GENERAL NOTICE

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DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM

White Paper

on

Environmental Management Policy for South Africa

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on

Environmental

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Policy for

South Africa

Department of Environmental Affairs and Tourism
May 1998

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ACKNOWLEDGEMENTS

1   INTRODUCTION

The introduction defines the concept of environment that government uses in its national policy on environmental management. It describes the scope and purpose of the White Paper and the policy and sets out the consultative process used in developing the policy.

This is the government's national policy on environmental management. It sets out the vision, principles, strategic goals and objectives and regulatory approaches that government will use for environmental management in South Mica.

The purpose of policy is twofold:
- to inform the public what government's objectives are and how it intends to achieve its objectives
- to inform government agencies and state organs what their objectives are and to guide them in developing strategies to achieve those objectives.

Definition of the environment

Because the environment means different things to different people it is necessary to start by defining what it means. In this policy the word environment refers to the biosphere in which people and other organisms live. It consists of:
- renewable and non-renewable natural resources such as air, water (fresh and marine), land and all forms of life
- natural ecosystems and habitats and
- ecosystems, habitats and spatial surroundings modified or constructed by people, including urbanised areas, agricultural and rural landscapes, places of cultural significance and the qualities that contribute to their value.

People are part of the environment and are at the centre of concerns for its sustainability. Culture, economic considerations, social systems, politics and value systems determine the:
- interaction between people and natural ecosystems and habitats
- use of natural resources and
- values and meanings that people attach to life forms, ecological systems, physical and cultural landscapes and places.

Scope and purpose of the White Paper

The White Paper contains the governments's environmental management policy and describes the context in which it has been developed. The White Paper has the following sections:
- an introduction that sets out the concept of environment used in the policy, the scope and purpose of the policy and the consultative process used in developing this policy

- a new **vision** for environmental policy and the mission of the Department of Environmental Affairs and Tourism with respect to the new policy
- the **policy principles** that must be applied in developing and testing policy and subsequent actions including decision making, legislation and regulation
- government's **strategic goals and supporting objectives** to begin addressing major issues facing environmental management and the sustainable use of resources and for measuring the success of policy implementation
- government's approach to **governance,** setting out the powers and responsibilities of the different spheres and agencies of government and the regulatory approach to environment management.

Appendix I deals with the **background and trends, giving an overview** of the main environmental issues in the country that environmental policy must address and of local and international trends that policy must take into account.

Appendix 2 contains a **glossary** of essential terms used in the policy.

*Appendix 3** contains an **acknowledgement** of all those who have contributed to the development of government's new environmental management policy.

Purpose of the policy

This is an overarching framework policy. Specific subsidiary and sectoral policies to carry forward the detailed tasks of everyday governance will fall within this framework. They must subscribe to the vision, principles, goals and regulatory approach set out in the framework policy.

The policy applies to all government institutions and to all activities that impact on the environment.

Through this policy government undertakes to give effect to the many rights in the Constitution that relate to the environment. They include rights relating specifically to the environment, as well as those relating to governance such as the legal standing of parties, administrative justice, accountability and public participation. The policy furthermore defines the essential nature of sustainable development as the combination of social, economic and environmental factors. It takes ownership of sustainable development as the accepted approach to resource management and utilisation in South Africa, thus entrenching environmental sustainability in policy and practice.

The Consultative National Environmental Policy Process

South Africa has developed its national environmental policy through a comprehensive participatory process known as the Consultative National Environmental Policy Process (CONNEPP). CONNEPP's purpose was to give all stakeholders in South Mica the chance to contribute to developing the new environmental policy. The International Development Research Centre (IDRC); the Danish Cooperation for Environment and Development (DANCED) and the Department of Environmental Affairs and Tourism funded the process.

In developing this White Paper, CONNEPP went through the following stages :

- In May 1995, then Deputy Minister for Environmental Affairs and Tourism, Major General Bantu Holomisa, identified the urgent need for a new national environmental policy. Together with the Committee of Ministers and Members of the Executive Councils: Environment and Nature Conservation (MINMEC) he convened a National Consultative Conference to launch the policy development process. MINMEC appointed a multi-sectoral Technical Study Team to compile a discussion document for the conference.

- In August 1995, 600 delegates representing all sectors of society attended the Consultative Conference on National Environmental Policy (CONNEP I) at NASREC in Johannesburg. The conference agreed on a participatory process to develop anew national environmental policy, naming it the Consultative National Environmental Policy Process (CONNEPP). The conference mandated MINMEC to appoint a Management Team for the process.

- MINMEC appointed a multi-stakeholder Management and Advisory Team (MAT) in November 1995. The sectors represented were:
  - business and industry
  - community based organisations
  - environmental non-governmental organisations
  - national government
  - organised labour
  - provincial governments

  The Deputy Minister of Environmental Affairs and Tourism chaired MAT. The CONNEPP secretariat, based in Johannesburg, attended to daily management and coordination of the project.

- A Drafting Team of environmental experts began work on a discussion document in February 1996. A multi-sectoral Reference Group of 30 people and a Liaison Group representing all national government departments assisted the team. Several international experts also provided input. April 1996 saw the release of the discussion document *Towards a New Environmental Policy for South Africa* for public comment. Summaries of the discussion document in English and seven other official languages were also released.

- A totalof60000 copies of these documents were distributed countrywide. Multi-stakeholder steering committees managed provincial participation processes which went on until July 1996, involving millions of people. Throughout the process, regular newsletters kept participants up to date with developments.

- All written comments received through the provincial processes and from individuals and organisations were captured in an electronic database housed at the Department of Environmental Affairs and Tourism. This database is a valuable information resource on South Africa's environmental concerns and opinions. The information was used in compiling the Green Paper.

- In August 1996 Deputy Minister Peter Mokaba took over the MAT chair.

■ Anew multi-sectoral Drafting Team, representing the MAT sectors, compiled the Green Paper on a New Environmental Policy for South Africa which was released in October 1996.40000 copies of the Green Paper were distributed countrywide. People had until January 1997 to formulate views and comment on it. All written comments were again captured in the electronic database.

■ CONNEPP II, the second national conference, was held from 24-25 January 1997 at the Eskom Conference and Exhibition Centre, Midrand. The conference gave 265 sectoral representatives an opportunity to caucus and present their views on the Green Paper to the Ministry, the MECs and the National Parliamentary Portfolio Committee on Environmental Affairs and Tourism. A verbatim record of conference proceedings was distributed to delegates and others on the CONNEPP mailing list.

■ The representative of the Department of Environmental Affairs and Tourism on the Green Paper Drafting Team assisted by the editor of the discussion document and the Green Paper drafted the White Paper. MAT and the other members of the Green Paper Drafting Team acted as an extended Reference Group. In drafting the White Paper government has taken account of all the comments on the Green Paper and the views expressed at CONNEP II.

■ Cabinet approved the broad policy direction, principles and objectives contained in the draft white paper in June 1997. It was then submitted to Parliament and published in the government gazette for public comment.

■ The draft white paper went to Parliament for debate in the National Portfolio Committee on Environmental Affairs and Tourism and the National Council of Provinces. The portfolio committee held public hearings in October 1997 to give the public the opportunity to comment on the draft policy document.

■ Following this the draft white paper was rewritten to incorporate detailed changes recommended by the portfolio committee.

2   VISION

This chapter sets out government's new vision for environmental management in South Africa. The vision projects an integrated and holistic management system for the environment aimed at achieving sustainable development now and in the future. The chapter also sets out the national Department of Environmental Affairs and Tourism's mission.

A new vision for environmental policy

The vision of this environmental management policy is one of a society in harmony with its environment. The policy seeks to unite the people of South Africa in working towards a society where all people have sufficient food, clean air and water, decent homes and green spaces in their neighborhoods enabling them to live in spiritual, cultural and physical harmony with their natural surroundings.

We can only achieve this through a new model or paradigm of sustainable development based on integrated and coordinated environmental management. This model must promote the environmental health and well-being of the nation's people by addressing:
- people's quality of life and their daily living and working environments
- equitable access to land and natural resources
- the integration of economic development, social justice and environmental sustainability
- more efficient use of energy resources
- the interaction between population dynamics and sustainable development
- the sustainable use of social, cultural and natural resources
- public participation in environmental governance
- the custodianship of our environment.

To achieve the vision of a society in harmony with its environment, South Africans must work together towards the goal of sustainable resource use and sustainable living to meet present and future needs. Through this vision, South Africa's democratically elect ed government recognises that development and environment are *not in opposition to each other*, but inextricably linked. The new environmental policy maintains that achieving *environmentally* sustainable development is essential for government to give effect to people's environmental rights and to meet their development needs. Environmentally sustainable development, and ultimately sustainable living, is the key to human well-being and an improved quality of life for all our people - now and in the future.

To understand the implications of this vision for environmental management in South Africa, we need to look at the relationship between economic activity, human population, the environment and approaches to development in this country. Once we understand this we can return to the mandate for the policy, and the implications of the new vision for environmental management

Economic activity, population, environment and development

Sustainable Development

In the *1980s,* the International Union for the Conservation of Nature's World Conservation Strategy made the first attempt to reconcile ecological and economic concerns and approaches. The Strategy introduced the concept of 'sustainable development'. The concept was refined in the World Commission on Environment and Development report, *Our Common Future* (the Brundtland Report), submitted to the United Nations in 1987. It adopted the following definition:

> *Sustainable development is development which meets the needs of the present, without compromising the ability* Of *future generations to meet their own needs.*
> *It contains two key concepts:*
> - *the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given, and*
> - *the idea of limitations imposed by the state of technology and social organisation on the* environment *'s ability to meet present and future needs.*

At the Rio Conference in 1992, 178 countries agreed on Agenda 21, a blueprint for sustainable development. It reflects a global consensus and political commitment at the highest level to integrate environmental concerns into social and economic decision making processes.

Despite this agreement, the term sustainable development continues to be used with a number of different meanings. In South Mica's macro-economic and fiscal policy the term is used in relation to the growth potential of the economy. In a business context the term may refer to the survival and growth of an enterprise.

Development policies, plans, programmes and activities in all sectors that do not address environmental concerns cannot claim to be sustainable. If environmental concerns are effectively integrated into the Reconstruction and Development Programme and the Growth Employment and Redistribution strategy, they will bring lasting benefits to all South Africans. The Environmental Management Policy will ensure that environmental sustainability, health and safety are not compromised, and that natural and cultural resources are not endangered.

Growth, development and the environment

In the context of South Africa as a developing country, the growth and development needed to improve the quality of life enjoyed by South Africans must be integrated with the sustainable use of environmental resources.

Growth refers specifically to increasing the size of the economy. Gross Domestic Product (GDP) and Gross National Product (GNP) are used to measure this increase. GDP is a quantitative measure of how much economic activity takes place in a country. GNP measures all economic activity undertaken by a country's citizens both at home and abroad. Neither GDP nor GNP address the distribution of wealth or the nature of economic activity.

Development? can be defined as a 'process for improving human well-being through a reallocation of resources that involves some modification of the environment', It

addresses basic needs, equity and the redistribution of wealth. Its focus is on the quality of life rather than the quantity of economic activity.

Growth and development both depend on the use of social, natural and cultural resources from the environment, but they relate to the use of these resources in different ways. However, neither growth nor development address the sustainable use of social, cultural and natural environmental resources overtime.

Opportunities and constraints

The environment plays an essential role in determining future opportunities and constraints for growth and development. Past development has emphasised exploitation and optimisation of South Africa's mineral and natural resources with little concern for long-term environmental impacts. Policies did not address population dynamics effectively and neglected the development of the country's human resources. Constraints arising from the finite character of non-renewable natural resources and the ecological cycles that sustain renewable natural resources were largely ignored.

By keeping within these limits we ensure the basis of our own future well being. This policy seeks to maintain natural life sustaining processes by ensuring that the carrying capacity of the environment is not exceeded.

It also recognises that constraints, essential for environmental sustainability, can lead to innovation An example is the technological innovation in countries like Japan and Germany, based partly on the search for energy efficiency driven by high energy prices.

Environmental sustainability emphasises the interdependence of social and economic development and environmental protection. It places necessary economic growth in the context of the sustainable use of natural, social and cultural resources as the basis of economic activity and decision-making.

People centred development

Recently, international attention has focussed on the interrelationships between population, sustained economic growth and the protection of the environment in achieving environmentally sustainable people centred development. To achieve this governments need to give attention to a number of issues including

■ integrating population concerns into all development strategies, planning, decision making and resource allocation to meet the needs and improve the quality of life of present and future generations
■ promoting social justice
■ reducing unsustainable consumption and production patterns and negative environmental impacts due to demographic factors

Sustainable use

If environmental concerns are ignored, growth and development may lead to short term improvements in overall living standards, However, they will lower the quality of life for many people, particularly poorer people who already face degraded living environments. Failure to address the sustainable use of natural resources will degrade the resource base on which we depend.

To avoid this, environmental policy must set us on a course that will achieve the goal of sustainable use, where the environmental impacts of society are in harmony with

natural ecological cycles of renewal. To achieve this, sustainable development must ensure that the direction of investments, the orientation of technological developments, and institutional mechanisms work together towards the goal of sustainable use that will meet present and future needs.

An environmentally sustainable economy

To achieve sustainable development we must put an end to environmentally unsustainable growth and development wherever they occur. We must replace them with an environmentally sustainable economy that addresses the needs of society in an equitable fashion and takes account of population dynamics while remaining in balance with ecological cycles.

The focus will be on meeting the basic needs of disadvantaged communities while building the foundations for environmentally sustainable development by containing impacts and averting disasters. Policy will strive to integrate environmental concerns into all areas of economic activity and development, stop unsustainable patterns of use and ensure equitable access to resources.

The focus of environmental policy

In summary, the elements set out above are drawn together in a policy emphasizing that *integrated and sustainable management of the environment, now and in the future, is the essential basis of sustainable development in all areas of human activity.*

The policy focuses on win-win solutions to promote economic and *environmental gains,* particularly for previously disadvantaged communities. It seeks to integrate and address environmental concerns and environmental sustainability in:
■ decision making processes
■ the development of policies and programrnes
■ spatial development planning and
■ the management of resources and activities.
It aims to promote growth that does not degrade the environment and to *promote environmentally sustainable development.*

Mandate for environmental management policy

The mandate for government's new policy on environmental management lies in the universal imperative to ensure our survival and an improved quality of life by protecting our environment and in the Bill of Rights in our Constitution. Section 24 provides that:

Everyone has the right:
(a) to an environment that is not harmful to their health or well-being; and

(b) to have the environment protected, for the benefit of present and future
   generations, through reasonable legislative and other measures that -
   (i)   prevent pollution and ecological degradation;
   (ii)   promote conservation; and
   (ii)   secure ecologically sustainable development and use of natural
            resources while promoting justifiable economic and social
            development.

Section 8 of the Bill of Rights binds government to give effect to the environmental rights in section 24. In terms of section 24 people can take legal action to protect their environmental and other rights, even where government has no obligation in terms of any other statute to give effect to these rights. Section 24 also compels government to pass reasonable legislation to protect the environment, prevent pollution and ecological degradation, promote conservation, secure sustainable development and to ensure compliance with this legislation. Section 7 (2) of the Bill of Rights places government under a constitutional duty to respect, promote and fulfil this right. Therefore government must formulate a clear policy on how it will give effect to this right in the exercise of environmental governance and ensure compliance with environmental legislation. The Constitution furthermore places government under a legal duty to act as a responsible custodian of the nation's environment. The Government has formulated the principles, vision, strategic goals and governance approach set out in the new *White Paper on Environmental Management Policy for South Africa* with this constitutional imperative uppermost in mind.

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Mission Statement

Government views sustainable development as a national priority and its goal is to lay the foundations for sustainable development based on integrated and holistic environmental management practices and processes over the next five years. To this end government commits itself to:
■ use government resources in the most effective way to implement policy
■ integrate and coordinate its approach to environmental management across departments and all state organs in all spheres of government

To achieve the new vision, government policy embodies a bold paradigm shift in its approach to environmental management. It introduces an integrated and coordinated management regime that:
■ addresses the total environment and all human activities impacting on it, and
■ will ensure that all aspects of environmental governance including norms, standards, legislation, administration and enforcement are dealt with uniformly across departments and in all spheres of government.

Central to this new approach, is the recognition of government's role as *custodian* of the nation's environment.

Public Trust

As custodian, government is charged with a public trust to protect the environment for the benefit of present and future generations and ensure that it is not harmful to human health or well-being. Government, therefore, has a duty to manage the environment, and particularly human impacts upon it, in a sustainable way for the public good and benefit, while protecting our environmental heritage. Given the fragmentation of environmental functions throughout government institutions, government is obliged to take reasonable measures to guide, supervise, arbitrate intergovernmental conflicts, and monitor all organs of state in all spheres to achieve integrated and holistic environmental management. To meet this obligation, Government has appointed the national Department of Environmental Affairs and Tourism as the lead agent responsible for ensuring the integrated and coordinated implementation of its policy on environmental management.

In playing a leading role in implementing government's custodianship of the environment, the Department of Environmental Affairs and Tourism accepts the responsibility of ensuring that appropriate and necessary measures are taken to:
■ ensure that people's environmental rights are enforced
■ ensure that government fulfils its obligation to act as the custodian of the environment
■ promote, coordinate and enhance sustainable development within all government agencies at national, provincial and local levels.
■ develop, and coordinate the implementation of, an integrated and holistic environmental management system

The mission of the Department of Environmental Affairs and Tourism

In developing and implementing government's national policy on environmental management, the Department of Environmental Affairs and Tourism takes up the challenge of achieving environmental sustainability in the context of South Africa's current situation. Specifically, it undertakes to ensure implementation of the policy contained in this document and to develop a National Environmental Strategy and Action Plans (NES&AP). The strategy will focus and prioritise goals and objectives requiring action by government. Chapter four: *Strategic Goals and Objectives,* **provides further** details. They include a commitment to:

- ensure the development and implementation of integrated environmental management systems in both public and private sectors. These systems will identify and control environmental impacts in order to secure environmental sustainability
- take the lead in coordinating, monitoring and enforcing the implementation of this policy through structured consultation and formal agreements with other departments and agencies in all spheres of government
- develop and implement effective education and information strategies to increase public awareness and understanding of environmental issues
- develop structures, processes and procedures and implement programmed to ensure effective and appropriate participation in environmental governance
- develop mechanisms to deal effectively with international cooperation on environmental governance.

In addition the Department undertakes to:
- promote better understanding of sustainable development in all spheres of our society and of what is required to achieve it
- take the lead in securing the implementation of integrated, holistic, equitable, participatory, effective and sustainable environmental management practices
- pursue constant improvement in government's understanding of sustainable development. To this end it undertakes to:
  - monitor and report on the state of our environment
  - seek constant improvements in best practice to secure sustainable development
- deploy itself to implement this policy effectively, efficiently and accountably.

3   **PRINCIPLES**

This chapter sets out the principles for environmental management that will guide government in achieving the vision and overarching goal of sustainable development. Environmental sustainability is the key to attaining this vision and goal. These Principles are the fundamental premises government will use to apply, develop and test policy and subsequent actions including, decision making, legislation, regulation and enforcement.

Note: In some cases principles are followed by boxes containing details on how they will be applied.

Accountability

Government is accountable for policy formulation, monitoring and enforcement.

Allocation of Functions

Government will allocate functions within the framework of the Constitution to the institutions and spheres of government that can most effectively achieve the objective of a function within the context of environmental policy.

Alienation of Resources

Renewable and non-renewable natural resources, cultural resources and land are all part of South Africa's environmental heritage. They are public assets belonging to all the nation's people. Government must ensure that the ownership and use of this heritage promotes sustainable development, benefiting the public good and maintaining environmental integrity. Any alienation of these resources and land must respect people's environmental rights and ensure the sustainable use of such resources and land.

In applying this principle government must ensure that its investment policies and programmed do not result in the unchecked transfer of ownership of all the nation's natural and cultural resources and kind, to private investors, or result in access to these resources and land being denied to the people of this country.

Capacity Building and Education

AU people must have the opportunity to develop the understanding, skills and capacity for effective participation in achieving sustainable development and sustainable resource use.

Conflict of Interest

Actual or potential conflicts of interest between responsibilities for resource exploitation,. and any responsibilities or powers affecting environmental quality or impact management, must be resolved through agreed conflict resolution procedures.

> I Solutions to such conflicts of interest must ensure effective implementation of environmental policy and provide for the role of the lead agent in monitoring and ensuring the maintenance of environmental norms and standards.

Coordination

Environmental concerns affect all aspects of life and must be integrated into the work of all government institutions. This requires intergovernmental harmonisation of policies, legislation, monitoring, regulation and other environmental functions in accordance with the requirements of environmental policy.

Cradle to Grave

Responsibility for the environmental and health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle. It starts with conceptualisation and planning and runs through all stages of implementation to reuse, recycling and ultimate disposal of products and waste or decommissioning of installations.

Custodianship

The government acknowledges that is has a constitutional duty to protect the environment for the benefit of current and future generations of South Africans. Its responsibilities include the duty to act as custodian of the nation's resources; to protect the public interest in, and to ensure equitable access to, such resources and generally to ensure that all South Africans enjoy an environment of acceptable quality. In assuming these duties, the government accepts the duties and responsibilities implied by the doctrine of the Public Trust, particularly regarding state owned land and natural resources and will enact legislation to give effect to this principle.

> The doctrine of the Public Trust requires the state to:
> - ensure that environmental resources are beneficially used in the public int crest
> - protect the people's common heritage
> - ensure the public's reasonable access to the environment and natural resources
> - ensure adherence by all spheres of government to the public trust
> - promote and fulfil the Department of Environmental Affairs and Tourism's leading role in implementing government's custodianship of the environment.

Demand Management

The price of goods and services must include the environmental cost of sustaining the rate of supply over time. Where this is impossible, the price must include the cost of replacing the good or service, as it is depleted, by another good or service at a similar rate of supply and value that fulfills the same function.

Due Process

Due process must be applied in all environmental management activities. This includes adherence to the provisions in the Constitution dealing with just administrative action and public participation in environmental governance.

Equity

There should be equitable access to environmental resources, benefits and services to meet basic needs and ensure human well being. Each generation has a duty to avoid impairing the ability of future generations to ensure their well being.

Environmental Justice

To comply with the requirements of environmental justice, government must integrate environmental considerations with social, political and economic justice and development in addressing the needs and rights of all communities, sectors and individuals.

Policy, legal and institutional frameworks must:
- redress past and present environmental injustice
- take account of the need to protect and create employment
- recognise that workers can refuse work that is harmful to human health or the environment
- ensure that everyone is able to make known environmental or health hazards without fear of the consequences
- ensure equitable representation and participation of all with particular concern for marginalised groups.

Full Cost Accounting

Decisions must be based on an assessment of the full social and environmental costs and benefits of policies, plans, programmed, projects and activities that impact on the environment.

Global and International Cooperation and Responsibilities

Government must recognise its shared responsibility for global and regional environmental issues and act with due regard for the principles contained in this policy and applicable regional and international agreements.

Good Governance

Good governance depends on mutual trust and reciprocal relations between government and people. This must be based on the fulfilment of constitutional, legislative and executive obligations, and acceptance of authority, responsibility, transparency and accountability.

> The democratically elected government is the legitimate representative of the people. In governing it must meet its obligation to give effect to people's environmental rights in section 24 of the Constitution. This includes:
> - taking responsibility for developing and implementing environmental policy
> - exercising the authority to take decisions and carry out actions vested in it by the Constitution
> - acting in accordance with the basic values and principles governing public administration contained in the Constitution
> - being accountable to the people
> - responding to public needs and encouraging public participation in environmental governance by providing for the mutual exchange of views and concerns between government and people
> - monitoring and regulating actions that impact on the environment

Inclusivitv

Environmental management processes must consider the interests, needs and values of all interested and affected parties in decision making to secure sustainable development. This includes recognizing all forms of knowledge including traditional and ordinary knowledge.

Integration

All elements of the environment are linked and management must therefore take account of the connections between them.

> [integrating environmental concerns into every area of human activity is central to achieving sustainable development. Priority areas for environmental governance include:
> - integrating environmental, social and economic considerations into development and land use planning processes and structures. This requires assessment of environmental impacts at policy, planning, programme and project levels.
> - an integrated approach to environmental management addressing:
>   - all environmental media
>   - all social, cultural and natural resources
>   - pollution control and waste management
> - an integrated approach to government's environmental functions including:
>   - organisational and institutional arrangements
>   - legislation
>   - all policies in all spheres of government

Open Information

To give effect to their constitutional rights, everyone must have access to information to enable them to:

■ protect their health and well-being
■ protect the environment
■ participate effectively in environmental governance
■ comply with environmental policy, legislation and regulation.

Participation

Government must encourage the inclusion of all interested and affected parties in environmental governance with the aim of achieving equitable and effective participation.

Precaution

Government will apply a risk averse and cautious approach that recognises the limits of current knowledge about the environmental consequences of decisions or actions,

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This approach includes identifying:
■   the nature, source and scope of potentially significant impacts on the environment and on people's environmental rights
■   the potential risks arising from uncertainty
Where there is uncertainty action should be taken to limit the risk. This should include consideration of the 'no go' option.

Prevention

Government must anticipate problems and prevent negative impacts on the environment and on people's environmental rights.

Polluter Pays

Those responsible for environmental damage must pay the repair costs both to the environment and human health, and the costs of preventive measures to reduce or prevent' further pollution and environmental damage.

Waste Avoidance and Minimisation

Waste management must minimise and avoid the creation of waste at source, especially in the case of toxic and hazardous wastes. Government must encourage waste recycling, separation at source and safe disposal of unavoidable waste.

4   STRATEGIC GOALS AND OBJECTIVES

This chapter sets out the priorities for achieving the vision and focussing government action on the environment over the next five to ten years in the form of broad strategic goals and supporting objectives. These goals chart the direction government will follow in meeting its commitment to sustainable development and an integrated and holistic system of environmental management. The chapter also introduces the National Environmental Strategy and Action Plans. These will be the basis for translating the goals and objectives into practice.

Achieving Policy Goals and Objectives

The overarching goal - sustainable development

The intention is to move from a previous situation of unrestrained and environmentally insensitive development to sustainable development with the aim of achieving an environmentally sustainable economy in balance with ecological processes.

National Environmental Strategy and Action Plans

To ensure that policy is translated into practice, the national Department of Environmental Affairs and Tourism, as government's lead agent for environmental management, will prioritise development of the National Environmental Strategy and Action Plans (NES&AP), in consultation with other departments with environmental responsibilities. The NES&AP will detail strategies and action plans, identify resource needs and set time frames and targets.

Contents and purpose of the NES&AP

The strategy will focus and prioritise government's goals and objectives requiring action by government and other parties within the next five to ten years. Criteria for prioritisation must address:
■ action to ensure healthy working and living environments
■ protection of the environment for present and future generations by achieving environmentally sustainable development
■ deliverables to assist in achieving growth to meet basic needs
■ achievement of integrated and holistic environmental management.
■ causes of institutional failure
and other relevant issues.

Where necessary the NES&AP will identify priorities for fast tracking to address urgent needs. These priorities will be the basis for developing action plans to address the strategic goals set out in the national environmental management policy. The action

plans will include clear time frames, and budgetary allocations for realising the accompanying objectives. Plans should provide for interim updates and take account of new information, new technology, or other factors that may call for revision of standards, mechanisms, or targets. The plans will take account of South Africa's international obligations.

To ensure the successful implementation of environmental policy, the NES&AP will develop implementation strategies and action plans that address institutional arrangements and issues. In order to do this, government must:

- undertake an audit of existing skills, capacities, functions and the deployment of resources in the national Department of Environmental Affairs and Tourism
- identify appropriate institutional 'structures to implement the governance approach . set "out in this policy and establish a time'frame for creating any new structures that are required. This must include:
  - appropriate mechanisms and structures for coordination
  - mechanisms to deal with intergovernmental disputes
  - appeals and conflict resolution mechanisms and structures
  - mechanisms to deal effectively with international environmental obligations, agreements and issues not covered by treaties, conventions or agreements
- conduct a legal and institutional audit and review to prepare for necessary reform
- identify appropriate ways in which to build institutional capacity
- budget for the development and implementation of strategies and action plans
- reallocate resources to meet new priorities and needs

NES&AP process

The national Department of Environmental Affairs and Tourism will draw up an initial proposal in consultation with other departments and spheres of government. It will then embark on a participatory process to consult all interested and affected parties before drawing up a final strategy and action plans for implementation. This will be done within a year of the policy being adopted.

Coordination of policy processes

The National Environmental Strategy and Action Plans will prioritise and coordinate the development of all environmental policy processes, bringing them into line with this framework policy. It will also identify and initiate any further policy processes that are required.

Strategic   Goals

Within the framework of the overarching goal of sustainable development, government has identified seven strategic goals for achieving environmental sustainability and integrated environmental management.: These goals are interdependent and implementation must address all of them to be effective. It is vital to recognise that environmental concerns and issues cut across various sectors and functions. Therefore sustainable and integrated management" of the 'environment depends on cooperation and initiatives from all sectors of society. Many supporting objectives address functions of other government departments that impact on the environment and will require their cooperation and commitment for effective implementation. The Department of Environmental Affairs and Tourism will play a lead and supportive role to ensure coordinated and effective implementation of the policy.

The strategic goals and their supporting objectives address the major issues government faces in its drive to achieve environmentally sustainable development and ensure an integrated system of environmental management. The vision and policy principles have guided the choice of goals and objectives and will also guide policy implementation.

Goal I Effective Institutional Framework and Legislation

- Create an effective, adequately resourced and harmonised institutional framework and an integrated legislative system, and build institutional capacity in all spheres of government to ensure the effective implementation of this policy.

Goal 2 Sustainable Resource Use and Impact Management

- Promote equitable access to, and sustainable use of, natural and cultural resources, and promote environmentally sustainable lifestyles. Integrate environmental impact management with all economic and development activities to achieve sustainable development with the emphasis on satisfying basic needs and ensuring environmental sustainability.

Goal 3 Holistic and Integrated Planning and Management

- Develop mechanisms where necessary, and build on existing ones, to ensure that environmental considerations are effectively integrated into existing and new government policies, legislation and programmed, all spatial and economic development planning processes, and all economic activity.

Goal 4 Participation and Partnerships in Environmental Governance

◻ Establish mechanisms and processes to' ensure effective public 'participation in environmental governance.

Goal 5 Empowerment and Environmental Education

◻ Promote the environmental literacy, education and empowerment of South Africa's people. Increase their awareness of, and concern for, environmental issues, and assist in developing the knowledge, skills, values, and commitment necessary to achieve sustainable development.

Goal 6 Information Management for Sustainable Development

◻ Develop and maintain information management systems to provide accessible information to interested and affected parties that will support effective environmental management.

Goal 7 International Cooperation

■ Develop mechanisms to deal effectively and in the national interest with international issues affecting the environment.

Goal 1　　Effective Institutional Framework and Legislation

Create an effective, adequately resourced and harmonised institutional framework and an integrated legislative system, and build institutional capacity in all spheres of government to ensure the effective implementation of this policy.

Supporting Objectives

Institutional framework
■ To conduct an audit and review of existing skills, capacities, functions and the deployment of resources in the national Department of Environmental Affairs and Tourism and realign them to optimise implementation of national environmental policy and the National Environmental Strategy and Action Plans.'
■ To investigate institutional options, including the establishment of new institutions where no appropriate structure exists.

Integration and coordination ·.
■ To investigate ways of integrating and coordinating all government functions affecting environmental management, and establish appropriate mechanisms and structures to ensure effective working relationships and administrative arrangements between different departments and organs of state in all spheres of government in carrying out their environmental functions
■ To develop a coordinated approach to the integration of environmental concerns in the policy processes of all national departments.
■ To integrate and coordinate the development of subsidiary policies by the national Department of Environmental Affairs and Tourism within the framework of the national policy on environmental management.

Mediation and conflict resolution
■ To investigate ways to settle intergovernmental disputes and establish appropriate mechanisms and structures.
■ To provide a route for appeals against decisions in all spheres of government.

Legislation, norms and standards
■ To carry out a legal audit and review to establish:
   ● whether existing environmental legislation complies with the Constitution
   ■ general principles for decision making and conflict resolution
   ■ how existing environmental legislation can be consolidated and streamlined
   ▪ key legislative and institutional needs requiring immediate attention.
■ To use the results of this audit and review to develop relevant and effective environmental legislation norms and standards.

Reviewing and updating policies, plans and programmes
■ To conduct regular reviews of the relevance and appropriateness of all government policies, strategies, plans, programmes, legislation, norms and standards with an impact on the environment in order to update them in line with progress in environmental management.

Reallocation   of   resources

◻ To effect planned and measurable shifts in budgetary and resource allocations in all departments and other organs of state in all spheres of government. This must be directed to meet the need for people-drive% sustainable resource management and the redress of past injustices and inequalities.

Capacity building in government..

◻ To allocate adequate government resources in all departments and other organs' of state in all spheres to build capacity for effective implementation of government's national policy on environmental management.

◻ To build capacity in local government to effectively incorporate environmental considerations into integrated development plans and kind development objectives

Research   and   development

◻ To identify priorities, set an agenda, and facilitate relevant research and development.

◻ To provide adequate financial' and human resources to expand government capability to:
  - study environmental problems, evaluate trends and identify and analyse existing and emerging environmental issues'
  - set norms and standards
  - report effectively on the state of the environment and
  - promote continuous improvement in environmental management

◻ To promote the training of adequate numbers of environmental scientists, technicians, educators, officials and managers, especially from disadvantaged communities

◻ To support measures that ensure professional and technical standards that meet the needs of the country

Goal 2 Sustainable Resource Use and Impact Management

Promote equitable access to, and sustainable use of, natural and cultural resources, and promote environmentally sustainable lifestyles. Integrate environmental impact management with all economic and development activities to achieve sustainable development with the emphasis on satisfying basic needs and ensuring environmental sustainability.

supporting! objectives

Sustainable resource use
■ To ensure wise use of non-renewable resources taking account of:
  ■ the interests and needs of present and future generations
  ▣ all environmental impacts related to resource exploitation
  ▣ the potential for developing alternative sources and technologies with lesser environment.d impacts before a resource is exhausted.
▢ To ensure the' sustainable use of renewable resources, taking account of:
  ▢ the interests and needs of present and future generations
  ▢ all environmental impacts related to resource exploitation
  ▢ the carrying capacity of the environment and concerns for the maintenance of biodiversity
  ■ the potential for developing alternative sources and technologies with lesser environmental impacts.
▣ To ensure the integration of environmental considerations into macro economic and resource planning.

Alienation of natural and cultural resources and land
▣ To investigate and establish mechanisms that will ensure:
  ▣ that investment policies and programmes do not result in the unchecked transfer of ownership of all the nation's natural and cultural resources and land
  ▣ equitable access to these resources and land
▢ To develop environmental resources on a sustainable basis for the public good and benefit

Improving environmental performance
▢ To encourage wider involvement by industry and other stakeholders in agreements and partnerships with the aim of improving environmental performance and developing and adopting best practice standards that exceed minimum requirements.

Conservation of biodiversity
■ To promote the conservation of biodiversity through:
  ▪ conserving the diversity of landscapes, ecosystems, habitats, biological communities, populations, species and genes throughout South Africa, by taking necessary measures including the establishment of protected areas such as national parks
  ▫ using biological resources sustainably and minimising adverse impacts on biological diversity
  ▢ ensuring that benefits derived from the use and development of South Africa's genetic resources serve national interests

▫ expanding the human capacity to conserve biodiversity, to manage its use, and to address factors threatening it --

▫ creating and implementing conditions and incentives that support the conservation and sustainable use of biodiversity

■ promoting the conservation and sustainable use of biodiversity at the international level.

Coastal zone management

▫ To ensure that the management, development and use of the coastal zone is integrated and environmentally sustainable.

Water resource management

▫ To ensure that the quantity, quality and reliability of water required to meet basic human needs and maintain environmental sustainability is guaranteed as a right and set aside as a reserve as provided for in national water policy.

Sustainable agriculture and forestry

▫ To ensure the sustainable use of natural resources in the agricultural economy and sustainable forest development.

■ To promote and encourage sustainable low input farming systems.

▫ To regulate the use of toxic and hazardous chemicals in agriculture to protect human health and the environment.

■ To protect indigenous forest ecosystems as part of the national heritage of South Africa's people

Sustainable fisheries resource management

▫ To ensure that the exploitation of fisheries resources is sustainable and not damaging to the environment, and that previously disadvantaged communities benefit from the sustainable utilisation of fisheries resources.

Environmental resource economics

▫ To use market based instruments to:
  ▪ internalise environmental costs as part of exploitation and production costs
  ▪ reduce the waste stream to a level that can be absorbed without harm to the environment and human health
  ▫ promote the use of appropriate technologies that will reduce resource use, waste generation and pollution

▫ To ensure that markets reflect the cost of environmental resources and to correct markets where they fail to reflect environmental impacts

■ To develop and maintain a national environmental accounting system to reflect the economic cost of the depletion of environmental resources

▫ To determine the value of scarce environmental assets in order to take proactive measures for their protection

▫ To remove all direct and indirect subsidies that promote unsustainable use of environmental resources

▫ To investigate systems of cost-benefit analysis and risk assessment for assessing economic, social and environmental costs to improve decision making on environmental and developmental issues.

Pricing natural resources
■ To establish equitable pricing structures for life support resources to ensure that poor people can afford them.

Integrated pollution and waste management
■ To prevent, reduce and manage pollution of any part of the environment due to all forms of human activity, and in particular from radioactive, toxic and other hazardous substances.

■ To set targets to minimise waste generation and pollution at source and promote a hierarchy of waste management practices, namely reduction of waste at source, reuse and recycling with safe disposal as the last resort.

❑ To regulate and monitor waste production, enforce waste control measures, and coordinate administration of integrated pollution and waste management through a single government department.

■ To setup information systems on chemical hazards and toxic releases and ensure the introduction of a system to track the transport of hazardous materials.

❑ To ensure the protection and proactive management of human health problems related to the environment in all forms of economic activity.

■ To promote cleaner production and establish mechanisms to ensure continuous improvements in best practice in all areas of environmental management.

Energy resources
■ To promote energy efficiency.
■ To promote the use of renewable energy resources and environmentally friendly alternative energy resources.

Transport
■ To 'ensure the inclusion of environmental considerations in integrating transport planning into the spatial planning framework.
■ To support the introduction of integrated environmental management in developing an environmentally sustainable transport system.

Population and environment
■ To ensure environmental sustainability through comprehensive population strategies which address population, production and consumption patterns independently, as well as in their interactions.

Cultural resource management
■ To ensure that the needs and values of affected communities are considered when assessing the impacts of developments and activities on cultural landscapes and sites.
■ To ensure that the development and use of cultural resources in the environment is sustainable and addressed as an integral part of environmental management.

Tourism and local participation
■ To ensure that tourism is sustainable and not damaging to the environment.
■ To ensure that local communities, particularly previously disadvantaged communities, benefit through active participation in tourism associated with protected areas and sites.
■ To ensure the sustainable management and respect for the integrity of landscapes and other environmental assets

Goal 3 Holistic and Integrated Planning and Management

Develop mechanisms where necessary and build" on existing ones to ensure that environmental considerations are effectively integrated into existing and new government policies, legislation and" programmes, all "spati~:,'~d" economic development planning processes and all economic activity.

Supporting Objectives

Integrated environmental management

- ☐ To incorporate integrated environmental management (IEM) principles and methodologies m spatial development planning, including Integrated Development' Plans and Land Development Objectives, and in plans for the use of natural and cultural resources.
- ☐ To develop management "instruments and 'mechanisms for the integration of environmental concerns in development planning and land allocation.
- ☐ To develop standards for environmental management systems, environmental impact assessments, monitoring and audit procedures and reporting for,@ activities including government activities that impact on the environment.'
- ☐ To develop agreed, appropriate indicators to measure performance in all areas of national, provincial and local environmental policies.
- ■ To set general and specific targets for the control and, where necessary, reduction of environmental impacts.
- ☐ To develop transparent review processes for all aspects of environmental management.
- ☐ To develop mechanisms to ensure disclosure of formation needed to protect people's environmental rights
- ☐ to develop guidelines or other instruments for local government on the integration of environmental considerations into Integrated Development Plans and Land Development Objectives

Environmental development and rehabilitation fund
- ☐ To investigate@ if feasible, establish a fund to:
    - ☐ assist in developing sustainable environmental management practices for emergent and subsistence enterprises
    - ☐ support job creation and worker retraining in restructuring processes resulting from national environmental policy'
    - ☐ assist with the rehabilitation of degraded environments.

Coordination and integration
- ☐ To review policies, government responsibilities and decision making processes and coordinate appropriate measures within and between departments and other organs of state in all spheres in order to:
    - ☐ integrate environmental considerations in all activities
    - ☐ ensure effective integrated and holistic environmental management
    - ☐ ensure the harmonisation and prioritisation of subsidiary environmental policies

Visual impact
- ☐ To ensure that the visual impact of development receives due Consideration% particularly in areas of cultural or historic significance or areas of scenic beauty

Goal 4   Participation in Environmental Governance

Establish mechanisms and processes to ensure effective public participation in environmental governance.

Supporting Objectives

Participation structures, mechanisms and processes
- To establish multi-sectoral advisory structures in all spheres of government to enable all interested and affected parties to participate in environmental governance.
- To develop public participation mechanisms and processes that are fair, transparent and effective, and will promote the participation of marginalised sectors of society.
- To allocate government resources (financial and human) to build institutional capacity in national, provincial and local government spheres for effective management of participation in environmental governance.

Communication anti participation
- To ensure that communication strategies in all spheres of government address public participation needs.

Strategic alliances
- To encourage alliances between government and interested and affected parties in implementing this policy to ensure environmental sustainability in achieving sustainable development.

Marginalised and special interest groups
- To encourage and support the involvement of special interest groups such as women, workers, the unemployed, the disabled, traditional biers, the elderly and others in all structures and programmed of environmental governance.

Goal 5 Environmental Education and Empowerment

Promote the environmental literacy, education and empowerment of South Africa's people. Increase their awareness of, and concern for, environmental issues; and assist in developing the knowledge, skills, values and commitment necessary to achieve sustainable development.

Supporting Objectives

Education and training

- To integrate environmental education in all learning programmed accredited under the National Qualifications Framework (NQF) in formal education.
- To integrate environmental education into all training and unemployment relief programmed.
- To enhance environmental literacy through the use of all forms of media.
- To ensure that environmental education programmed and projects foster a clear understanding of the inter-relationship between economic, social, cultural, environmental and political issues in local, national and global spheres. -

Empowerment of citizens through capacity building

- to promote capacity building programmes and projects that assist people, particularly those from disadvantaged backgrounds, to manage their environment with due care and address their environmental concerns. These programmed and projects should pay particular attention to using local and external knowledge to develop social and organisational skills
- To assist small, medium and micro enterprises in developing appropriate environmental management procedures.

Marginalised and special interest groups

- To encourage and support the involvement of special interest groups such as women, workers, the unemployed, the disabled, traditional healers, the elderly and others in the design, planning and implementation of environmental education and capacity building programmed and projects.

Goal 6 Information Management for Sustainable Development

Develop and maintain information management systems to provide accessible information to interested and affected parties that will support effective environmental management.

Supporting Objectives

Information management systems

- To conduct an-information audit with the aim of developing an effective information management system directed at meeting user needs.
- To establish and maintain an effective and efficient national information management system, for the development, coordination and organisation of environmental statistics and indicators. This information management system must ensure informed decision making, measure progress in policy implementation and enable public participation in environmental governance.
- To strengthen and optimise the capacity of government to collect, analyse and use' relevant information and knowledge for environmental management from all sources including formal, non-ford and traditional sources.
- To provide resources for effective environmental research, monitoring and data collection in order to:
  - develop and implement information management systems
  - report on the state of the environment
  - measure progress in achieving sustainable development
  - monitor environmental quality and environmental management
  - •I ensure that planning for sustainable development in all sectors is based on the best science and information available
- To disseminate information through formal and informal channels including mass media in an accessible format.

State of the environment report

- To report periodically on the state of the South African environment:
  - To ensure that the state of the environment report is supported by sound scientific data and research ' ·' ˎ· ,
  - To provide accurate, timely and accessible information about the condition and prospects of the South African environment
  - To increase public understanding Of these issues
  - To report on the effectiveness of policies and programmed designed to respond to environmental change, including progress towards achieving environmental standards and targets.

Goal 7 International Cooperation

Develop mechanisms to deal effectively and in the national interest with international issues affecting the environment. . . .

Supporting Objectives

International agreements
☐ To ensure South Africa acts in accordance with national environmental policy in dealing with international treaties and agreements and, that environmental considerations are included in all international negotiations..
☐ To ensure adequate opportunity for consultation with all relevant interested and affected parties before negotiating, entering and implementing international agreements.
☐ To meet all requirements arising from international environmental agreements and obligations.

international cooperation
❏ To cooperate internationally on shared environmental concerns, giving priority to the Southern African region.
❏ To develop mechanisms to access information, appropriate technology and other resources from international sources.

Maintaining environmental integrity
☐ To ensure that international obligations and engagements do not compromise the environmental integrity of South Africa, people's environmental rights, the principles and obligations established in this policy and national environmental norms and standards set in terms of this policy.

Transboundary impacts
☐ To adopt appropriate measures to prevent transboundary environmental harm, incorporating the prevention of transboundary movement of hazardous and toxic waste.
☐ To ensure that international trade does not lead to wasteful use of natural resources or interfere with their conservation or sustainable use. ,

Ozone depletion and climate change
❏ To take appropriate measures to prevent the depletion of stratospheric ozone and contribute to the stabilisation of greenhouse gases in the atmosphere.

5   GOVERNANCE

This chapter describes the constitutional setting for environmental policy and sets out:
- the essential requirements for effective environmental governance
- the powers and responsibilities of the lead agent
- the coordination of functions
- an integrated and comprehensive management system
- management mechanisms . . . .

In addition, the chapter sets out the Department of Environmental Affairs and Tourism's role as government's lead agent for environmental management. This includes providing leadership and guidance to all government departments responsible for implementing environmental policy, monitoring progress and auditing the performance of government in achieving its environmental goals.

Constitutional Setting

The starting point for developing environmental policy in South Africa is the Constitution. The adoption of a democratic Constitution and Bill of Rights has made government accountable to the people." The Constitution sets out the legislative and executive authority of different spheres of government within a framework of cooperative governance. It states that national and provincial governments have concurrent responsibility for environmental management. This section of the White Paper sets out the implications for government of the general and specific clauses in the Constitution that bear on environmental management. ., .,

Sovereignty

The' Constitution states that South Africa is a sovereign, democratic state based on the values of human dignity, equality, non-discrimination, the rule of law and universal suffrage. In terms of environmental management it is important to' recognise that sovereignty includes the ability to limit sovereign powers by entering into international agreements where the "need arises.

Example: In terms of the *Basel Convention on the Control Of Transboundary Movements of Hazardous Wastes and their Disposal,* we have limited "our powers by agreeing not to accept hazardous waste from specified developed countries. . . . . .,. .

Cooperative governance

Chapter Three of the Constitution sets out principles of cooperative government and intergovernmental relations that govern the relations between all - spheres of government and all organs of the state within spheres. This is particularly relevant for environmental 'administration.' 'Constitutional principles important fo-

environmental management include" the obligations to preserve the peace and national unity of the Republic; secure the well-being of its people; provide effective, transparent, accountabl decaheco erent government; respect the powers, functions and institutional integrity of other spheres of government; inform, consult, assist and support other government agencies; co-ordinate actions and Legislation, adhere to agreements; and 'avoid legal proceedings against other government agencies. This chapter provides for structures to facilitate intergovernmental relations and resolve conflicts.

Powers of the national and provincial spheres of government

National legislative powers

The national legislature has the power to amend the Constitution and to legislate on "". all matters, including those listed in Schedule 4 "as fictional areas of concurrent national and provincial executive competence. It does not generally have the power to legislate on those matters listed in Schedule 5 as functional areas of exclusive provincial legislative competence. Exceptions occur where it is necessary to:
- intervene to maintain national security or economic unity
- maintain or establish national or minimum standards, and " '
- prevent unreasonable action by a province, or action that' prejudices the interests of another province or the interests of the country as a whole.

Schedule 4 matters include agriculture, cultural matters, environment, health services, housing, nature conservation, pollution control, regional planning and development, soil conservation, tourism, trade and urban and rural development. The implications of these powers are addressed later in this section.

National executive powers

The national executive has the power to supervise the provinces and to intervene where the provinces do not fulfil executive obligations in terms of the Constitution or legislation. In these circumstances it may issue directives or intervene to maintain national security or economic unity, maintain or establish national or minimum standards, and prevent unreasonable action by a province or action that prejudices the interests of another province or the country as a whole. In such cases, the national executive must report to the National Council of Provinces which has the power to review its actions.

Provincial legislative and executive powers

The provincial governments have similar legislative and executive powers with respect to local authorities. Parts B of Schedule 4 and 5 set out a wide range of activities including planning and regulatory functions where local governments have responsibilities that affect the environment. Because of the important role provincial and local government play in implementing environmental policy, effective environmental management in these spheres is essential for its success. Provincial government has an important role to play in setting provincial norms and standards and assisting local government to carry out its role effectively within the framework Of this policy.

Local government

Section 156 *(4)* provides that national and provincial government must assign matters in Part A of Schedule 4, or Part A of Schedule 5, that relate to local government if

local government can most effectively administer them and has the capacity to do so. Section 156 (5) gives local government the right to exercise any power necessary or incidental to the effective performance of its functions.

Relationships between spheres of government

Section 146 of the Constitution addresses the question of conflicts between national and provincial legislation and establishes that national legislation prevails where:
- legislation by individual provinces cannot effectively regulate a matter
- a matter requires uniformity across the nation, and
- national legislation is necessary to maintain security or economic Unity, '-or to protect the common market, promote economic activities across provincial boundaries, promote equity or to protect the environment.

Other provisions include prevention of unreasonable action by provinces and to prevent prejudice to other parts of the country.

Accountability and participation

Section 195 (1) (e-g) states that public administration must be accountable, transparent through the provision of timely, accessible and accurate information, must respond to people's needs and must encourage public participation in environmental governance.

Bill of Rights

Section 24 of the Bill of Rights guarantees that:

Everyone has the right:
' *(a)* *"to an environment that is not harmful to their health or well-being; and*
(b) to have the environment protected, for the" benefit of present and future generations, through reasonable legislative and other measures that -
(i) prevent pollution and ecological degradation;
(ii) - promote conservation; and
(iii) *secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.*

The environmental right in section 24 has two parts:
- sub-section (a) entitles the people of South Africa to an environment of a certain quality. It gives everyone covered by the Constitution an unqualified right to an environment that does not harm their health and well being. This includes their cultural interests in the environment.
- sub-section (b) contains an entitlement to certain specific environmental protection. It is limited by the requirement to take reasonable

legislative and other measures to give effect to the right. It applies to future as well as present generations.

Sections 7 and *8, Rights* and *Application,* bind the state to protect, promote and fulfil people's rights and give people access to the judiciary to protect their rights. Section 8 states that the Bill of Rights applies to all law and binds' the legislature, the executive, the judiciary and all organs of state. This means that the government must give effect to the environmental right in section 24 in managing the environment.

The state could violate section 24 by:

☐ directly rendering the environment harmful to health and well-being
☐ making infringements by others possible, likely or inevitable
■ granting authorisations and zoning applications that allow others to harm the interests protected in section 24
■ failing to enforce environmental laws and regulations
☐ failing to establish adequate legal and regulatory frameworks "" .-
☐ failing to provide those public goods that are essential to Provide an adequate environment to all.

In terms of section *24* people can take legal action' to protect their environmental and other rights, even where government has no obligation in terms of any other statute to give effect to these rights. Government must comply with the constitutional right to protection of the environment by taking protective steps. Therefore it is obliged to ensure that social and economic development, however justifiable, is accompanied by reasonable measures to protect the environment.

The right to an environment that is not harmful to health and well-being implies that the state or any other transgressor maybe held responsible and legally liable for costs arising from harm to the environment due to their actions or failure to take" action. Government will consider new measures and appropriate remedies to secure compliance with this constitutional imperative.

Sections 7,8 and *24 give constitutional* force to sustainable development. They oblige government to pass reasonable legislation to protect the environment, prevent pollution and ecological degradation, and secure sustainable development. Government must also ensure compliance with legislation.

Various other sections of the Bill of Rights have major relevance for environmental policy. They include section 25 *(Property),* section **26** *(Housing),* section 27 *(Health care, food, water and social security),* section 32 *(Access to information)* and section **33** *(Just administrative action).* -, .

The Bill of Rights therefore has clear implications for the environmental functions of all government departments in all spheres of government. Constitutionally responsible environmental governance requires coordination in all spheres of government to ensure responsible environmental custodianship. Section 24 in particular, requires an integrated holistic approach to environmental governance in order to give effect to its explicit mandate for the pursuit of sustainable development.

Essential Requirements for Effective Environmental Governance

Government has an obligation to give effect to people's environmental rights contained in the Bill of Rights. In order to achieve this and to meet the development needs of our people, sustainable development is essential. Sustainable development requires an integrated and coordinated environmental management policy. This must ensure that national norms, standards, legislation, administration enforcement and all other aspects of environmental governance are dealt with uniformly across departments and in all spheres of government. In order to achieve this government must enact its policy on environmental management in legislation.

The implementation of an integrated and holistic environmental management system must recognise the existing legislative and executive responsibilities and structures set out below.

Effective environmental management within the framework of cooperative governance and concurrent competencies requires that government:
❑ ensure clarity regarding environmental jurisdiction
■ eliminate duplication of functions in different spheres of government
■ provide for executive and administrative capacity in all spheres of government

Allocation of functions

The primary allocation of functions is made by the Constitution. It allocates law-making and administrative functions to national, provincial and/or local governments. Secondly, functions are allocated when the President appoints Ministers of the Cabinet and assigns functions to them in terms of section 91(2) of the Constitution, or the premier of a province appoints Members of the Executive Council (MECs) and assigns functions to them, in terms of section 132 of the Constitution. Thirdly, functions may be allocated by legislative bodies in terms of national or provincial legislation, provided that the legislative body has law-making power with regard to the function allocated.

The present allocation of functions gives a wide range of government agencies responsibilities for environmental management. Agencies with specific law-making or executive functions, can assign or delegate those functions to another government institution. Where agencies are in agreement, it is possible to achieve a re-allocation of functions between them within the framework of the Constitution.

To ensure coordination between the Department of Environmental Affairs and Tourism and departments and agencies in different spheres of government exercising environmental functions it may be appropriate to establish interim working arrangements. These will be formulated as Memoranda of Understanding (MOUs) to ensure that functions are exercised efficiently, without duplication and in 'a cooperative and mutually supportive manner.

Concurrent competency .,

The government of the Republic is constituted as national, provincial and local spheres of government which are distinctive, interdependent and interrelated. It is clear from the analysis of the provisions of the Constitution and Schedules 4 and 5, that in the case of numerous environment related functions, more than one sphere of government has legislative and/or executive and administrative authority, and that this authority is often exercised concurrently by different government agencies.

Legislation may impact on functional areas of competence. For instance, in terms of the Constitution air pollution is an area of national, provincial and local government competence, but the Atmospheric Pollution Prevention Act (45 of 1965) assigns the control of noxious and offensive emissions and dust control to national government, while assigning the control of smoke pollution and vehicular emissions to local authorities.

Functions relating to refuse dumps and solid waste disposal present another example. In terms of the Constitution, provincial and local government have concurrent competence in these areas, to the exclusion of national government. Yet the Environment Conservation Act (73 of 1989) provides that no one may establish or operate a refuse dump without a permit from the Minister of Water Affairs. The Act also authorises the Minister of Environmental Affairs and Tourism to make regulations with regard to waste management.

Under certain circumstances national legislation can impose upon a provincial or local government functional area of competence. These circumstances are:

■ when Parliament intervenes by passing legislation on a matter falling within a fictional area listed in Schedule 5 in order to, amongst other things, maintain essential national standards

❑ where national and provincial legislation conflict over a matter falling within a functional area listed in Schedule 4, national legislation that applies evenly to the country as a whole prevails over provincial legislation in a wide range of circumstances. Many of these circumstances apply to environment-related legislation

❑ where a by-law conflicts with national or provincial legislation it is invalid

❑ and probably most importantly, section 125(b) provides that provincial Executive Councils should implement all national legislation within the functional areas listed in Schedules 4 and 5 except where the Constitution or an Act of Parliament provides otherwise.

Under these circumstances the national government can perform functions within the competence of provinces and local governments. While this does not mean that the functions are 'taken away' from provincial or local governments, they cannot perform functions in conflict with the provisions of national legislation.

Cooperation between spheres of government

Chapter 3 of the Constitution requires government agencies to operate in accordance with the principles of cooperative government and intergovernmental relations that it sets out. These include the proviso that:

A ll spheres of government and all organs of state within each
sphere must . . . . co-operate with one another in mutual trust and
goodfaith by:
  (i)   fostering friendly relations;
  (ii)   assisting and supporting one another;
  (iii)   informing one another of, and consulting one another
  *   on, matters of common interest;*
  (iv)   co-ordinating their actions and legislation with one
  *   another;*
  (v)   adhering to agreed procedures; and
  (Vi)   avoiding legal proceedings against one another.

The exchange of information, consultation, agreement, assistance and support are key
features of cooperative government.

Achieving integrated and coordinated environmental management

Given the fragmentation of environmental functions throughout government
institutions, all national departments and other organs of state in all spheres must
comply with government's national policy on environmental management to achieve
integrated and holistic environmental management. In order to effect this, government
appoints the national Department of Environmental Affairs and Tourism as lead agent
responsible and accountable for:

❑ developing and implementing an integrated and holistic environmental management
  system
❑ coordinating and supervising environmental functions in all spheres of government
❑ developing and enforcing an integrated and comprehensive management system
❑ enforcing compliance with this policy

The role of the lead agent and nature of the management system are dealt with below.

Lead Agent

National legislation must empower the lead agent to play its role in accordance with the provisions of the Constitution. Legislation must give the lead agent the necessary enforcement powers to ensure compliance with national policy on environmental management, environmental legislation, norms and standards. The lead agent will ensure that policy, legislation, norms and standards address current problems and provide proactive solutions and coordinated implementation.' .,, ...

To ensure effective integrated environmental management, the lead agent will provide leadership and guidance. This will enable other national departments, provincial environment departments and local authorities to meet their executive obligations in respect of environmental management. In performing these functions the lead agent will act in accordance with the requirements of cooperative governance.

Responsibilities of the lead agent

As lead agent for environmental management, the national Department of Environmental Affairs and Tourism is responsible for exercising government's custodianship of the environment and must ensure that people's environmental rights are enforced. It will fulfill its constitutional, executive and legislative obligations by taking the lead in integrating and coordinating environmental functions as set out below.

Policy, strategy and legislation
- Develop and implement a National Environmental Strategy and Action Plan (NES&AP). The NES&AP is dealt with in the chapter on strategic goals and objectives.
- Enact legislation establishing national norms and appropriate minimum standards for environmental management.
- Develop guidelines that apply between departments and across all spheres of government.
- Review and develop policies, strategies, plans, programmed, legislation, norms and standards for effective environmental management.

Coordination
- Ensure the integration and coordination of environmental management functions within and between government departments and other organs of state in all spheres.
- Negotiate and enter into international agreements, ensuring their coordinated implementation and meeting reporting requirements.
- Establish mechanisms and procedures for the resolution of intergovernmental disputes.

National supervision of provincial environmental obligations
❑ Regulate and enforce provincial environmental obligations when the responsible provincial environmental departments or local government do not fulfil an obligation in terms of legislation or the Constitution.
■ Determine the mode of, and mechanisms for interventions that will be made where provincial environment departments or local government cannot or do not fulfill their environmental functions.

information and reporting
■ Develop information management systems to collect and process information, disseminate it and make it accessible to interested and affected parties.
❑ Report regularly and transparently on the state of the environment.
■ Take the lead in setting up mechanisms and processes for information exchange and consultation between all government agencies with environmental functions.

Participation and appeais
❑ Establish mechanisms and processes that facilitate public participation in environmental governance.
'• Set up procedures for appeal against environmental management decisions made by administrative agencies.

Monitoring, auditing and review
❑ Monitor and review the environmental performance and activities of other national departments to determine whether they are complying with government's national policy on environmental management, legislation, norms and standards.
■ Supervise, audit and review the environmental performance of national, provincial and local government institutions.
❑ Ensure that provincial and local government set up mechanisms for effectively monitoring all environmental management activities.

Capacity
❑ Assist provincial and local government environment departments and other government organs to develop environmental management capacity.
■ Serve as a resource for other departments and spheres of government managing environmental functions on behalf of the lead agent, by assisting them to evaluate environmental impacts.

Powers of the lead agent

In order to fulfil its responsibilities as lead agent, the Department of Environmental Affairs and Tourism will have statutory powers to:
■ enforce compliance by the public with national policy on environmental management, legislation, norms and standards .
■ bind all spheres of government and organs of state to comply with and give effect to national environmental legislation, norms, standards and guidelines in performing their environmental functions
■ enforce compliance with "national, policy on environmental management and legislation, norms and standards by all spheres of government and organs of state

- review the environmental impacts of all government policies; strategies, plans, programmes and actions and ensure that they conform with national policy on environmental management, legislation norms and standards
- enact legislation giving the "national Department of Environmental Affairs and Tourism the power of intervention to protect the environment in cases of conflict between national and provincial law as provided for in section 146 of the Constitution
- enact legislation to give the national Department of Environmental Affairs and Tourism power to enforce national norms and standards in terms of all legislation that has an effect on the environment
- intervene in instances where provincial 'or local' governments fail 'to-~ an executive obligation in respect of an environmental function 'as provided for in section 100 of the Constitution.: "-""

Examples of instances that require intervention include those where:
- a provincial nature conservation department fails' to' meet its obligations under provincial legislation in managing provincial nature reserves
- a provincial nature conservation department fails to meet its obligation in terms of section "16 of the Environment Conservation Act (73 'of 19"89) to participate in the management of a protected natural environment
- a provincial executive fails to meet executive obligations contained in national legislation

In such cases the national Department of Environmental Affairs and Tourism has the power to take action as set out in section 100 of the Constitution.

Responsible and accountable govem'ante

As lead agent the national Department of Environmental Affairs and Tourism@ exercise its powers within the framework of cooperative governance as required by the Constitution. It will respond to public needs and provide mechanisms for public participation in environmental governance.

To achieve sustainable development and improve environmental governance, government must ensure that:
- its officials are diligent, accountable and committed to the principles set out in this policy
- it employs sufficient personnel with the necessary skills to carry out its functions effectively
- it uses financial resources efficiently in giving effect to this policy.

Integration and coordination

The Ministry and national Department of Environmental Affairs and Tourism must provide for effective integration and cooperation with all government agencies and other role players in implementing the national policy on environmental management. To give effect to this the Minister of Environmental Affairs and Tourism must investigate the legal ramifications of establishing a transformed and strengthened

Committee for Environmental Coordination (CEC). This committee should provide executive and strategic guidance on environmental management and sustainable development across departments and spheres of government. The CEC will ensure integration and coordination of environmental functions between all departments and spheres of government. Pending new environmental framework legislation, administrative arrangements can be secured through structured consultation and embodied in Memoranda of Understanding (MOU).

Relations with government agencies in all spheres

All *government agencies* and state organs are obliged to implement the government's national policy on environmental management. Government must pass legislation to oblige all government agencies and state organs to adhere to national environmental noms and standards.

Inter-ministerial and inter-departmental coordination and integration of environmental management functions in all spheres of government is necessary in making and implementing policy, and to achieve integrated and holistic environmental management. The onus is on all government departments and other organs of state in all spheres of government performing environmental fictions, and any activity that impacts on the environment, to consult and inform the national Department of Environmental Affairs and Tourism and, in coordination with the department, reach agreement on:

❏ the development of policies, strategies and legislation
■ compliance with national environmental norms and minimum standards
■ enforcement of environmental legislation, regulations and guidelines
■ all environmental matters of common interest

The national Department of Environmental Affairs and Tourism will coordinate the environmental 'management activities of government departments and other state organs to achieve integrated environmental management of all environmental resources and media. In coordinating the environmental management activities of other government departments and organs of state the lead agent must consult with other national departments on the enforcement of environmental responsibilities that directly affect -their core business or line functions. Coordination must ensure compliance with environmental norms and standards and achieve integrated environmental management of all environmental resources and media.

The" lead agent, and all government departments and state organs that perform environmental functions must:
■ coordinate their actions and integrate environmental concerns into all government policies, plans, programmes and activities with an environmental impact
■ work together to integrate and coordinate legislation
❏ make, every reasonable effort to settle intergovemrnental disputes by using established mechanisms and procedures before resorting to mediation and court action
❏ adhere to agreed processes and procedures
❏ negotiate cooperative agreements, through relevant integrating structures such as MINMEC, on the implementation of government's national policy on environmental management.

▣ consult each.. other before issuing and withdrawing environmental quality authorisations, permits and exemptions, or proceeding with prosecutions .

▣ setup coordinating mechanisms to process applications for environmental quality authorisations and permits that will meet the requirement of a' one stop shop' for proponents. These mechanism. may "include statutory coordinating committees at provincial and national level which will make decisions to issue authorisations and permits.

Technical environmental norms and standards in respect of the line functions of other departments will be set by the line function departments in consultation with the Department' of Environmental Affairs and Tourism and within the framework of the White Paper on Environmental Management Policy. for South Africa. This will eliminate conflicting environmental norms and standards and ensure that the goal of integrated environmental management of all environmental resources and media is achieved. By doing this; government departments will comply with the requirements of cooperative governance.

Relationships with interested and affected parties . .

In fulfilling its commitment to participatory environmental governance, the national Department of Environmental Affairs and Tourism will involve interested and affected parties in civil society in:

▣ developing and implementing environmental policy

▣ developing legislation and regulations

▣ setting norms and standards ,

▣ monitoring and assessing environmental impacts.

Government will introduce legislation giving people standing to take legal action to protect the environment and ensure compliance with environmental law. The legislation must include the rights to:

▣ institute private prosecutions where the state does not act promptly and

▣ interdict those who break environmental laws.

Government will also enact legislation to ensure that every person and organisation acts with due care, according to their capacity, to avoid environmental damage.

Role of provincial and local government

Provincial and local governments "will operate within the national framework of sustainable development and integrated environmental management as spelt out in this policy. Where appropriate provincial and local governments will develop their own legislation and implementation strategies to address their specific needs and conditions within the framework of this policy. Where the situation requires it, they are encouraged to apply more rigorous norms and standards to ensure the protection of human health and well-being and ensure environmental sustainability. Functions relating to the management of environmental impacts should be carried out in the sphere of government that will be most effective. This will depend on:

▣ the magnitude and scope of the impact or impacts

▣ whether or not a conflict of interest is involved

- the existing environmental management capacity in a particular sphere of government and
- its ability to:
    - ensure environmental sustainability
    - achieve integration and coordination
    - give effect to environmental rights
    - secure participation by stakeholders

Local authorities have a key role to play in monitoring compliance with environmental norms and standards where they have the capacity to do so

International relations and obligations

The national Department of Environmental Affairs and Tourism must report regularly to the international community in terms of its international obligations. It must pass domestic legislation to give effect to its international obligations. All relevant interested and affected parties must have adequate opportunity for participation in negotiating, entering and implementing international agreements.

South Africa must adopt a proactive approach in international relations dealing with environmental issues and ensure that national policy on environmental management and priorities are not compromised. In doing so it should prioritise its engagements and relations according to the following hierarchy:
- immediate neighbors
- Southern African Development Community region
- African continent
- developing countries
- other countries

Coordination of Functions

The Constitution sets out approaches, legislative and executive authorities, and functional areas of competence of different spheres of government. However, it does not define the parameters of the executive and administrative powers and responsibilities of different spheres of government with respect to concurrent competencies. A framework environmental management act can define these parameters and give details on duties and obligations. In addition working relationships and administrative arrangements must be established between the Department of Environmental Affairs and Tourism and other government departments and agencies with environmental functions. These can be embodied in Memoranda of Understanding (MOU's) between the Department of Environmental Affairs and Tourism and other departments and agencies in all spheres. In practice this will have to be worked out through structured consultation and negotiation. In cases where consensus cannot be reached, mechanisms will be identified to resolve disputes between the affected government departments and agencies. ,.

To give effect to the Constitution and ensure implementation of national policy on. environmental management, government must ensure that there is no confusion about areas of environmental jurisdiction and no duplication of functions, between different departments and spheres of government. Environmental management functions and responsibilities may be executed by extension (on an agency basis) in other departments, **or** concentrated (consolidated) within the national Department of Environmental Affairs.

In determiningg the parameters for exercising the **executive** and administrative powers and responsibilities of different spheres of government, government must bear in mind the need to maintain the integrity of this policy. To this end it will apply the following criteria

❏ effectiveness in ensuring environmentally sustainable development

❏ effectiveness in achieving integrated and coordinated environmental management

❏ the need to resolve conflicts Of interest..

❏ the ability to secure participation by interested and affected parties in environmental governance

▣ giving effect to the people's environmental rights and constitutional requirements for national supervision% concurrent competencies and cooperative governance

▣ existing environmental management capacity in government institutions and the potential for developing this capacity in the future.

These criteria will direct government in determining whether the most effective means of achieving integrated environmental management and ensuring environmentally sustainable development will be:

❏ the concentration of environmental management functions within the national Department of Environmental Affairs and Tourism, or

u the extension of environmental management functions to other departments and organs of state in all spheres of government through intergovernmental agreements and accords.

Government must commit itself to developing the capacity of all its institutions to implement environmental policy effectively. Where capacity does not exist, it must provide for transitional measures to" meet governance commitments until capacity exists. Where there are no appropriate government institutions, government will investigate other options including the establishment of new institutions.

An Integrated and Comprehensive Management System

This section sets out a number of measures, mechanisms and instruments that will be used in implementing government's national **policy** on environmental management. In many cases these elements can be used in different combinations or ways depending on the requirements of a particular situation.

Government management measures, mechanisms and instruments must ensure compliance and secure cooperation in meeting policy objectives in order to enhance the quality of the environment and control environmental impacts.

Direct, Indirect and Supportive Measures

Suitable measures, mechanisms and instruments for environmental management can be grouped into three general categories based on the nature of government's intention and action.

Direct measures

These measures usually take the form of laws, regulations and **directives** prescribing **behaviour.** Direct measures can be proactive, designed to prevent or preempt environmental impacts, or reactive, designed to deal with impacts that have already occurred.

Pro-active management measures include:
- a **register** 'of hazardous substances and processes
- **permitting** conditions
- environmental charges and incentives
- integrated planning regulations

Re-active management measures include:
- compensatory payments
- responsibility for remediation and cleanup **costs**
- administrative controls
- rehabilitation and mitigation **programmes**
- **criminal** prosecution of **transgressors** and their **judicial** punishment, **including**:
  - fines
  - imprisonment "
  - alternative sanctions
- **conflict** resolution
- appeals
- liability

Some measure can be either proactive or reactive depending on their use. Examples include:

- monitoring to record emissions or discharges at source or to establish ambient levels in air or water
- negotiation and mediation
- Environmental Management Programmes (EMP)

Effective direct measures require:
- a regulator with the capacity to set and maintain norms and standards '
- an efficient enforcement system to ensure adherence to norms and standards

Indirect measures

These measures encourage people to change their behaviour in return for the benefits derived from sustainable development.

Proactive indirect measures could include:
- education and capacity building programmed to encourage active engagement in environmental management
- market based instruments aimed at including externalities in market prices
- covenants and agreements to improve environmental management standards and achieve cleaner production
- consultation
- eco-labelling

Reactive indirect measures could include:
- compliance auditing to ensure that a proponent complies with conditions of a permit or minimum standards
- management auditing to verify records, reports and other documentation
- performance auditing to measure environmental management performance against objectives.

Some indirect measures can be both proactive and reactive, for example:
- a toxic release inventory

Supportive measures

These measures provide a setting to enable effective environmental management and the achievement of sustainable development. They fall into two main categories, those that facilitate informed decision making and those that facilitate impact management.

Supportive measures that facilitate informed decision making include:
- Strategic environmental assessments (SEA)
- environmental impact assessments (EIA)
- cost benefit analyses
- risk assessment
- integrated environmental planning

■ integrated resource planning
■ exchange of environmental information

Supportive measures that facilitate impact management include:
■ institutional capacity building for effective environmental management
■ support for development of cleaner technology
■ support for development of renewable energy resources
■ support for sustainable resource management
❑ environmental management systems (EMS)

The direct, indirect and supportive categories are interrelated and the best results will come from an integrated approach based on an appropriate mix of measures from all three categories. The aim should be to find the best possible combination of measures to control and, where possible, minimise the environmental impacts of a particular activity.

The criteria for determining the most effective measures for exercising particular functions or responsibilities will be based on the policy principles and include:
■ effectiveness in ensuring environmental sustainability
■ the ability to secure participation by interested and affected parties in environmental
    g o v e r n a n c e
■ giving effect to the constitutional rights and requirements for national supervision,
    concurrent competencies and cooperative governance
■ existing capacity and the potential for developing capacity in the future.

Specific Measures, Mechanisms and Instruments

In the next section the policy sets out a number of specific measures, mechanisms and instruments that form part of the environmental management system. In most cases the way in which these elements are used will determine whether they fall into the direct, indirect or supportive category. When fully developed, the management system will incorporate other elements that are not described here.

Integrated framework legislation

The lead agent will develop a framework environmental management law to provide for:
■ the required degree of regulatory integration between national government
    departments and other spheres of government
■ the statutory integration of functions where necessary
■ principles applicable to decision making, conflict management and the exercise of
    powers by the lead agent, other departments"and spheres of government in dealing
with matters a f f e c t i n g the environment
❑ national norms and minimum standards.

This framework legislation will provide the basis for subsidiary regulation by the lead agent, other departments and other spheres of government.":

The criteria for determiningg the most effective management mechanisms will be based on the policy principles and include:

◩ effectiveness in ensuring environmental sustainability '

◩ the ability to secure participation by interested and affected parties in environmental governance

∎ giving effect to the constitutional' rights and requirements for national supervision, concurrent competencies and cooperative governance

◩ existing capacity and the potential for developing" capacity in the future

The lead agent will undertake the necessary 'coordination between affected government agencies. to provide accessible, uniform one-stop permitting and the review of environmental impact assessments and audits.

Integrated environmental management and planning

Integrated Environmental Management (IEM) will be a prerequisite for government approval of all activities with potentially adverse environmental impacts. The lead agent will set the norms and standards for IEM, applying the principles in this policy. Local governments will be required to incorporate IEM into Integrated Development Plans and Land Development Objectives. The purpose of making IEM compulsory is to give decision makers at all levels adequate information on possible adverse environmental effects of the activity. This will enable them to make decisions on possible alternatives to mitigate impacts or to adopt the 'no go' option. The IEM process must provide for the participation of interested and affected parties in the planning, assessment and implementation of activities.

Economic policies and strategies and spatial development plans impact 'on the environment and must be dealt with in the context of IEM. In order to ensure sustainable development, environmental issues have to be integrated into all development processes at all levels of decision making. Mechanisms and instruments to integrate environmental concerns include:

◩ decision support instruments

◩ management instruments

❑ market based instruments

❑ monitoring instruments

∎ crisis response instruments

❑ communication and information instruments

❑ environmental management frameworks

Enforcement

In enforcing legislation the role of government is to:

◩ promote, protect and enhance the environment in accordance with the Constitution

◩ protect common rights and interests

◩ regulate impacts of human activities on the environment fairly and consistently

◩ facilitate the management of conflict by providing for due process, conflict resolution and the right of appeal

■ enforce regulations and legislation through prosecutions, fines, litigation and any other necessary measures
■ carry out its functions in accordance with national policy on environmental management

Government will develop uniform and consistent administrative control procedures. They must provide for good administration and rapid results and should include:
■ permitting conditions
■ powers of investigation
■ abatement notice procedures
■ suspension or cancellation of authorisation
■ detention or seizure of articles

To ensure effective enforcement, government must:
■ follow a cooperative national-approach to intergovernmental enforcement of environmental legislation, and in doing so reduce the potential for conflicts and competition
■ better define the roles of respective levels of government in enforcing environmental legislation
■ provide for greater integration and coordination of environmental functions at both national and provincial levels

Punishment of environmental transgressions

To secure sustainable development and protect the well-being of citizens, punishment of environmental crimes will reflect the gravity and extent of the degradation and abuse of the environment. Government will investigate methods of determining fines and prison sentences linked to the cost of living and to the cost of the offence to the environment. Government will also explore the fusibility and desirability of alternative sanctions, for example, community service, seizure of assets used to cause environmental harm, penalties based on the value of benefits accruing to the accused as a result of the transgression, withdrawal of permits and/or licenses. " -

Liability for environmentally harmful actions

To ensure that the right to a healthy environment is adequately protected and promoted, actions which cause harm and costs to the environment should attract legal liability in the form of:
■ fines
■ compensation claims and
■ restitution and rehabilitation orders

Government will consider new remedies for those who suffer harmful effects from past and present assaults on, and damage to, the environment.

Reviews, conflicts and appeals

Common law provides for review of government decisions on authorisations for appropriate land use, environmental rehabilitation, pollution control, waste management, exploitation of natural resources, zoning, EIAs and other decisions with significant environmental impacts. Where necessary, government must develop appropriate processes and procedures to give effect to this blanket provision and' integrate it into planning and development decision making. :

In particular, the lead agent will ensure that processes exist to provide for the review of, and appeal against, decisions concerning:
❑ policy development processes '
❑ development plans, programmed and projects
❑ environmental management and impact management activities
❑ permitting and enforcement.,,

The search to balance development with environmental sustainability will lead to conflicts. They will include disagreements over appropriate land use, access to scarce natural resource% and the management of polluting materials. Government must develop institutional capacity to manage conflict by pre-empting, preventing and resolving such disputes. This is essential for a successful environmental management system founded on public participation and strategic alliances between government and other interested parties.

To achieve this government will establish a system to manage conflicts made up of appropriate and accessible procedures, mechanisms and processes. It will integrate the system into environmental management processes in all spheres of government and will make provision for interested and affected parties and expert input.

The system will:
❑ strengthen or, if necessary, replace existing conflict resolution procedures, mechanisms and processes
■ build conflict resolution procedures, mechanisms and processes into new legislation and institutional structures
❑ investigate the potential for integrating environmental considerations into existing and emerging legislation for planning and development
❑ provide for referral of Conflicts that cannot be resolved in a particular sphere to a higher sphere or an independent body

Information management

Until the new legislation envisaged under Section 32 (2) of the Constitution is developed, Section 23 (2) (a) of Schedule 6 governs the right of access to information. This states:

> *Every person has the right of access to all information held by the state or any of its organs in any sphere of government in so far as that information is required for the exercise or protection of any of their rights.*

Once the new legislation is developed it will govern the right of access to information.

Information on the state of the environment, and activities with an adverse or damaging effect on it, is essential for effective environmental management, protection and coordination. This information is necessary for developing and implementing environmental standards and legislation. The availability and accessibility of such information allows for prevention and mitigation. It facilitates compliance monitoring and successful participation by interested and affected parties. Information may influence consumer behaviour and raise public and business awareness, encouraging compliance and the prioritisation of environmental issues.

Ways to promote the accessibility of information include:
❏ environmental audits and reviews
❏ eco-labelling
■ eco-accounting
■ institutional and community monitoring
❏ public education, awareness and debate
◪ industry education and awareness
❏ reporting and publication of information
❏ information exchange
▩ consultation
❏ notification of emergency situations
◪ recognition of local knowledge through networking with civil society

Achieving effective environmental management and improving decision making requires good information. Government will commit itself to collecting, analysing and disseminating information and providing resources to meet these needs.

Information is transmitted in a variety of forms including written, electronic and oral. Information collection strategies should aim to harvest information from a variety of sources including:
❒ scientific
▩ traditional
▩ local '
❏ non-formal.

The format and process for disseminating information must be accessible to the particular user group concerned. In this respect attention must be given to both the content and the form or media used for transmitting information.

To meet user information needs the national Department of Environmental Affairs and Tourism will establish an information clearing house. It will also develop information management products to support decision making that will promote sustainable development.

Research and development

Policy development and decision making for environmental management need to be supported by research. This should be directed to the development of appropriate technologies and methodologies to ensure sustainable resource use, manage impacts and achieve cleaner production. Research and development must make use of all sources of information, forms of knowledge and research methodologies, including participatory research.

Government will support both bake and applied research in searching for solutions to identify and prioritise issues confronting policy development and environmental management. It will give particular attention to addressing environmental justice concerns, environmental sustainability and administrative efficiency.

Areas needing research include:
- state of the environment
- cleaner production
- best practice
- monitoring environmental quality . .
- determining carrying capacity and sustainability indicators
- risk assessment
- sustainable resource use
- transfer of appropriate knowledge and skills regarding environmental management
- transfer and diffusion of environmentally sound technologies.

Partnerships and participation

The effectiveness of governance structures is influenced by the capacity of civil society to work with government. In keeping with international trends and Agenda 21, the government will affirm, strengthen and establish partnerships with interested and affected parties including:
- non governmental organisations (NGOs), and/or NGO associations
- affected communities and community based organisations (CBOs)
- organised labour
- business and industry, and/or industrial associations with special attention to the needs of small, medium and micro enterprises
- other departments and levels of government
- other interest groups.

Government must therefore establish national, provincial and local advisory structures, mechanisms and processes to foster public participation in defining environmental problems and seeking solutions. These structures will:
- provide for good governance
- ensure that there are platforms for interested and affected parties to contribute to the development of policy, legislation, standards and decision making processes by expressing their views and voicing their concerns
- advise and inform government
- seek to achieve co-ownership for policy development.

The mechanisms and processes must ensure:
- timely communication of data and information
- effective and efficient participation
- fair notice and practice
- balanced representation of interested and affected parties
- transparency.

Agreements

Government may enter into transparent agreements *to* promote performance that exceeds minimum standards by encouraging imovation and the development of best practice. The scope of activities covered, the aims of the agreement and the time frame for achieving those aims will be clearly specified.

Agreements can only be considered where:
- compliance with the national policy on environmental management, legislation, norms and standards has been clearly demonstrated for a reasonable period of time
- effective and transparent monitoring and audit systems and structures are in place
- interested and affected parties support the agreement

Agreements will be in accordance with the principles of open information and participation.

Concluding Remarks

"- We can characterise the 1980's as 'the decade the environment hit back' with the lives of almost all South Africans touched by major natural disasters such as drought and floods and increasing environmental impacts from industrial development. Following on from this, the 1990's have seen growing awareness of the need for environmental justice and sustainable living throughout society if we are to achieve environmentally sustainable development.

Through this new policy on environmental management government expresses its solidarity with "the drive for environmental justice and sustainable living. The environment is no longer an 'tier-thought', but is integral to the 'development of our country. The new' environmental management policy gives government and the people of South' Africa the means to "work" "towards a just and sustainable society characterised by peace and prosperity.', It gives us a formidable framework for interaction with our environment, our past, "present and future.

Appendix 1

BACKGROUND AND TRENDS

Major areas of concern

CONNEPP has identified a wide range of environmental concerns' amongst people from all sections of our society. South"Mica faces enormous challenges in addressing these concerns. In addition to addressing the 'many 'problems created by previous generations, we must meet the future needs of all the people in the country in an economically and environmentally sustainable way.

The historical legacy
South Africa's economy and society have been shaped by centuries of colonial rule that led to the apartheid system. This has had an enormous negative impact on the interaction between people and the environment, particularly for those denied citizenship rights and, in many cases, forced to live in degraded environments. The authoritarian nature of past governments shaped the environmental policies they , pursued.

The purpose of this chapter

At present there is no comprehensive and systematically analysed information available on the state of the environment to use in developing policy and identifying priorities. The overview that follows identifies important issues that government and environmental managers must take into account when deciding on priorities, strategies and interventions. As better information becomes available it will be necessary to review and update environmental policy and goals.

The information base

Socio-economic information on South Africa varies from one source to another. Reasons include the problems of producing consolidated national statistics from fragmented apartheid records. The coverage of different topics also varies. For example there is considerable information available on soil types and vegetation, but relatively little information on levels of pollution in the air, water and soil. The quality of information and the norms used to analyse information vary between sources and information is often difficult to verify.

Despite variations, the sources consulted support the broad picture presented in this section. The main sources used are the Central Statistical Services, The Department of Finances's 1997 Budget, and policy documents produced by various government departments.

Social Issues

Population

AU people impact on their environment. *The* nature and extent of impacts depends on factors such as the type of economic activity, distribution of wealth and resources, cultural values, and lifestyles. Because of this, the size, distribution and level of development of South Africa's population has important implications for patterns of resource use and impacts on human health and the environment.

Size   and   growth
South Africa's total population is around 43 million. It is a relatively young population, with 37% under 15 years old. This age, profile will contribute to future increase in population size. However, the average population growth rate, presently standing at 2.1770, is declining. At the current growth rate the population will double over the next 32 years. United Nations projections put the total population at 46 million in 2000 and over 56 million in 2010.

Urbanisation
Large urban areas consume **vast quantities** of natural resources which may come form hundreds or even thousands of kilometres away. They also produce vast quantities of waste. People living in these urban areas often have little contact with the natural environment and may have little knowledge of, or concern for, their impact on it. At' present around 52% of South Africa's total population live in metropolitanand urban areas. By 2010 over 60°/0 of the population will live in these areas. Reasons for urbanisation include exclusion ii-em farming land and overcrowding in under serviced and degraded rural environments, with few job opportunities.

Recently the pace-of urbanisation has slowed. This is ascribed to lack of jobs, high levels of crime and violence and the huge backlog of housing and other services in Urban   areas. "

Health and mortality
Life expectancy and infant mortality are important indicators of the level of development in a country and the quality of life, including environmental quality, that people enjoy. There are significant differences in life expectancy and disease profiles for different population sub groups. Overall life expectancy was 64 years in 1994. On average Whites live nine years longer than Africans. Women average six years more than men, while overall life expectancy is lower in the less developed provinces.

Infant mortality is highest for Africans at around 42 per thousand live births and lowest for Whites at around eight per thousand. AIDS is expected to become a major cause of premature adult death in the future.

Policy focus areas
Concerns   include:
❑ the growth rate of the population and of the labour force, relative to the growth of the economy, the backlog in meeting social needs, the level of unemployment and the   aspirations   of   the   people
◼ limited use of population data in formulating, implementing monitoring and evaluating development plans and programmes for the entire population

◻ the **pressure** of **population,** production and consumption **patterns** on the environment.

◻ the question of **equitable** access to land **and** other resources.
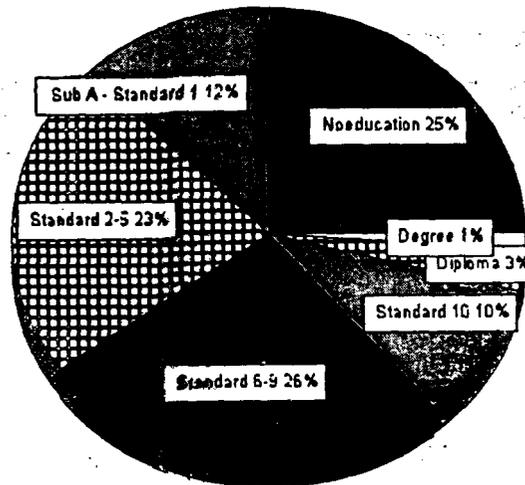
Education'

Education is a key element in determining economic performance and equitable income distribution in the long term. Overall education levels are low with high levels of inequality between population sub groups. Even where years of formal schooling are high, as with the white group, education standards are not always good.

Literacy
A survey of national literacy by Harvard University and the University of Cape Town in 1995 found that 80% of' Africans and 40% of whites lacked basic literacy and numeracy skills according to a standard test.

Policy focus areas
Capacity building and retraining programrnes, and educational programmed *to* increase environmental awareness and public involvement will have to take account of the low overall education levels if they are to reach the disadvantaged.

Education levels in South Africa 1994

- Sub A - Standard 1 12%
- No education 25%
- Standard 2-5 23%
- Degree 1%
- Diploma 3%
- Standard 10 10%
- Standard 6-9 26%

Economic Issues

In this section we give a brief picture of the economic sectors, their role in the economy and some of their main environmental impacts. Further details on environmental management in the economy are contained in the section on *Present status of environmental management* on page *64.*

Real Gross National Product (GNP) per, capita, which measures the income of South Africans produced locally and abroad per head of population, grew by about 1.5% in 1996. Added to increases in '94 and '95 this makes a total increase 'of around 4.5% since 1993. However this growth has not yet 'offset the decline in the early 1990s and GNP per capita is still lower than it was in 1989.

Employment and unemployment

In the year to September' 1996, employment in" mining, construction and manufacturing fell by about 1,5 % to 5,24 million. Public sector employment grew by about 47000. The Central Statistical Services 1995 October Household Survey indicates total employment of around 10,15 million. This includes employment in agriculture, the informal sector and private services. Unemployment is estimated at 29% of the economically active population.

Policy focus areas ,,
The high level of unemployment and the need to maintain the upward trend of GNP to keep pace with population growth are major factors in determining the present priorities for economic policy set out in the Growth and Development Strategy (GDS) and in the Growth, Employment and Redistribution Strategy (GEAR). At present economic policy gives little consideration to the need to integrate and address environmental considerations in pursuing sustainable development.

Economic Sectors

The South African economy was built on mining and agriculture, both activities that , can have major environmental impacts. These sectors remain important although the processing, manufacturing and service sectors have overtaken them in size. These latter sectors can also have major environmental impacts.

Mining
Mining and minerals beneficiation accounted for 11% of GDP and over *50%* of foreign exchange earnings in 1995. Employment in the mining sector peaked in the 1980s and then declined to slightly over 600900 in 1994. The sector's contribution to government income@ the form of taxation has declined considerably.

Mining has a number of environmental impacts ranging from contamination of soil, air and water to impacts on the cultural and visual environment. Worker health and safety is an important environmental concern for this industry.

Agriculture, forestry and fishing

Employment in the sector has been declining since the 1970s. In 1997 it stood at about 800000. The distribution of agricultural land is a major political issue currently --" being addressed by the Department of Land Affairs.

While commercial agriculture meets needs for food and raw materials, unsustainable practices by some farmers have led to erosion, loss of soil fertility, crusting, compaction salinisation, acidification, and erosion, as well as the pollution of surface water supplies.

Agriculture and forestry have contributed to loss of biodiversity and cultural resources, and the displacement of rural population, Urban expansion is estimated to encroach on agricultural land at the, rate of 30 000 hectares a year. The working and living environment of-' workers and their health and safety are important environmental issues. Commercial forestry plantations of exotic species reduce the habitat for indigenous species and can have negative effects on run-off and water tables

Commercial and sport fisheries have depleted stocks of some marine species. There is ongoing controversy about the distribution of fishing quotas.

, industry

Industry has a key role to play in reconstruction and development. It has become more sophisticated, with advanced technological capabilities in some areas and has increased its contribution to GDP and employment creation. However, as the table above indicates, employment in the sector has declined in the last decade. Minerals beneficiation and chemical processing, both activities with major environmental impacts, dominate South African industry. GEAR states that trade and industrial policies will seek to enhance the competitiveness and employment absorption of. manufacturing.

Energy

Most of South Africa's energy is supplied in the form of electricity generated by coal burning power stations. Oil supplies 17% of energy requirements, biomass 10%, nuclear power 10/0 and hydroelectricity less than 1%.

At the end of 1995 about 50% of households had access to electricity, but it accounted for only 17?/o of total household energy use. Most household energy comes from fuel wood, coal and paraffin. Use of fuel wood, coal and paraffin leads to health problems and deforestation. Energy policy has identified the need to look at appropriate fuels and appliances to meet the energy needs of low income households.

Low coal and electricity prices have contributed to the development of a large, energy intensive primary industrial sector, According to the Council for Scientific and Industrial Research, energy intensity has increased by 15% since 1970. On the other hand, lack of access to electricity in many urban and rural areas has limited the development of small, medium and micro enterprises (SMMEs). Government policy identifies cheap energy as a source of competitive advantage for South African industry. Little has been done to promote energy efficiency in industry and households.

The Department of Mineral and Energy Affairs 'is currently supporting various programmes on energy "efficiency. Energy efficiency is being included in the curricula at primary, secondary and tertiary levels and in industrial training. In the domestic sector, the second phase of a communication campaign with the theme enerwise/moneywise was launched in March 1997 with the aim of educating, training and informing consumers on the potential for energy efficiency improvements. An energy labelling system for refrigeration 'equipment has also been introduced. In the commercial sector, voluntary programmed have been initiated in collaboration with the International Institute for Energy Conservation, and if proved to be successful, it will be expanded to the domestic and industrial sectors. A draft South African Energy and' Demand Efficiency Standard (SAEDES) has also been developed in collaboration with the United States of America. This will be finalised and implemented later this year. In the industrial sector, a scoping study on a strategy to promote an energy' performance contracting industry and Energy Service Companies (ESCOs) has been initiated and a business plan for the establishment of an Energy Efficiency Agency will be completed in July 1997. In addition, energy efficiency market surveys are being conducted in the paper and pulp and textile industries. The main aim is to obtain information to 'facilitate awareness, campaigns and other initiatives. Information on consumer energy behaviour and needs is important to establish benchmarks for the evaluation programme. As a first step in the process the department is busy developing and energy efficiency database. ' "

Tourism
Government has identified tourism as an activity with major potential for job creation and economic growth. South Africa's competitive advantage in this area stems from its combination of a relatively sophisticated infrastructure with ready access to areas containing a rich diversity of fauna, flora, cultural resources and geographical features.

Realising the potential for tourism development-will depend largely on ensuring that development is environmentaUy sustainable and does not degrade the environment or reduce biodiversity. Poorly managed tourism can have major negative environmental impacts.

Transport & communication ,
Road transport is a significant source of air pollution. Past development focussed on meeting the needs" of private vehicle owners and neglected more environmentally friendly public transport. Present transport and energy policies have identified the need to improve public transport and the energy efficiency of transport.

There is a sophisticated communication infrastructure but its reach is largely limited to historically white areas. Present policy aims to increase the coverage of telephone and telecommunications networks. Normal postal services are unreliable.

Retail
Sophisticated retail outlets with a wide range of goods, many of them imported, serve the relatively small but affluent upper and middle sections of the market. At present, despite some isolated initiatives, the sector has not realised its considerable potential to influence consumers, marketers and suppliers. National policy can assist this process by the use of suitable market based instruments and other regulatory controls.

The large lower end of the market is served by street vendors and small neighbourhood spaza shops. There is considerable potential for local government and NGOs to work with SMMEs and with consumers to improve environmental management and reduce waste.

Sectoral output and employment growth

	Employment (000s) 1985	growth (%) 1985-94	Value Added (Rm) 1985	growth 1985-94
Agriculture, forestry and fishing	921	-0.7%	10 907	2.4%
Mining and quarrying	766	-2.5%	26 130	4.5%
Manufacturing	1484	-0.1%	58 872	0.2%
Electricity, gas and water	84	2.8%	9 443	2.5%
Construction	461	-1.1%	8 875	-2.0%
Trade, catering and accommodation	961	0.4%	35 580	0.5%
Transport, storage and communication	518	+1 %	16 977	1.4%
Financial and business services	350	2.0%	32 041	1.5%
Community and personal services	277	1.4%	4 037	1.7%
Non-agricultural domestic private sector	4 971	0.7%	184 825	0.5%

Source: Growth, Employment and Redistribution Strategy (GEAR), June 1998

Policy focus areas

Economic activity, wealth and poverty all have impacts on the environment and must be considered in developing environmental policy. At present economic activity is not governed by comprehensive environmental performance norms and standards, regulatory controls, management practices, reporting requirements and programmes to promote and improve best practice.

Policy must address equity in access to natural resources for' all activities including:
- mining
- agriculture
- energy
- fisheries
- manufacturing
- retail
- services.

Natural Resources

This section looks at the state of natural resources in the country, including the environmental media of air, water and land/soil, mineral and energy resources, and the world of living things (plants and animals). In many cases accurate and comprehensive information on the state of natural resources is not readily available. In some cases there is no information, in others the information is not easily accessible or verifiable.

Air

Air is essential for life on earth. Economic activity introduces pollutants into the atmosphere that pose threats to human health' and other life forms and have the potential to 'change the climate with unpredictable, but potentially severe can only be controlled large bodies of air cannot be contained, atmospheric pollution at source.

At present there is no comprehensive information on air quality or on the levels of emissions entering the atmosphere from different sources. Major areas of concern are the high levels of smoke and other pollutants in poorer urban and rural households without electricity and the impacts of the mining, energy, mineral and petro-chemical industries on air quality standards.

Water

South Africa is a relatively arid country with average annual rainfall of around 500mm – 60% of the global average. Rainfall is highest between the eastern seaboard and the Drakensberg Mountains, declining the further West one moves. In many areas there is a poor match between water supply and demand.

The Department of Water Affairs estimates South Africa is using about two thirds of annual average rainfall. "'irrigation (52,2%) is the largest user. Water demand is increasing 'rapidly 'for domestic and industrial uses. Inademiate sanitation is a particular concern because of its impact on water quality and health. At present an estimated 21 million South Africans do not have adequate sanitation. Because water' is a scarce resource, effluent must be purified and returned to the rivers. Owing to inadequate treatment and illegal discharges, water quality is deteriorating in many areas. Water quantity and quality issues are interrelated. There is concern that too little water is allocated to sustain the natural environment.

Proportional Water Demand by Sector: 1980 and 2010 (estimate)		
	1980 (%)	2010
Irrigation	52.2	"45.9"
Ecological use rivers and lakes	17.0	10.7
Municipal and domestic	9.3	17.3
Forestry afforestation	7.9	8.8
Industrial	6.3	11.4
Mining	2.9	2.8
Power generation	1.7	3.5
Stock watering	1.8	1.4
Nature Conservation	1.1	0.7

Source: Department of Water Affairs, 1996

Policy focus areas

Present water policy emphasises the environment's role as the source of water rather than a user competing for the resource, and the need to identify a reserve of water to meet environmental and domestic consumption needs. Water quality management no-w embodies the principles of pollution prevention, a precautionary approach and, receiving water quality standards to meet user needs.

Land/soil

Land is the source of most of our food and raw materials and also provides us with living space. It is also the final resting place of 90% of the waste we produce. As population and economic activity increase there is growing competition for the limited land available. South Africa has limited high potential agricultural land, most of it already cultivated. Future increases in production must come from greater output on existing land rather than bringing new areas under cultivation. In many parts of the country soil is being eroded faster than it can be replaced, undermining long term fertility. . .

Policy focus areas

At present environmental concerns are not integrated into spatial planning practices, raising concerns about the appropriate use of kind. Concerns include the loss of the limited amount of high potential agricultural land to urbanisation and industrialisation and" threats to biodiversity conservation posed by residential and economic development. Sustainable use of agricultural land also requires attention.

Protected areas

Terrestrial reserves

There are 422 formally protected areas in South Africa, covering 6% of the land. These areas fall into 21 different categories administered by a wide range of bodies including national and provincial parks boards, government departments, local authorities and private and public landowners subscribing to various conservation schemes.

All seven major habitat types are represented in protected areas but the lowland fynbos, succulent Karoo, Nama Karoo, highveld grassland and thicket biomes are not adequately protected.

Marine reserves
Marine protected areas along South Africa's coastline cover most marine ecosystems. However, the reserves were mainly established to secure fish stocks rather than to conserve biodiversity.

Specific characteristics of marine environments, including invisibility and continuity with global oceans complicate management, but they are affected by many of the same sources of pollution as the land environment. These include domestic sewage and industrial waste, infrastructural development and mining, over-exploitation of resources and the accidental and deliberate introduction of alien species through activities such as mariculture.

Marine protected areas in South Africa serve a variety of functions, including the protection of biodiversity, the management of fisheries and the development and control of human activities in the marine environment. The major threat to marine biodiversity is fishing. Pollution and habitat alteration are serious problems in areas such as coastal embayments that are susceptible because of poor circulation, in sensitive habitats such as coral reefs and mangrove forests and areas with poor capacity for recovery such as deep sea soft sediments.

South Africa's West Coast and the Kwa-Zulu Natal South Coast are not adequately represented in marine protected areas. Sandy beaches, estuaries and deep sea soft sediments are poorly protected marine habitats. Very few marine protected areas are adequately managed.

Policy focus areas
Many protected areas are isolated due to the lack of a holistic and integrated conservation strategy.

Cultural Resources

South Africa's cultural resources span a period of about two million years and include rock art, archaeological and palaeontological sites, sites of conflict, oral histories and traditions, historic buildings, movable and immovable structures and objects, burial sites and marked graves, place names,- social' and economic processes and domesticated plants and animals.

The National Monuments' Council (NMC) ii-responsible for the administration of the National Monuments Act (No 28 of 1969) and the protection and conservation of" monuments and sites of significance. The NMC is a statutory body funded through the Department of Arts, Culture, Science and Technology. The protection and conservation of cultural resources fall into seven different categories. These are

- the permanent declaration of objects, sites and properties of historical, cultural, spiritual, aesthetic or scientific significance as national monuments
- the provisional declamation of national monuments
- the designation of any conservation-worthy rural, urban archaeological and/or natural area as a conservation area
- the listing of structures or sites of cultural, historical or aesthetic interest in the' National Register of conservation worthy immovable property
- general protection of a wide range of sites and objects such as meteorites; fossils and palaeontological sites and objects; rock paintings or engravings; archaeological objects and sites; the anthropological or archaeological contents of graves, caves, rock shelters and middens; and historical sites and shipwrecks older than 50 years
- the protection and maintenance of war graves
- the protection and control of the export of movable cultural property.

In addition, the Environment Conservation Act (No 73 of 1989), provides for the integration of cultural resources in environmental management processes.

Nationwide, systematic information on the distribution% quantity, condition and significance of cultural resources is sketchy and often not readily accessible. For example, less than 5°/0 of the coastal zone has been surveyed for archaeological sites, and less than 1% systematically surveyed.

Policy focus areas

Cultural resources are affected directly by development and planning policies, programmed and projects. Development can darnage and destroy cultural resources and diminish their value. Mechanisms must be developed to ensure that the impacts of development projects and activities are addressed as an integral part of integrated environmental management and that the use of cultural resources is sustainable.

Present Status of Environmental Management

Government

There is a widespread view that environmental issues in South Africa have had low priority, being narrowly defined as relating mainly to nature conservation. This is reflected by a failure to integrate environmental concerns into economic planning and decision making at all levels in society. Sustainable development and effective integrated environmental planning and management are seriously impeded by:
- fragmented policy and ineffective legislation
- uncoordinated planning
- ineffective enforcement of regulations
- institutionalised conflicts of interest in regulating environmental impacts and promoting resource exploitation
- confusion about the assignment of functions at different levels of government
- limited capacity and resources in government and civil society, and
- limited public participation.

At present there is no legal obligation that requires Government policies plans and programmed to be subjected to strategic environmental assessment (SEA), although SEAS of some of these activities have been done voluntarily. There are no requirements for government institutions to implement environmental management systems (EMS), monitor impacts, or conduct environmental audits. Environmental Impact Assessments (EIAs) of a variety of defined activities are required by regulations in terms of the Environment Conservation Act, 1989. These regulations were promulgated in September 1997 and require authorisation for the activity from the provincial government department responsible for environmental management or from the national Department of Environmental Affairs and Tourism. The EIA regulations legislated only the scoping and EIA portions of the integrated environmental management (IEM) procedure. This is a major limitation of the current regulations and it has been proposed that the entire IEM procedure 'should be legislated.

Capacity building

Little attention has been given to the understanding rind awareness of environmental issues in the general populace or to their ability to play "a 'role' in effective environmental management. Capacity issues that require attention include:
- capacity problems in government
- lack of readily available and comprehensible public information on the environment
- lack of appropriate information and training for workers in production sectors with environmental impacts '
- lack of hums.m financial and organisational resources to enable civil society, and community based organisations in particular, to participate in environmental management and policy development
- inadequate resourcing of appropriate research and development.

Participation

In the past many interested and affected parties have been excluded from decision making and information processes relevant to the environment and there has been little if any public participation in environmental governance.

Information

Information is a basic requirement for environmental governance. Where interested and affected parties do not have access to information, effective participation cannot take place. At present much important information is:, -

- inaccurate
- incomplete
- contradictory
- inaccessible
- often too technical and scientific
- often disseminated ineffectively and too late

Economic activity

Apartheid policy often distorted industrial developments for political reasons with serious implications for environmental management and protection. For example, secrecy surrounded strategically important industries such as the petroleum and nuclear industries. The drive for economic self sufficiency in response to sanctions, along with the attempt to implement 'separate development', resulted in subsidies to keep unsustainable sectors going and to promote industrial decentralisation. Maintaining the apartheid system took precedence over threats to human health and **negative environmental impacts. .**

Industry is a vital contributor in the quest for sustainable development. It creates jobs, generates wealth, earns foreign exchange, pays taxes, provides goods and services, and sustains national prosperity. However, most industrial activities also create waste and pollution. As the most organised area of human activity, industry has the potential to manage its environmental impacts better. It can build on initiatives like the Industrial Environmental Forum, the Responsible Care Programme and others that work to promote awareness, communicate best practice and encourage improved environments.lmanagement.

Present practice

The following information is drawn from the most comprehensive study to date on corporate environmental responsibility in South Africa. The study is based on 107 companies that responded to a questionnaire on environmental management practices sent to 419 companies. The companies were registered on the Johannesburg Stock Exchange in the mining, minerals, financial and industrial sectors.(M Shotter, *Die Sosiale Verantwoordelikheid van Genoteerde Sakeondernemings in die Republiek van Suid-Afrika,* MCom, (Accounting) School of Economics and Management Science, University of Pretoria, 1994) The study is based on the premise that in order to meet environmental responsibilities an enterprise must have a management system specific to these goals.

Forma/ environmental policies

Only 44% of respondents had a formal, written environmental policy. Twenty seven per cent of those with formal policies had consulted workers, 11% clients, 3% shareholders and none the general public in developing their policies. Sixty six percent said they had measurable goals and 55°/0 said that environmental performance played a part in 'measuring overall performance.

Companies with Written Environmental Policies
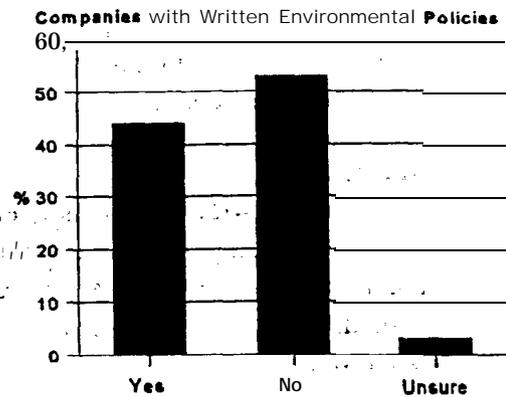
Reporting and auditing

Thirty three percent of respondents reported to workers on potential negative environmental impacts arising from activities undertaken by the enterprise. Five percent reported monthly, 1 1% between two to six monthly and the rest less frequently. Fifty five percent did not report and 12°/0 were unsure if they reported. Thirty five percent reported to workers on positive environmental impacts with roughly the same percentage of frequencies. Fifty three percent did not report and 12% were again unsure whether they reported.

Thirty one per cent conducted annual or hi-annual internal environmental audits and 19% annual or hi-annual external environmental audits.

Environmental impact assessment

Twenty five percent spent less than 1% of establishment costs on environmental impact assessments for new activities and 13°/0 between 2 to 4°/0. Sixty per cent were unsure what percentage of costs went to environmental impact assessments.

Waste management

Forty three per cent of respondents indicated daily monitoring of emissions, 4% weekly, 14°/0 monthly and 10°/0 yearly. -Thirty' nine percent" did not monitor-emissions and 16'% were unsure whether they did. Forty three per cent of 'respondents responsible for. toxic and/or radioactive emissions reported no action to monitor them, ,130/0 monitored them daily, 1 0°/0 hourly' and 27% were unsure of the monitoring frequency.

Monitoring of Emissions
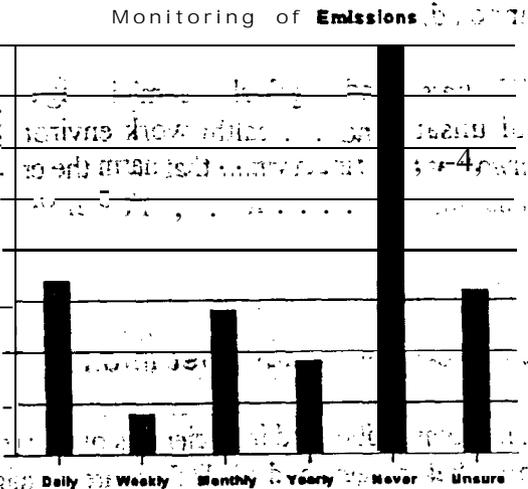
Thirty one percent were unwilling to spend anything on equipment to limit emissions, 16% were prepared to increase expenditure for. this purpose and 47% were unsure. Thirty one percent did not recycle any waste, 3 6°/0 recycled from 1 to 19% of waste, 16% were unsure -whether they recycled waste and 8°/0 recycled more than 60% of waste. "-'"

Thirty percent spent nothing on rehabilitating disturbed land, 35% were unsure of their expenditure. Ten percent spent less that 0,5% of profits generated by the

responsible activity on rehabilitating land and 15% spent more than 1,5% of these profits.

Research

Forty four percent of respondents did research to contain negative environmental impacts, 52% did no research and 4% were unsure if they did research. Of those doing research 30% spent less than 0,01% of turnover, 35% were unsure of expenditure and 16% spent more than 0,05% of turnover on this research.

Policy focus areas

The study indicates wide variations in environmental management practices in the context of a lack of comprehensive and well enforced regulatory controls. In general the mining and mineral sectors performed best in the study. This may be due to the statutory requirements regarding environmental management procedures for mining activities in a well established industry. The financial and industrial sectors, where no statutory requirements apply, did not perform as well. The financial sector had the worst performance.

The study found that enterprises placed more emphasis on social responsibility programmes directed at workers than those directed at the environment. This was ascribed to greater pressure exerted on enterprises on worker issues than on environmental issues.

This information points to the importance of regulation and statutory procedures covering environmental impact assessments audits pollution control and other areas of environmental management and regulatory controls to ensure that all enterprises a d d r e s s their environmental responsibilities adequately. .

Controls and remedies

Minimum standards, compliance monitoring, regulation and enforcement relating to the environmental impacts of industry in South Africa are inadequate and uneven. Provisions for rehabilitating and remediating environmentally degraded sites need to be improved.

Workers in industry, agriculture, mining and transport are the first to feel the impacts of unsafe., and unhealthy work environments and procedures. Their work often involves them in-es that harm the environment. At present a lack of job security and information inhibits workers from playing a major role in protecting the environment.

Environmental administration

The complexities and inefficiencies of environmental administration, the lack of clear priorities, targets and goals frustrate managers in business and industry, resulting in poor environmental performance and consequent degradation. Enterprises that make real attempts to improve environmental standards feel that lack of recognition discourages others from following their lead.

Pollution and waste

South Africa has relatively high levels of waste and pollution impacting on air, land and water. Waste disposal practices are unsatisfactory. Ineffective waste management and poor regulatory controls allow waste producers to externalise waste management costs onto the environment and society.

Health and environmental impacts

Poorer communities bear the greatest impact from wastes because many are near to industrial areas and waste disposal sites. Workers in all sectors may face exposure to toxic and hazardous substances. Those in sectors like waste disposal, agriculture, mining, mineral refining, chemicals and nuclear energy are especially vulnerable due to potential exposure in the workplace."

Waste reduction

There are no effective incentives to encourage all waste producers to adopt cleaner production processes and minimise waste generation. A number of public and commercial recycling initiatives have achieved results matching those in other parts of the world. Materials recycled include glass, paper, plastics, metals and oil. However government policy does not systematically encourage waste minimisation, reuse and recycling arid," apart from a few isolated instances, local authorities do not encourage these practices at household level.

Waste industry/environmental services

The handling and disposal of toxic and hazardous waste is in crisis. Many existing sites have closed for environmental and social reasons. Waste site management is complicated by the failure of producers to disclose the composition of toxins and hazards contained "in"'waste. Toxic and hazardous materials are frequently dumped " illegally, and sometimes dumped along with domestic refuse in open disposal sites. There'is little control over the transport of, and trade in, waste.

Conclusion

South African society and economy are characterised by the inequitable distribution"' of wealth" and resources. A minority enjoy high living standards, with sophisticated infrastructure and services, while the basic needs of the majority 'are not adequately met, The range from First to Third World lifestyles and circumstances creates particular problems for the protection of the environment and the promotion of sustainable development. Businesses range from large corporations "' with vast """ resources to micro enterprises surviving from day to day. In this situation, environmental policy must face the challenge of addressing both the basic needs and "; survival strategies 'of the poor and the impacts of the industrial consumer economy.

Trends

Trends help to establish the framework within which the environmental policy must function and against which government will measure the. success/failure of policy implementation.

Globalisation

Globalisation is increasingly seen as having both positive and negative implications for sustainable development, Its major driving force is the concern to create a single global market place. Major characteristics include:

- the movement towards free trade
- computerisation and automation in world industries
- new information and communication channels.
- the disappearance of Cold War power blocs
- global environmental issues like climate change and ozone depletion
- world population growth
- massive urbanisation and population migration between countries

These phenomena challenge the foundations of society,. including economic activity, education systems, the role of government, and people's access to and choice of information.

Contact between previously separate ecosystems and the integration of different societies can have dramatic and unpredictable results, such as biological, invasion or species extinction and the collapse of local markets and cultures. The drive for a single lifestyle around the globe can override social and environmental considerations and lead to inappropriate growth and development strategies that prejudice sustainability.

Globalisation also presents potentially positive opportunities for developing countries including the opening of markets, access to information, technology and other resources.

As a developing country with high technology capabilities, South Africa has the potential to play a leading role. It can pioneer appropriate solutions for developing countries trying to balance their environmental responsibilities with national development needs. However, in order to do this it must develop its own capacity for effective environmental management.

Environmental issues

Some environmental issues such as climate change can only be dealt with on a global scale. Agenda 21 provides a framework for regional and global cooperation on environmental matters while recognizing the right of nations to determine their. own economic, social, cultural and political goals.

Energy

South Africa's energy sector is the largest single" source of green house gases in Africa. As a developing country it is likely to escape more stringent international measures to control these gases for the present. However the medium to long term effects of energy intensive development based on low energy prices must be considered both from the viewpoint of environmental impacts and international economic competitiveness.

Industrialisation and the Environment

Consumerism and materialism drive industrialisation. Global competition, computerisation, automation and mature markets also exercise an influence. These factors all contribute to higher levels of natural resource exploitation and increased levels of pollution and waste with negative impacts on the environment and human health. The development of industrial technology can also contribute to improved management of environmental impacts.

Growth and Physical Development

Economic growth leads to pressure to exploit resources, develop infrastructure, provide services and change land use patterns. Within this framework environmental concerns may be marginalised and development may degrade the environment.

Trade and the Environment

Trade liberalisation has internationalised the issue of economic activities that cause uncompensated environmental damage to others. These environmental externalities, which are not reflected in market prices, include depletion of natural resources, destruction of cultural resources and the pollution of air water and land. Externalities can be internalised . through regulation or market based instruments.

Internalisation and externalisation can affect the competitiveness of industries. Trading interests are concerned that regions, countries or even provinces may use internalisation to create barriers to market entry. From an environmental viewpoint the concern is that trade policies and agreements that prevent internalisation may lead to environmental harm and consequent costs to society.

Macro Economic   Trends   -   -   -:

Macro economic trends influence the kind of environment impacts resulting from economic activities. Major trends that affect the environment include:

■ shifts in the contributions of different sectors *to economic growth.* **Over the** past fifteen years secondary industrial activity and services have increased as a percentage of Gross Domestic Product, whilst primary industries like mining and agriculture have declined

■ employment in the formal private sector has declined

■ growth and income distribution affect consumer spending patterns and the resulting demand on environmental resources

■ the gross geographic product of regions in relation to population densities and available natural resources are crucial in determining the potential for sustainable development

■ shifts in population distribution alter the pressure on environmental resources in different areas.

Demographic Phenomena

Demographic factors can cause or increase environmental degradation and resource depletion. This inhibits sustainable development. Population size and movement must be seen in the context of a country's access to resources, both domestic and global, patterns of production and consumption, distribution of wealth and resources and environmental management practices. Population movements in a country area major concern in managing impacts in affected regions.

Fiscal Shrinking

This refers to government spending guts and the effects of inflation which reduce real government finding for environmental management,. Greater, efficiency and a search for alternative sources of finding will be essential to offset these cuts while ensuring more effective environmental management.

Increased Environmental Consciousness..

Democratisation and growing public awareness of environmental issues "means that government must give higher priority to environmental concerns at all levels of decision-making. Government must become more transparent and provide adequate opportunity for participation in environmental governance. Promoting environmental understanding will increase the capacity of people to participate effectively in environmental decision-making.

Information   Technology

The trend towards increasing information intensity in all aspects of the national Department of Environmental Affairs and Management's work is likely to result in increased demands for accessible and affordable information from all interested and affected parties and particularly those at community level. The ability to transfer useful environmental technologies and knowledge from external sources and to disseminate best environmental practice nationally will be one of the national Department of Environmental Affairs and Management's key national services.

Biodiversity

Population pressure and exploitative use of natural resources has resulted in a loss of genetic resources and species and a steady deterioration of habitats and ecosystems. To halt this degeneration of our living resource base, urgent and coordinated action to conserve natural resources and use them sustainably is essential. The present protected area system is uncoordinated and is lacking in extent and representivity. The establishment of botanical and zoological gardens and gene banks is also largely uncoordinated. Furthermore, concerted efforts are necessary to educate the South African public to use biological resources sustainably outside protected areas, and to control the largely unregulated access to our genetic resources.

Competition for resources

Steady population increase continuously intensifies the competition between people, other animals and plants for environmental resources. This is already evident in the case of two of the basic environmental media, namely land and water. In the case of water the new policy developed by the Department of Water Affairs and Forestry recognises the scarcity of the resource. The Department is taking steps, including a shift to demand management, to ensure its sustainable use. In the case of land, environmental considerations have not yet been integrated into spatial planning processes. The result if that competing demands of agricultural, mining, industrial and residential land use are not being addressed within a framework of sustainable development.

Competition over environmental resources is nothing new for Africa and its peoples. Much of the continent's recorded history is dominated by this competition and it lies at the root of present conflicts.

International environmental governance and management

Since the 1970s governments around the world have established dedicated structures in government to deal with environmental management. Difficulties experienced in addressing the broad range of environmental concerns effectively has led more recently to attempts to integrate the work of these structures with that of other government structures. This has included the adoption of:

- approaches to development planning that integrate environmental considerations into spatial planning frameworks
- approaches to pollution control and waste management that integrate the control of ambient standards in all three of the environmental media, namely air, water and land/soil with source based controls for specific activities
- strategic environmental assessment of policies, plans and programmes that addresses the limitations of project based environmental impact assessments in dealing with cumulative emissions and discharges to the environment the cumulative impact of developments on land use, employment creation, transport systems, ecosystem functioning a n d biodiversity conservation. . "

Increasingly governments are looking to a mix of regulatory methods including both traditional command and control approaches and market based instruments to achieve improvement in environmental quality in appropriate to specific situations. The development of environmental capacity in civil society and the private sector has led to alliances, agreements and joint initiatives to improve existing standards of control and best practice.

The Southern African region "-":

Within the Southern African region, the Southern' African Development Community (SADC) set out its policy and strategy for environment and Sustainable Development in 1994. Major factors inspiring the development of a framework policy for the region include the need to arrest the acceleration of unsustainable development in the region, the lack of action on environmental issues and the failure to harness the energies of ordinary people for environmental management through participatory processes. It seeks to bring together concerns for environmental, economic and social sustainability in striving towards equity led growth. The policy has established a committee of ministers of the environment and technical committees for land management, environment management and water resources management.

Appendix *2*

GLOSSARY

Ambient standards

ambient standards define maximum pollutant levels in water, air or land/soil in order to ensure that these, _media are fit to meet user needs, and avoid unreasonable or significant environmental impacts or health hazards. .".. .

Biodiversity

biodiversity is an abbreviation of biological diversity. The Convention on Biological Diversity defines it as:

The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within, between species and of ecosystems.

Coastal zone

the area of land and sea along the coast. including estuaries, onshore areas and offshore areas, wherever they form an integral part of the coastal system.

Cost benefit analysis

an economic analysis of an undertaking, involving the conversion of all positive and negative aspects into common units (for example money) in order to compare the total benefits and the total costs.

Cultural resources

a broad, generic term covering any physical, natural and spiritual properties and features adapted, used and created by humans in the past and present. Cultural resources are the result of continuing human cultural activity and embody a range of community values and meanings. These resources are non-renewable and finite. Cultural resources include traditional systems of cultural practice, belief or social interaction. They can be, but are not necessarily identified with defined locations.

Demand management

applying measures to ensure the equitable distribution of a resource to meet needs and the Won of total consumption to sustainable levels.

Development

a process for improving human well-being through a reallocation of resources that involves some modification of the environment. It addresses basic needs, equity and the redistribution of wealth. Its focus is on the quality of life rather than the quantity of economic activity.

Due process

following set or agreed procedures and processes in environmental governance.

Ecolabelling

a system of approved labels on consumer products confirming that they meet specific criteria of environmental friendliness.

Ecological cycles

a variety of processes, driven ultimately by solar energy that maintain ecosystems by sustaining life and replenishing renewable resources. They include:
- nutrient cycles
- the carbon cycle
- the nitrogen cycle
- the oxygen cycle
- the water (hydrological) cycle.

Ecosystem

a dynamic complex of plant, animal and microorganism communities and their non-living environment interacting as a fictional unit. The major parts of an ecosystem are the producers (green plants), the consumers (herbivores and carnivores), the decomposes (fungi and bacteria), and the nonliving or abiotic component, consisting of dead organic matter and nutrients in the soil and water. Ecosystem inputs include solar energy, water, oxygen, carbon dioxide, nitrogen and other elements and compounds. Outputs include heat, water, oxygen, carbon dioxide, and nutrient losses.

Environmental Audit

a systematic, documented, regular and objective evaluation to see how well an organization or facility is operating in terms of its Environmental Management Systems (EMS), and is complying with statutory requirements and the organisation's environmental policy.

Environmental Impact Assessment (EIA)

A detailed study of the environmental consequences of a proposed course of action. An environmental assessment or evaluation is-a study of the environmental effects of a decision, project, undertaking or activity. It is most often used within an Integrated Environmental Management (IEM) planning process as a decision support tool to compare different options.

Environmental Management Programmes (EMP)

Every mine must submit an EMP in terms of the Minerals Act 50 (of 1991) to the Department of Mineral and Energy Affairs. It contains elements of environmental assessment (see EIA) plus management plans. Once approved, it has the force of law.

Environmental Management Systems (EMS)

documented procedures drawn up as described in a South African Bureau of Standards (SABS) code of practice to implement the requirements of 1S0 14000. Operating, emergency, data collection, and documentation procedures are set out, along with procedures for training, the transfer of information and all the elements of a complete management and quality control system.

Environmental Sustainability

the ability of an activity to continue indefinitely, at current and projected levels, whilst maintaining or substituting for social, cultural and natural resources required to meet present and future needs.

Externalities

economic activities that cause uncompensated environmental loss or darnage to others.

Genes

coded units of information about characteristics passed from parents to offspring. They consist of segments of deoxyribose nucleic acid (DNA) molecules found in chromosomes.

Globalisation

the drive to create a single world market, mainly by large corporations with global interests, mostly situated in the developed, world. It encourages conformity to global standards and economic approaches by governments and promotes a single global lifestyle.

Governance

governance means setting "policy to guide an activity and then making sure that the money, people and institutions to do the work are in place. It also means making sure that people are accountable for the work they do, monitoring what happens and making new plans to carry the work forward.

Green-house gases

gases in the Earth's lower atmosphere that trap heat causing an increase in the Earth's temperature. These gases include carbon dioxide, methane, nitrous oxides and other synthetic chemicals. .

Gross Geographic Product (GGP)

the sum of all economic activity in a defined geographic area.

Habitat

the place, characterised by its physical properties and other liie forms present, where an organism or community occurs ,

Hazardous waste

any waste, other than radioactive waste, which by reason of its chemical reactivity, ecotoxicity, explosive character, corrosivity, carcinogenic qualities, or other characteristics, may cause significant danger to, or impact adversely on human health or the environment.

Holism

the term holism is derived from the Greek *bolos,* meaning complete, integrated. Holism is a world view that" sees all things as interconnected and getting their meaning mainly from their connections with other things.

Integrated Environmental Management (IEM)

a code of practice ensuring that environmental considerations are fully integrated into the management of all activities in order to achieve a desirable balance between conservation and development.

!ntergovernmentai

this refers to relations between spheres of government and to relations between government agencies in the same sphere of government.

Internalisation

the incorporation of externalities into market prices (see externalities).

Market based instruments .

　　　　an umbrella term for environmental taxes "designed to generate income and environmental charges designed to change behaviour.

MINMEC

　　　　the Committee of Ministers and Members of the Executive Councils: Environment and Nature　　　　Conservation.　　　　' -

Natural **resource**

　　　　any resource provided by the bio-physical environment

Non-renewable resource

　　　　a resource that has a finite stock and either cannot be reproduced once it is used or lost, or cannot be reproduced within a time span relevant to present or future generations.

Ozone

　　　　see stratospheric ozone.

Radio-active

　　　　substances emitting radiation due to the disintegration of unstable atomic nuclei. Exposure to high levels of radiation is fatal, while lower doses can cause cancers and genetic mutations.

Renewable　resource

　　　　a resource produced as part of the functioning of natural or managed systems at rates comparable with its rate "of consumption. Such resources can provide a sustained y i e l d .

Risk assessment

　　　　a process of gathering data and making assumptions-to estimate short- and long-term harmful effects on human health or the environment from exposure to hazards associated with a particular substance, product or technology.

SADC

　　　　Southern African Development Community

Social resources

　　　　people, their knowledge "skills, capacities, cultures and technologies, organisational and institutional structures, political and economic systems

Spatial development **planning** "" """.-<

　　　　a participatory process to integrate economic, sectoral, "spatial, social, institutional, fiscal and environmental strategies in order to support the optimal allocation of scarce resources between sectors and geographic areas, and across the population, in a manner that promotes sustainable development equity, and empowerment of poor and marginalised communities and groups.

Strategic **Environmentai Assessment (SEA)**

　　　　Strategic Environmental Assessment is a process to assesses the environmental implications of a proposed strategic decision, policy, programme, piece of legislation

or major plan. It maybe used within an IEM planning process as a decision support tool to compare different options. -

Stratospheric ozone

ozone, a colorless gas with a harsh odour, is an unstable form of oxygen made up of three oxygen atoms. It is mainly found in the stratosphere, the atmospheric layer roughly between 15 and 50 kilometres above the earth. This 'ozone layer' absorbs much of the UV-B radiation from the sun. Exposure to W-B can cause skin cancer and excessive exposure can cause" mutations in plants and other life forms. Small amounts of ozone also occur at ground level where it is a corrosive pollutant and irritant.

Sustainable Development

in the context of this policy sustainable development is defined as development which seeks to integrate environmental, social and economic concerns, now and in the future, and to keep within the carrying capacity of the environment. The focus is on ensuring that environmental sustainability, health and safety are not compromised, and that natural and cultural resources are not ends.rigered. Sustainable development must ensure that the direction of investments, the orientation of technological developments and institutional mechanisms work together towards the goal of the sustainable use of environmental resources in a way and at a rate that will meet present and future needs. Sustainable development requires that particular attention be given to addressing the needs of previously disadvantaged communities.

Toxic substance

toxic substances are chemicals and mixtures of chemicals whose manufacture, processing, distribution, use and disposal present a risk to human health and the environment.

Toxic wastes

a form of hazardous waste that causes death or serious injury such as bums, respiratory diseases, cancers or genetic mutations.

Appendix 3

ACKNOWLEDGEMENTS

1   Ministry
Minister Z Pallo Jordan
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Former Minister Dawie De Villiers
Former Deputy Minister, General Bantu Holomisa, who was instrumental in launching the CONNEPP process and chaired MAT for the first half of the process

2   **Department of Environmental Affairs and Tourism**
Dr Cohn Cameron   Former Director-General
Dr   Francois Hanekom .   -   Deputy Director-General
Dr Tanya Abrahamse   Deputy Director-General

All members of&e department who contributed in whatever way during the CONNEPP process

3   **National Portfolio Committee on Environment and Tourism, National Council of Provinces and MINMEC: Environment and Nature Conservation**
chairperson portfolio Committee (Ms Gwen Mahlangu)
National Council of Provinces (Adv Stefan Grove)
MEC Northern Province
MEC   Free   State   .   .
MEC   Mpumalanga   ·   :
MEC Northern Cape
MEC Northern Cape
MEC   Western   Cape   .   .
MEC   Gauteng   "
MEC North West Province ,
MEC   Eastern   cape
MEC Kwazulu   Natal

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Mr Marc van Ameringen -   Regional Director
MrWardie   Leppan   - · Programme Officer responsible for CONNEPP
All staff members who assisted with the administration of the project

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All s u p p o r t staff who assisted with project administration. . · --

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7   **Discussion Document Drafting Team and Reference Group**

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Words in brackets indicate either a specific area of expertise, or in the case of international
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8   Green   paper   Drafting Team
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Mr Arend Hoogervorst	.	Eagle Environmental (business and industry)
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9 White Paper Drafters

The Department of Environmental Affairs and Tourism appointed Ingrid Coetzee to draft the White Paper and CONNEPP contracted Dick Cloete of Media Directions cc as drafting assistant and editor.

10 Provincial Multi-stakeholder Steering Committees

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11 Others

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The Technical Study Team	-	for drafting the first Discussion Document for the CONNEP I Conference.

The CONNEP 1Organizing Committee, with Ms A Hugo who took overall responsibility for this from DEA&T.

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13 All the people who submitted written comments on the CONNEPP Green Paper

The comments are contained on an electronic database at the Department of Environmental Affairs and Tourism in Pretoria.

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