

TOWARDS A  
SUSTAINABLE DEVELOPMENT  
IMPLEMENTATION PLAN  
FOR THE WESTERN CAPE



**CONCEPT PAPER ON SUSTAINABLE DEVELOPMENT MAY 2005**

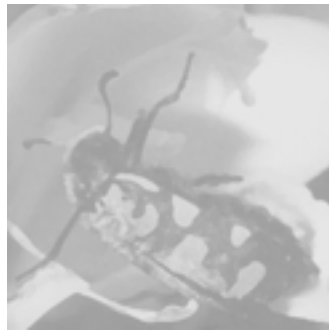




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# ACRONYMS

CAPE	Cape Action for People and Environment
CDM	Clean Development Mechanism
CFR	Cape Floristic Region
CMP	Coastal Management Policy
CSO	Civil Society Organisation
DEA&DP	Department of Environmental Affairs and Development Planning
DEAT	Department of Environmental Affairs and Tourism
DWAF	Department of Water Affairs and Forestry
EEDSM	Energy Efficiency and Demand-Side Management
EIA	Environmental Impact Assessment
EIP	Environmental Implementation Plan
EMCA	Environmental Management Co-operation Agreement
GATS	General Agreement on Trade in Services
GEAR	Growth, Employment and Redistribution
IDP	Integrated Development Plan
ISRDS	Integrated Sustainable Rural Development Strategy
JPOI	Johannesburg Plan of Implementation
MDG	Millennium Development Goal
MEDS	Micro-Economic Development Strategy
MIG	Municipal Infrastructure Grant
MLC	Metropolitan local councils
NAMA	Non-agricultural market access
NEMA	National Environmental Management Act
NRG4SD	Network for Regional Governments on Sustainable Development
NSDF	National Spatial Development Framework
NSDP	National Spatial Development Perspective
PDC	Provincial Development Council
PGDF	Provincial Growth and Development Framework
PGWC	Provincial Government of the Western Cape
PSDF	Provincial Spatial Development Framework
PSDI	Provincial Sustainable Development Indicator
QOL	Quality of Life
RDP	Reconstruction and Development Programme
SDP	Sustainable Development Plan
SKEP	Succulent Karoo Ecosystems Programme
SoE	State of Environment
STEP	Subtropical Thicket Ecosystems Planning
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Plan
UNFCCC	United Nations Framework Convention on Climate Change
URP	Urban Renewal Programme
WCPA	Western Cape Provincial Administration
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation

# FOREWORD

In September 2000, the General Assembly of the United Nations recognised the Millennium Development Goals (MDGs) as the road map for sustainable development. These goals are to:

- eradicate extreme poverty and hunger
- achieve universal primary education
- promote gender equality and empower women
- reduce child mortality
- improve maternal health
- combat HIV/AIDS, malaria and other diseases
- ensure environmental sustainability
- develop global partnerships for development



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Global commitment to these goals has been reinforced since 2000 through several major international meetings and agreements relevant to sustainable development. In 2002, nations of the world gathered in Johannesburg, South Africa, to review progress on commitments made at the Rio Earth Summit in 1992, and to focus on strategies to achieve the MDGs.

The commitment to develop strategies for sustainable development was captured in the Johannesburg Plan of Implementation (JPOI) as follows: "States should take immediate steps to make progress in the formulation and elaboration of strategies for sustainable development and begin their implementation by 2005". Within South Africa a number of steps have been taken which could be seen as contributing to a sustainable development strategy such as the Reconstruction and Development Programme (RDP), the Integrated Sustainable Rural Development Strategy (ISRDS), the Urban Renewable Programme (URP) and the process to develop a National Sustainable Development Strategy led by the Department of Environmental Affairs and Tourism.

In the Western Cape various initiatives have also been taken to address sustainable development. All of them are underpinned by the vision as contained in iKapa elihlumayo "which spells out how we will achieve shared growth and prosperity over the medium to long term through strategically focussed interventions. The Framework Agreement for Growth and Development is the evidence that we are committed to work in a principled partnership with key sectors of society to realise the goals of iKapa elihlumayo." A number of sectoral policies and strategies relating to sustainable development have also been developed, or are in the process of being developed to reinforce this approach.

Much is being done by individual provincial departments, local government and our social partners to promote sustainable development. There is broad agreement that the Western Cape should develop a Sustainable Development Implementation Plan to address the economic, social and ecological dimensions of sustainable development.

The Provincial Cabinet approved that the Department of Environmental Affairs and Development Planning, as lead Department, should develop a coherent overarching Sustainable Development Implementation Plan for the Western Cape Province. This Plan will be developed in conjunction with the other departments and our social partners – business, labour and civil society – and will culminate

in the Western Cape Sustainable Development Conference which will be held on 19-22 June 2005. The Sustainable Development Implementation Plan for the Western Cape should benefit this province by incorporating and representing the vision and goals of all stakeholders and by combining the overarching planning initiatives of all departments into a comprehensive, action-oriented implementation plan with clear targets, indicators and time-frames. The Plan will serve to address any gaps in our current strategies (iKapa elihlumayo and the Growth and Development Framework Agreement) with regards to promoting sustainable development in the Province.

It is important that engagement with the business, labour, civil society and government take place to ensure that these sectors participate in the development of the implementation plan and that they take ownership of the final product. The Department will rely on the Provincial Development Council to facilitate the process of stakeholder engagement.

This document therefore serves to provide the basis for a common conceptual understanding of sustainable development that can be used by the Provincial Development Council (PDC) to initiate the multi-stakeholder process towards the development of the provincial Sustainable Development Implementation Plan.

I wish to thank our social partners for their active involvement and participation in critical policy-making and planning processes in the Province and enthusiastically look forward to the outcomes of the deliberations.

We all need to take hands to build the Western Cape into a "Sustainable Home for All Forever"

**MEC Tasneem Essop: Department of Environmental Affairs and Development Planning**

# INTRODUCTION

The purpose of this Concept Paper is to provide stakeholders in the Western Cape with a framework that assists in developing a common understanding of the concept of “sustainable development” and that enables decision-makers to assess the extent to which their proposed policies, strategies and projects contribute to sustainability. The paper seeks also to demonstrate how iKapa elihlumayo can be integrated into a strategic plan aimed at making the Western Cape the first Province to give meaningful implementation to the principles of sustainable development.

In a world characterised by global natural resource depletion and growing social inequality, there is increasingly global agreement on the need for action plans on sustainable development, a concept that forms the cornerstone of a wide variety of global commitments. The South African Government has committed itself to the implementation of many of these global agreements and since the 2002 Johannesburg World Summit on Sustainable Development (WSSD), has sought to take a global leadership role in this field. Starting with our Constitution and proceeding from National Policies through to Provincial and Local Government policies, the government has committed itself to the achievement of sustainable development.

Yet despite these commitments, evidence would suggest that over the past ten years South Africa has continued to focus primarily on promoting economic growth and social equity, rather than on broader implementation of sustainable development. Public commitments to a sustainable approach to development do not appear to have been sufficiently understood or integrated into existing government policies and programmes. In particular, there is limited evidence to suggest that policy-makers have sufficiently appreciated the extent to which successful long-term social and economic development is dependent upon the availability of eco-system services.

In the Western Cape, however, serious attempts are currently being made to embed the sustainability principles into the provincial approach to development. In his State of the Province Address on 18 February, Premier Rasool said: “Sustainable development is already fundamental to our vision and practices as a government.” iKapa elihlumayo and the Home for All vision make explicit provision for sustainable development, as does the underpinning Framework Agreement for Provincial Growth and Development and the Provincial Spatial Development Framework (PSDF).

But what does this provincial commitment mean in practice? Have the practical implications of sustainability been appreciated by all provincial decision-makers and programme implementers? How does one ensure that the PGDF and the PSDF give meaningful effect to the espoused principles of sustainable development? This document seeks to address these questions by:

- Providing a conceptual framework for understanding sustainable development (Section 2)
- Reviewing the global and national policy context for sustainable development (Section 3)
- Assessing the opportunities and progress of the Western Cape in leading the promotion of sustainability (Section 4)
- Identifying a set of key considerations to guide input into the development of the proposed Sustainable Development Implementation Plan for the Western Cape (Section 5), and;
- Key considerations in mainstreaming sustainability into policy, planning and decision making (Section 6)

This document thus provides a point of departure for the development of a Sustainable Development Implementation Plan for the Western Cape. It provides a common framework for understanding the concept of sustainable development, highlights a set of sustainable development principles including the MDGs and JPOI targets, provides information on provincial policies, strategies, programmes and plans and selected initiatives that demonstrate the Western Cape’s efforts to chart a sustainable development course. Finally, it articulates a number of key elements that need to be considered by the various sectors during the stakeholder engagement process in their deliberations on sustainability goals and targets.



# A CONCEPTUAL FRAMEWORK FOR SUSTAINABLE DEVELOPMENT

## 2

Notwithstanding the many definitions and the ongoing debates around the identification of sustainability indicators, it is nevertheless possible to identify a common set of core “sustainability principles” that can serve as the basis for informing policy development and decision-making. An important goal of this Concept Document is to identify these core principles, and in so doing, to provide the basis for a common conceptual understanding of sustainable development that can be used by the social partners to assess the extent to which their proposed policies, strategies and projects contribute to sustainability.

### 2.1 Sustainable Development – Towards a Common Conceptual Understanding

The concept of sustainable development first became the focus of international policy-making with the publication in 1987 of *Our Common Future*, a report that presents the outcome of the World Commission on Environment and Development and that served as an important foundation for the 1992 UN Earth Summit. The Report provides what is arguably the most frequently quoted definition of sustainable development, namely development that *“meets the needs of the present without compromising the ability of future generations to meet their own needs”*.

In essence, the concept is fairly straightforward: sustainable development is about behaving in a manner in which current efforts to raise the quality of life of a society’s citizens (i.e. “development”) can be continued (or “sustained”) into the future. It is about adopting a development path that improves the quality of life of current generations, while leaving future generations with at least the same capacity and options for development that we have at present. Sustainable development is not a new idea. Many cultures over the course of human history have recognised the need for harmony between the environment, society and economy. What is new, however, is an articulation of these ideas in the context of rapid globalisation, where there is increasing evidence of economic and social inequality, as well as of significant depletion of valuable ecosystem services.

For sustainability to be achieved, decision-makers need to consider the longer-term implications of their decisions and to implement integrated governance systems that recognise the important interdependencies between the “triple bottom line” of **economic** growth, **social** equity and **environmental** integrity. **For the Western Cape province, sustainable development will be achieved through implementing integrated governance systems that promote economic growth in a manner that contributes to greater social equity and that maintains the ongoing capacity of the natural environment to provide the ecological goods and services upon which socio-economic development depends.**

### 2.2 Sustainable Development – A Conceptual Model

A useful way of conceptualising sustainable development is in terms of three embedded spheres comprising economic systems that are essentially products of, and dependent on social systems, which in turn are products of, and dependent on natural systems (see Figure 1 : it provides



a visual presentation of the relationship between the four dimensions of sustainable development). These spheres may be seen as three globes, with the outer ones surrounding, enclosing and supporting the inner ones. This model conveys the notion that our natural resources, and the goods and services provided by these resources and processes, are the key enabling factor for socio-economic development. These activities and processes rest on, and are influenced by, the prevailing governance system – the fourth dimension.

The **economic** dimension refers to the production of manufactured goods and the flow of these goods and services through the formal and informal sector. Financial capital is also an important component of the economy, enabling the acquisition and trade of good and services through shares, bonds and banknotes.

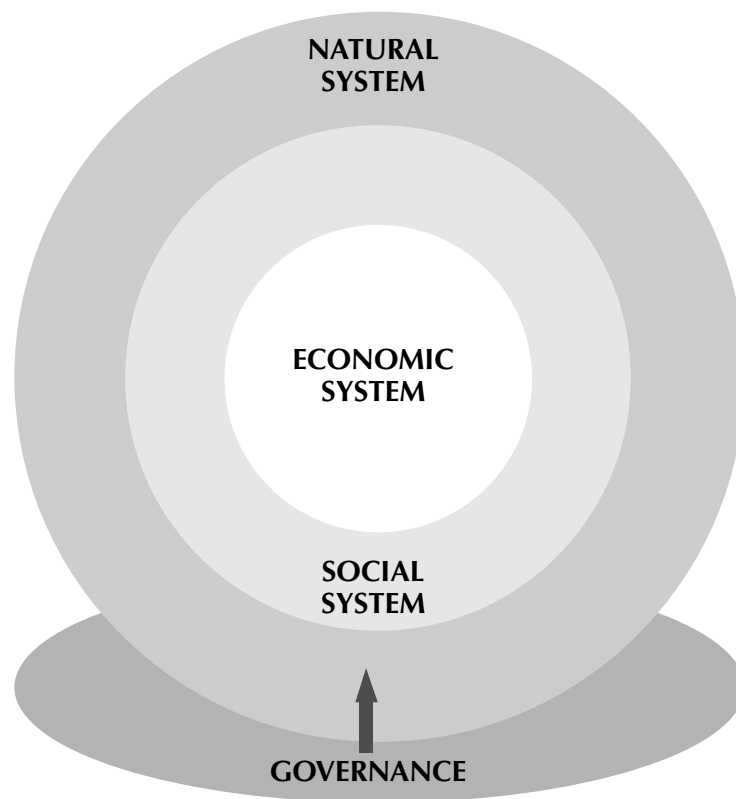
The **social** dimension refers to human capacities, skills and resources which are necessary for productive work and the creation of a reasonable quality of life. It incorporates the institutions, networks and relationships that support human activity (and human efforts to secure livelihoods) and enables access to resources and participation in decision-making.

The **natural environment** dimension refers to the natural resources (matter and energy) and ecosystem processes that maintain life and produce and deliver goods and services. They include renewable resources (such as freshwater, fisheries and wood), non-renewable resources (such as mineral deposits and fossil fuel), sinks (that absorb, neutralise or recycle wastes), and ecological processes such as photosynthesis, climate regulation and disease regulation.

The **governance** dimension comprises the institutions, processes, systems and mechanisms through which the nation, or in this case the province's affairs, are managed and through which citizens articulate their interests, exercise their responsibilities, co-operate and/or indicate their differences.

The crisis of sustainability is seen to arise from the fact that our current production and consumption patterns are depleting natural resources and impacting on human and social systems, largely because we fail to assign sufficient value to these assets in our decision-making processes. By way of example, a country could cut its forests and deplete its fisheries, both of which would show up a positive net gain in GDP (a predominant measure of economic well-being) without registering the corresponding decline in ecosystem health and social equity that are more appropriate measures of long-term economic well-being. Unless the current rates of consumption of natural resources are effectively controlled and issues of access to and ownership of resources are made more equitable, these vital resources will not be sustained over the long-term and the quality of life for the poor majority will continue to decline.





**Figure 1 – Relationship between the economic, social, natural, and governance dimensions of sustainable development**

*Figure 1 shows the relationship between the 4 dimensions of sustainable development.*

*The outer sphere represents the **natural environment** and represents the resources and ecosystem services necessary to maintain life and to produce environmental goods and services. A key policy focus here is on ensuring the long-term **sustainable use** of ecosystem services.*

*The second sphere represents the **social** dimension – which comprises human attributes and social systems and institutions; a principal policy concern here relates to social **equity**.*

*The inner sphere represents the **economic** dimension – comprising manufactured and financial capital stocks; a key policy focus here is on promoting greater **efficiency**.*

*An underlying principle of sustainable development is to recognise the inter-relationships and dependencies between these various dimensions. If the government's commitment to long-term sustainable development is to be achieved it must recognise in its policy-making process that economic systems are essentially products of, and dependent on, social systems, which in turn are products of and dependent on, natural systems. Effective management of each of these systems requires an **integrated governance** approach.*

Although the protection of the **environment** and the promotion of ecologically sustainable development formally enjoy a high priority in South African policy-making – as evidenced for example by the far-reaching provisions of the Constitution and the National Environmental Management Act (both reviewed later in this report) – in practice, the long-term maintenance of our natural assets and of ecological processes is not an over-riding consideration in government policy-making. This is regrettable and reflects inadequate consideration of the principles of sustainable development at a systematic level. This is both a failure of the market to accurately reflect the true value of ecosystem services (see Appendix 1) and a related failure or inability of policy-makers to fully appreciate the linkages and inter-dependencies between ecosystem services and human well-being, both of which may have profound implications for longer-term economic growth.

There is, however, increasing evidence – at both a global and local level – to suggest that current policy approaches are failing to adequately address the systemic problems of poverty, socio-economic inequality and the depletion of natural resources. These concerns are epitomised by the very slow progress that is being made, particularly in sub-Saharan Africa, towards the attainment of the

Millennium Development Goals (relating to poverty eradication, gender equality, education, health and environmental sustainability), as well as by the stark warning of the recent Millennium Ecosystem Assessment that “the ability of the planet’s ecosystems to sustain future generations can no longer be taken for granted.”

In South Africa in general, and in the Western Cape in particular, conservation of the natural environment has often been viewed as a luxury, and synonymous with nature or game reserves; a rich person’s preserve. This perspective is fast changing. The Southern African Millennium Ecosystem Assessment, for example, has highlighted the extent to which biodiversity should be seen as “the enabling factor for sustainable development”, and notes that current threats to biodiversity threaten human health and well-being and local economic development.

**If the government’s commitment to long-term sustainable development is to be achieved then there needs to be explicit recognition in its policy-making process that its economic systems are essentially products of, and dependent on, social systems, which in turn are products of, and dependent on, natural systems. Effective management of the interdependencies between ecosystem health, social equity and economic growth will require a significant change in current governance practices, in adopting an integrated and co-operative approach to governance that includes an accurate valuation of environmental goods and services.**

### 2.3 Sustainable Development – Core Principles for Decision-makers

On the basis of the preceding discussion, it is possible to identify a number of critical challenges and foundation principles associated with maintaining biodiversity and ecosystem health, as well as promoting social equity and economic efficiency. Meeting these challenges effectively will require some fundamental changes in values, policies, institutions and practices within the Western Cape.

The following core principles for sustainable development should guide the development and implementation of policy and strategy with the Western Cape:

- Staying within the **ecological** limits of the province’s natural resource base so that the fundamental ecosystem services necessary for socio-economic development will be sustained into the future.
- **Mainstreaming** sustainability considerations into all policy, planning and decision-making processes. This requires that policy decisions are taken on the basis of a complete and accurate assessment of the full market and non-market environmental and social costs throughout the life-cycle of products and services, based on access to reliable data and information, and with due consideration to public values as determined through processes of empowered participation, including a major attempt to build capacity amongst politicians and officials so they understand the unintended consequences of choices taken in seemingly unrelated fields.
- Exploring appropriate **institutional arrangements** aimed at ensuring effective co-ordination and integration of sustainability considerations within and between local, provincial and national government departments and parastatals.
- Introducing an appropriate **regulatory and policy framework** that seeks to ensure that environmental and social costs are fully internalised and incurred by those who impose them (the “polluter pays” principle), and that encourage efficient resource use through an effective mix of regulatory and market-based policy instruments.
- Promoting **co-operative governance** across all spheres of government, vertically and horizontally.
- Promoting **good understanding, commitment and governance** amongst all stakeholders based on the principles of transparency, access to information, accountability, shared responsibility and empowered participation.
- Promoting **environmental justice** including addressing historical inequities.
- Developing monitoring and evaluation systems based on commonly accepted **sustainable development indicators**.
- Promoting the **education and capacity building** of all stakeholders.

# THE GLOBAL AND NATIONAL POLICY CONTEXT FOR SUSTAINABLE DEVELOPMENT

## 3

This section provides a very brief review of the global and national policy context for sustainability. The aim of the section is to provide a broad context in which to consider the development of the **Provincial Implementation Plan for Sustainable Development**, with a view to ensuring that the implementation plan builds on, and provides for, national and international policy developments and priorities.

### 3.1 Development of the Global Sustainability Agenda

Agreeing on a conceptual model of sustainable development is extremely helpful and important in developing government policies and plans. But it should be noted that the institutions and agreements that define and determine “sustainable development” in policy and law are contested and arrived at through negotiation and political processes. It is therefore not surprising that it contains contradictions, conceptual flaws and can be interpreted in many different ways. Indeed, its interpretation is also political and contested. Despite this, it is possible to identify a number of underlying principles and priorities that have been developed over the past thirty years through the conclusion of a wide range of agreements and policy commitments. It includes a very brief review of some of the more significant of these commitments, with a view to demonstrating the manner in which global bodies have approached the concept of sustainable development.

#### 3.1.1 The 1992 UN Earth Summit

In 1992, the United Nations Conference on Environment and Development (UNCED), known as the Rio Earth Summit brought together the two contested terrains of ‘environment’ and ‘development’, combining them in the concept of sustainable development. UNCED built on the 1972 UN Conference on the Human Environment and on the Brundtland Commission’s 1989 report, *Our Common Future*. For the first time, governments were grappling in a multilateral forum with the challenges of improving people’s lives within the limits of the biophysical environment; and protecting the environment whilst eradicating poverty. At the same time, tens of thousands of people gathered from civil society to share and create their own visions and strategies, drawing from the wealth of diverse groups and interests, and challenging governments to take the agenda further and take bolder steps by including issues governments weren’t yet ready to bring into the sustainable development agenda, such as multinational companies, militarism, racism and debt.

Key documents were produced at Rio, which helped define the parameters of sustainable development globally, and have been used to inform national level policy and implementation such as South Africa’s Constitution and NEMA. The Rio Declaration of 27 sustainable development principles underpins other commitments made at and emerging from Rio. The most overarching of these commitments was Agenda 21, the United Nations Programme of Action for Sustainable Development. Agenda 21 remains the most comprehensive international agreement on sustainable development to date. It addresses social and economic dimensions through tackling poverty and unsustainable patterns of production and consumption; the conservation and management of resources for sustainable development; strengthening public participation and access to information; and implementation. Objectives and activities are outlined within each of the sections to give effect to the principles on sustainable development.

#### 3.1.2 Multilateral Agreements on Environmental and Social Issues

Emerging from Rio and following on earlier processes are a number of international agreements on specific environmental and social issues such as climate change, biodiversity, ozone depletion, persistent organic

pollutants, prior informed consent, hazardous waste, housing, social development, and population. Parties to these agreements meet regularly to assess implementation to date, develop new strategies or negotiate associated protocols and targets. South Africa has ratified over 100 multilateral environmental agreements. One of the most well known of these – and one that has potentially significant implications for South Africa's economic development path – is the United Nations Framework Convention on Climate Change (UNFCCC). In terms of the Kyoto Protocol, which came into force on 16 February 2005, developed nations have agreed to limit their greenhouse gas emissions, relative to the levels emitted in 1990. The Kyoto Protocol includes legally binding constraints on greenhouse gas emissions and its innovative “mechanisms” aimed at cutting the cost of curbing emissions. It is sobering to note that South Africa is the fourteenth highest emitter of greenhouse gases globally and the seventh highest per capita.

An important dimension to climate change is its link with development – indeed, many see climate change as fundamentally a development problem, rather than an environmental one. Patterns of energy consumption, land use and demographic growth are all key drivers of both development and climate change. Tackling climate change is compatible with advancing the aspirations of the world's poor, as part of their efforts to achieve sustainable development. It is to be noted that as a “non-Annex 1 country” to the Protocol, South Africa does not have any concrete greenhouse gas emissions reduction targets. The South African government is however required to put policies and measures in place to reduce greenhouse gas emissions, and it can benefit from implementation actions such as the Clean Development Mechanism (CDM). One of the first CDM projects in the country has been implemented by the Western Cape government and the City of Cape Town in the Kuyasa housing development in Khayelitsha.

It is anticipated that South Africa will face significant pressure (along with countries like Brazil, China and India) to set binding emission reduction targets during the next rounds of negotiations. This could have significant implications for economic growth options, particularly in light of the current high levels of the (largely coal-based) energy dependency of the economy. Ensuring effective provision for the anticipated next round of binding global commitments on climate change, will profoundly influence current policy choices relating to further investments in coal-fired energy, and the current low level of resources allocated to renewable energy.

### **3.1.3 The Millennium Development Goals**

In September 2000, the world's political leaders met at the United Nations General Assembly for the Millennium Summit where they negotiated and committed themselves to the Millennium Development Goals (MDGs), an ambitious agenda for reducing poverty and improving lives (see box below). For each goal one or more targets have been set, most of which are for 2015, with 1990 as the baseline. Many of these targets were developed at international conferences during the 1990s, and were then adopted within the Millennium Declaration as part of the road map for implementing the Declaration. Within a relatively short period, the MDGs have gained tremendous currency. Increasingly stakeholders are viewing these goals as important mechanisms for holding governments accountable to pursuing a more sustainable path. South Africa has committed itself to addressing these goals and a number of initiatives are underway. Examples include the National Public Works Programme, various Poverty Alleviation programmes including the sustainable Coastal Livelihoods Programme, as well as South Africa's commitment to develop a sustainable development strategy.

At the provincial level, the Western Cape has developed various policies and initiated a number of processes to give effect to the MDGs. For example, in terms of the MDG target 1 for eradicating poverty and hunger, the Western Cape has embarked on developing a Provincial Poverty Reduction Strategy, a Micro Economic Development Strategy, the improvement of local development with Project Consolidate and implementation of the Expanded Public Works Programme.

#### **3.1.4 The World Summit on Sustainable Development**

In 2002, ten years after Rio, South Africa hosted the World Summit on Sustainable Development (WSSD) which successfully brought the MDGs into the sustainable development arena and sought to find an effective balance between economic, social and environmental objectives epitomised by its slogan of people, prosperity and planet. An important outcome of the WSSD was the Johannesburg Plan of Implementation (JPOI) which outlines actions for the further implementation of Agenda 21 and the MDGs, and includes several new targets – or in some instances, tentative intentions – on access to sanitation, marine ecosystems, fish stocks, sustainable production and consumption, biodiversity and desertification. The JPOI was extremely valuable in raising the profile of sustainable development amongst South Africa's top decision makers in government, business, labour and civil society. But like many of the sustainable development negotiations that have preceded it, the WSSD was not able to take on the unsustainable nature of the globalisation agenda. Southern governments have long argued that unless and until the economic polarisation of the world is tackled, sustainable development will not be possible. This means addressing debt, the international trading system and global finance (including the role of the IMF and World Bank). Civil society organizations and social movements from round the world have been much louder and more radical in their calls for dismantling the key institutions and rules propping up and expanding the "global apartheid" which they see in direct opposition to the sustainability agenda. These contradictions will continue to be contested at global, national and local levels and it is essential for the Western Cape Provincial government to forge a common understanding, commitment and implementation across all levels in order to realise these ambitious goals.

#### **3.1.5 The World Trade Organisation (WTO)**

The WTO's primary agenda is to advance the integration of the global economy through trade liberalisation and by facilitating flows of finance, whilst protecting certain economic interests through, for example, protecting intellectual property rights. The structure and functioning of the WTO means that this process is unbalanced and favours the interests of developed countries and large corporations, whilst further marginalising developing countries and small local businesses. Of particular importance to provincial and local level planning are negotiations and agreements on services (General Agreement on Trade in Services – GATS), agriculture (Agreement on Agriculture) and industrial tariffs (non-agricultural market access – NAMA). Further liberalisation of these sectors is being pushed through the lowering of tariffs, the removal of non-tariff barriers such as subsidies, and through pressure on governments to reduce regulations, including protection of the environment and fair labour practices. It will be important to maintain a thorough understanding of these negotiations and agreements as they develop, and of their likely impact on the development options for the Province. It will also be necessary to ensure that sustainable development principles are integrated when responding to economic pressure (such as the closure of clothing and textile factories), the increased push for private sector participation in public service delivery (such as water, sanitation and education) and the pressure to side step essential labour and environmental protection when bidding for foreign direct investment (for example, through Export Processing Zones).

### **3.2 The Policy and Legal Framework for Sustainable Development in South Africa**

South Africa's transition to democracy has been accompanied by the promulgation of a plethora of policies and legislation relevant to economic and social development and natural resource management. This law reform process has been significantly influenced by global thinking and debates on the

nature of development and the impact that current patterns of production and consumption are having on natural, social, cultural and economic systems. South Africa has formally embraced the notion of sustainable development and principles of equity, social and environmental justice, participation, ecological limits, stewardship, accountability and transparency have been integrated into various policy agendas.

### 3.2.1 The South African Constitution

This is reflected in the South African Constitution (1996) as well as in key policies and frameworks governing socio-economic development and natural resource management. The Constitution, which provides the point of departure for policy and law making in the country, contains far-reaching clauses relevant to the environmental sustainability. Embedded within the Bill of Rights is an environmental clause that provides that "... everyone has the right to an environment that is not harmful to their health or well-being." Part (b) of this clause gives government the responsibility to take reasonable measures to ensure that the environment is protected for the benefit of present and future generations, and gives government the responsibility to take "... reasonable legislative and other measures that: prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development."

In essence the environmental clause embodies the key principles underpinning sustainable development – satisfying basic human needs within an ecological framework and in a manner that does not jeopardise the quality of life of future generations. However, it goes further, by guaranteeing rights to an environment that is not harmful to health and well-being, arguably higher order needs that go beyond the right to health care services (section 27) and imply that a level of environmental quality be maintained that is not in any way detrimental to health or well-being.

If one reads the environmental clause together with Constitutional provisions dealing with equality (section 9), affirmative action (section 9(2)) and reforms to bring about equitable access to all of South Africa's natural resources (section 25), this clearly signals an intention and commitment to address the needs of the poor, redress the environmental injustices of the past and provide a quality environment for all South Africans. Of great significance in the wording used in the environmental clause is the juxtaposition of "... securing ecologically sustainable development and use of natural resources" with "promoting justifiable economic and social development".

While meeting socio-economic needs is recognised as a right, ecological integrity and application of sustainability principles need to guide such development activities. Inevitably trade-offs will be necessary and choices will need to be made. Consciously making these choices and trade-offs is a critical responsibility for government decision-makers who may be ignorant of the unintended consequences of their choices. Of relevance to the mechanisms for achieving sustainable development are the Constitutional principles of co-operative governance, which emphasise the need for co-operation and consultation both within and between the various spheres of government to ensure effective governance. This Constitutional imperative, which represents a profound paradigm shift for the **modus operandi** of government, supports the principles of integration, participation and co-ordination, all of which are fundamental to the successful implementation of sustainable development. While the 'environment' has been identified as a matter of concurrent national and provincial competence, the Constitution additionally provides a clear mandate for local government to take on environmental management responsibilities and play a stewardship role. Section 152(1) states that the objectives of local government include "...the provision of services to communities in a sustainable manner ... and promoting a safe and healthy environment". Clearly, all levels of government have been charged with putting in place mechanisms and procedures to give effect to environmental rights. The progressive clauses and provisions in the Constitution outlined above signal a clear commitment to sustainable



development and provide the foundations and guiding principles for other policy and law-making processes in South Africa.

### 3.2.2 Reconstruction and Development and Growth, Employment and Redistribution

Other national framework policies that guide South Africa's future development path include the Reconstruction and Development Programme (RDP) and the Growth, Employment and Redistribution (GEAR) strategy. The RDP reflects a strong commitment to environmentally sustainable development. While it focuses on socio-economic development, reducing poverty and addressing past injustices, it advocates a people-centred approach to development that recognises the critical importance of using natural resources in a sustainable manner in order to achieve socio-economic goals.

By contrast, the government's macro-economic policy framework (GEAR) – which aims to stimulate economic growth and job creation – focuses on fiscal contraction, accelerated trade liberalisation, rigorous monetary policy, privatisation and the deregulation of financial markets. It gives scant attention to the quality of growth in terms of employment creation and poverty reduction and fails to acknowledge the links between environmental integrity and economic growth. It is largely devoid of any sustainable development rhetoric and requires a mode of operation that in many respects displaces some of the developmental aspects of the RDP.

Thus, despite Constitutional and other legal requirements to pursue a sustainable development agenda, there is a lack of coherence amongst key policies governing the different dimensions of sustainable development and tensions between policy objectives exist. Furthermore, there is no clear guidance on the approach for pursuing a sustainable development growth path and how trade-offs amongst competing objectives should be made. Consequently, the way in which other spheres of government as well as sectoral departments embrace sustainability depends on their own understanding and interpretation of these policy frameworks and their interpretation of sustainable development. This constitutes both a significant responsibility and a valuable opportunity for the Western Cape government to give meaningful effect to the potentially far reaching provisions for sustainability that are contained within national legislative provisions.

### 3.2.3 Environmental Governance and the National Environmental Management Act of 1998 (NEMA)

The National Environmental Management Act of 1998 (NEMA) provides the framework legislation for environmental governance in South Africa. This highly progressive legislation translates the environmental rights and responsibilities contained in the Constitution into legal provisions. NEMA provides an overall framework for general law reform in the environmental management field and provides an enabling context for environmental management to take place in a more pro-active, co-operative and conciliatory manner. NEMA embraces the concept and principles of sustainable development and advocates co-operative governance and partnerships.

A key feature of NEMA is the inclusion in the Act of a set of commonly agreed upon **sustainable development principles** that are legally binding. Central to these principles is the realisation that whilst people-centred development is essential it must take place within an ecological framework. Other principles include:

- equitable access to environmental resources
- participation of civil society in environmental governance, with appropriate capacity building that ensures equitable participation
- that decisions must take into account the interests, needs and values of all
- that decisions must be open and transparent and access to information must be provided
- the "polluter pays" principle, the precautionary principle and the cradle to grave principle

In practice, these principles need to be applied by all organs of state to all planning and decision-making processes. In terms of provisions in the Constitution and NEMA, the public can take legal action against government if they fail to apply these principles in the course of executing their functions.

Section 24 of NEMA provides for an integrated environmental management approach to be applied to the formulation of all policies, programmes, plans and projects. However, there are no statutory requirements that environmental assessment tools be routinely applied to these strategic levels. With respect to environmental assessment of project level activities, the promulgation of the EIA regulations in September 1997 in terms of the Environmental Conservation Act 73 of 1989 has gone some way to ensuring that environmental issues and community concerns are identified and assessed prior to decisions being taken. However, there are serious concerns regarding the appropriateness and effectiveness of EIAs as a tool for sustainable development especially given the new planning paradigm that is emerging in South Africa that seeks to integrate environmental sustainability concerns into planning and, in the Western Cape, heritage processes.


### **3.2.4 Tensions between policy commitment and implementation**

Since 1994, a large number of progressive policies and laws have been promulgated, many of which embrace the notion of sustainable development and require that sustainability principles and approaches be integrated into planning and decision-making activities. There is evidence, for example, of a fundamental shift in thinking towards a more integrated and participatory approach to planning and development in certain policies and laws, such as the National Water Act 1998, the Development Facilitation Act, and the White Paper on Sustainable Coastal Development. While there are many legislative provisions that define the environment and/or sustainable development (e.g. Municipal Systems Act 2000) or that call for sustainable service delivery (e.g. Housing White Paper 1994), in most instances these fail to meaningfully incorporate environmental sustainability provisions in sections dealing with implementation, monitoring and enforcement. It is in this context that the Western Cape DEA&DP has embarked on a law reform process to integrate environmental planning and heritage approval processes.

Despite the progress made with incorporating provisions dealing with sustainable development in several sectoral policies and laws, a major weakness has been identified as the lack of effective mechanisms and clear guidelines for translating these policy provisions into action at the different levels of government and in the private sector and civil society arena. Few regulations have been promulgated to provide detailed guidance for implementing sustainable development provisions. Because of the scope and complexity of the concept, inclusion of statements such as ... “integrating environmental considerations into planning ...” or “... create sustainable human settlements ...” or “... promote environmentally sustainable land development ...” will not necessarily lead to sustainable activities and outcomes.

In cases where regulations have been promulgated or guidelines developed to give effect to environmental sustainability provisions (e.g. the DFA’s Environmental Evaluation regulations), interpretation and application of these regulations and guidelines have generally been weak due to human capacity constraints and a lack of political and institutional will to push for sustainability accounting. Co-operative governance as mandated in the Constitution requires all spheres of government to work co-operatively in a mutually supportive and reciprocal manner.

Sustainable development by its very definition requires integration across departments and sections, both horizontally and vertically. Yet government, at all levels, remains structured along sectoral lines and attempts to enhance co-ordination and integration is being attempted through various committees (e.g. Inter-Ministerial Committees, Committee for Environmental Co-ordination), working groups



(e.g. Mintec), provincial co-ordinating mechanisms (e.g. the Provincial Coastal Working Groups) and ad hoc working groups at the local level. However, the extent to which these groups can enforce the institutionalisation of sustainable development practices is questionable since they play a largely communication and advisory function and lack legal teeth and gravitas.

Sustainable development is difficult to implement as it is currently viewed as an “add-on” to the core functions of departments. While sustainability provisions exist in several sectoral policies and laws, the absence of appropriate mechanisms and clear guidelines for translating these provisions into the strategies and implementation plans of the various sectoral departments is a major weakness. For example, the Housing White Paper calls for the creation of sustainable settlements, yet the housing that is being delivered to low-income communities mostly fails to incorporate environmental design features that can significantly improve comfort levels at no additional cost. In the Western Cape, where housing delivery is a key target for the provincial government, this presents an obvious opportunity for integrating sustainable development into policy.

Lack of implementation of sustainability principles is also linked to the lack of environmental capacity at all levels of government. These capacity constraints, both in terms of human resource capacity and institutional capacity, have been identified as a major obstacle to integrating environmental sustainability considerations into all sectoral activities. Although there has been a significant increase in donor funds for environmental capacity building programmes, there appears to be little co-ordination among these various initiatives across departments and even within departments, resulting in duplication of effort, inefficiency and loss of productive time. The lack of high-level political will has also hindered the development of sustainability practices, which are currently seen as incidental to the business of government.

# THE WESTERN CAPE – AN OPPORTUNITY FOR LEADERSHIP ON SUSTAINABLE DEVELOPMENT

## 4

The Western Cape is situated on the south-western tip of the African continent. In total the Western Cape includes an area of 129 386 km. There are approximately 4.5 million people living in the province, the majority of whom are Afrikaans-speaking. The other official languages are English and Xhosa. The Western Cape makes the third-highest contribution to the country's GDP. With over 70 000 people employed in the clothing and textile industry, this sector is the single most significant industrial source of employment in the Western Cape. The official unemployment figure for the province, 18.4%, is substantially lower than that of most other parts of the country (South Africa Yearbook 2002/2003). The Western Cape economy accounts for 14.3 % of South Africa's Gross Domestic Product (WESGRO).

The Western Cape is perfectly positioned in the national, continental and global context to demonstrate in practice how a provincial level government can play a leading role in achieving sustainable development. Although a wide range of recently compiled documents have identified problems and challenges that the Province faces, the socio-economic, biophysical and governance context plus the emerging policy processes may well be combining in ways that could substantially reinforce this lead role. The key characteristics listed below capture advantages and challenges that reinforce each other as spurs to creative thinking and action:

### 4.1 Key Economic Characteristics

- (a) Higher growth rate (projected to be 4% for 2005), lower unemployment rate (+26%) and less inequality than the national average
- (b) Diversified economy across a range of sectors, although the decline of manufacturing poses a major threat to employment levels, new growth sectors are not high absorbers of unskilled and semi-skilled labour, and agriculture is a key economic sector
- (c) White high skilled individuals are the highest earners, with inequalities within and between racial groups getting worse
- (d) 40% of all employed people work for SMMEs and 9% secure livelihoods in the informal sector despite rising unemployment levels

### 4.2 Key Social Characteristics

- (e) Twenty eight percent (28%) of the Western Cape population live in poverty, with signs that this percentage is slowly decreasing despite increasing levels of inequality
- (f) 90% of the population of 4.5 million (largely young) people is urbanised
- (g) the urban character of the population means relatively good access to services, with 95% of households having access to piped water, 86% to a flush toilet, 87% to refuse removal, and 87% to energy for lighting purposes, whereas 16% of all dwellings are informal

### 4.3 Key Ecological Characteristics

- (h) The Western Cape is internationally recognised as one of the world's "hottest biodiversity hotspots" rich in endemic amphibian, reptile, fish and invertebrate species. Besides biodiversity value per se, the ecosystems of the Western Cape provide an irreplaceable source of goods and services for the residents and economy of this province: catchment areas safeguard water supply,

wetlands help regulate water yield and quality, plants guard soils against erosion and maintain productivity, and natural landscapes attract domestic and international tourism. Harvest of marine resources and fynbos products are valued at over R1300 million and R78 million p.a. respectively; the total economic value of the Cape Floral Kingdom is estimated to be at least R10 000 million p.a.

- (i) Water supply has reached crisis levels due to drought and endemic water scarcity, with conditions getting worse over the long-term as agriculture's need for water rises from the present level of 60% of total water consumption and comes into conflict with population needs which will cause available water supply per capita to halve during the period up to 2025
- (j) 80% of the Province's 19 Waste Water Treatments Works do not comply with standards, resulting in severe damage to eco-systems
- (k) Solid waste disposal has grown at double the planned rate, without evidence of effective long-term planning to build more landfills and/or implement recycling systems
- (l) Soil fertility levels in South Africa generally are in decline due to degradation, but compared to other Provinces, Western Cape soils are the least degraded, although 29% of the land area is invaded by aliens (the highest invasion rate in the country)

#### **4.4 Key Governance Characteristics:**

Aside from the role of National Government Departments in the province, the Western Cape is governed by the Western Cape government, five District Municipalities, and 30 Local Municipalities with a strong planning tradition at all levels, supported by a staff that has reasonably good technical capacities, ranging from excellent in some areas to very poor in certain towns.

- (m) The Western Cape Provincial Administration (WCPA) consists of 12 Departments: Agriculture; Community Safety; Cultural Affairs and Sport; Economic Development and Tourism; Environmental Affairs and Development Planning; Health; Local Government and Housing; Social Services and Poverty Alleviation; Transport and Public Works; Department of the Premier; Provincial Treasury; and the Western Cape Education Department. Working with a budget of R20,6 billion (in 2005/06), these departments are responsible for implementing laws and providing services to the people of the Western Cape.

The Constitution of the Western Cape was adopted in 1998. The Western Cape Provincial Parliament is responsible for adopting laws for the province within its realm of responsibilities as set out in the Constitution of South Africa. These responsibilities include creating provincial legislation dealing with: agriculture; casinos, racing, gambling and wagering; cultural affairs; education at all levels (excluding university and technikon education); environment; health services; housing; language policy; nature conservation; police services; provincial public media; public transport; regional planning and development; road-traffic regulation; tourism; trade and industrial promotion; traditional authorities; urban and rural development; vehicle licensing; welfare services; abattoirs; ambulance services; liquor licences; museums other than national museums; provincial planning; provincial cultural matters; provincial recreation and activities; provincial roads and traffic.

- (n) Local government in the Western Cape is made up of the City of Cape Town, five district municipalities and 24 local municipalities. The City of Cape Town is a metropolitan area with a population of 3,1 million people. The City of Cape Town came into being as an administrative entity on 6 December 2000, following the dissolution of the six metropolitan local councils (MLCs) that previously made up the Cape Metropolitan Area, viz.; Blaauwberg Municipality, the City of Cape Town, the City of Tygerberg, Helderberg Municipality, Oostenberg Municipality, South Peninsula

Municipality and the Cape Metropolitan Council. The MLCs continue to function as administrative areas in the interim while the new corporate structure is implemented.

- (o) Clear policy commitments are coupled to implementation mechanisms, although integrated co-ordination across Departments remains a challenge, as does effective co-operation across the spheres of government and effective multi-stakeholder management and co-ordination through the Provincial Development Council. An annual cycle of Integrated Development Plans at Local and District levels, but with unsatisfactory alignment of the strategic thinking and planning between these municipalities.
- (p) The Western Cape co-chairs the Network for Regional Governments on Sustainable Development (nrg4sd) for the next three years, giving it exceptional access to the latest thinking and contacts in the world of sustainable development and provides an opportunity to influence world agendas from a developing country perspective.

#### 4.5 Some Key Sustainability Challenges

- (q) Although agriculture has been identified as a priority sector for realising both economic growth targets and the equity target of doubling the number of farmers on the land via land reform strategies, soil degradation (exacerbated by non-organic farming methods) and the most degraded rivers in the country could undermine agriculture's capacity to play this role
- (r) Despite high levels of urbanisation, the general pattern of urban settlement is low density urban sprawl which has a negative environmental impact and increases the financial costs of urban living for both middle and low income households
- (s) The single biggest public investment to achieve development is in urban infrastructure, but the technical specifications that are adhered to result in infrastructures that are energy intensive, high wastage, make minimal use of recycling during and after construction, and unnecessarily increase direct and indirect costs for the end-user
- (t) Insufficient incentives are in place to encourage energy and resources efficiency of waste minimisation
- (u) Despite major advances via Biosphere Reserves and related initiatives, negative developmental impacts still threaten biodiversity in various ways.

It is clear that there is an urgent need to integrate sustainability principles into the economic, energy, infrastructure, bioregional, spatial and settlement planning, as well as law reform processes in order to establish a clear and effective framework for the realisation of sustainable development planning and management. This needs to be done in a manner that integrates and mainstreams sustainability principles into **iKapa elihlumayo** that underscores the Provincial Growth and Development Strategy and Integrated Development Plans (IDPs) at the local municipality level.

It is with this in mind that the Province has embarked on the development of a provincial Sustainable Development Implementation Plan, the finalisation of which will follow the provincial Sustainable Development Conference. An important aim of this Concept Paper is to provide an underlying platform aimed at informing the development of the Implementation Plan based on an appropriate understanding of the implications of sustainable development and with due regard to global and national policy developments on the issue.



# KEY ELEMENTS OF A SUSTAINABLE DEVELOPMENT PLAN FOR THE WESTERN CAPE

## 5

Provincial and local governments have initiated a wide range of policy responses to the multi-faceted economic, social and ecological challenges that they face. The most significant provincial policy initiatives are as follows:

- **iKapa elihlumayo** underpinned by an evolving Provincial **Growth and Development Strategy** as driven by the Executive of the Provincial Government
- The transformation of development and environmental planning initiated by the Department of Environmental Affairs and Development Planning (DEA&DP), via the bioregional planning initiatives, the **Provincial Spatial Development Framework** and the Integrated Law Reform project.

At the local level, the Integrated Development Plans (IDPs) are still the most significant planning initiative, and provide a vehicle for integrating sustainability principles into local level planning and implementation processes. Some local authorities have recognised that environmental sustainability issues are cross-cutting and need to be integrated into all stages of the process and have moved more directly into policy and planning processes that are defined by a more integrated sustainability perspective. For example, the City of Cape Town has initiated a stakeholder process for developing Sustainability Indicators, a city-wide Energy Strategy, and the Mayor recently announced a major 18 month research project, funded by the United Nations Development Programme (UNDP), to develop a model for managing the city's energy, water and waste infrastructure in accordance with rigorously defined sustainability principles.

This section provides a set of suggested elements for a Sustainable Development Implementation Plan based on the core principles for sustainable development outlined in Section 2. This section is intended to serve as a basis for discussion by stakeholders with the aim of informing the development of the Implementation Plan.

### 5.1 iKapa elihlumayo: A Vision for the Western Cape

**iKapa elihlumayo** provides the vision and framework for the future development of the Western Cape. The Mission statement which focuses on building social capital, building human capital and enhanced economic participation and growth in partnership with all stakeholders, recognises that these objectives can only be achieved through good governance and integrated governance with sustainable use of resources and the environment. The eight lead strategies that comprise the core of **iKapa elihlumayo** are as follows:

- Building Human Capital
- Micro-Economic Development Strategy
- Building Social Capital
- Strategic Infrastructure Investment Plan
- Provincial Spatial Development Framework (PSDF)
- Co-ordination and Communication
- Improving Financial Governance
- Provincialisation of municipal rendered services

Lead Departments responsible for each of these strategies are expected to deliver drafts by the end of June 2005. In line with developmental states in other parts of the world that have adopted a sustainable development perspective, the Western Cape Provincial Government sees **iKapa elihlumayo** as

expressing “a more pro-active approach to governance that has begun to mark governments across the world. This reverses to some extent the rolling back of the state in the ‘60s and ‘70s that left all issues of distributive justice to the ‘invisible hand’ of the marketplace to resolve. It should be realised that this magical formula is not succeeding, requiring more interactive and innovative approaches to governance. This is also what society is asking of our government: not just to deliver services, but also to provide strategic leadership to society more broadly.”

In terms of NEMA, all sector departments are also required to develop Environmental Implementation Plans (EIPs). The EIPs should reflect how the activities of provincial government affect the environment. In particular, EIPs must describe all policies, programmes and plans that may significantly affect the environment, indicate how the particular provincial department will ensure that its policies, programmes and plans comply with the NEMA principles, and that functions exercised are in accordance with NEMA principles, relevant Constitutional provisions on the environment and other relevant legislative provisions. These EIPs provide useful information to planners and managers (including IDP managers) regarding the impacts that different sectors have on environmental resources and services and indicate measures that departments will take to address environmental sustainability considerations.

## **5.2 IKapa elihlumayo, Governance and Partnership Formation**

It is in this spirit of providing “strategic leadership” that the Framework Agreement on Growth and Development in the Western Cape was agreed to between government and its social partners, namely, civil society, organised business and organised labour. Signed on 14 November 2003, this Agreement committed the social partners to approaches and targets under the following headings:

- Economic participation, enterprise development and employment creation
- Infrastructure and spatial development
- Human resource and social development
- Governance and local development
- Institutional arrangements for social dialogue and partnership formation


Progress with its implementation was reviewed in a progress report published in December 2004 and released at the Mini-Summit on Growth and Development. It captures the consensus attained among a set of social partners who have agreed to work together, providing an exceptionally significant foundation for building a commitment to the broader notion of sustainable development and bringing this stakeholder consensus into line with national and global commitments.

## **5.3 Mainstreaming Sustainable Development into Growth, Trade and Tourism**

The Western Cape’s regional economy may be one of the strongest in South Africa, but it is nevertheless facing a serious crisis as manufacturing jobs, in particular, continue to decline. The key economic features include the following:

- higher growth rate (projected to be 4% for 2005), lower unemployment rate (+26%) and less unequal than the national average;
- diversified economy across a range of sectors, although the decline of employment levels in manufacturing sector poses a major threat to job security, new growth sectors are not high absorbers of unskilled and semi-skilled labour, and agriculture is a key economic sector that is threatened by





drought, declining soil productivity due to erosion and over-used of chemical inputs, rising costs of petroleum-based inputs, and very limited successful land reform;

- white high skilled individuals are the highest earners, with inequalities within and between racial groups getting worse;
- 40% of all employed people work for SMMEs and 9% secure livelihoods in the informal sector despite rising unemployment levels;
- 28% of the Western Cape population live below the poverty line, with signs that this is slowly decreasing despite increasing levels of inequality;
- Strong growth in the service sector drives the higher than average growth rate, in particular transport and communication, financial and business services, internal trade and catering;
- Internal trade and catering grew by 6.3% annually during the period 1999 – 2003, and financial and business services by 5.4% annually for the same period due in large part to the property boom.

### 5.3.1 Policies and Strategies

The Framework for Provincial Growth and Development provides the foundation for the development of a series of strategies and plans that will form the hallmark of a provincial Growth and Development Strategy. It should include, among other:

- The Micro-Economic Development Strategy (MEDS);
- Strategic Infrastructure Investment Plan: guides state investments in fixed assets in accordance with the National Spatial Development Plan;
- Provincial Spatial Development Framework (PSDF) recommendations which include undoing the apartheid spatial divisions and creating jobs by clustering high density residential developments around investments in public, community, educational, transportation and commercial facilities;
- Responsible tourism policy/strategy;
- Fair trade policy/strategy

### 5.3.2 Key Issues and Challenges

- how to save manufacturing jobs as companies feel the effect of globalisation via cheap imports, in particular the various components of the secondary industry;
- co-ordination of public sector investments in accordance with the NSDP, PSDF and private sector investments in order to maximise growth impact of total investment potential, taking into account the proven potential of investment in sustainable resource use such as renewable energy, energy efficient buildings and local food production and markets;
- process for agreeing on the MEDS and mobilising the necessary capacity and energies to realise the targets, again paying particular attention to opportunities from a sustainable development perspective (e.g. waste recycling, energy, organic farming and processing, etc);
- mobilisation of community-based savings and credit schemes to finance micro-enterprises, housing construction and the strengthening of local economies;
- Restructuring and reorientation of the agricultural sector in response to the strong rand, land reform, AgriBEE, climate change and ecological threats to soils and water supplies;
- Responsible tourism issues?
- Fair trade issues?

## 5.4 Sustainable Human Settlements

- 90% of the 4.5 million people in the Western Cape are urbanised, making it the most urbanised province in South Africa;
- 48 000 migrants enter the Western Cape each year;
- whereas some of the richest suburbs in the world are located in Cape Town, the housing backlog is estimated to be 310 000 units;
- Over 20 000 subsidies were approved in 2004/05;

- 95% of all households have access to piped water and 86% have access to a flush toilet;
- 87% have a refuse removal service, although the quality of this service differs unevenly across the province;
- 87% have energy for lighting purposes, although high volumes of energy are wasted in middle class houses due to the absence of stringent energy saving requirements such as insulation or north-south orientation;
- persistence of apartheid spatial divisions as housing for the poor gets built in low density sprawling settlements, middle class suburbs sprawl out in the opposite direction, energy consumption climbs as does the use of private transport;
- booming property market and construction sector, but focussed largely on upmarket residential and commercial developments without any contributions from these developments towards subsidising low-income areas;
- due to the absence of socially mixed development, limited housing market in low-income areas thus devaluing state and financial sector investments in these areas.

#### 5.4.1 Policies and Strategies

- N2 Gateway that will deliver 22 000 housing units;
- Project Consolidate to build and strengthen sustainable local government;
- Community Development Worker programme to build co-operation between communities and government;
- Provincial Spatial Development Framework, elements of which have already begun to be implemented, including socially and economically mixed development, densification, urban edges, sustainable resource use via things like grey water re-use and solar water heaters, and clustered development around nodes and corridors;
- Policy on a “Development Contribution” whereby developers involved in upmarket developments make a contribution to subsidise low-income housing developments;
- Strategy for developing public land and the ‘Big Four’: Culemborg, Wingfield, Youngsfield and Ysterplaat;
- Linking IDPs to Provincial Strategies;
- Free Basic Services for the urban poor;
- Promotion of rental and social housing;
- Integrated Sustainable Rural Development Programme in the smaller towns;
- Urban Renewal Programme in Khayelitsha/Mitchells Plain;
- Implementation of the National Government’s “Breaking New Ground” policy for building “integrated sustainable human settlements”

#### 5.4.2 Key issues and challenges

- how to involve communities in the resolution of their own problems rather than creating dependencies on a state committed to delivery;
- co-operation and co-ordination with the Department of Environmental Affairs and Development Planning with respect to the implementation of the PSDF;
- facilitation of socially mixed communities taking into account differences in language, lifestyle, incomes and the threat of middle class buyouts of subsidised housing units;
- finding mechanisms for aligning public and private sector infrastructure investments;
- helping municipalities to understand sustainable resource use, with special reference to energy, waste, water and construction;
- support for innovation, in particular in building methods and the establishment of Eco-Villages within and outside the urban edge.

## 5.5 Water and Waste

### Waste:

- The Western Cape generates 8,8 million cubic metres of waste per annum (excluding mining waste, liquid effluents and gaseous waste);
- Cape Town alone produces 5,2 million tons of gaseous wastes per annum and over 200 million cubic metres of liquid wastes per annum;
- Average solid waste per annum per capita is 2 cubic metres which is slightly lower than the Gauteng average;
- High income group (which is also the smallest number of people) generates nearly 60% of all solid waste, 30% is generated by the majority who are middle income groups (including skilled working class households), and only 10% by the very poor communities;
- 5 out of 6 waste sites in Cape Town are on the Cape Flats which means poor communities carry the brunt of the pollution generated, the underlying valuable water aquifer could be polluted as a result, and most of these landfills are nearly full;
- Solid waste outputs in Cape Town are growing at 1,8%/annum, which means total output in 2030 could be 70% greater than at present;
- Nearly 60% of the industrial waste stream is recycled, while only about 5% of the residential/commercial waste stream is recycled;
- 20% of the 700 waste recyclers in SA are in the Western Cape, with a 62% increase in the number of recycling operations in the period 1999-2003 – a phenomenon that reveals a market response to the rising cost of disposal and a significant job creator;
- Limited expertise in government, academia and consulting sector in integrated waste management from a sustainability perspective.

### Water:

- Water supply for human settlements has reached crisis levels due to drought and endemic water scarcity caused by the fact that the Western Cape has an erratic rainfall pattern, high evaporation levels, lower than average annual rainfall, badly managed river, wetland and dam systems, and a surprisingly limited use of groundwater resources;
- Pressures on the agricultural sector to expand to create jobs and enable land reform means increasing total provincial water consumption from the present level of 60% or switching crops or implementing water-wise organic farming methods;
- Agricultural needs contradict expanding urban needs as more people get connected to household water supplies;
- Berg River Project will increase water supply by 18% to 523 million cubic metres/annum;
- There are 40 000 farm dams storing about 100 million cubic metres/annum – the highest concentration of dams per province in the country and a clear case of substantial human intervention in natural water flows with unpredictable consequences;
- In 1998, households were responsible for 58% of all water consumed in Cape Town, followed by industry at 14%;
- In 1990 the high income group consumed 59% of the residential supply (mainly for gardens and pools) falling to a projected 42% in 2020, the middle income group consumed 30% rising to 35% in 2020, and the lower income group consumed 11% rising to 23% in 2020;
- Due to the fact that the average household uses 40% - 45% of the water it purchases to flush the toilet, 61% of the total supply of all potable water to the City of Cape Town was used to flush sewerage down the toilet – this is the most expensive way to transport sewerage in the world;
- There is no requirement that residential, commercial, industrial or public facilities install water saving devices, rainwater harvesting systems, etc.

### Sanitation:

- 80% of the Province's 19 Waster Water Treatment Works do not comply with standards, resulting in damage to eco-systems and threats to public health;
- Of the 61% of all potable water used to transport sewerage, only 5% is captured for reuse via recycling systems – the rest lands up after treatment (at substantial financial cost) in a variety of sinks such as False Bay in the case of Cape Town (with ecological costs and ultimately financial costs when this affects livelihoods related to fishing and tourism);
- Many coastal and small town areas rely on septic tanks and direct disposal into sinks with negative ecological consequences;
- Limited use of ecologically sound local recycling and reuse systems;
- Pit latrine systems can harm underground water supplies.

### 5.5.1 Policies and Strategies

#### Waste:

- National White Paper on Integrated Pollution and Waste Management emphasises a “cradle to grave” approach with hierarchy in order of preference from conventional disposal, to treatment, recycling, reuse, and finally to total reduction;
- The Polokwane Declaration of 2001 by the waste sector calls for a zero waste society by 2022;
- National Waste Management Strategy being developed by DEAT and DWAF;
- Every municipality in the Western Cape is required to generate an Integrated Waste Management Plan as part of the next round of IDPs.

#### Water and sanitation:

- National Water Conservation and Water Demand Management Strategy;
- National Water Act (Act 36 of 1998) and Water Services Act (Act 108 of 1997);
- White Paper on Basic Household Sanitation 2001;
- DWAF has approved the Biolytix Waste Treatment technology (neighbourhood-based ecological treatment for reuse in houses for flushing or for irrigation) for a number of small and large developments;
- Grey water system approved for the N2 Gateway project;
- Major investment in sanitation infrastructure taking place across the province financed from the MIG, Provincial funds and local authority funds;
- Strategic Infrastructure Plan – a key leg of the iKapa plan, this will guide future investments;
- White Paper on Integrated Pollution and Waste Management for South Africa;
- Various far reaching provisions of the PSDF, in particular to use infrastructure investments to trigger local economies and to achieve sustainability.

### 5.5.2 Key Issues and Challenges

The Province has undertaken a number of initiatives aimed at promoting the integration of cleaner production and eco-efficiency measures with the business community. These include producing a review guideline to incorporate cleaner production requirements into the EIA approval process; establishing an industrial waste minimisation club in Bellville South, a Hospital Health Care waste minimisation club in Worcester, and a Wine Industry waste minimisation club in the Breede River area; and promoting cleaner production initiatives in the hospitality and tourism industry involving nine hotels in the province. These initiatives have resulted in the identification and achievement of valuable environmental and economic win-win savings.

- Co-operation with the rapidly expanding number of recyclers in the private and NGO sector in order to develop implementable plans for dealing with the solid waste management challenge in a way that creates new permanent jobs and recycles wastes for re-use (for example, as in Curitiba, Brazil, the glass components of street lights are made from recycled bottles);

- How to assist municipalities to develop Integrated Waste Management Plans that are informed by a sustainability perspective;
- Actions plans, including the preparation of model bye-laws, to trigger waste separation at source, in particular for middle and high income households;
- In-depth analysis of technology options for ecologically sustainable treatment of sewerage for re-use purposes;
- Action plans for radically reducing water consumption and increasing efficiencies

## 5.6 Climate Change and Energy

- The South African economy is predominantly driven by fossil fuels with a high carbon dioxide emissions profile
- Studies suggest that the Western Cape is highly vulnerable to the impacts of climate change, with significant implications, in particular, for the agricultural and mariculture sectors, as well as for biodiversity, tourism and for the availability of water supplies
- Electricity in the Western Cape is largely supplied through coal and nuclear energy sources with limited generation capacity in the Western Cape resulting in high dependency on imported electricity into the province
- Energy demand is characterised as follows: transport 59%, industry 17%, residential 10%, agriculture 8%, commerce, public services and mining at 6% (DME Provincial energy balance, 2000)
- Total electricity consumption in the Western Cape in 2001 was 19 177 GWh – this excludes proposed industrial development in Saldanha
- **iKapa elihlumayo** has growth projections of 2.5% per annum; NER and DME project that energy demand will grow at 2-3% per annum; by 2012 it is estimated that the electricity consumption in the Western Cape will be between 23 844 and 26 545 GWh (Brebol et al, 2003)
- The Western Cape has significant potential for development of a range of innovative energy efficiency and supply side initiatives

### 5.6.1 Policies and Strategies

- The White Paper on the Energy Policy of the RSA (December 1998) has identified the following five key policy objectives: increasing access to affordable energy services; improving energy governance; stimulating economic development; managing energy-related environmental and health effects; and securing supply through diversity.
- The Integrated Energy Plan for the RSA (March 2003) provides a framework for taking decisions on energy policy and for the development of different energy sources and energy technologies in the country.
- The White Paper on Renewable Energy recognises the significant medium and long-term potential of renewable energy.
- The DME Draft Energy Efficiency Strategy provides specific targets for reduction in energy demand by 2014 within given demand sectors, with an overall target of 12% reduction in consumption.
- The NER Regulatory Policy on Energy Efficiency and Demand Side Management sets annual energy efficiency and demand-side management (EEDSM) targets and specifies the programmes that would qualify for EEDSM funding

### 5.6.2 Key issues and challenges: towards an integrated energy strategy and programme

Currently the provincial energy profile is dominated by liquid fuels used mainly in the transport sector and electricity used mainly in the industrial, residential and commercial sectors. Given this profile and the future projections for energy use in the province based on current trends some key issues need to be addressed. The fundamental principles of a sustainable energy plan require:

- A steady move from fossil fuels as the foundation for all energy supply
- The introduction of cleaner alternatives (e.g. natural gas)

- A steady increase in renewable energy sources in an economically feasible manner
- Greater focus on energy efficiency, particularly through utilising 'low hanging fruit'
- Attention to welfare of low-income households

**Specific objectives include:**

- Ensuring **energy security and supply** to meet growth projections
- Developing **additional generation of electricity** through a number of small, medium and larger scale projects
- Implementing **energy efficiency and fuel switching projects** aimed at providing affordable energy to poor communities and addressing issues of safety at the same time
- **Diversifying the energy mix** through innovative partnerships and projects with a range of players and diverse energy technologies
- Developing a **clear strategy and programme of action**, with the provincial government playing a stronger facilitation role between the various spheres of government and external partners
- The lack of an **institutional framework** for the co-ordination of an energy strategy and programme highlights the need to develop an integrated plan that incorporates local and national government objectives and plans
- Opportunities exist to champion a range of **innovative energy supply-side projects**
- Facilitating and supporting **research and development** into energy supply issues will be crucial to ensuring long term energy efficiency and supply security

The Department of Environmental Affairs and Development Planning has embarked on a process of developing an **Integrated Energy Strategy and Programme** for the Western Cape. The need for an integrated strategy and action plan is critical if the Western Cape is to effectively meet the developmental challenges that lie ahead. Energy security plays a vital role in ensuring that the province can meet its economic and social development objectives and that it remains an attractive destination for investment. A sound energy policy is also essential for addressing environmental concerns, including most notably, the issue of climate change.

The project aims to develop an integrated strategy that is created in partnership with key stakeholders in the Province. Working within the parameters set by national government, and taking into account the initiatives at a local government level across the Province, the Government is seeking to develop a strategy and programme that will ensure that economic and social development, poverty alleviation, infrastructure development, environmental issues, energy conservation and climate change, and energy security and energy investment are effectively addressed.

## 5.7 Biodiversity and Natural Resource Management

The Western Cape provides home for a number of globally important ecosystems, but is best known for the Cape Floristic Region (CFR). The CFR is the smallest of six plant kingdoms in the world, the only one to exist entirely within one country, and almost entirely within one province of that country (Western Cape). It is internationally recognized as one of the world's 'hottest biodiversity hotspots', a Centre for Plant Diversity, an Endemic Bird Area, a Global 2000 Ecoregion and a global priority for conservation action. The CFR is rich in endemic amphibian, reptile, fish and invertebrate species. In June 2004, a series of eight natural properties in the CFR were registered as a World Heritage Site. The Succulent Karoo biome, another global biodiversity hotspot, also falls partially within the Western Cape. The CFR and the Succulent Karoo biomes are national biodiversity priority areas.

Besides biodiversity value **per se**, the ecosystems of the Western Cape provide an irreplaceable source of goods and services for the residents and economy of this province. Catchment areas safeguard our water supply systems, wetlands help regulate water yield and quality, plants guard soils against erosion and maintain productivity, pollinators support our fruit industry, and natural landscapes attract domes-

tic and international tourism. Harvest of marine resources and fynbos products are valued at over R1300 million and R78 million p.a. respectively; the total economic value of the CFR is estimated to be at least R10000 million p.a., equivalent to over 10% of the Gross Geographic Product.

Of the 21 Critically Endangered vegetation types in South Africa, 15 are found in the CFR. In addition, 97% of the Western Cape's mainstem rivers are either Critically Endangered or Endangered. Many Western Cape species are considered to be threatened (e.g. 14 of the 19 freshwater fish species, of which 16 are endemic). The biozones (e.g. intertidal zone) of the west coast, particularly the Namaqualand coast, are considered threatened. The Western Cape has a known concentration of species of special concern.

Actions affecting biodiversity may either be direct (e.g. transforming land for agriculture, forestry or housing in the Western Cape) or indirect (e.g. increasing unemployment may lead to greater pressure on marginal land and limited water resources for subsistence farming). Many of the effects of our actions only become apparent in the longer term, may manifest at a distance from these actions, and/or may trigger unpredictable and irreversible responses in the natural environment. For this reason we need to act with necessary caution.

#### 5.7.1 Policies and Strategies

- The Constitution of South Africa provides an overarching framework for biodiversity conservation in South Africa.
- The National Environmental Management Act sets out ecological principles which must be integrated into planning and decision-making by all organs of state.
- The Biodiversity White Paper (1997) provides a comprehensive policy and strategy for biodiversity conservation and use.
- The Biodiversity Act (10 of 2004) establishes the SA National Botanical Institute, provides for a National Biodiversity Framework, statutory bioregional plans, and statutory biodiversity management plans for threatened ecosystems or species.
- The Protected Areas Act (57 of 2003) establishes a set of categories for protected areas. The Act provides for any land, including private or communal land to be declared a formal protected area.
- The National Spatial Biodiversity Assessment (2004) report provides a comprehensive spatial assessment of biodiversity in South Africa provides a valuable set of indicators and sets priorities for conservation action.
- The Department of Environmental Affairs and Development Planning has adopted bioregional planning as the basis for land-use planning in the Western Cape Province.

The PGWC advocates a bioregional planning approach through the **Bioregional Planning Policy for the Western Cape** (October 2003) and has directed that municipalities should adopt this planning approach in the preparation of their Integrated Development Plans (IDPs), Spatial Development Frameworks (SDFs) and Spatial Development Plans (SDPs). Bioregional planning is therefore being adopted as the basis for land use planning in the Western Cape. The primary purpose of the **Bioregional Planning Policy for the Western Cape** is to facilitate coherent and integrated regional planning throughout the Western Cape and to establish a new order in this regard. As such, the document is to achieve the following:

- Provide a standard format for the implementation of regional planning with the aim of facilitating sustainable development throughout the Western Cape
- Support the municipalities in the preparation of their IDPs and, in particular, their SDFs prepared in terms of the Local Government Municipal Systems Act, 2000 (Act 32 of 2000), and any SDPs
- Facilitate the land-use classification of the entire land surface of the Western Cape Province in a standard format in accordance with defined **Spatial Planning Categories**, which are based on a broad spectrum of environmental parameters and a system of values and ethics

- Facilitate cross-boundary co-operation and co-ordination between municipalities in respect of issues that are of mutual interest for their respective areas of jurisdiction (refer to **inter alia** issues pertaining to land use, biodiversity conservation and resource utilisation)
- Provide a framework that would inform any future municipal demarcation with the aim of reconciling future municipal boundaries with defined bioregional parameters.

Municipal managers needing to integrate the natural environment into IDPs require biodiversity information. Such information has, for a large portion of the Western Cape, been generated through three major regional Systematic Conservation Planning exercises. The Cape Action for People and Environment (CAPE) project, is a conservation programme comprising a 20-year strategy and action plan to protect biodiversity and support sustainable development in the Cape Floristic Region. The Subtropical Thicket Ecosystem Planning (STEP) project and the Succulent Karoo Ecosystem Programme (SKEP) are similar programmes that have developed methods aiming to ensure sustainable benefits derived from our diverse natural heritage. Biosphere reserves are an outcome from bioregional planning. Biosphere reserves consist of a core protected area, surrounded by buffer and transition areas where biodiversity conservation is promoted through sustainable land use.

A Western Cape Biosphere Reserve Draft Bill (December 2003) has been developed and includes the following:

- Providing an application procedure for the establishment of biosphere reserves
- Establishing a provincial entity to manage a Provincial Biosphere Reserve Programme
- A process to facilitate the establishment of biosphere reserves
- A process to facilitate biosphere reserve funding and providing for matters incidental thereto

A primary objective of DEA&DP's bioregional planning approach is to create a network of protected nature areas, and to link such areas through suitable ecological corridors (ecological corridors being stretches of land that allow plants and animals and other animals to move freely between nature areas). DEA&DP support the establishment of biosphere reserves as a framework for implementation of bioregional planning and management.

#### **Coastal Management Policy for the Western Cape (CMP)**

The White Paper for Sustainable Coastal Development in South Africa (2000) sets out a vision for national coastal management in South Africa, as well as goals and objectives to achieve the vision. The Western Cape Coastal Management Programme (CMP) is a requirement of the new Coastal Zone Bill which is currently being drafted. The Programme "provincialises" and makes more specific the coastal management goals and objectives as presented in the national White Paper. The CMP was compiled (October 2003) for the provincial Department of Environmental Affairs and Development Planning. The aim of the provincial Coastal Management Programme was to make the national goals and objectives (as set out in the White Paper) more explicitly applicable to the Western Cape, as well as to identify any new goals or objectives unique to the Western Cape. In line with the draft Coastal Management Bill, the provincial CMP contains:

- A vision for coastal management in the Western Cape
- Coastal management objectives for the coastal zone in the province
- Priorities and strategies to achieve the coastal management objectives
- Performance indicators to measure progress with the achievement of the objectives

The purpose of the Coastal Management Policy (CMP) for the Western Cape is to put forward a clear policy for development in the coastal zone and provide a framework for the management of the coastal zone in accordance with the bioregional planning and management approach. The CMP provides a framework for the implementation of the provincial Coastal Management Programme (CMP). The CMP is



underpinned by sustainability principles and proposes a range of policy statements that reinforce the coastal principles outlined in the White Paper for Sustainable Coastal Development. The policy identifies spatial planning categories which provide a standard mechanism and procedure for the geographical zonation of landscapes into specific land use areas. The CMP therefore has a spatial planning focus and should be referred to for guidance with regard to all spatial planning initiatives relevant to coastal environments.

### 5.7.2 Key issues to be addressed

The challenge of conserving biodiversity whilst meeting increasing demands for ecosystem services, will involve changes in values, policies, institutions and practices. Some of the main issues to be addressed include:

- **Recognising the value of biodiversity and ecosystems**  
Biodiversity, ecosystem goods and services must be given the priority they deserve and their values and importance must be recognized by policy-makers, decision-makers, planners and society.
- **Mainstreaming biodiversity into decision-making**  
Since biodiversity supports ecosystem services which in turn underpin human wellbeing, it is essential that there is increased transparency in decision-making: for example, how are biodiversity and ecosystem services being taken into account in land use decisions and in making trade-offs between economic growth, biodiversity and human wellbeing?
- **Land use planning and strategic environmental assessment**  
It is essential that cumulative impacts on biodiversity and ecosystem services are considered; generally, these impacts can only be effectively addressed at strategic level.
- **Land use planning and project-level EIA**  
Currently, our environmental law requires project-level EIA. There is an urgent need to link strategic and project-level environmental assessment, to enable the strategic context of development to be understood and cumulative impacts on biodiversity and ecosystem services to be taken into account.
- **Biodiversity and ecosystem services – recognition of values through job creation**  
The value of our unique biodiversity and its role in providing ecosystem services should be recognised through expansion of such programmes as ‘working for water’ to ‘working for biodiversity’; clearing alien invasive plants from priority areas for biodiversity, restoring degraded priority areas.
- **Preparing for climate change impacts**  
Effort should be invested in exploring alternative crops and optimising sustainable use of natural vegetation, to maximise efficiency of food production and minimize land take and water use, particularly to meet the challenges of predicted climate change.
- **Safeguarding the Western Cape’s biodiversity**  
Rights to the genetic material making up the Western Cape’s rich biodiversity should be safeguarded, to ensure that the people of this province benefit from associated exports – our horticultural exports, our medicinal plants, and our plant essences etc.
- **Education and capacity building**  
Enhance awareness and build capacity of all social partners with respect to the value of our biodiversity.

## 5.8 Sustainable Development and Governance

**“Governance is the exercise of economic, political and administrative authority to manage a country’s affairs at all levels. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their obligations and mediate their differences” (UNDP, 2000).**

- Wherever governments around the world have adopted sustainable development as a guiding principle for policy and governance, it has been necessary to change the way government works. In particular, it means much greater inter-departmental co-ordination and co-operative leadership at the political level. The reason for this is that sustainability issues are Rarely discipline- or Sector-specific. They cut across disciplines and sectors and this is why internal coordination and cooperation becomes a prerequisite for effective implementation of sustainable development practices.

Furthermore, the most successful cases confirm that government needs to play a leading role, in particular at the strategic-cum- intellectual level in order to define the public good and the ecological commons. However, these cases also demonstrate that the key to success is most often the ability of the key stakeholders to form partnerships and to agree on common agendas for specific issues.

- The South African Government has made commitments in all three spheres of government to sustainable development within the constitutional parameters of co-operative governance. This includes the adoption of a wide range of global agreements, national policies, provincial strategies and local plans.
- The Constitution of the Western Cape was adopted in 1998. The Province is governed by the Western Cape Provincial Government (with a budget of R20,6 billion in 2005/6), 5 District Municipalities, and 24 Local Municipalities. The City of Cape Town is a Metropolitan Government. All the Municipalities are required to compile Integrated Development Plans (IDPs).

### 5.8.1 Policies and Strategies

#### Key global frameworks:

- Millennium Development Goals
- Johannesburg Plan of Implementation

#### Key National Policies:

- South Africa Constitution
- National Environmental Management Act of 1998
- National Spatial Development Perspective
- Inter-Governmental Relations Bill
- Medium Term Strategic Framework

#### Key Provincial Policies:

- iKapa elihlumayo
- Provincial Growth and Development Strategy
- Draft Provincial Spatial Development Framework
- Bioregional Planning Policy for the Western Cape (October 2003)

### 5.8.2 Key issues and challenges

- Explore the appropriate **institutional arrangements** that are needed to ensure effective co-ordination and integration of sustainability considerations between provincial government departments, between provincial and national departments and parastatals, and provincial and local government
- Examine the extent to which the restructuring process has led to outcomes that support achievement of sustainable development goals
- Is there co-operative governance across all spheres of government, vertically and horizontally, and to what extent is this contributing to good governance?
- Assess the extent to which government is seeking to adopt a multi-sectoral approach to planning and development that recognises the value of different disciplinary and stakeholder perspectives
- Discuss whether the Western Cape government has embraced the key principles underpinning good governance; namely transparency, access to information, accountability, shared responsibility and empowered participation
- What progress has been made with respect to strengthening partnerships between government and social partners through joint programmes, projects and initiatives?
- What opportunities and mechanisms exist for civil society participation in policy, programme, plan and project level planning and implementation processes? How could these processes and mechanisms be improved?
- Build capacity of social partners to engage meaningfully in policy and plan formulation processes

# MAINSTREAMING SUSTAINABILITY INTO POLICY, PLANNING AND DECISION-MAKING

## 6

Mainstreaming sustainability considerations into all policy, planning, decision-making and implementation processes at provincial and local government level will require:

- Strengthening understanding of policy and legal requirements with respect to considering environmental rights and responsibilities in terms of the Constitution and integrating environmental sustainability principles (NEMA) into planning, decision making and management processes
- Moving from broad statements about addressing sustainability concerns in policy and vision statements to requiring sustainability principles and approaches to be adopted in strategies and action plans developed to give effect to these overarching policies and visions as part of the annual budget cycle
- Developing guidelines for integrating environmental sustainability principles into economic development planning, service delivery and housing provision. Setting targets (e.g. generating 10% of Western Cape energy requirements from renewable energy sources by year 2010), setting standards of environmental quality (e.g. water quality standards for recreational beaches) or performance levels (e.g. thermal performance of ceiling materials and grey-water systems for low-income housing) for different sectors and implementing environmentally friendly procurement policies for all official buildings by 2010, adopting best practice guidelines
- Setting up reporting mechanisms on progress towards targets that are monitored by a provincial co-ordinating body and are included in the existing State of the Environment report
- Investigating institutional arrangements that enable government officials to execute their functions in an integrated and sustainable manner, requiring a review and assessment of the current and future sectoral approaches to service delivery, infrastructure development, housing development, health provision and biodiversity conservation
- Streamlining planning and environmental and heritage assessment processes to enhance the efficiency of the planning and approvals process. This current law reform should be supported and clear procedures (administrative and technical) for adopting this new integrated approach to planning and environmental assessment should be clarified and put in place

### **6.1 Mainstreaming Environmental Sustainability Principles into the IDP Process**

This initiative of DEA&DP provides guidelines and information on practical planning and environmental management tools for integrating environmental sustainability principles into the various stages of the IDP process. It comprises a handbook which provides the rationale for mainstreaming environmental issues in planning, identifies key questions that need to be asked and describes practical environmental tools that can be applied at different stages of the process. This handbook includes several case studies and examples from the different sectors in order to illustrate the need for and benefits of incorporating environmental issues in all sector planning and implementation. The handbook is accompanied by a series of user friendly information brochures which provide further information on the planning and environmental management tools and describes when and how these can be applied. This toolkit is available to all district and local municipalities and the intention is that the guidelines and tools provided will inform the next round of IDPs. Efforts to encourage the application of the IDP Environmental Toolkit will be through a provincial-wide capacity building programme.

#### **Community-based Environmental Initiatives**

The DEA&DP has undertaken various projects on “cleaning and greening” initiatives focusing on rivers and canals, and waste and pollution. These initiatives have tied in with the province’s urban and rural

renewal strategies and the Presidential Extended Public Works Programme and has resulted in significant job creation opportunities, environmental benefits and improvements to human settlements. It is imperative that these types of initiatives form an integral part of the IDP processes underway in municipalities.

## 6.2 Appropriate Regulatory and Policy Framework

An important prerequisite for sustainability to be effectively mainstreamed is to provide an appropriate regulatory and policy environment. General characteristics of policy and legislative approaches conducive to promoting the innovation seen to be necessary for sustainability include:

- Developing clearly stated long-term goals that prioritise and integrate developmental and environmental priorities and that form the basis for regulatory certainty necessary for research and development and technological innovation;
- Internalising external social and environmental costs through effective use of economic and market-based instruments – these include imposing environmental taxes on unsustainable practices (such as taxes on emissions) and introducing a system of rewards that encourages environmentally responsible actions and use of environmentally sustainable technology and materials;
- Ensuring greater **harmonisation of regulations and policy strategies** to provide consistency and certainty aimed at stimulating business innovation;
- Developing **technical capacity** within governmental regulators;
- Promoting an intensive **interactive relationship** between government and stakeholders, preferably in the context of credible, expert regulators;
- Using a full **mix of policy instruments** including greater use of market instruments and co-regulatory policy options with the aim of:
  - Ensuring appropriate resource pricing, internalising environmental costs, and identifying and eliminating perverse incentives;
  - Ensuring effective engagement of the Treasury in the development of the provincial sustainable development strategy and building capacity for reform;
  - Identifying politically feasible opportunities for introducing initial elements of sustainability-motivated tax reform and removing incentives that support unsustainable practices;
  - Promoting greater use of cost-benefit analysis in the development of policy, including the appropriate internalisation of external costs;
  - Providing incentives for further information-based schemes and enhanced performance reporting by the business community.

Two key initiatives can provide the platform for the development of a policy and legislative environment to deal with these challenges, namely the Provincial Spatial Development Framework and the Law Reform Project.

### 6.2.1 The Provincial Spatial Development Framework

Based on the National Spatial Development Perspective (NSDP) published by the presidency in November 2002, and running in parallel with the promotion of bioregional planning, is the process of formulating the Provincial Spatial Development Framework. This process will be completed in June 2005. A Spatial Development Framework, to guide the geographical focus on public and private investments within a Sustainable Development Framework inclusive of the full range of economic, social and environmental issues.

### **Growth Potential of Towns in the Western Cape**

As part of the PSDF, a study focusing on the growth potential of 131 selected towns in the Western Cape was commissioned in 2004. The aim of the study was to identify salient growth criteria and indicators for urban development from the relevant literature and policy documents and measure and quantify the growth performance of all rural towns in the Western Cape Province. A set of 82 variables was identified for which information could be obtained to produce three composite indices in accordance with the NSDP stipulations. These composite indices aggregate the major urban developmental dimensions to enable the classification of the towns into useful typologies. The study provides a basis to evaluate and monitor the functions and performance patterns of the province's towns in order to ascertain how the region could be supported optimally by dynamic and energetic town nodes and development corridors.

#### **6.2.2 The Western Cape Law Reform Process**

The Department of Environmental Affairs and Development Planning has embarked on a process to develop integrated legislation that covers land use management and planning, environment and heritage resources. Currently, development applications are required to follow various planning processes and environmental and heritage assessment procedures prior to receiving authorisation. There are numerous legal requirements in terms of existing provincial planning law (LUPO), environmental assessment regulations and regulations in terms of the Heritage Resources Act that need to be complied with and consequently, the approvals process is onerous, inefficient and costly. There is clearly a need to streamline these planning and approvals processes in a way that ensures responsible and sustainable development.

DEA&DP has consequently appointed a project team comprising environmental, heritage and planning professionals and legal drafters, as well as a Task Team to develop a new integrated provincial law that sets out principles and procedures for land use planning and management of environment and heritage resources that would be applicable to policies, plans and programmes (the strategic level) as well as development proposals (the project /site level). Fundamental to this new provincial Act are the principles of sustainable development. This integrated law will also identify the institutional arrangements required to adopt this co-ordinated and integrated approach, clarify roles and responsibilities of the various sectoral departments as well as authorisation procedures. Mechanisms for enforcement will be clarified as well as procedures for review and appeal. In order to develop a law that is broadly supported there is an extensive public participation process planned. The law reform process was initiated in September 2004 and is due to be completed by mid 2006. This law reform process demonstrates a significant shift towards a more integrated and holistic approach to planning and economic development and a commitment to mainstreaming sustainable development principles into all activities from policy to project level activities.

### **6.3 Appropriate Institutional Arrangements to Facilitate the Participation of Stakeholders, Empower Communities and Strengthen Partnerships**


The Sustainable Development Implementation Plan should recommend a governance structure, or a set of institutional support structures, to co-ordinate linkages and interfaces for the Western Cape that streamlines and co-ordinates what exists. This would need to specify the following roles:

- Provincial Cabinet
- The PDC, including the possibility of a Commission for Sustainable Development that could draw in stakeholders from the different sectors that have a specialist interest in sustainability
- Inter-Departmental Co-ordinating Structure using either an existing structure or setting up a new one
- Inter-governmental forum on sustainable development to co-ordinate Provincial and Local Government Planning, with special reference to the IDPs and how to build the capacity of Local Governments to use the DEAT guidelines for 'greening the IDPs

It is anticipated that the PDC process will recommend alternative or additional institutional structures based on stakeholder input and agreement to:

- Enhance opportunities and improve mechanisms for public involvement, particularly historically disadvantaged and marginalised groups, in all planning and decision-making processes. Whilst various fora exist to enable the participation of diverse groups and interests (e.g. ward councils, development fora, PDC sector groupings), the ability of HDIs and groups as well as the poor and vulnerable to participate meaningfully in these processes is limited. The Province needs to identify creative mechanisms to ensure the meaningful involvement of such groups goes beyond a series of public meetings. This could include using civil society organisations rather than consultants to develop effective methods for participation, for example, through small group discussions, focus group meetings, provision of simple and accessible materials and community exchange programmes between similar projects.
- Require that concerns of the public be addressed and integrated into planning and decision-making processes to enhance the credibility of such processes. There is a need to ensure that adequate feedback and reporting mechanisms are in place throughout participation processes.
- Strengthen the opportunities and requirements for effective public involvement through legal provisions in relevant provincial Acts (the current law reform process provides an excellent opportunity to do so) and ensure the development of clear guidelines for the application of the NEMA principle which states: “participation of all interested and affected parties in environmental governance must be promoted”.
- Require that all public participation processes include a capacity building component, especially where disadvantaged communities are concerned and make provision for such capacity building in programme and project budgets.
- In all public participation processes, make information available timeously and in a manner that is accessible to different language speakers and levels of literacy.
- Ensure clarity on existing rules and procedures for public participation, for example, in the development and implementation of co-regulatory instruments such as Environmental Management Co-operation Agreements (EMCAs).
- Develop mechanisms within Provincial and Local government to take up recommendations from community and civil society-initiated sustainable development processes and projects.
- The proactive involvement of the business and services sector is essential if there is to be the level of technological innovation that is required to ensure sustainability. This is dependent upon developing a “shared vision” between government and industry regarding the nature of sustainable development, and on the need for compatibility between industrial and environmental policy objectives.





Having briefly reviewed the policy response of the provincial government to the challenges of sustainable development, this section provides an initial review – at a very general level – of some of the responses of different sectors within the Province. The Western Cape is unique in that it has an effective forum for engagement between government, civil society, business and labour in the form of the Provincial Development Council.

### **Governance and Administrative Capacity**

Build the environmental capacity of planning, engineering and financial professionals within provincial sector departments and in district and local municipalities. This should include direct approaches to tertiary institutions to integrate sustainability concepts, principles and approaches into the core curriculum of these programmes as well as requirements that professional staff participates in accredited courses/programmes in the field of sustainable development.

Develop and implement a sustainable development awareness-raising programme for political leaders and decision-makers which clarify the linkages and interdependencies between natural, social and economic systems and the financial implications of failing to take account of sustainability principles. Such programmes should be integrated into the agendas of scheduled workshops and meetings so as to reach the maximum audience.

Broaden skills base of environmental health officers thereby enabling them to expand the scope of their activities and address sustainability issues. This would require changes to the curriculum at tertiary level as well as increasing the skills levels of existing officers through short course training programmes. Promote the integration of sustainability considerations within existing training schemes, for example, in the activities of the Manufacturing Advisory Centres, Ntsika and the National Productivity Institute. Globally, sustainability mainstreaming has benefited enormously from interventions at the pre- and primary school levels. There are various existing initiatives in this regard across the Western Cape in both public and private schools.

### **Business and Industry**

There is no doubt that while business and industry have contributed to economic development they have also contributed significantly to many of the current environmental and social problems. It is, however, clear that business has a critical role to play in the identification and implementation of practical solutions, particularly given the scale of change required to achieve sustainable development. Industry, however, is not in business to save the world – at least not explicitly. To achieve a sustainable society, appropriate incentives must be provided to encourage, entice and if necessary compel companies to contribute their valuable skills towards becoming part of the solution.

There are a number of instances where the business and services sector (both nationally and provincially) have implemented measures in response to the various economic, social and environmental challenges of sustainable development. At a **general level**, these responses vary from incremental management and process changes to more radical and innovative responses that involve rethinking existing processes, products and business models, including working through the supply chain. There has recently been a significant increase in the range of management tools that the business and services sectors use to promote environmentally and socially more sustainable business practices. These include, for example, the development and implementation of:

- Environmental and social policies and management systems (such as ISO 14001);
- Corporate sustainability reporting and stakeholder engagement practices, such as the Sustainability Reporting Guidelines of the Global Reporting Initiative;
- Social and environmental audits within company operations and through the supply chain;
- Corporate social investment programmes that address social and environmental concerns within

communities, sometimes at a significant sectoral-wide level (such as through the Business Trust and related initiatives such as Business Against Crime);

- Training and awareness initiatives on environmental, health and safety issues;
- Specific initiatives relating, for example, to the promotion of cleaner production;
- Equal opportunity practices;
- Sector-based codes of practice.

Limited **specific examples** of various business activities within the Western Cape include:

- The development and implementation of waste minimisation clubs aimed at identifying and sharing best practice on cleaner production and eco-efficiency measures
- Providing significant valuable financial and advisory support to numerous community-based environmental and skills development initiatives (such as the Business Place)
- Providing leadership in the provision of voluntary testing and counselling and antiretroviral treatment for employees and dependents affected by HIV/Aids
- Leading by example in the design and construction of buildings based on socially and environmentally sustainable principles
- Entering into partnerships with NGOs and civil society bodies aimed at ensuring more sustainable use of biodiversity

Although there are examples of all of the above initiatives within various elements of the business and services sector in the Western Cape, there nevertheless remains significant potential to promote the further adoption of these initiatives and to ensure that the implementation of these initiatives is more clearly structured towards the attainment of sustainable development.

### **Civil Society and Labour**

Civil society comprises a diverse range of organisations and networks that do not operate on a profit basis and are not part of government. They include community-based organisations, non-government organisations and trade unions. Some are membership based, others are arranged around specific interests or needs. Civil society has long seen itself as the custodian of sustainable development, particularly in terms of shaping the debate and at local level implementation. As such, it was an extremely active and self-organised sector in the lead up to the WSSD and continues to push government to meet the targets to which it has committed, at local, provincial and national levels. It also has important experience and information to share on local level projects that aim to implement sustainable development and promote environmental justice. Some of the means by which civil society assists with the implementation of sustainable development include:

- Monitoring and assessing the effectiveness of policies on the ground. An example of this has been the manner in which civil society organisations (CSOs) have questioned implementation of Free Basic Water and cost-recovery which has not always been pro-poor as intended.
- Developing local, integrated successful case-study projects for replication. An example of this is the Water Leaks Project initiated by the Environmental Justice Networking Forum of the Western Cape, which aims to train local activists in water demand management and leak fixing, whilst at the same time building partnerships with the City of Cape Town and relevant provincial and national departments (in particular DWAF) to jointly solve problems experienced by communities and local authorities with respect to water service delivery.
- As a “pollinator” between government departments, different spheres of government, public interest groups, and other stakeholders, members of CSOs are often particularly well-positioned to meet with a range of decision-makers and community groups thereby ensuring information flow and synergies between different initiatives.
- As an advocate for rights-based development and environmental justice, civil society can mobilise large numbers of people to challenge decisions and support people-centred policies and actions, for example, to stop the proliferation of golf-courses in the Southern Cape.



- Questioning the growth and neo-liberal paradigm. Like its counterparts round the world, South African civil society continues to question whether growth and neo-liberalism will really deliver upliftment for poor people and economic systems that operate within the limits of the earth's ecosystems. For example, COSATU continues to challenge government on the Growth, Employment and Redistribution strategy.

## 6.4 Monitoring and Evaluation and Provincial Sustainable Development Indicators

The purpose of State of the Environment (SoE) reporting is to provide information regarding the current environmental status quo to various stakeholders in the public and private sectors, in order for them to understand and respond to environmental issues. Environmental, social and economic information has, in the past, not been reported on in an integrated manner, typically having a biophysical focus. However, there is increasing acceptance of the need to report in an integrated manner, which reflects the (environmental, social and economic) triple bottom line, and aims to emphasise the linkages between the anthropogenic and natural components of the environment.

The Western Cape SoE Report is being prepared in two phases. The first phase, which was completed in 2004, entailed the preparation of the Year 1 SoE Overview Report, and had a particular emphasis on the state of the environment in the Western Cape. This Overview Report described themed baseline information concerning the current state of the environment, without substantial analysis and interpretation. The SoE Overview Report does however provide a framework or "launch pad" for the detailed, analytical reporting required in Phase 2, which will further develop the framework developed in Phase 1. Phase 1 has been completed and is available online:

([http://www.capegateway.gov.za/Text/2004/12/soe\\_report\\_04.pdf](http://www.capegateway.gov.za/Text/2004/12/soe_report_04.pdf)). The major aims of the (Phase 1 and Phase 2) Western Cape SoE Report are to:

- Integrate environmental reporting and monitoring functions amongst various Provincial Departments
- Provide input to the National SoE Report and the City of Cape Town SoE Report programmes
- Complement and enhance a variety of provincial planning and reporting initiatives, especially the Western Cape Provincial Spatial Development Framework (PSDF)
- Co-ordinate and assess environmental information collected by the province
- Inform and guide provincial policy and management
- Provide an integrated measure of sustainable development for the province

The SoE Report will lay a foundation to ensure that Provincial SoE reporting is scientifically sound and can easily be integrated into national and metropolitan SoE reporting programmes, as well as other provincial planning, monitoring and reporting initiatives.

### 6.4.1 Sustainability Indicators

The Western Cape's first State of Environment Report generated a list of 16 Priority Environmental Issues. These were used as a basis for sifting and refining 300 indicators drawn from international, national, provincial and city "sustainability reports". These were reduced to 16 "Year 1 SoE Report" Environmental Indicators which provided an input into the Quality of Life (QOL) Index that has been used to measure the "state of development" in the province. The other inputs included the Human Development Index and the Cape Town City's Sustainability Indicators. Via a thorough analytical and stakeholder consultation process, the City has identified 34 major "sustainability indicators". The QOL Index, which has been jointly developed by DEA&DP and the Premier's Office, will be incorporated into the Sustainable Development Implementation Plan. This will make it possible to measure the progress in achieving sustainable development on an annual basis. This creates a powerful feedback loop into policy review and policy formulation.


The Province must design, approve and manage the application of a set of Provincial Sustainable Development Indicators (PSDIs). A start in this regard has already been made by the City of Cape Town in a report entitled City of Cape Town Sustainability Report: Phase 1: Draft Set of Indicators prepared for the City's Environmental Management Department.

- The Indicators should be based on the targets expressed in the key Provincial policy documents, namely iKapa elihlumayo, the Growth and Development Strategy, the Provincial Spatial Development Framework, the Bioregional planning principles, existing planning frameworks, the aims that are common to the IDPs at Local Government level and the provincial strategies of National Government Departments
- The advantage of an agreed set of PSDIs is that instead of publishing a "State of Environment" Report each year, it will be possible to publish an annual "Sustainability Report" that details progress made in terms of the agreed Indicators
- For this to work, the Indicators need to be practical, useable, easily understandable, measurable and the data required for assessments in terms of the Indicator must be readily available at low cost
- It is recommended that a Draft set of PSDIs is included in the final Sustainable Development Implementation Plan. If the PDC agrees on these PSDIs, it will then be possible to put in place the necessary capacity to prepare the first baseline Sustainability Report within a short space of time. This will set up a foundation for the annual reporting cycling. The annual Sustainability Report will be presented to the PDC, Provincial and Local Government
- The Province must design and implement community monitoring systems so that information gained can immediately be used to change practices on the ground

Arising from the contexts of the above 6 thematic areas are key challenges for the future of the Western Cape and important policy and strategic decisions are being contemplated in this regard in the interest of a prosperous future for all in this province. As part of and arising from these policies and strategies is the need for knowing whether the correct decisions have been made, as well as whether progress is being made towards achieving what has been contemplated and intended in these policies and strategies. Consequently, specific goals and targets will be agreed upon by the various stakeholders to ensure that the policies and strategies contemplated with respect to each of the above 6 thematic areas do not merely remain at the level of thinking/talking, but that the latter are being translated into concrete action with a view of reaching specific objectives and within specific time frames. Therefore, arising from this process of agreeing on policies, strategies, goals, objectives and targets is the need to have accurate feedback on whether progress is being made on the sustainable development of the Western Cape – or alternatively, are we pursuing ideals and action plans that are in fact contributing to the non-sustainability of the province? Not only would the lack in sustainability indicators be a stumbling block on the road to achieving the said policies and strategies, but also the type and quality of the feedback given via these indicators are of utmost importance for any further action contemplated. The reason for this is obvious, namely that the information provided on any progress/regress made in pursuit of a sustainable future for the Western Cape will significantly impact on decisions made at any given time as to whether to persist on a specific course of action or not. In short, the feedback-loop that exists between **action** and **information** will have a material bearing on the sustainable future of the Western Cape.

#### (a) Policies and Strategies

If the need and purpose of sustainability indicators is to provide accurate and reliable feedback on progress/regress made in terms of the policies and strategies being pursued in respect of the 6 thematic areas of the sustainable development of this province, then these 'indicators' can simply be defined as "unit of measurement that remains constant over time in order to display trends or changes over time" or, in short, a "sign", as something that "points out, or stands for something else" (Gallopín quoted in Graig Haskins, 2004).



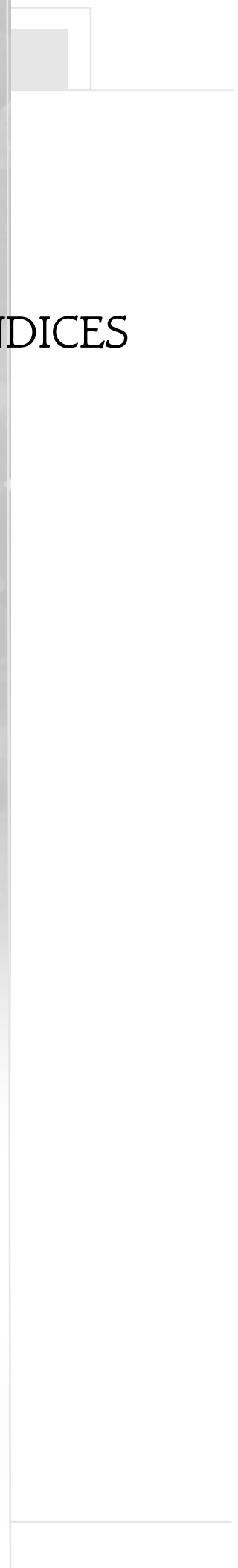
Introducing and making the notion of ‘measurement’ as part of the definition of ‘indicators’ has important implications for understanding how and what needs to be ‘measured’ and ‘reported’ on in the area of sustainable development. Firstly, it is important that ‘measurement’ is not exclusively associated with ‘quantitative’ forms of measuring only. Equally important are the ‘qualitative’ aspects of sustainability. For example, measuring and monitoring the levels of contamination of the rivers in the Western Cape, due to agro-chemical farming practices, is not sufficient. Finding out peoples’, and in most cases it is the poor who suffer these type of ecological consequences first, actual experiences and perceptions of having to live in such circumstances, are equally to be monitored and reported on. Sustainability, or sustainable development, is much more than measuring, monitoring and reporting on the state of the environment – it is fundamentally about the interdependence and coexistence of natural and human systems and, in this regard, ‘sustainability indicators’ need to give accurate and reliable feedback on exactly this, namely the extent to which our policies, strategies and action plans are impacting, negatively and/or positively, on this precariously balanced relationship between people and nature.

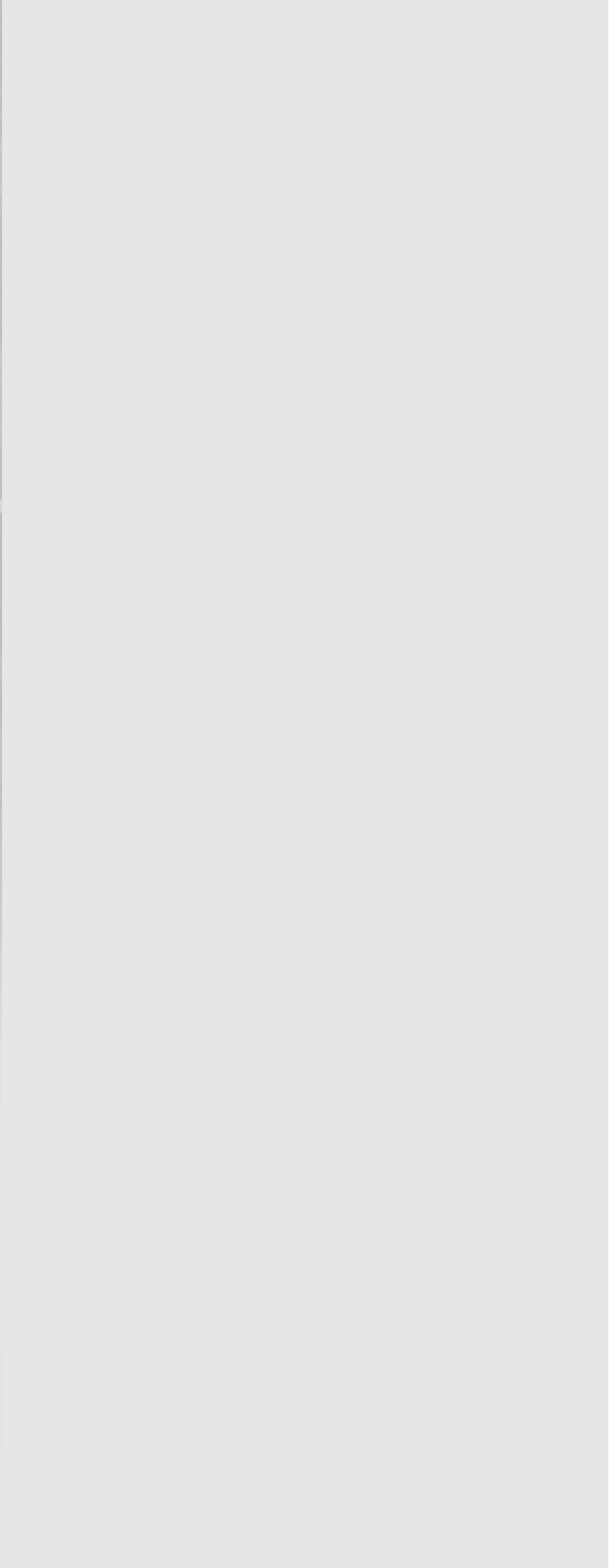
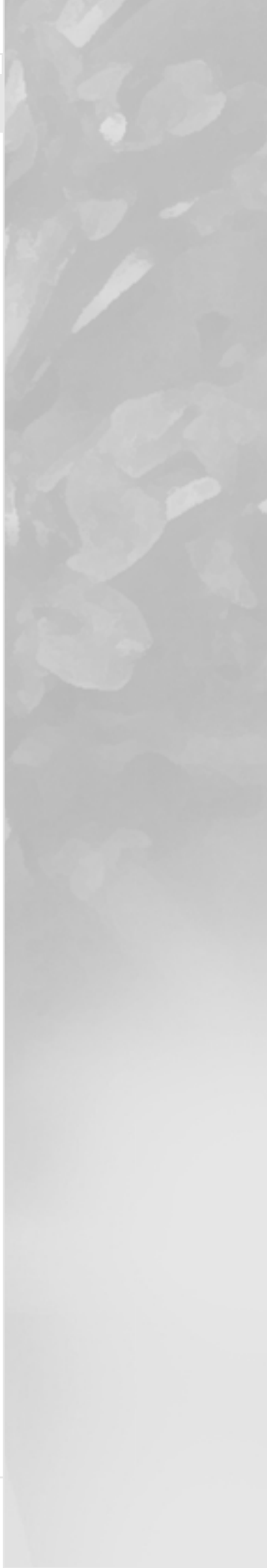
Secondly, underpinning the abovementioned 6 thematic areas which need to be measured, monitored and reported on is our definition and understanding of this document of what constitutes ‘sustainable development’ for the Western Cape. As we have seen, this in essence comprises the following five areas of sustainability: economic, social, ecological, physical and governance. What this means, from the point of view of having to develop and agree on a set of sustainability indicators, is that not only will these ‘indicators’ have to measure, monitor and report on the trends in each of these five areas of sustainability, but more importantly, it will be the relationships that exist between these five areas that will have to be measured, monitored and reported on. None of these five areas can achieve sustainability as a stand alone, and, consequently, cannot be reported on in isolation from any of the other interconnected (four) areas. For example, measuring, monitoring and reporting on economic growth trends in the Western Cape will not give us any indication of progress have been made towards sustainable development of the province. If such growth is accompanied or associated with rising levels of inequality and unemployment as well as, for example, soil degradation and river water contamination, due to agro-chemical farming practices, then the sustainability indicators used in this regard will have to reflect this full picture if they are to give us accurate and reliable information and feedback on the state of play in the Western Cape.

As already mentioned, the quality of the information we receive from what is happening on the ground will have a significant impact on the decisions we take whilst we contemplate further or revised strategies and action plans. In summary, developing, agreeing on and using sustainability indicators to give us feedback on any of the 6 thematic areas, but which do so by focussing on any of the five dimensions of sustainable development exclusively and not in relation to the other (four) domains, will of necessity give us a distorted picture on progress/regress made on achieving a sustainable future in the Western Cape and, as such, may lead us down the proverbial non-sustainable garden path.



## APPENDICES

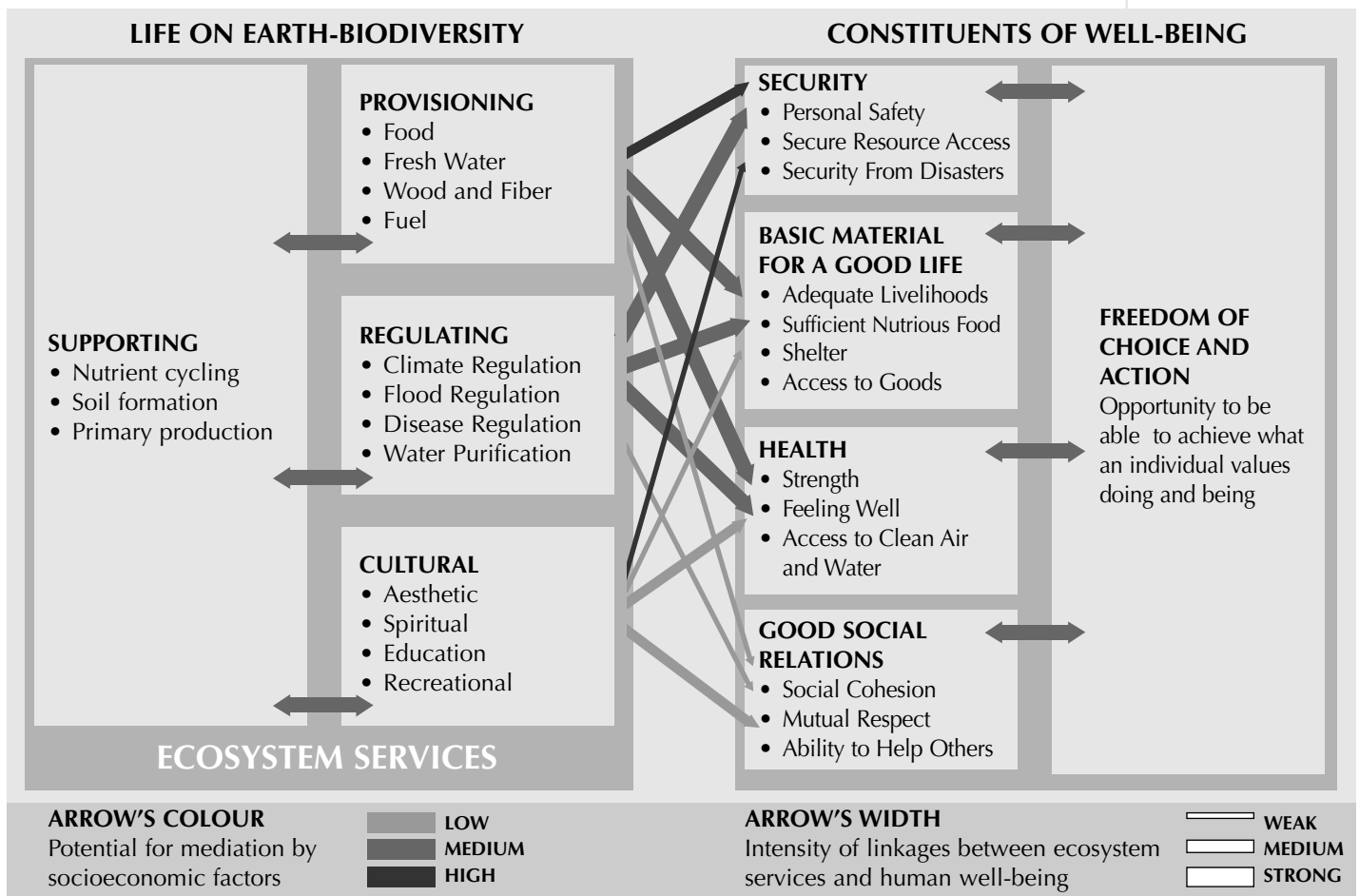




# Appendices

## Appendix 1 – Linkages between Ecosystem Services and Human Well-being

This figure (taken from the Millennium Ecosystem Assessment) depicts the strength of linkages between categories of ecosystem services and components of human well-being that are commonly encountered, and includes indications of the extent to which it is possible for socio-economic factors to mediate the linkage. (For example, if it is possible to purchase a substitute for a degraded ecosystem service, then there is a high potential for mediation). The strength of the linkages and the potential for mediation differ in different ecosystems and regions. In addition to the influence of ecosystem services on human well-being depicted here, other factors—including other environmental factors as well as economic, social, technological, and cultural factors— influence human well-being, and ecosystems are in turn affected by changes in human well-being. Any progress achieved in addressing the goals of poverty and hunger eradication, improved health and environmental protection is unlikely to be sustained if most of the ecosystem ‘services’ on which humanity relies continue to be degraded. A set of examples of the types of eco-system services associated with coastal eco-systems in the Western Cape (as well as the associated financial benefits) is provided in the following tables.



## EXAMPLES OF DIRECT BENEFITS PROVIDED BY COASTAL ECOSYSTEMS<sup>2</sup>

Coastal Goods & Services	Examples of coastal opportunities & activities	Financial benefits (Million Rands pa)
Subsistence food production	Line fishing, intertidal collecting, beach netting, coastal agriculture	1,121
Commercial food production	Commercial fishing and agriculture	11,070
Raw materials	Diamond and titanium mining	3,752
Recreation	Boating, sport-fishing, shore-beach recreation, diving	1,715
Tourism	International & national visitors	13,500
Property	Turnover of property with a sea-view	9,075
Waste disposal	Waste disposal into coastal waters	17

## EXAMPLES OF INDIRECT BENEFITS PROVIDED BY COASTAL ECOSYSTEMS & THEIR VALUE

Coastal Ecosystem Services	Examples of coastal opportunities & activities	Financial benefits (Million Rands pa)
Erosion control	Damage protection from storms, wave action and wind	715
Waste treatment	Waste assimilation, detoxification & cycling by coastal wetlands, forests & grasslands	3,875
Nutrient cycling	Upwelling of food for fish from deep in ocean	125,510
Biological control	Maintaining the balance & diversity of plants and animals	1,983
Habitats	Places where plants & animals live	43
Climate regulation	Maintaining normal climate patterns	476

## Appendix 2 – Practical examples of a more sustainable approach to economic development

Government has committed itself to a long-term infrastructure investment programme that achieves two objectives: improved service delivery and increased investment to stimulate growth. This provides the most promising opportunity for demonstrating the practical advantages of a sustainability perspective which could result in more affordable service, increased savings and improved backward and forward linkages in the local economies. Some practical examples of adopting this include:

- Capturing biogas from landfills to replace diesel and petrol fuel in municipal fleets (as carried out by Ekhureleni Municipality).
- Instead of expanding large-scale sewerage treatment plants, establishing localised sewerage treatment with high levels of recycling and re-use with lower operating costs.
- Promoting transportation systems that not only mix different modes of transport, but also use a mix of energy sources, including electricity and hydrogen (which is already in use in various parts of the world).
- A water supply approach that moves away from one dominated by dams to one dominated by the sustainable use of the huge water resources locked away in aquifers.
- Energy systems that integrate the now tried-and-tested renewable technologies, such as wind power, for bulk generation coupled to design technologies in households, offices and factories (e.g. insulation, compact fluorescent lighting).
- The use of building materials such as unfired clay brick to reduce costs, improve habitability, and reduce dependence on non-local inputs.
- Investment in infrastructure that will stimulate the local food markets that link poorer households directly to farmers, ensuring farmers get a better return and consumers pay less for better quality food.
- Learning from Practice by setting up pilot projects in the following localities:
  - Oude Molen, which is owned by Public Works.
  - Klipfontein, 65 ha site owned by the Methodist Church occupied by 300 families living in informal dwellings located within the N2 Upgrade Area.
  - Phillippi Business Place, 10 ha site at the old Cement Factory which is a joint venture between the Provincial Government, Investec and various NGOs.



### Appendix 3 – Summary of sustainable energy initiatives in the Western Cape (for illustrative purposes only)

This section provides a compilation (in tabular format) of many of the renewable and energy efficient energy initiatives and programmes that are currently being implemented in the Western Cape by government, civil society or private institutions (on demand and supply side issues).

In order to assist readers, the projects are listed alphabetically and are broadly identified according to the following categories.

**Research / Monitoring / Review**

**Implementation / Demonstration**

**Capacity building / awareness**

#### CURRENT INITIATIVES AND PROGRAMMES (SUMMARY REVIEW)

Name	Partners/ lead agent	A	B	C	Brief Description	Current status
<b>Athlone coal-fired Power Station Upgrading</b>	City & Private				Upgrading of the Athlone Power Station which include converting it into a gas-fired station and entering into a joint-venture agreement with the private sector to convert the station into a clean, cost-effective privatized business concern.	Economic cost benefit study completed  Proposal initiated for upgrade
<b>Air Quality Monitoring Network (DAPPS)</b>	City, Cape Peninsula University of Technology	X	X		Part of the Cape Town Brown Haze Action Plan is the implementation of mobile monitors installed in Belleville South, Wallacedene and Elsies River to determine levels of pollution.	Ongoing
<b>Assessment of sites for Wind Energy</b>	Department of Environmental Affairs & Development Planning - Western Cape	X			To identify suitable sites for wind installations	Initiated
<b>BP building</b>	Business:BP	X			Design and build energy efficient building by maximum use of renewable energy, doubling efficiency of commercial building energy use	Near completion
<b>Bellville Landfill CDM Project</b>	City/SSN	X	X		To increase the production and capture of landfill gas for the generation of electricity.	Feasibility
<b>Beaufort West</b>	Private & Municipal	X			1,2 MW Wind Farm	Proposed
<b>Business leaders for Sustainable Energy Conference</b>	SEA & City	X			To raise awareness and challenge business leaders in CT to become more energy efficient and buy green energy while supporting the CT Energy Strategy	Proposed for 2006
<b>Bulgaz LPG pilot transport project</b>	City	X	X	X	10 city vehicles to be converted to LPG, pilot within one city dept	Initiation
<b>Bellville Civic Centre - CCP energy retrofit</b>	SEA/City	X	X		Completion of energy audit and retrofit	Completed 2004

Name	Partners/ lead agent	A	B	C	Brief Description	Current status
<b>Cape Town Civic Centre and media building energy audit</b>	SEA/ City	X	X		Audit of existing appliances, cost/benefit analysis and retrofit, Energy efficient centrally controlled systems for heating, cooling and lighting in Civic Centre	Complete
<b>CFLs 10000 Climate Care</b>	City		X		Installation of CFLs to communities	Ongoing
<b>CFLs 1 million project</b>	Business/Bonisa/ DME		X	X	Installation of CFLs to communities	Ongoing
<b>City Energy Strategy</b>	City/NGO	X			Development of comprehensive energy strategy	Draft completed, awaiting city approval
<b>Cape Town Administration Electricity Department</b>					Street lighting retrofits – Sodium replacing mercury as bulbs age and are replaced – reduced wattage and increased life	Completed
<b>City DME safer fuels project</b>	City/ DME oil companies		X	X	To provide affordable thermal energy safer than paraffin to households by subsidising gas distribution to 300 000 homes	Initial implementation
<b>Cleaner production tourism sector</b>	Province		X	X	To develop best practices through implementation of integrated waste, water and energy audits & retrofit in 10 B&B, lodges & Hotels in Western Cape. Wishes to roll out to other sectors	Implementation
<b>Energy Scenarios for CT</b>	ERC, SEA, City of Cape Town	X			LEAP has been used to simulate how energy might develop in Cape Town over the next twenty years. The report looks at how energy patterns might change in the future and finds that policy interventions can make a difference	Complete, Jan 2005
<b>SWH CoCT CCP project</b>	City/Agama/ Ubushushu		X	X	Quantify avoided CO2 through 21 SWH project implementation. Training and capacity building	Approved with funding
<b>Darling wind farm</b>	Private business initiative		X		Design, build wind farm	Approval process
<b>Drakenstein Municipality</b>	Local authority		X		Replace mercury vapour street lighting with sodium high pressure street lights	Ongoing
<b>Energy Park, Swartklip</b>	Local Authority, AGAMA energy, Amy Biehl Foundation		X		Proposed integrated energy park demonstrating wind, PV and SWH between Khayelitsha & Mitchell's Plain	Proposed
<b>Energy 2001 and Energy 2002 Project.</b>	City/ NGO			X	Introducing the principles of energy efficiency and links between energy and the environment at local level	Completed 2001/2
<b>Home &amp; Schools Environmental Handbook</b>	Amathemba, SEA, City of Cape Town		X	X	Raise awareness around energy, waste, water so as to encourage action	Initiated
<b>Iclei World Congress</b>	ICLEI & CoCT	X	X	X	To be held in early 2006. Conference on carbon tax. Will bring hundreds of cities to view CT success and will also green tourism venues	Initiated

Name	Partners/ lead agent	A	B	C	Brief Description	Current status
<b>Klipheuevel wind project</b>	Eskom	X			Pilot demonstration of wind turbines	Ongoing
<b>Kuyasa</b>	City / SEA	X	X	X	Improved thermal efficiency and reduced indoor air pollution through introduction of ventilation blocks	Complete
<b>Kuyasa</b>	City / South South North (SSN)	X	X	X	Design and Implementation of a CDM project which includes retro-fitting SWH for low-income homes, energy efficiency measures such as light bulbs and insulated ceilings	Design, financial model and funding approved Budget R12.4 million
<b>Live and Build Safe – SEED</b>	City of Cape Town & SEA	X	X	X	Practical and Education programme which includes energy, housing, education, health, water and sanitation. Resources consist of videos, posters, models, branding and brochures.	Ongoing
<b>Lwandle hostels to Homes project</b>	City/ Residents	X	X		Implement SWH project with LPG backup and prepaid meter installation Review and completion of an existing SWH project	Awaiting review R2.8 million (1998 figures)
<b>Lynedoch ecovillage</b>	Private		X		New Mixed income housing development - to implement energy efficiency, SWHs, PV panels	Ongoing
<b>MLT Drivers 5kw Wind project</b>	Private	X			5kw Wind Turbine Research and Development. The project was to manufacture high performance low-speed 5kW wind turbines and associated power electronic controls in rural South Africa. To manufacture components	On hold for one year due to lack of investment Ongoing
<b>Novalis Institute</b>	NGO		X	X	PV panels connected to grid	Complete
<b>Oude Molen</b>	Residents		X		Sub-metering of existing community supply and installation of SWHs	Ongoing
<b>Old Age Home</b>	New Energies/ Suntank			X	Installation of SWHs and implementation of hot water lease agreement	Near completion
<b>Parow Municipal Buildings retrofit</b>	City		X		Completion of energy audit and retrofit	Completed 2004
<b>Saldanha municipality</b>	Local authority		X		Retrofit street lighting, retrofit city vehicles to LPG, installed SWH in tourist venues Formed industrial forum to address <i>inter alia</i> energy issues such as GHGs	Ongoing
<b>SEA – Green building</b>	NGO	X	X	X	Building designed and constructed maximising use of RE, energy efficiency; PV grid connected	Complete
<b>Siemens building retrofit</b>	Sunfed.		X		Energy audit and retrofit Installation of LED lights in building.	Completed, paid for itself in 3 months

Name	Partners/ lead agent	A	B	C	Brief Description	Current status
<b>Shova Kalula</b>	City/ Afribike		X	X	Promotes bicycle use as an alternative transport means. Planning is underway for establishment of bicycle paths and implementation projects in 2003	Ongoing
<b>Solar Water heater study</b>	AGAMA	X			Review and assess status of SWH projects including W.Cape Projects	Complete, Jan 2005
<b>SWH</b>	Inwent, Oneworld & other partners	X	X	X	Capacity building industry (installations) and market research	Current
<b>Stellenbosch</b>	District council/SSN		X		Upgrading of housing, focus on energy, lighting, thermal performance	Project initiation
<b>Transport Sustainability Project</b>	UCT/SEA/CoCT/CSIR	X	X	X	Capacity building of the city, info development, sustainability modelling demonstration, co-ordination around transport	Initiated
<b>Transport Think Tank</b>	NGO/CBO/ academics/city	X			To initiate integrated response to energy related transport issues in the metro	Project initiation
<b>Ubushushu Bendalo</b>	NGO/City	X	X	X	Forum of NGOs/ CBOs/ consultants focused on RE, specifically SWHs	Ongoing
<b>UNDP/GEF Pilot</b>	International/ DME	X	X		National pilot programme to transform SWH market in SA, 500 SWHs	Initiation
<b>Wallacedene</b>	DAG				Housing projects by DAGAn energy efficient crèche by DAG built from sand bags	
<b>Witsand</b>	City/ Peer Africa	X	X		The project will provide 2000 low cost formal block/brick houses using an energy efficient, environmental cost-optimised (EECO) development approach/methodology.	Near completion
<b>21 Households</b>	City Cape Town & Partners	X	X		Building awareness around energy issues	Ongoing



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