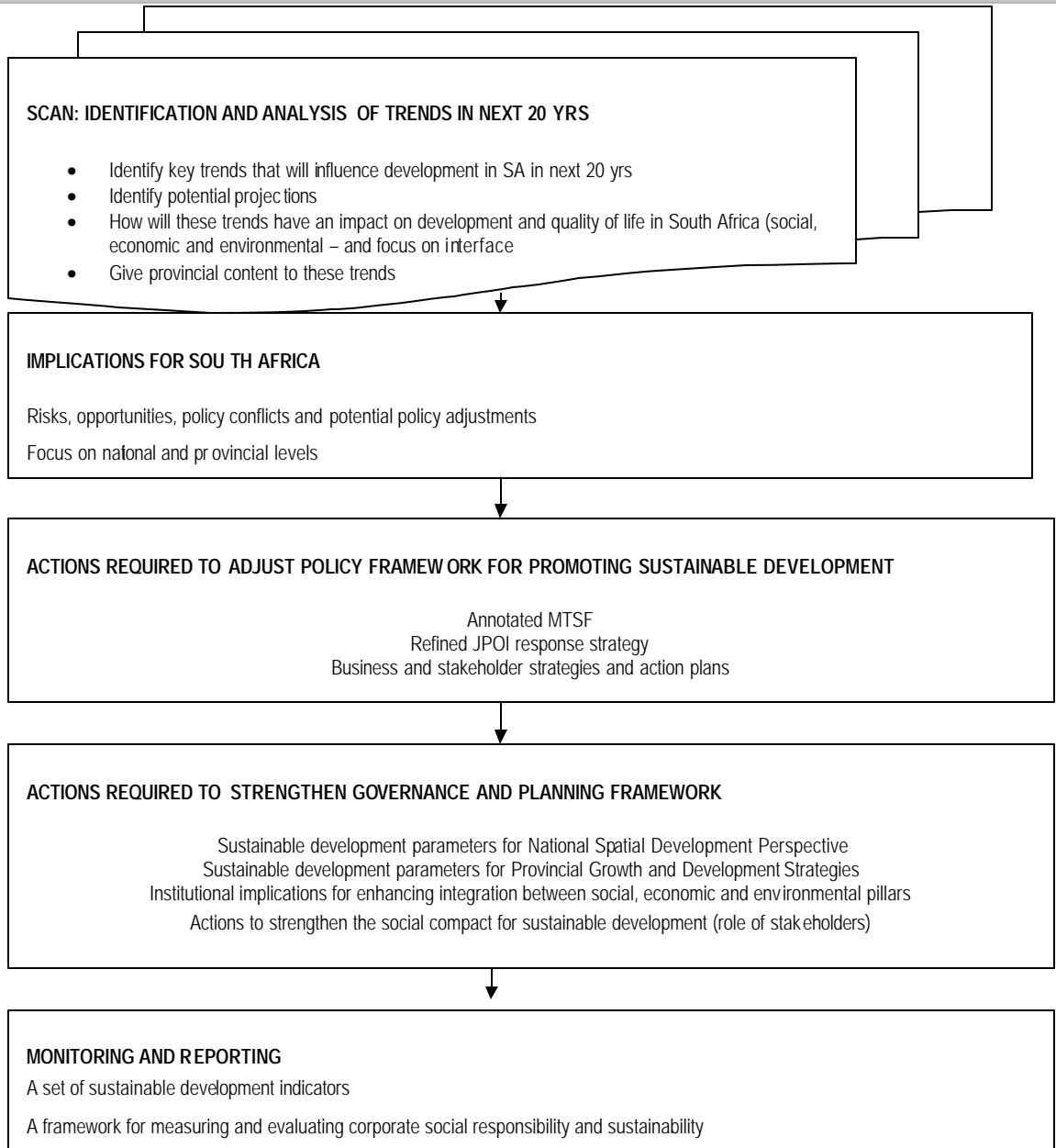
The NSSD is proposed to be presented in 7 indicative chapters as described below:

- **Introduction** : The case, rationale and value of an NSSD
- **Chapter 1**: Vision , Mission and Principles
- **Chapter 2**: Analysis of current trends and 20-year projections in the selected priority in the three pillars
- **Chapter 3**: An outline of policy and implementation risks and opportunities, choices and trade-offs informed by the term trends
- **Chapter 4** A comprehensive government, civil society and business set of goals, commitments and an outline of implementation and policy options for sustainable development.
- **Chapter 5**: A framework for monitoring and evaluation processes, integrating three pillared indicators.
- **Chapter 6**: A framework for stakeholder engagement, communication and governance processes
- **Chapter 7**: Sustainable Development Declaration

The approach to developing the NSSD is presented in Figure 1 and it describes the six main phases of the NSSD development process.

## OBJECTIVES

Develop common framework, vision & language for sustainable development in SA  
Identify potential long term trends that may impact on SA (focus on interface between economic, social and environmental)  
Assess potential implications for SA (opportunities, risks, policy conflicts, and adjustments)  
Contribute to strengthening long-term planning capacity  
Build on existing macro planning processes (2014 vision, NSDP etc)



**Figure 1:** Outline of the process towards an NSSD

## 5 OUTPUTS OF THE WORKING GROUP DISCUSSIONS

Each participant of the workshop was given an opportunity to participate in one of three working groups, each of which focused on a particular environmental sector. The groups were asked to consider the earlier presentations and answer four questions relating to their specific sector namely:

- a) What are the key trends and 20-year projections for the selected area?
- b) What are the key implications of these trends and projections (challenges, opportunities, risks) on social development and economic growth?
- c) What challenges do these implications pose for the Science and Technology agenda?
- d) What key conclusions from your working group should be taken into the NSSD?

### 5.1 Summary of the Key Themes from the Roundtable – “10 theses for South Africa’s NSSD”

Each working group presented the results of their deliberations and the results from the water, climate change and waste working groups are presented in Annexes A, B, and C respectively.

The final plenary discussion clearly showed that although each working group focused on specific issues relating to their particular sector, a number of common themes emerged from the discussions.

The 10 main topics can be summarized as follows:

#### 5.1.1 *Consistency and Coherency*

South Africa has not yet finalized its NSSD (expected for end of 2005, beginning of 2006). As it is widely acknowledged that South Africa in most of the sectors has already developed good policies with regard to sustainability and has also committed to almost all of the international and multinational conventions and declarations on environmental matters the NSSD will strive for the integration of the existing policies and will provide a consistent and a coherent long-term and balanced strategy for sustainability and growth.

#### 5.1.2 *Consolidation and Coordination*

It has to be stated that in certain sectors implementation of such policies is still a problem. Especially with regards to an overall and long-term perspective coherency and integration of the different sector policies is still lacking. The roundtable identified NSSD as the most appropriate mechanism to integrate sector policies and to improve inter-departmental coordination in the context of the *Government’s Programme of Action* (Presidency) and the *Government wide Monitoring and Evaluation System* related to it.

### **5.1.3 Challenges for South Africa's transformation process**

South Africa after the first decade of freedom still faces challenges of transformation especially with regard to addressing the needs of the poor and to providing services and social security. South Africa's vision to provide the basis for that is an accelerated growth strategy which will allow for public investments and redistribution. To achieve these ambitious objectives of an equitable access to and share of resources or to establish service and growth-oriented public infrastructure must be seen as a crucial element of good governance. Also to soundly address the relationship and interdependencies between the natural environment and social and economic sectors must be understood as one of the big challenges the NSSD has to face.

### **5.1.4 Research and Development**

In a similar manner it was recognised that there is relevant and useful research being carried out to support sustainable development in South Africa but it was occurring in an ad hoc fashion and not integrated. It was suggested that the National Research and Development Strategy presented an important resource to consolidate appropriate research. South Africa's capacity in sophisticated science and technology shall also be seen as an advantage with regards to the development and introduction of new and sustainable technologies not only for the country itself but on the African continent and beyond.

### **5.1.5 The need for a new paradigm**

The idea or the need for consideration of sustainability as an element of long-term political, economic and social perspectives and of the daily life of people is not yet broadly accepted within South Africa's society or even within government or other stakeholder groups.

Moving towards sustainable development in South Africa requires a new development paradigm for all South Africa's citizens but also within Government and Institutions

Achieving a paradigm shift requires an acknowledgement that sustainability needs to become an integral part of strategic planning - politically, economically, and socially. A broader societal awareness for sustainability, in addition, requires changes in mind-sets which can only be achieved through greater communication and education and active engagement with the public.

The NSSD hence will also facilitate more effective engagement with South African stakeholders in dialogues, campaigns and other appropriate efforts to achieve broader consensus of what is needed and what the role of the different stakeholders and the people of South Africa in the context of sustainable development will be

### **5.1.6 The use of full cost accounting mechanisms**

In considering the implications on environmental trends and projections on economic costs and social development, current approaches to cost estimation are falling short in internalising all the social and environmental costs of growth. A new and different approach to cost estimation is thus required to introduce full cost accounting mechanisms.

### **5.1.7 Appropriate infrastructural investment**

As South Africa is a developing country, it is important to introduce appropriate infrastructural investment. More new and sustainable technologies for development are required. In addition, current development nodes and the planning for improved physical infrastructure need to consider sustainability as one of the more important elements for decisions and may also be used more often to test new technologies aimed at reduced utilization of resources. This also applies for private investments such as golf estates or mall and compound development.

### **5.1.8 Incentives and accountability**

It is important to ensure that all stakeholders take responsibility and are held accountable for their actions. Through the policy process, it will be important to look for the appropriate opportunities to introduce either incentives or regulations to promote accountability. This accountability must also be promoted along the full life-cycle of a product or process and not just through end-of-pipe responses.

### **5.1.9 Targeting high-end consumers**

Although a developing country, South Africa also faces the problems of over-consumption of resources by certain groups in society. In order to promote sustainable development, it is important to apply the “user pays” and “polluter pays” principles. There is much learning that can be gained from the application of these principles in the water sector in South Africa and this should be applied across all environmental resources.

### **5.1.10 Making linkages between the NSSD and spatial planning processes**

It is recognised that a successful implementation of the NSSD and its function in terms of long-term political and strategic planning needs to be linked to the framework with spatial plans such as the *National Spatial Development Perspective (NSDP)*, the *Provincial Growth and Development Strategies (PGDS)* and *Integrated Development Plans (IDP)*.

The advantages of a close link are twofold:

- Firstly sustainability will become integral element of the planning framework and
- Secondly the use of existing spatial planning processes will improve the uptake of the NSSD at national, provincial and especially, local levels and hence will have impact horizontally and vertically in all spheres of Government.

## **6 CRITICAL FACTORS FOR SUCCESS AND ISSUES THAT COULD LEAD TO FAILURE OF SOUTH AFRICA'S NATIONAL STRATEGY FOR SUSTAINABLE DEVELOPMENT**

Following the working group discussions within selected environmental sectors, participants made more general contributions on the development of South Africa's NSSD. These inputs were made through individual contributions by participants on factors that would influence the success or failure of South Africa's NSSD. The contributions by the participants were captured and are presented in Annexes D and E of the document. The issues were clustered through a visual gathering exercise but the outputs were not re-tested with the participants or summarised further.

## **7 THE WAY FORWARD**

At the conclusion of the roundtable, it was recognised that the exercise had been successful and was "stepping into cutting-edge discussions for SA which raised important points on what South Africa needs to be talking about and planning for" (Judy Beaumont, 2005). The calibre of the debate was considered high and it was recognised that such on-going discussion is critical to sustainable development in South Africa.

The purpose of the roundtable was to contribute to the development of South Africa's NSSD as well as to make an input into South Africa's contribution to the BRICS+G workshop. In terms of the contribution to the NSSD, the roundtable was instrumental in providing valuable information for addressing the trends and long term projections chapter of the NSSD document. It has also proved the applicability of the approach, and in addition, has shown that the NSSD will have to be linked to the *National Spatial Development Perspective*. This will add the element of sustainability to that planning framework and thus determine not only the sector policies on national level but also the planning on provincial and local level.

The material presented and discussed during the workshop would thus be taken forward in informing the contents of the Trends chapter of the NSSD itself. This work will be refined and extended beyond the three sectors discussed at the workshop. In addition, other socio-economic trends would also be considered such as migration and population change and their implications for the environment.

DEAT will continue the stakeholder engagement through a series of round tables on different sections of the NSSD. The next roundtable is likely to focus on a vision and objectives for such a strategy and additional trends. In addition, an electronic reference group will be established for people interested in contributing and participating in the process.

With regard to the contribution to the BRICS+G programme, the roundtable forms one component of the overall process. The learning from the workshop will be taken through to an international country exchange workshop to be held on 4 and 5 September 2005 in Berlin, Germany. South Africa will be represented at the workshop by participants from the National Business Initiative, civil society and DEAT.

**Trends in the water sector and their implications for sustainable development and the NSSD in South Africa**

TRENDS	KEY IMPLICATIONS	CHALLENGES FOR THE S&T AGENDA	CONCLUSIONS TO BE TAKEN INTO THE NSSD
<ul style="list-style-type: none"> <li>• Increase energy consumption</li> <li>• Increase energy prices and cost passed on to consumers</li> <li>• Unprecedented infrastructure development</li> <li>• Increase in trade barriers linked to climate change – production and energy efficiency systems that become barriers through environmental stds</li> <li>• Increase use and production of cars</li> <li>• Fragmented/ disconnected policies and strategies</li> <li>• Signing international agreements but failing to implement</li> <li>• Urbanisation and rural to urban migration</li> </ul>	<ul style="list-style-type: none"> <li>• SA as a trendsetter in technology (e.g. decreasing emission) proactive rather than reactive when it is too late</li> <li>• Focus on energy efficiency in households/ industry</li> <li>• Planning processes need to take into account natural resource issues</li> <li>• Need to recognise the complexity in our production systems e.g. shift from export of raw materials to value addition and focus on understanding complexities of potential barriers</li> <li>• Assess the cross-sectoral implications of investment decisions e.g. aluminium smelters in Coega and its impacts on environment versus economy</li> <li>• Interdepartmental mechanism for integration of policies and discussion on SD</li> <li>• Need growth by within CO2 emissions limitations –requires technology innovation</li> <li>• Need for capacity dev and skills</li> <li>• Capacity in govt in planning</li> <li>• Energy investment decisions to address energy efficiency/ emissions targets (applies to all sectors and need integration)</li> <li>• Assess the total cost of production (including environmental and social costs)</li> <li>• Strengthen the legal mechanisms for polluter pays principle</li> <li>• Understand the socio-economic costs of our technology and impacts on the poor</li> <li>• Health costs likely to increase with CC</li> <li>• Natural accounting system needs to show cost/value of environmental services</li> <li>• Consolidate and manage knowledge/ info on CC implications and trends</li> </ul>	<ul style="list-style-type: none"> <li>• Cost analysis of alternative technologies (total cost accounting)</li> <li>• Incentives for cleaner technologies</li> <li>• Perception is that alt. tech is expensive. Address this. E.g. choice to be part of electricity grid rather than solar</li> <li>• Recognise and make transparent vested interest in business as usual</li> <li>• Need strategy for transition</li> <li>• Mainstream environmental debate – expose vested environmental interests</li> <li>• Transitional strategy and support for the shift to cleaner technology</li> <li>• Emphasise appropriate technology research and development (don't rely on technology transfer) SA ownership of technology</li> <li>• Spreading ownership of energy production through renewable sources</li> <li>• Introducing technology? Application of alternative technologies e.g. water efficiency on golf estates</li> <li>• Burden of adjustment not primarily on the poor</li> </ul>	<ul style="list-style-type: none"> <li>• Elements of CC we have no control of – requires adaptation, be strategic</li> <li>• SA as a developing country don't have a lot of resources – need to balance response?</li> <li>• Opportunity to use planning instruments and align govt responses to CC e.g. NSDP review</li> <li>• SA part of global village. Make sure what we do is compatible with international initiatives.</li> <li>• Need broad buy-in, minimise loopholes, protect domestic products and markets</li> <li>• NSSD contribute to broad development vision for SA</li> <li>• Contribution to increasing awareness of consumption of resources</li> <li>• Shifting behaviour of consumers</li> <li>• Individual versus collective interests. Opportunity to target people of means and high consumers</li> <li>• Address perceptions about using the traditional means of doing things</li> <li>• Consolidation of relevant info and knowledge and policy. Don't re-invent policy but ensure integration and identify the gaps</li> </ul>

**Trends in the water sector and their implications for sustainable development and the NSSD in South Africa**

TRENDS	KEY IMPLICATIONS	CHALLENGES FOR THE S&T AGENDA	CONCLUSIONS TO BE TAKEN INTO THE NSSD
	<ul style="list-style-type: none"><li>• Transport</li><li>• Planning for housing construction and materials</li> <li>• Focus on tourism:</li><li>• Rainfall change will affect biodiversity systems e.g. Namaqualand daisy tourism</li><li>• Tourism must remain accessible to people and not too costly</li> <li>• Agriculture</li><li>• Incentives and research for production/ products that are drought resistant, less energy demand, etc.</li><li>• Enhance production that uses less water and shift from monocultures</li><li>• May find an increased reliance on GMOs- need to understand the risks associated with them</li></ul>		

**Trends in climate change and their implications for sustainable development and the NSSD in South Africa**

TRENDS	KEY IMPLICATIONS	CHALLENGES FOR THE S&T AGENDA	CONCLUSIONS TO BE TAKEN INTO THE NSSD
<ul style="list-style-type: none"> <li>• Payment for ecosystem services</li> <li>• Incentives for those willing to protect the environment upstream</li> <li>• National pricing strategy to highlight and include cost of resource protection</li>   <li>• Appropriate technology</li> <li>• New development not embracing current water resource challenges esp. wealthier areas</li> <li>• Government departments developing policies but not implementing them themselves</li> <li>• Cost of desalination is declining – may become a viable option in the future</li> </ul>	<ul style="list-style-type: none"> <li>• Trend 1: Opening up opportunities for catchment management and resource protection</li> <li>• Water-borne sewage systems – increase cost of housing and affect free basic water provision</li> <li>• Increase in demand of domestic water use</li> <li>• Opportunity to explore dry sanitation plants for communities</li> <li>• Impacts of disasters therefore need robust infrastructure</li> <li>• Resource protection could boost tourism, e.g. clean water</li> <li>• Challenge of inter-catchment transfers for WRM</li> </ul>	<ul style="list-style-type: none"> <li>• Innovation in sea water desalination</li> <li>• Rainwater harvesting for food security</li> <li>• Alternative sanitation tech</li> <li>• Cheaper techno to deal with mine and ground water pollution</li> <li>• S&amp;T should be holistic. Lot of R&amp;D interventions but need a common platform for engagement to share knowledge and research. Govt/ business/civil society and academia should be working together not in isolation.</li> </ul>	<ul style="list-style-type: none"> <li>• Enforcement and compliance</li> <li>• Harmonisation of existing R&amp;D</li> <li>• Triple bottom-line accounting</li> <li>• Public consultation and participation in WRM (Public engagement)</li> <li>• Education and awareness</li> <li>• Water is an economic, social and natural resources</li> <li>• Production and consumption patterns</li> <li>• Foster political will and buy-in for NSSD</li> <li>• Understand what research is happening and get coherence</li> <li>• Financing for infrastructure</li> <li>• Spatial perspectives – need to understand what is appropriate in a particular perspective</li> <li>• Interface science needed</li> <li>• Harness small initiatives and actions</li> <li>• Incentives for less water use</li> </ul>

**Trends in the waste sector and their implications for sustainable development and the NSSD in South Africa**

TRENDS THAT INFLUENCE WASTE MANAGEMENT	KEY ISSUES FOR CONSIDERATION
<ul style="list-style-type: none"> <li>• Economy a lot less dependent on oil, recognise that coal will be with us for awhile</li> <li>• Assume that there will be a rise in renewable energy use</li> <li>• Global pressures in terms of multi-lateral agreements and markets and investors to cleaner processes</li> <li>• Growth does lead to higher consumption, increases waste especially in context of urbanisation</li> <li>• Need to decouple consumption from waste</li> <li>• Rise in industrial ecology emerging</li> <li>• Increasing demands for close-looped waste streams and 0% waste systems</li> <li>• Changing of roles between diff sectors and increasing cooperation between sectors, e.g. cradle to grave responsibilities and taking back products before they become waste, e.g. car rental agreements for the new Toyota Prius car</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated waste management including conceptualising waste stream as an integrated stream (cuts across all government departments therefore need a more integrated approach and policy framework)</li> <li>• Need to be compulsory minimum content for recycled products and using recycling in products</li> <li>• Voluntary initiatives not enough – regulation and incentives essential</li> <li>• Triple bottom line reporting not enough – must have triple bottom line account and taking responsibility for what is generated and clean-up</li> <li>• Facing the challenge of decoupling rising consumption from waste generation – packing of foods greater in more expensive shops?</li> <li>• Sustainable land use planning which accounts for land uses that are informed on SD thinking esp. for landfills</li> <li>• Creating quality jobs via safe and health working spaces</li> <li>• Bigger role for S&amp;T and how investments in S&amp;T development can be justified in terms of better environmental governance. Don't know enough esp. from waste in order to improve governance.</li> <li>• Strong emphasise on education and behavioural change – waste management a subject in schools and permeates curricula</li> <li>• Disincentivising energy ending up in landfills – seeing all products in a circular metabolism e.g. of the approach of cement industry as energy hunters in disguise</li> <li>• Will need more capacity for change in S&amp;T and governance of new approaches</li> <li>• Better, new technologies. There might be simple solutions that solve very big problems. Need some research into these alternative options.</li> <li>• Linkage of cost-drivers and the creation of new knowledge. Affordability of alternative options.</li> <li>• Conceptualise waste stream as integrated and not end-of-pipe management. Need interventions at different points in the waste generation stream.</li> <li>• Changing cultures and behaviours and personal responsibility for your own consumption</li> <li>• Conversion of waste into energy</li> <li>• Design for re-use, recyclability and avoidance – rethink products so that they don't end up in waste dumps.</li> <li>• Large number of business opportunities in waste re-use. Think of our economy as being inclusive of waste streams as an opportunity to make money, create jobs, taxes, etc.</li> <li>• Political commitment and policy coordination – leadership needs to understand the issue</li> <li>• Sustainable waste management can become a key issue for local authorities as a way to grown their local economies.</li> </ul>

**ANNEX D:**

**Critical factors for the success of South Africa's NSSD**

(As a result of a brainstorming session at the end of the roundtable – not re-tested or discussed)

Support and Buy-in	Linking with existing initiatives	Paradigm shift	New growth strategy	Opportunities through international commitments	Incentives and disincentives	Triple bottom-line accounting
<ul style="list-style-type: none"> <li>• Good information and political will</li> <li>• Buy-in of all elements of society at all levels</li> <li>• Pragmatism</li> <li>• Stakeholder buy – in</li> <li>• All Government departments buy – in to process</li> <li>• Getting political buy -in from all Government departments and business / civil society stakeholders</li> <li>• Government, civil society and business co-operation</li> <li>• Dialogue</li> <li>• Capacity (human plus technological) plus political buy-in</li> </ul>	<ul style="list-style-type: none"> <li>• Need to incorporate existing strategies, plans etc</li> <li>• Existing legislation (SA) embraces NSSD principles e.g. National Water Act, etc</li> <li>• Integration (existing policies / strategies)</li> <li>• To evaluate the existing policies and check contradictions on those policies and inter dept for all government departments</li> <li>• Key government players actually understand the concept of sustainable development and commit to abide by it.</li> <li>• Intergovernmental plus intersectoral participation</li> <li>• Integration</li> <li>• Linking to all existing policies strategies and legislation “policy coherence”</li> <li>• Willingness by macro-economic policy makers to include sustainability in national provincial and local development planning</li> <li>• Evaluation of existing policies consolidation for SD</li> <li>• Co-ordination of all the efforts / ideas relating to environmental issues within government departments, industry,</li> </ul>	<ul style="list-style-type: none"> <li>• Ordinary people ( and politicians) can identify with the contents as being relevant to their lives</li> <li>• Involvement of all SA citizens in policy dev.</li> <li>• Changed mindset towards sustainable management resources</li> <li>• An independent ‘environmental audit system’ (based on clear standards) for assessing the sustainability of policies and strategies</li> </ul>	<ul style="list-style-type: none"> <li>• De-carbonisation of economy</li> <li>• Serve to de-link economic growth from energy consumption i.e reduce e-intensity</li> <li>• Re-orientation of SA's economic growth strategy towards the social democracy</li> </ul>	<ul style="list-style-type: none"> <li>• International commitment to plan</li> <li>• Innovative (SD) infrastructure for MDG's – appropriate technology leap-frogging</li> </ul>	<ul style="list-style-type: none"> <li>• Incentives/ penalties to ensure a move away from discarding recyclable / re-usable / high energy waste</li> </ul>	<ul style="list-style-type: none"> <li>• Should focus on the triple bottom line</li> </ul>

	community organisations etc					
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**ANNEX E:**

**Issues that could lead to the failure of South Africa's NSSD**

(As a result of a brainstorming session at the end of the roundtable – not re-tested or discussed)

Lack of support for the NSSD	Continuing with business as usual	Focus shifted away from priorities	Lack of implementation	Unrealistic expectations of the NSSD	Lack of a complete understanding of systems	Lack of engagement	South Africa's position in the global village	Isolation of NSSD from other processes
<ul style="list-style-type: none"> <li>• Conflicts between / inconsistencies of different government policies regarding environmental objectives and unintended impacts.</li> <li>• Poor co-ordination and facilitation between government departments.</li> <li>• Lack of political will</li> <li>• Lack of political will to change vested interest</li> <li>• Fragmented planning and lack of political will.</li> <li>• Lack of political will by key decision makers</li> <li>• Government departments working in isolation</li> <li>• Lack of interdepartmental cooperation</li> </ul>	<ul style="list-style-type: none"> <li>• Business as usual approach</li> <li>• Failure by macro-economic planners to realise that growth will be impossible without sustainability with regard to energy, waste and water.</li> <li>• Continuing as we currently are doing. With policy implementation and development</li> <li>• Continued use of GDP to measure development</li> </ul>	<ul style="list-style-type: none"> <li>• Focus on definitions and concepts rather than overall goal plus vision</li> </ul>	<ul style="list-style-type: none"> <li>• Staying with political intention without implementing change</li> </ul>	<ul style="list-style-type: none"> <li>• Taking too long with the process</li> <li>• Short time frame for development of NSSD</li> <li>• Aspirations so high as to create a sense of un-achievability</li> </ul>	<ul style="list-style-type: none"> <li>• Complexity</li> <li>• No quantification of true social and environmental costs</li> <li>• Incorrect and insufficient information – NSSD loses credibility</li> </ul>	<ul style="list-style-type: none"> <li>• Ignorance</li> <li>• Lack of dialogue</li> <li>• Lack of buy in from policy drivers especially government</li> <li>• Lack of actual follow through in government decisions plus actions</li> </ul>	<ul style="list-style-type: none"> <li>• Ignoring the fact that SA is a developing country playing a global environmental war.</li> </ul>	<ul style="list-style-type: none"> <li>• The exclusion of relevant stakeholders and dysfunction in government departments.</li> <li>• If not spatial could lead to unsuccessful implementation</li> </ul>

**APPENDIX 1:**

**INVITATION TO THE ROUNDTABLE DISCUSSION ON SOUTH AFRICA'S NATIONAL STRATEGY FOR SUSTAINABLE DEVELOPMENT**

20 July 2005

Dear Sir/Madam

**Invitation to take part in the National Strategy for Sustainable Development roundtable**

On behalf of the Department for Environmental Affairs and Tourism and of the German Technical Cooperation (GTZ) I would herein like to cordially invite you to join a roundtable-discussion of high-level experts on the South African way forward to a National Strategy for Sustainable Development, which will take place on

**Thursday, August 4, 2005, from 09h00 to 17h00,**  
**at Delectus Manor, Dr van der Merwe Drive, Plot 36, Montana/Pretoria**  
(see attached program and map for directions)

**Background**

The Department of Environmental Affairs and Tourism (DEAT) has been tasked with the responsibility of coordinating South Africa's response to the outcomes of the World Summit on Sustainable Development, one of which is to develop a **National Strategy for Sustainable Development for South Africa.**

As part of this process, DEAT has commissioned a number of sectoral review papers to be used as part of a context-setting to define the scope and the content of such a strategy. Currently DEAT is looking at the South African environmental state within a global context and its trends. The outcomes are to be assessed with regard to their implications not only on the environmental sector but also on the economic and social sectors. As a pilot study DEAT has also commissioned a paper which will focus on water resources, climate change and air quality, biodiversity and waste generation.

The purpose of the roundtable, which will consist of representatives from government, civil society, academics and business – is first to produce a single integrated outcome on the role of the environment sector and its contribution to sustainable development.

Secondly the roundtable-discussion will also serve to gather comments and inputs from high-level experts with regard to the way forward and the intended inclusion of further areas of critical importance for the National Strategy for Sustainable Development.

opment. The paper will be distributed a few days in advance to participants who have confirmed their attendance.

The roundtable is also part of a dialogue project titled “**BRICS+G: Sustainability and Growth in Brazil, Russia, India, China, South Africa and Germany**”. Partner countries (Brazil, Russia, India, China, South Africa + Germany) to this initiative are holding similar workshops, supported by the respective Offices of the German Technical Cooperation in these countries, to prepare for the “BRICS+G” Conference, which will take place on September 4 and 5, 2005 in Berlin, Germany. A brief description of the BRICS+G initiative is attached.

The outcome of the South African roundtable will be presented at the Berlin Conference, which will be hosted by the German Council on Sustainable Development and aims to offer a platform for the exchange of experiences and lessons learnt. It also intends to establish a network between the participating countries.

Your participation and contribution to this sectoral roundtable will be highly appreciated. Please confirm your attendance not later than **July 31, 2005** at the South African Office of German Technical Cooperation with

**Phumla Matjila**- tel +27 (0)12 423 – 5985, fax +27 (0)12 342 – 3646 or email [phumla.matjila@gtz.de](mailto:phumla.matjila@gtz.de).

or

**Kabelo Ramalitse** - tel +27 (0)12 423 – 5991, fax +27 (0)12 342 – 3646 or email [kabelo.ramalitse@gtz.de](mailto:kabelo.ramalitse@gtz.de).

We look forward to sharing your views

Best Regards,

**Blessing Manale**

Director - Sustainable Development Coordination  
Department of Environmental Affairs & Tourism  
Pretoria  
South Africa

**Dr. Klemens Hubert**

Country Director  
German Technical Cooperation  
Pretoria  
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**APPENDIX 2:**  
**LIST OF PARTICIPANTS IN THE ROUNDTABLE DISCUSSION**

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**APPENDIX 3:**  
**PROGRAMME FOR THE ROUNDTABLE DISCUSSION**

**National Roundtable on National Strategy for Sustainable Development**

*Emerging Trends in the Environment Sector and Implications for Economic Growth and Social  
Development*

August 4, 2005

Purpose and Programme

Moderator: Alex Weaver, CSIR (Stellenbosch)

**Purpose**

**The Roundtable Discussion aims**

- a) **to explore the use of trends and projections in selected environmental sectors to identify long-term challenges, opportunities and risks and their relevance for South Africa's National Strategy for Sustainable Development**
  
- b) **to contribute to South Africa's input to international exchange of experiences on the development of National Strategies for Sustainable Development**

**Programme**

08:00 – 09:00 Registration and Tea

09:00 – 09:30 Welcome Remarks

**Ms Joanne Yawitch**, DDG, Environmental Quality and Protection, DEAT  
**Mr. Klemens Hubert**, Director, GTZ Office Pretoria

09:30 – 09:45 Objectives and Ground Rules of the Roundtable: **Moderator**

09:45 – 10:15 Presentation – Discussion

The South Africa's Approach, Business Case and Rationale for a National  
Strategy for Sustainable Development  
**Blessing Manale**, DEAT  
Questions for clarification and additional inputs

10:15 – 10:45 Tea Break

10:45 – 11:15 Presentation

Overview of Selected Trends and long term projections and their implications for  
achieving sustainable development in South Africa  
**Mark Swilling**, Sustainability Institute

11:15 – 12:00 Sectoral Contributions

1. Water Resources  
**Bill Rowston** – Dpt. Of Water Affairs and Forestry
  2. Climate Change and Air Quality  
**Joanne Yawitch** – DDG, Dpt. Of Environmental Affairs and Tourism
  3. Waste Generation and Management  
**Dr Chris Buckley** – University of Kwa Zulu Natal
- Questions for Clarification

12:00 – 12:15 Briefing on Breakaway Discussions – **Moderator**

12:15 – 15:00 Group Breakaways (including Lunch Break and Tea)

Working Groups shall decide on their moderator and the rapporteur  
Lunch will be available from 13:00 to 14:00; Tea will be ready from 14:30

Group	Current Trends and 20 Year projections in The areas of	Long term implications of the trends on future making and implementation of development priorities for the Selected areas with regard to:	Expected answers to the Following questions
1.	Water Resources	1. Economic Growth, for example Tourism Manufacturing Agriculture Infrastructure (focused on Transport and Energy Provision)  2. Social Development for example Sustainable Livelihoods (Food Security, Health, Water, Housing and Jobs Security) Energy Access Science and Technology Interventions	a) What are the key trends and 20 Year projections for the selected area?
2.	Climate Change and Air Quality		b) What are the key implications of these trends and projections (challenges, opportunities, risks) on social development and economic growth?
3.	Waste Generation and Management		c) What challenges do these implications pose for the science and Technology agenda?  d) what key conclusions from your working group should be taken into the NSSD?

15:00 – 15:30

Working Group Feedback – Working Group Rapporteurs

15:30 – 16:45

1. Summary of Roundtable – Moderator
2. Critical factors for success and issues that could lead to failure of South Africa's National Strategy for Sustainable Development – Moderator

16:45 – 17:00

Way-forward and Closure – Judy Beaumont, Chief Director, DEAT