

Green Paper on an Environmental Policy for South Africa

October 1996

GREEN PAPER FOR PUBLIC DISCUSSION

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM

Foreword

Environmental policy has a major part to play in meeting the development needs of people in the new democratic South Africa. Our country is currently undergoing a major process of socio-economic transformation as it attempts to correct the negative impacts caused by previous political regimes. The colonial and apartheid systems, in operation for more than 300 years, denied the majority of South Africans the right to participate in democratic decision-making and access to the country's natural resources. There is a wide array of social, economic, legal and environmental ills whose legacy needs to be addressed as soon as possible. Hunger, poverty, disease, illiteracy, unemployment, powerlessness, inequity with regard to access to resources, lack of services, and environmental degradation are to name but a few.

The new democratic government through its Reconstruction and Development Programme has created a development vision for the country which corrects many of these previous injustices. Central to the RDP is the concept of achieving sustainable development. This means that we wish to ensure that today's development is aimed at improving the quality of life of all the country's people, without adversely affecting the options for future generations of South Africans. Clauses dealing with protection of the environment are enshrined in our country's Draft Constitution. Sustainable development requires that there is participation, equity and sustainable use of natural resources. It includes protection of the environment in which we live and work. It is thus important to ensure that management of development conforms to recommended principles which have been outlined in Agenda 21, the United Nations programme for global sustainable development.

This Green Paper indicates that there are many areas which the government needs to address in its environmental policy. These include, amongst others: improved pollution and waste control, focusing on people and their participation in environmental decision making, developing an improved system of governance, and ensuring that environmental decision making employs an integrated and macroeconomic perspective.

The purpose of this Green Paper is to provide a basis for developing an environmental policy which will lead us along the path of sustainable development and ensure that all South Africans, both now and in the future, will have an environment which always caters for their wellbeing. We therefore request you to assist us by studying this document and contributing your comments and opinions to CONNEPP.

The development of environmental policy needs to be a combined effort which reflects the inputs of the public and all interested and affected parties. All South Africans have a role to play in the national efforts to achieve sustainable development and sound environmental management. The participation of every South African - through all levels of government, business, industry, trade unions, community organisations and NGOs is central to the effective development of environmental policy and its implementation.

Z Pallo Jordan
Minister of Environmental Affairs and
Tourism

Peter Mokaba
Deputy Minister of Environmental Affairs and
Tourism

Preface

What is National Policy?

A national policy is designed to be a statement of the government's guiding principles and intentions with regards to dealing with an important public issue. The policy provides the means by which government prioritises problems which need to be addressed, sets objectives and allocates resources in order for these to be achieved. As the resources are initially derived from taxpayers' contributions, it is important that government policy should reflect the wishes of the general public. Policy provides a means for citizens to hold government to account for its actions and omissions.

The Consultative National Environmental Policy Process (CONNEPP)

South Africa is developing its national environmental policy through a consultative process known as the Consultative National Environmental Policy Process (CONNEPP). The process is designed to give all stakeholders in South Africa an opportunity to contribute to the development of a new environmental policy. In developing this Green Paper the CONNEPP process has passed through the following stages:

Deputy Minister of Environmental Affairs, Major General Bantu Holomisa launched the Consultative National Environmental Policy (CONNEP) early in 1995.

CONNEP convened a national forum at NASREC in August 1995. This forum agreed on a consultative process to develop environmental policy, naming it the Consultative National Environmental Policy Process (CONNEPP)

a drafting team composed of environmental experts drew up a discussion document ***Towards a New Environmental Policy for South Africa*** in April 1996. The discussion document generated many comments from organisations, enterprises and individuals and was widely discussed at meetings in all the provinces. All comments were entered into an electronic database housed at the Department of Environmental Affairs and Tourism. The database is a valuable information resource on South African society's environmental concerns and opinions.

a drafting team, composed of sectoral representatives, was convened to consider and evaluate several thousand pages of comments on the discussion document and draft a Green Paper focusing on policy options.

The drafting team

The CONNEPP management team appointed the following people to draft the Green Paper:

Mark Butler	Community Agency for Social Enquiry (CASE) (environmental NGO sector)
Dick Cloete	Umanyano Media Service (editor)
Ingrid Coetzee	Department of Environmental Affairs and Tourism (central government)
Mike Cohen	CEN Integrated Environmental Management Unit (provincial government)
Jenny Hall	CRM International (community based organisations)
Arend Hoogervorst	Eagle Environmental (business and industry)
Shirley Miller	COSATU (organised labour)
Dan Walmsley	Steffan, Robertson and Kirsten (drafting manager)

This **Green Paper** will be distributed in October 1996 for public consideration and comment. A CONNEPP 2 conference early in December 1996 will give all interested and affected parties an opportunity to present views to government and debate the issues.

Following this, government will draft a White Paper setting out the national environmental policy. The White paper is scheduled to go to the cabinet for approval at the end of March 1997. Thereafter it will go to Parliament for debate. Once Parliament has sanctioned the policy, government will take the necessary action to put it into effect.

How to Respond to the Environmental Policy Green Paper

The Ministry of Environmental Affairs and Tourism invites written submissions from the public and interested and affected parties (individuals and organisations) on the contents of this Green Paper.

The Green Paper has attempted to identify the issues which need to be addressed when the White Paper is formulated. However, if you think that there are issues or questions which have been left out of the Green Paper or that certain issues require further refinement or debate, please send your written comments to:

CONNEPP Secretariat
P O Box 477
Wits 2050

Fax 011-3392382
E-mail: christel@wn.apc.org

Comments should reach the secretariat before 16 December 1996.

1. INTRODUCTION

Why Do We Need An Environmental Policy?

The environment includes many things the land, water and air, all plants, animals and microscopic forms of life on Earth, the built environment and our social, economic, political and cultural activities that form part of everyday life. For this reason an effective environmental policy must cover a wide range of issues.

At present there is no overarching environmental policy that reflects the view of our new democratic government. As a result environmental concerns are not adequately taken into account in many important areas of policy and government administration.

This Green Paper is aimed at initiating a broad framework for an integrated and holistic approach to environmental management in all areas of government. It does not present detailed policy proposals for the many specific issues involved in achieving effective environmental management and sustainable use of natural resources. Rather it proposes a framework of principles, structures, processes and mechanisms to integrate environmental governance and enable the development of policy, strategy and action to address specific issues and sectors.

Vision

In five years time, environmental policy will have made a significant contribution to improving the quality of life of all citizens, particularly disadvantaged groups through progress in reconciling economic development with the sustainable use, protection and improvement of the environment for present and future generations. This will be evident in:

- a growing awareness and understanding of environmental issues
- increasing participation in environmental management at all levels of society
- a clear action plan from government to address environmental problems in all areas
- the necessary resources and capacities to ensure effective implementation of environmental policy, and
- compliance with standards, monitoring and reporting that demonstrate a tangible improvement in the sustainable use of natural resources.

Policy Aims

Environmental policy in South Africa should give effect to the many rights in the Constitution that relate to the environment. These include rights relating specifically to the environment, as well as those relating to governance such as *locus standi*, administrative justice, and public participation. It should also seek to entrench sustainable development in policy and practice as an accepted philosophy of resource management and utilisation.

The Environment

In its broadest sense, the word environment embraces the conditions and / or influences under which any individual or thing exists, lives or develops. These include the following categories of conditions and influences:

- the natural environment including renewable and non-renewable natural resources such as air, water, land and all forms of life

- the social, political, cultural, economic and working conditions that affect the nature of an individual or community; and
- natural and man made spatial surroundings, including urban and rural landscapes and ecosystems and those qualities that contribute to their value.

The Constitution

Section 24 of the Bill of Rights in the Draft Final Constitution⁽¹⁾ of the Republic of South Africa guarantees environmental rights for the people of South Africa.

Section 24 states 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,
 - (i) through reasonable legislative and other measures that 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..."

Sustainable development

The concept of sustainable development stems from the recognition of the growing impact of human economic activity and numbers on the global environment. This awareness emphasises the need to integrate environmental management and economic development in order to maintain and improve the quality of life.

The commonest definition of sustainable development is *development that meets the needs of the present while not compromising the needs of future generations*. The wide range of interpretations given to this apparently straightforward definition have emphasised that there is no single accepted definition and no single clear path, or model, for achieving sustainable development. In every situation, policy must develop an acceptable concept of sustainable development. This makes it essential to develop the concept in relation to the issues facing environmental policy in South Africa.

The following priority objectives are adapted from those in the Southern African Development Community (SADC) document titled ***SADC Policy and Strategy for Environment and Sustainable Development***, are proposed as those most relevant to sustainable development in the South African situation.

- To accelerate environmentally and economically sustainable growth with greater equity and self reliance.
- To improve the health, income and living conditions of the poor majority
- To ensure equitable and sustainable use of environmental and natural resources for the benefit of present and future generations.

Sustainable Development and the Reconstruction & Development Programme (RDP)

RDP basics

The Reconstruction and Development Programme was the response of the new democratic government to demands for socio-economic reform – a programme of hope, with a commitment to people and the development of communities at its heart. Development is only real if it makes our lives better. It is real when it contributes to a long and healthy life, when it meets essential needs for jobs, food, energy and water, when there is adequate access to education, political freedom, guaranteed human rights and freedom from violence. It is measured in terms of quality of human life.

Sustainability, growth and integration

There is a close relationship between sustainable development, realising the goals of the RDP and improving environmental management. In many ways the goals of the RDP match those of the programme outlined in Agenda 21, the global programme for sustainable development agreed on at the UN Earth Summit in 1992.

Growth and development are essential to improve the quality of life enjoyed by South Africans. The government is committed through its macroeconomic strategy (GEAR) to securing an economic growth rate of 6%. This rate is required to make a significant contribution to addressing the socio-economic backlogs created by apartheid. But growth and development must be more equitable, less polluting and more efficient in the use of energy and natural resources. This is essential to ensure that the impact of environmental degradation and pollution on people's lives, particularly the poor, does not get worse. New national environmental policy must focus on developing win-win opportunities that promote both environmental and economic gains.

In order to achieve these objectives, it is essential to integrate environmental concerns into all policies and decision making processes in government ministries and departments. Harmony must be sought between this national environmental policy and many other policies, including all policies that affect the use and management of resources.

Who will environmental policy affect?

All South Africans will be affected by the national effort to achieve sustainable development. The participation of every South African – through all levels of government, business, industry, unions and the community – is therefore central to developing a sustainable environmental management system in South Africa.

Approach of the Green Paper

This Green Paper is part of the Consultative National Environmental Policy Process (CONNEPP). CONNEPP aims to develop the broad policy and strategic framework to enable sustainable environmental management in South Africa.

Under certain topics and in certain sections, there is more than one option or possibility and this is reflected as a debate item in the text. The White Paper, that follows from this document, will set out the policy choices and decision making procedures government adopts in consultation with stakeholders.

The national environmental policy will play a crucial role in setting the scene for the broad changes in direction and approach that government needs to take to ensure that South Africa's future development is ecologically sustainable and equitable.

The Elements of the Green Paper

This environmental Green Paper covers the broad concepts, principles and actions required by government. The policy process must be a dynamic one, open to review and modification. It must take account of changing circumstances, new knowledge and emerging community attitudes.

The essential elements of this national Green Paper for South Africa are:

- a Preface that places the Green Paper in the context of the CONNEPP process
- an Introduction that sets out the basic concepts underlying environmental policy and the approach used in the Green
- a section dealing with the main environmental issues in the country that environmental policy must address
- a section dealing with principles. An integrated set of principles is needed to assist in applying, developing and testing policy and subsequent actions including decision making, legislation and regulation
- a section setting out suggested objectives to begin addressing major issues facing environmental management and the sustainable use of resources
- a section dealing with the institutional structures of governance. These institutional structures must meet the requirements of good governance and be effective in implementing policy
- a section dealing with regulatory mechanisms to ensure that policy principles are applied and action is taken to reach specified objectives.

The contents of this Green Paper are intended to stimulate discussion that will assist government in arriving at a national environmental policy for South Africa.

2. ISSUES FOR ENVIRONMENTAL POLICY

Introduction

Major areas of concern

The CONNEPP process has identified a wide range of environmental concerns of people from all sections of our society. South Africa faces enormous challenges in addressing these issues. Not only do we have to solve many problems created by previous generations, but we also have to meet the future needs of all the people in the country through a system that will be economically and environmentally sustainable.

This section outlines environmental issues. Given the wide range of issues raised in the consultative process it is not possible to deal in detail with each one. Instead the Green Paper presents broad categories that cover the many detailed and specific issues raised. These categories have been used for convenience and do not reflect an order of priority.

All the issues outlined below identify important areas that national environmental policy must address. Policy must adopt principles, set out objectives and actions and, where necessary, establish priorities to address these issues.

Readers should note that:

- this section outlines problems. Ways of addressing the problems are set out in the section on objectives and actions
- the problems in this section are not set out in any order of priority. The groupings are intended to provide a holistic overview of the issues.

South Africa After Apartheid

South Africa's economy and society have been shaped by centuries of colonial rule that culminated in 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 history has shaped the nature of government and the environmental policies it has pursued.

Some of the characteristics of our country which reflect the inadequacies of previous development and environmental policies are described below.

Quantity and quality inequities: resources and services

South Africa has a growing population of nearly 43 million. It is likely to double in around 30 years at the present rate of growth.

There is a large income disparity between rich and poor. Government owns half the economy and ownership of the remainder is highly concentrated in the hands of a small minority of the white population. A large proportion of the workforce is unemployed and jobs in the formal economy are not increasing.

Poor people in urban and rural areas have limited access to water, energy, land and other resources. Services such as sanitation, waste removal, transport and housing have either not been provided or have been of poor quality. Infectious diseases due to lack of clean and/ or adequate water supplies, sanitation and waste removal services are a major cause of deaths in early childhood.

Some of the worst air pollution in the country occurs in and around households that use wood and coal as their primary energy source, and in highveld areas of Mpumalanga where many of the country's coal-fired power stations are located. Air pollution results in acute and chronic respiratory infections, the second largest cause of early childhood deaths.

Environmental impacts

Apartheid policies have had a number of negative environmental impacts.

The black majority were denied the vote, disempowered and dispossessed. They were forcibly removed from commercial farming land to overcrowded and under serviced rural and urban settlements. Often they had to live close to industrial areas and waste dumps, exposing them to environmental hazards. Survival sometimes demanded unsustainable and environmentally damaging patterns of resource use.

At present eight major metropolitan areas contain almost half the country's population. Urbanisation is rapid due to exclusion from farming land and overcrowded, under serviced and degraded rural environments. There is a massive backlog in the provision of housing and other services in urban areas.

Metropolitan areas occupy 6% of the land and, at current rates of urbanisation, almost 30,000 hectares of agricultural land is lost to urban settlement each year.

Urban areas produce more than 15 million tonnes of solid waste a year, yet only a tenth of waste disposal sites are licensed. There is little control over illegal waste dumping. Around 800,000 tonnes of liquid waste are disposed of each year as run off into freshwater systems and the sea.

Exclusion from participation

The apartheid state was authoritarian and secretive. A major objective was to exclude black people from meaningful political participation.

The majority of the population were excluded from decision making on the use and allocation of resources and services

Nature conservation areas were developed at the expense of local communities. The system led to forced removals and exclusion of communities from the management and benefits of conservation.

Lack of capacity

Most people were denied access to effective education and training.

One of the gravest legacies of apartheid has been the lack of access to education by the greater part of the population.

Secrecy, lack of participation in decision making and lack of access to information by citizens characterised the apartheid years. This impacted particularly harshly on poor communities with few social rights and little access to legal procedures to protect their environment.

Governance

There is 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, 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.

Capacity Building

Capacity building and the holistic integration of environmental concerns into all forms of education and awareness building has not received enough attention. Issues of concern include:

- past exclusion of most people from decision making and information processes relevant to the environment
- poor training of government officials responsible for the environment
- 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 human, 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.

Information

Information is fundamental to 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, and
- overwhelmingly technical and scientific.

International

International relations can play a large role in shaping a country's environmental policy. This can have negative impacts if it is not well managed.

International finance

Developing countries are concerned that international finance institutions can influence domestic policy decisions in ways that are inappropriate or contrary to the aims of sustainable development. Some international finance institutions are incorporating sustainable development criteria in their lending policies in recognition of this.

Trade

There is a vigorous international debate on the relationship between free trade and environmental protection with some parties regarding environmental protection measures as 'artificial trade barriers' that conflict with free trade. South Africa should ensure that the principles, standards and rights contained in its environmental policy are not compromised by international trade arrangements. The positive impacts of international trade including environmental improvements made to secure new customers and opportunities for entering markets for environmental goods should be maximised.

Technology transfer

South Africa's reacceptance into the international community provides opportunities to benefit from state of the art international technology and practise. At the same time the country must guard against the transfer of dirty technology from northern states to South Africa, or from South Africa to other developing countries.

Conventions and agreements

International agreements can exert pressure on national environmental policy. At present South Africa's engagement at international level does not reflect a clear commitment to national positions and priorities. The process of entering and implementing environmental agreements is characterised by:

- lack of participation
- lack of coordination between departments
- uneven implementation.

Transboundary impacts

Activities in one area may have environmental impacts/ consequences in surrounding areas. Present structures of environmental governance have little or no capacity to manage impacts across regional and international boundaries.

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 on to the environment and society.

Health and environmental impact

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.

Cleaner production

There are no effective incentives to encourage all waste producers to adopt cleaner production processes and minimise waste generation. Recycling and reuse are not systematically encouraged.

Waste industry/environment 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.

Economic Activity

Apartheid policy often distorted industrial developments for political reasons with serious implications for environmental management and protection. For example, secrecy surrounded industries considered to be of 'strategic' importance by the apartheid government. The drive for self sufficiency in response to economic isolation, 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 recognised as a vital contributor in the quest for sustainable development. On the one hand it is industry that provides and creates jobs, generates wealth, earns foreign exchange, pays taxes, provides goods and services, and sustains national prosperity and economic growth. Industry is also a major source of pollution and waste. As the most organised area of human activity, it also has some of the most extensive impacts on the environment. More than any other sector, it has the potential to manage its environmental impacts to better effect.

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 activities 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.

Obstacles to effective environmental management in the economy

Issues that need to be addressed in order to ensure that all industry is able to make the contribution it should and that opportunities for sustainable development are maximised include the lack of:

- clear, effective and timeous processes of decision making administration facilitating development and responsible environmental management
- appropriate policy to enable industry to carry out its environmental responsibilities and develop performance records that contribute to the aim of sustainable use and environmental protection.

To remedy this, environmental policy needs to:

- recognise where progress is being made and seek to build and broaden local industry achievements
- encourage and facilitate improved environmental management practise in the small, medium and micro enterprises (SMME) sector.

Sustainable Resource Management

Environmental degradation, competition for resources, conflict between environmental management and economic growth, and loss of biodiversity are caused by:

- increasing demands for, and conflict over, land and natural resources
- the failure to internalise environmental costs
- insensitive and fragmented land-use planning
- unsustainable consumption and production patterns, and
- the failure to integrate environmental concerns into planning and management of resources and resource use.

Competition for resources

Increasing demands for land and natural resources create competition and conflict.

Consumption patterns and population

Unsustainable patterns of consumption and production combined with a growing population are major causes of continued environmental deterioration. Excessive demands for resources and unsustainable lifestyles place immense stress on the environment. The inability of poorer sections of our society to meet basic needs for food, health care, shelter and education may force them to adopt unsustainable patterns of resource use.

Biodiversity, protected areas and environmental degradation

The loss of biodiversity, mainly from habitat destruction and the introduction of alien plants and animals represents a serious threat.

Protected areas which contribute to the conservation of biodiversity are often poorly planned and managed.

In many instances local communities have no control over land and biotic resources and do not share in economic and other benefits derived from their use. This works against biodiversity conservation and sustainable use.

Urban and Rural Development

Fragmented planning practices and apartheid imperatives have caused many problems in urban and rural living environments and in resource use.

Settlement patterns and dynamics

The movement of people from the rural to urban areas places stress on towns and cities. It is evident in the plight of homeless street-dwellers, polluted air, lack of safe drinking water and sanitation. These factors lead to preventable deaths and ill-health.

While towns and cities generate and accumulate wealth, and are centres of education, economic opportunity, employment, innovation and culture, they are also immense consumers of natural resources. They take over large areas of productive agricultural land, use large quantities of water, energy, foodstuffs and raw materials and generate enormous quantities of waste and pollution.

Services / inequalities and infrastructure

Many urban environmental problems are social ones, such as lack of basic services, lack of and/ or poorly planned open space, homelessness, poor quality and/ or poorly located housing, loss of access to productive land, air pollution, industrial pollution and hazardous waste sites,. The separate development philosophy pursued under apartheid led to a focus on providing resources and services for wealthier white communities. This contributed to inequality between rich and poor.

Rural development strategy

The effects of apartheid are most evident in the rural areas of South Africa. People in the ex-homeland areas, women, farm workers and the poor in rural towns experience the worst poverty, have least access to resources and services and confront the greatest barriers to influencing decision making. Their plight has led to enormous environmental degradation.

Agriculture

Mechanisation and industrialisation of agriculture have contributed to increasing environmental impacts.

These include:

- salinisation from fertiliser and other chemical inputs
- erosion due to inappropriate farming practices and overcrowding in former homeland areas
- displacement of rural populations
- reduction of habitat and biodiversity, and
- subsidies that encourage wasteful and inappropriate use of land, water and other natural resources.

Urban development strategy

Many urban problems in South Africa stem from rapid, unplanned urbanisation and land use planning that does not integrate environmental concerns. This increases poverty and has led to the current urban crisis.

Progress in Environmental Management

Despite all these problems, a number of recent developments suggest that South Africa is responding to the global trend towards greater environmental awareness and enhanced environmental performance. This is evident in a growing capacity for, and acceptance of, the need for better management of environmental impacts in all sectors. These positive factors include:

- South Africa's participation in and ratification of many major international environmental protocols
- the introduction of many 'environmentally friendly' goods and services used in everyday household and industrial applications to cleaning agents and cosmetics. In this regard, it may be noted that all locally produced aerosols are CFC-free the production of CFCs was voluntarily stopped by local manufacturers ahead of the requirements of the Montreal Protocol.
- major public and commercial initiatives in recycling in many cases achieving rates of return comparing favourably to the rest of the world, without having to resort to burdensome or costly regulation
- the decline in important indicators of industrial pollution, for example efficiency improvements have meant that although electricity output has increased, overall associated carbon dioxide emissions have declined
- significant investment by industry in rehabilitation funds and on current and planned capital expenditure on pollution controls and cleaner technology

Since May 1994, the new government has achieved important advances in the delivery of services and freeing of resources which have had a positive impact of the lives of the poor.

3. PRINCIPLES

Introduction

Principles are the fundamental premises used to apply, develop and test policy and subsequent actions including, decision making, legislation, regulation and enforcement.

The consultative process must decide on how these principles are applied to guide policy in meeting the broad environmental imperatives set out in the Constitution, notably a commitment to sustainable development.

Policy should aim to adopt an integrated set of principles. Where principles are likely to conflict with, or detract from, one another this needs to be recognised. Mechanisms should be established to seek a balance or determine which principle takes precedence in a specific situation. Government at all levels will have to play a role in managing such processes in the overall interests of sustainable development.

The principles that should guide environmental policy are presented for consideration in alphabetical order and not in any order of hierarchy.

1 Accountability

Debate

Government is accountable for the implementation of all aspects of environmental policy.

Some sectors argue that accountability and responsibility must rest with all stakeholders, whether individuals, corporations or government.

2 Affordability

Debate

Choices must be made on the basis of full information and explicit understanding of financial and other trade-offs. All policy direction must be subject to affordability testing from a monetary and non-monetary point of view. It is recognised that change is necessary and possible, but the rate of change is influenced by capacity and affordability.

Some sectors reject the idea of subjecting all policy direction to the principle of affordability. Affordability in the context of environmental management must reflect all

real costs. Conventional economic and scientific instruments are often insensitive to the complex ways in which real costs are absorbed by environments and communities.

3 Avoiding Conflict of Interest

This requires that state bodies with responsibilities for managing impacts that affect environmental quality should not have other conflicting functions. For example a government department responsible for regulating resource exploitation in a sector should not be responsible for regulating the monitoring or enforcement functions with respect to environmental impacts resulting from the exploitation of that resource.

4 Capacity Building and Education

Environment should be integrated into all disciplines, forms and levels of education and training. Environmental policy issues should be popularised through awareness building campaigns and programmes in order to build the capacity of people to participate effectively in managing the environment and achieving sustainable development.

5 Cradle to Grave

This principle means that responsibility for the environmental and health consequences of a product, process or service starts with the extraction or processing of raw materials and extends through manufacturing and use to include ultimate disposal of products and waste. It also includes the life cycle of projects and production facilities from concept, through development to post closure.

6 Efficiency

Debate

Resources (including time and money for public consultation and participation) should be used wisely to add value. Every effort must be made to ensure that environmental policy is administered in the most efficient and effective manner possible.

Some sectors reject this principle because they are concerned that the efficiency principle should not undermine principles like participation. Non-participatory decision-making leads to decisions and actions that lack legitimacy. This in turn leads to conflict amongst stakeholders which is fundamentally inefficient.

7 Equity

This principle recognises that all parts of society should have equitable access to resources and services, and that each generation owes a duty to future generations to avoid impairing its ability to meet its basic needs.

Equity requires the redress of apartheid's environmental legacies and the practice of environmental justice to ensure that already disadvantaged members of society do not bear a disproportionate burden of environmental degradation.

8 Flexibility

Debate

Flexibility of action and interpretation within established guidelines and codes of practice is essential to the management of diverse environmental issues. Rigid regulations and institutions are not in the best interests of sustainable development and economic growth.

Some sectors reject this principle, arguing that it undermines the intent and applicability of national environmental policy.

9 Global and International Cooperation and Responsibilities

This principle recognises that South Africa has a shared responsibility for global environmental problems beyond our borders and for transboundary equity.

10 Good Governance

Governance involves the creation of vision, the development of policy and strategic objectives as well as ensuring their implementation. This includes:

- the assignment of responsibilities
- the allocation of resources
- the monitoring and regulation of actions, and
- the measuring and evaluation of outcomes.

This is necessary in order to review and, where necessary, readjust vision, policy and strategic objectives. Where governance is directed by democratic values it requires the effective participation of all stakeholders and a commitment to due process.

11 Inclusivity

Environmental management processes should consider the interests, needs and values of all stakeholders in decision making to secure overall progress in environmental performance.

12 Integrated Planning and Environmental Management

This principles requires that significant impacts of a decision or action on all affected biophysical and social elements are considered together. It requires that, where applicable, government policy initiatives, programmes and strategies take environmental policy into account.

Environmental policy is cross-sectoral and should therefore be integrated into the work of all ministries and departments. This includes inter-departmental coordination and the rationalisation of policies, legislation, monitoring and other environmental functions.

Implementing this principle should build on existing strengths or capacities and identify gaps where capacity needs to be built.

13 Internalisation of Costs

Debate

Real costs associated with developments and activities should be considered for their impacts on environments, health and safety, and long-term sustainability indicators.

The debate on external costs is complex. Past developments and activities externalised many real costs, displacing them onto environments and people as negative environmental and health and safety impacts.

14 Legislation

Laws should further the aims of environmental policy and give effect to its principles. Access to legislation and to the legal process in defense of the aims of the environmental policy should be fair and efficient.

15 Open Information

Transparency of information must enable people to access, work with and demand the information they need for informed participation and decision making.

16 Participation

This principle recognises that all interested and affected parties have a right to participate in environmental management and decision making. Participation should include meaningful and timely consultation with interested and affected parties in order to contribute to effective and informed decision-making.

Participation implies a particular emphasis on hearing the voice of those previously excluded in order that policy development, decision-making and environmental management processes are truly representative.

17 Precautionary principle

Debate

This states that if the environmental consequences are uncertain, an action or project should not be undertaken.

Some sectors argue that, in practical terms, rudimentary tests and evaluations such as risk assessment and strategic environmental assessment should be applied to enable reasoned, balanced decision-making to take place.

Environmentalists argue that the lack of comprehensive scientific data and effective monitoring emphasise the need for application of the precautionary principle.

18 Preventative Principle

The cheapest and most effective way of dealing with problems is to anticipate them before they arise and prevent negative impacts on the environment. A hierarchy of control measures should govern activities that impact on the environment.

In order of priority they are:

- elimination
- substitution
- reduction, and
- containment as a last resort.

Preventative measures should be based on best available environmental practise.

19 Recognition of Women's Role

Women's role in all aspects of environmental management and development should match the major role they play in resource management. This should include recognition of their rights of access to energy, services, water and land.

20 Refusal to Work

Every citizen is entitled to refuse to do work that is dangerous to health and the environment.

21 Responsibility for Environmental Damage

Those responsible for environmental damage should pay the repair costs both to environmental and human health, and the costs of preventative measures to reduce or prevent pollution and environmental damage. (Also known as 'the polluter pays principle')

22 Stewardship

Every person or organisation should act with due care to avoid damage to others and/or to the environment.

23 Sustainability

This requires that resources and natural cycles of renewal and replenishment are used in a way and at a rate that does not lead to their long term decline. This is essential to maintain their potential to meet the needs and aspirations of present and future generations.

24 Sustainable Development

Debate

There is some disagreement about the contribution of economic growth to sustainable development. Some argue that economic growth is the fundamental basis for all environmental policy and management. Others believe that growth is incompatible with long term sustainability.

Some argue that the challenge is to promote types of growth and development which provide the means for satisfying the social and environmental foundations of sustainable development.

25 Sustainable Employment

Sustainable development aims to ensure full participation by all in the social, economic and cultural life of the community. Therefore, job creation, protection and security are integral to its attainment.

26 Waste Minimisation

Waste management should be based on the principle of waste minimisation and avoidance at source, especially in the case of toxic and hazardous wastes. Recycling of unavoidable waste and separation at source should be encouraged subject to environmental and health and safety considerations. Having made full use of all these measures to reduce waste, disposal may be considered. All such disposal should be safe.

27 Whistle-blowers

Citizens who report environmentally unsound practices or violations should not be victimised.

4. OBJECTIVES

Introduction

This section proposes a series of objectives for national environmental policy. These objectives address the major issues facing environmental management and sustainable use of resources. Government will use input from the CONNEPP process in identifying objectives to achieve the vision for the environment contained in the Constitution and expressed in the commitment to sustainable development. The adoption of policy principles will help to guide the choice of objectives and the means of realising them.

Headings are used for convenience and should not inhibit necessary regrouping for policy development. In some instances overlap between groups of objectives is retained where it seems to provide for better understanding. Integrated management and planning should ensure that such overlap does not lead to duplication at the implementation stage.

Achieving policy objectives

In order to ensure that policy is translated into practise, government must draw up detailed plans and set time frames. The Green Paper proposes formalising these detailed plans and schedules in a National Environmental Strategic Action Plan (NESAP). The concept for such a plan follows this introduction.

Government will take responsibility for developing a National Environmental Strategic Action Plan through a participatory process. This plan will detail the actions required by government and other parties to give effect to national environmental policy.

National Environmental Strategic Action Plan (NESAP)

Strategic focus

The action plan will aim to reconcile the two fundamental aspirations, namely for continuing economic development to secure more equitable living standards and an enhanced quality of life for present and future generations; and the protection and improvement of the environment both immediately and in the future. In pursuing this it will seek to delink necessary economic growth from increasing environmental impact.

Contents and purpose of the plan

The plan will set out an agenda for action within a given time frame, for example, the next five years. Actions should address specific targets and have clear goals realisable within set time frames. These specific time bound targets must not be confused with wider objectives and their relationship to those objectives must be clear at all times. Plans should provide for interim updates within the five year time span to take account of new information, new technology or other factors that may call for revision of standards and mechanisms or other targets. The plan will also take account of South Africa's international obligations.

The NESAP will define government action, and will involve the participation of all the stakeholders in deciding on the means used for implementation and the targets set. It may also require consultation with regional or international communities.

State of the environment report and the NESAP

The first phase of the National Environmental Strategic Action Plan must include information gathering and a process of strategic prioritisation. This information will contribute towards the compilation of an initial ***State of the Environment Report***. The report must set out:

- existing environmental conditions and trends in South Africa
- the state of environmental governance
- the situation regarding access to environmental information
- the situation regarding participation in environmental planning and decision making, and
- the level of environmental awareness in all sectors of society.

However, lack of comprehensive information should not be used to delay action on urgent priorities.

Priorities for action

In order to fast track action in addressing urgent needs, the following priority areas need immediate attention.

- A legislative audit must be undertaken to establish:
 - whether existing environmental legislation complies with the Constitution
 - how existing legislation can be consolidated and streamlined, and
 - key legislative needs requiring immediate attention.
- Different departments and levels of government must cooperate to ensure effective integration and coordination of environmental functions in line with the competencies set out in the Constitution. They must work towards the application of uniform standards and procedures in line with national environmental policy.
- All policy processes currently underway that impact on environmental management must be brought into line with the national environmental policy and its development process. Any further policy processes that are required must be identified and initiated.
- Processes must be established to ensure regular collection and updating of the environmental data needed for effective management, monitoring, regulation, enforcement and participation.
- Environmental awareness and education projects must be initiated to meet the needs of primary, secondary and tertiary education as well as those of the general public and of workers and management in the public and private sectors.

Objectives for Environmental Policy

A wide range of objectives are needed to support the implementation of national environmental policy. Some of these objectives are outlined below. This list is not exhaustive and the NESAP will provide a mechanism for the further development of objectives and their translation into concrete action plans with detailed time frames and outcomes.

Revision of Priorities

Environmental policy will prioritise government's approach to environmental management and actions to implement this approach. It will also prioritise the needs and concerns of people disadvantaged due to environmental degradation resulting from previous government policy related to the history of apartheid.

Policy must promote equitable access to resources and services and build institutional and community capacity for participation in securing more effective environmental management and sustainable use of resources. It must set clear objectives for dealing with these issues and address them through the National Environmental Strategic Action Plan and other specific policies and actions.

Objective 1 Reallocation of resources

To effect planned and measurable shifts in budgetary and resource allocations for environment to achieve the goal of people-driven, sustainable resource management and the redress of past injustices and inequalities.

Governance

Environmental policy should transform and strengthen the existing system of environmental governance in order to ensure sustainable development.

Objective 2 Institutional framework

To transform the existing institutional framework in line with the governance model selected in order to implement national environmental policy and develop the NESAP.

Objective 3 Participation and governance

To make governance and decision making participative by reviewing current practices and developing the necessary structures, mechanisms and capacities.

Objective 4 Participation, policy legislation and standards

To carry out a legislative audit and develop relevant and effective policy, legislation and standards through a participative process.

To carry out regular reviews of the relevance and appropriateness of these measures and update them in line with changing circumstances and requirements.

Objective 5 Integration of environmental considerations

To review current sectoral policies and governmental responsibilities and decision making functions with a view to coordinating all functions relating to

permitting procedures, impact assessment and legislation through agreements between relevant departments at appropriate levels.

Objective 6 Effective regulation and enforcement

To ensure that government officers have the requisite capacity and training to implement all policies, laws and standards and to regulate and enforce them effectively. To conduct regular audits of government's performance in this respect.

Objective 7 Pricing of natural resources

To ensure that pricing and taxing of natural resources reflect the full environmental costs and to ensure equitable pricing for all users.

Objective 8 Information systems

To establish legitimate and efficient information systems to ensure informed and transparent decision making and effective monitoring and regulation as set out under the NESAP.

Objective 9 An environmental development and rehabilitation fund

To investigate the possibility of establishing a fund to develop environmental management capacity and rehabilitate degraded environments, and support job creation and worker retraining in restructuring processes resulting from national environmental policy.

Objective 10 Mediation and conflict resolution

To ensure due process and provide for mediation and conflict resolution in environmental management.

Pollution and Waste

All citizens should enjoy the benefits of protection from air, water and soil pollution and from noise wherever they live

Policy must aim to prevent, reduce and control pollution of any part of the environment due to all forms of human activity, and in particular from radioactive, toxic and other hazardous substances

Objective 11 Waste minimisation

To set targets to minimise waste generation and pollution at source and to promote cleaner production.

Objective 12 Waste regulation, monitoring, enforcement and information

To regulate and monitor waste production, enforce waste control measures and set up information systems on chemical hazards and toxic releases and to coordinate administration of integrated pollution control and waste management through a single government department.

Objective 13 Managing household waste

To ensure that local authorities have the necessary capacity and resources to provide effective management of household wastes.

Objective 14 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.

Capacity Building

Government has a special responsibility for ensuring that all elements of society, including government itself, have the capacity to participate in achieving effective environmental management.

Objective 15 Capacity building

To allocate government resources to build institutional, governmental, commercial and community capacity to participate effectively in environmental management.

Objective 16 Public awareness

To ensure public awareness of environmental issues and their ability to participate effectively in environmental management through dissemination of meaningful and relevant information.

Objective 17 Partnerships and participation

To develop a fully participative system of environmental management.

Objective 18 Education and training

To review needs, determine deficiencies and to develop and implement an environmental education and training programme in consultation with the Department of Education, covering formal, non-formal and interdisciplinary areas.

To integrate environmental education into the National Qualification Framework.

Information

The collection and analysis of information and its dissemination in an accessible form is essential for effective, participatory environmental management.

Objective 19 Information management

To strengthen and optimise the capacity of government and civil society to collect, analyse and use multi-sectoral environmental data, information, knowledge and perceptions in decision making and public participation processes.

To ensure open disclosure, accessibility and effective dissemination of environmental data and information.

Objective 20 Research and development

To support and facilitate relevant research and development into environmental sustainability, resource management and environmental policy in line with national priorities and needs.

Economic Activity

Economic activities are the major source on human impacts on the environment. Many of the requirements for effective management of environmental impacts are dealt with under other objectives. Here we look at objectives that are specific to the management of economic activities at the level of enterprises or economic sectors.

Objective 21 Human health

To ensure the protection and proactive management of human health problems related to the environment in commerce and industry.

Objective 22 Employment protection and creation

To protect and promote employment and to create and develop environmentally appropriate jobs during environmental transformation processes in commerce and industry.

Objective 23 Respect for cultural resources

To ensure that those engaged in economic activities respect principles regarding the conservation of cultural resources.

Objective 24 Information access

To ensure access to information from commerce and industry in order to

promote sound health, safety and environmental principles and practices.

Objective 25 Empowerment of citizens

To give citizens an active role in promoting effective environmental management of economic activities.

Objective 26 Stewardship and sustainable development

To encourage business and industry to adopt the principles of environmental stewardship and sustainable development and secure their compliance.

Objective 27 Information and Commitment

To encourage wide and effective dissemination of practical information on environmental matters and promote great public commitment to environmental management by industry.

Objective 28 Environmental and sustainability indicators

To develop agreed, appropriate indicators of environmental performance as measures of the efficiency and impact of national, provincial and local environmental policies.

Objective 29 Accounting and assessment

To investigate systems of environmental accounting, cost-benefit analysis and risk assessment as means of assessing the financial, social and environmental costs as a means to facilitate improved decision making on environmental and developmental issues.

Objective 30 Integrated environmental management

To promote the principles of integrated environmental management within all areas of commerce and industry.

Objective 31 Priorities

To debate and agree on national and sectoral environmental priorities that address existing development needs and capacity constraints.

Objective 32 Voluntary initiatives

To encourage wider involvement by industry and other stakeholders in voluntary initiatives of varying kinds, including covenants and partnerships.

Objective 33 Voluntary auditing and reporting

To promote voluntary environmental auditing and reporting by industry and encourage the development of the necessary skills and capacity required for wider adoption of such practices.

International**Objective 34 Waste minimisation**

To promote measures to minimise waste and pollution at national, regional and international levels (includes climate).

Objective 35 Transboundary impacts

To adopt appropriate measures to prevent transboundary environmental harm, incorporating transboundary movement of hazardous and toxic waste..

Objective 36 Natural resource management

To promote the sustainable management of natural resources across international boundaries

Objective 37 Aligning international policy with national priorities

To ensure South Africa acts in accordance with national environmental policy in dealing with international treaties and agreements.

Objective 38 Implementation of international agreements

To ensure that international conventions and agreements are implemented.

Objective 39 Inclusion of environmental considerations

To ensure that environmental considerations are included in all international negotiations.

Objective 40 Maintaining national integrity

To ensure that foreign investment does not compromise the environmental integrity of South Africa or the principles, rights and standards established in the national environmental policy.

Objective 41 Maintaining standards across boundaries

To ensure that international trade does not lead to wasteful use of natural resources or interfere with their conservation or sustainable use.

Objective 42 Mandates

To ensure appropriate mandates and consultation with South African stakeholders prior to international negotiations.

Sustainable Resource Management**Objective 44 Local control**

To introduce increased local participation in the control of resources and to ensure that programmes are geographically and ecologically specific.

Objective 45 People and environment

To incorporate demographic features in policies, plans and programmes, take account of resource needs and impacts and develop programmes to mitigate the adverse impact of environmental change on human populations and *vice versa*.

Objective 46 Planning

To introduce an integrated approach to the planning and management of land and natural resources.

To develop a land use planning system that takes account of specific ecosystems, and to develop and make available to all a land information system in the interests of sustainable land use.

Objective 47 Land utilisation

To ensure that a proper and fully integrated land management system is

developed. This must facilitate the allocation of land to uses that provide the greatest sustainable benefit to the greatest number of people.

Objective 48 Fragile ecosystems

To ensure the sound management of fragile ecosystems, including monitoring, rehabilitation and *in situ* conservation to preserve biodiversity.

Objective 49 Biodiversity conservation

To improve biodiversity conservation in South Africa, including the revitalisation and expansion of the South African Plan for Nature Conservation on the basis of full participation and the conservation of biodiversity on private land through programmes like the South African Natural Heritage Programme.

Objective 50 Coastal zone management

To integrate the management and sustainable development and utilisation of the coastal marine zone.

Objective 51 Water resource management

To ensure the sustainable and rational utilisation, conservation and management of water resources based on ecosystem and community needs.

Objective 52 Sustainable agriculture

To promote and encourage sustainable farming practices through policies that focus on the integration of human development, income generation, increased local control of resources, strengthening of local institutions and capacities and increased delivery through non-government organisations.

Objective 53 International cooperation

To cooperate with neighbouring states in the conservation of shared populations of wild species.

Objective 54 Treatment of animals

To set standards and procedures for the ethical taking, trade, holding and care of animals.

Objective 55 Tourism and local participation

To ensure that tourism is sustainable and not damaging to the environment and that local communities benefit through active participation in tourism associated with protected areas.

Objective 56 Subsidies

To review subsidies and eliminate those that conflict with principles of sustainable development.

5. GOVERNANCE INSTITUTIONAL STRUCTURES

Introduction

This chapter starts by setting out essential requirements for effective environmental governance. It goes on to present three models for restructuring governance institutions. People need to consider whether these models will meet the essential requirements set out at the start of this section and how effective they will be in implementing environmental policy.

Debate

The current draft of the Constitution⁽¹⁾ states that environment is a concurrent competence of national and provincial government. This means that central and provincial governments are responsible for managing the environment. The Constitution also makes local government responsible for some areas of environmental management.

Some argue that the allocation of competencies between levels of government should be revised in view of the need to maintain national standards of environmental management and to avoid competition at the expense of the environment. A second concern relates to the capacity to implement effective environmental management at different levels of government.

Effective environmental management requires cooperation across all three levels of government (national, provincial and local) as between departments and sections within each level. It will be necessary to formalise relationships, perhaps through the drafting of agreements specifying:

- assignment of functions
- the allocation of resources to enable responsible structures to carry out governmental functions
- measures to resolve conflict
- coordination in areas of concurrent responsibility, and
- measures to eliminate duplication of responsibilities and functions.

Essential Requirements for Environmental Governance

Although the Constitution gives a commitment to the basic principles of sustainable development, at present environmental issues are not well integrated into development planning and implementation. A number of existing constraints must be overcome. They include:

- confusion about areas of environmental jurisdiction
- frequent duplication of functions at different levels of government, and
- lack of capacity in most areas and disciplines at both central and provincial levels of government.

To give effect to the Constitution, government at all levels must carry out its functions effectively and commit itself to good governance. In order to do this the institutional model chosen must meet the following requirements:

- responsible and accountable governance
- enforcing regulation
- establishing integrating mechanisms and structures that facilitate participation
- inter-ministerial and inter-departmental coordination
- the separation of institutional responsibilities for regulating environmental impacts and promoting resource exploitation
- open information, and
- institutional and community capacity building.

The implications of these requirements are set out below.

Responsible and accountable 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, and
- it secures sufficient financial resources to give effect to this policy.

Enforcing regulation

In enforcing regulation, the role of government is to:

- regulate the environment fairly and consistently
- enforce regulations and legislation
- promote, protect and enhance the environment in accordance with the Constitution.
- protect common rights and interests
- facilitate the management of conflict through the participation of interested and affected parties, and
- carry out its functions in accordance with national environmental policy, principles and objectives.

To ensure effective enforcement, government must:

- follow a cooperative national approach to the environment and in doing so reduce the potential for conflicts and competition
- better define the roles of respective levels of governments with regard to the environment
- make provision for greater integration and coordination of environmental functions at both central and provincial levels
- provide for greater civil society participation in policy development and implementation, and
- strengthen the environmental management capacity of central government in respect of setting national policy, norms, standards and monitoring environmental management

Integration & cooperation

Government institutional structures must provide for effective inter-ministerial and inter-departmental coordination and integration at all levels in order to give support to the national environment policy. A key mechanism in this respect is the negotiation of cooperative agreements through relevant state organs and integrating structures such as MINMEC, the committee of central and provincial government ministers and members of the executive councils responsible for the environment.

Central Government must work cooperatively with the provincial governments. Clear assignment of duties and allocation of powers between levels of government must be a priority.

Environmental information and research

Achieving effective environmental management and improving decision making requires good science and good information. Government must commit itself to collecting and disseminating information in an accessible manner. It must also support relevant ongoing research.

Partnerships & participation

The effectiveness of governance structures depends on the capacity of civil society to work with government. Government must initiate the creation of structures to foster stakeholder participation in defining environmental problems and seeking solutions. This will require an ongoing commitment to capacity building both within and outside the government structures. The direct involvement of all stakeholders in environmental governance will give it greater legitimacy and acceptance by society as a whole.

In keeping with international trends and Agenda 21, the government will affirm, strengthen and establish partnerships with stakeholders. Stakeholders include:

- non governmental organisations (NGOs), and/ or NGO associations
- affected communities and community based organisations
- organised labour
- business and industry, and/ or industrial associations
- other departments and levels of government, and
- other interest groups.

In particular, government must commit itself to strengthening the current role of NGOs and CBOs, giving them timely access to data and information, and where necessary, providing practical assistance, including financial support for capacity building. This will enhance their role as partners and stakeholders in policy formulation, decision making, implementation, evaluation, determining research priorities, setting standards and legislation.

Role of central government

Central government must fulfill its Constitutional obligations by:

- overseeing the activities of the provinces
- determining national norms, policies, standards and frameworks
- establishing uniformity of norms, policies, standards and frameworks between departments and across levels of government
- regulating those matters which cannot be regulated by the provinces acting individually
- reporting on the state of the environment and implementation of international agreements
- negotiating and entering into international agreements and ensuring the coordinated implementation of such agreements, and
- monitoring.

Central government will be responsible for:

- setting standards, policy and legislation with the participation of other stakeholders
- identifying key areas for priority attention and target sectors, and

- ensuring that functional economic considerations do not override environmental policy objectives.

Government will ensure that standards, policy and legislation address current problems and provide proactive solutions. These standards, policies and laws will be regularly reviewed and updated.

Relationships with the international community

Central Government must report regularly to the international community in terms of its international obligations. It must ensure adequate opportunity for civil society participation by all relevant stakeholders in negotiating, entering and implementing international agreements.

South Africa must adopt a proactive approach in international relations dealing with environmental issues. In doing so it should prioritise its engagements and relations according to the following hierarchy:

- immediate neighbours
 - SADCC region
 - African continental
 - developing country, and
 - global relations.
-

Model one

Institutional Structure of Government

This model provides for:

- structures to facilitate civil society participation in policy development, implementation and review at all levels of government
- greater inter-ministerial and inter-departmental coordination at all levels
- institutional separation of regulatory functions from activities promoting the exploitation of resources or with other potentially negative environmental impacts
- integration of environmental monitoring and regulation, and
- strengthening government's role and capacity in environmental management.

Central Government

At central government level the model has:

- a Cabinet Committee for Environmental Affairs
- an Office of the Environmental Commissioner
- a statutory national environmental advisory structure, and
- two options for the administrative and executive authority responsible for regulation, monitoring and enforcement.

Option A provides for an inspectorate separate from the Department of Environmental Affairs.

Option B incorporates the inspectorate function into the Department.

A brief description of the functions of these structures follows.

Cabinet Committee for Environmental Affairs

The Minister of Environmental Affairs will chair this committee composed of all central government Ministers whose portfolios impact on, or are affected by the environment portfolio. The Cabinet Committee will provide for greater coordination and integration by ensuring:

- cross-sectoral compliance with environmental policy, and
- incorporation of environmental concerns into all relevant government departments.

It will also facilitate the resolution of conflicts between the different ministries concerning environmental matters.

Office of the Environmental Commissioner

The Environmental Commissioner will sit at the national level of government, reporting directly to the proposed Cabinet Committee for Environmental Affairs and will be accessible to the public. The Environmental Commissioner will serve as environmental ombudsman and act as an environmental policy watchdog. The office will receive and review objections, initiate investigations and be responsible for reviewing state environmental audits.

National Environmental Advisory Structure

The advisory structure will be composed of government officials from different departments and representatives from key sectors of civil society such as non-governmental organisations (NGOs), community based organisation (CBOs), business and industry, and labour. The advisory structure will:

- advise the Minister and Department on all environmental policy matters
- review all environmental policy matters
- ensure meaningful and ongoing civil society participation in all national and international policy and strategy development and review
- ensure that effective structures and processes are in place for civil society participation.

The structure will have an integrative and consensus-seeking mandate.

Two options for the administrative and executive authority

These structures will be responsible for policy development, regulation, monitoring and enforcement. Both options strengthen central government's environmental management role and capacity.

Option A

An Inspectorate & Department of Environmental Affairs

The **Inspectorate** will be multi-skilled and adequately resourced by central government. It will report directly to the Cabinet Committee for Environmental Affairs but stand outside of ministerial and departmental bureaucracies. It will be an integrated enforcement and monitoring authority with an holistic

brief to ensure cross-sectoral and uniform compliance at all levels of government with environmental standards and norms and to safeguard environmental quality.

The **Department of Environmental Affairs** will be responsible (with the participation of other stakeholders) for initiating the development and ongoing improvement of:

- environmental policy
- environmental management strategy
- legislation
- guidelines and minimum standards.

The Department will be responsible for identifying key areas and target sectors for immediate attention. It will formulate broad national environmental strategy and ensure that functional economic considerations do not override environmental policy objectives.

Option B

An Inspectorate incorporated into the Department of Environmental Affairs

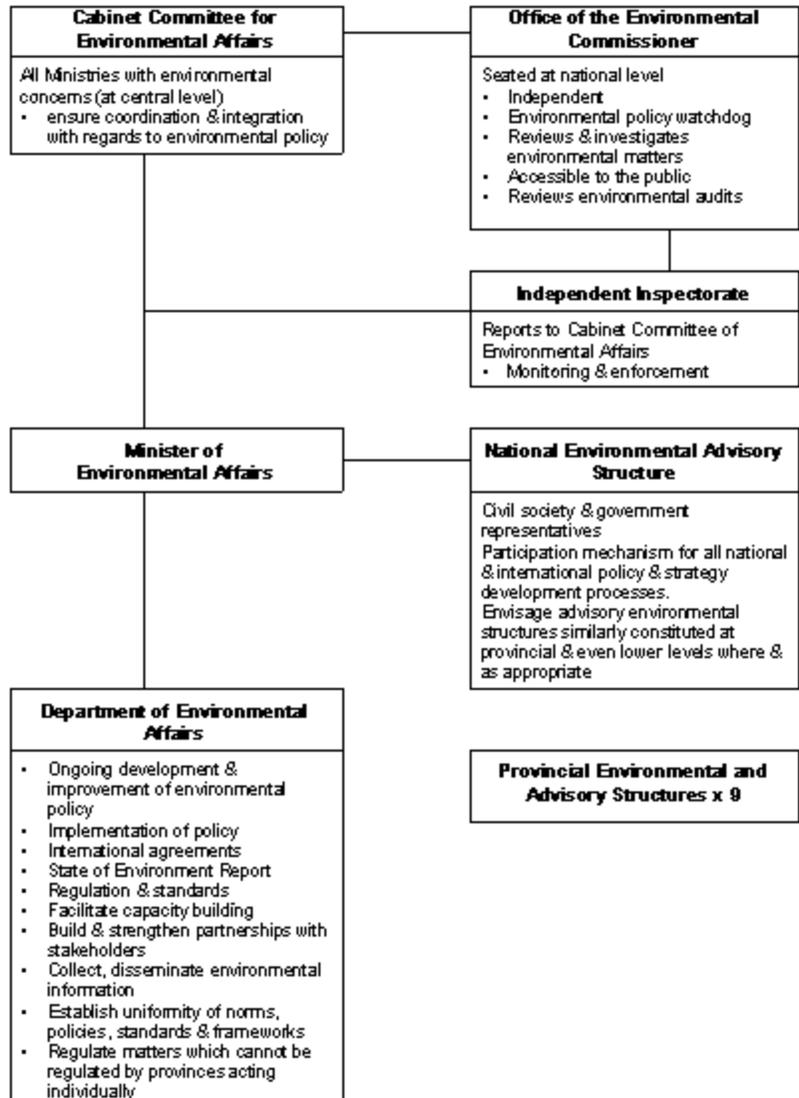
The functions are identical to those in the option A. The only difference is that the inspectorate is included in the Department and reports to the Minister.

Relationship Between Central and Provincial Government

The effective and efficient administration and implementation of environmental policy depends on the clear and unambiguous definition of the roles and responsibilities of the different levels of government to avoid duplication. Cooperation agreements could provide a key mechanism for achieving this through integrating structures such as the current Council of Environmental Ministers (MINMEC) and its Technical Committee.

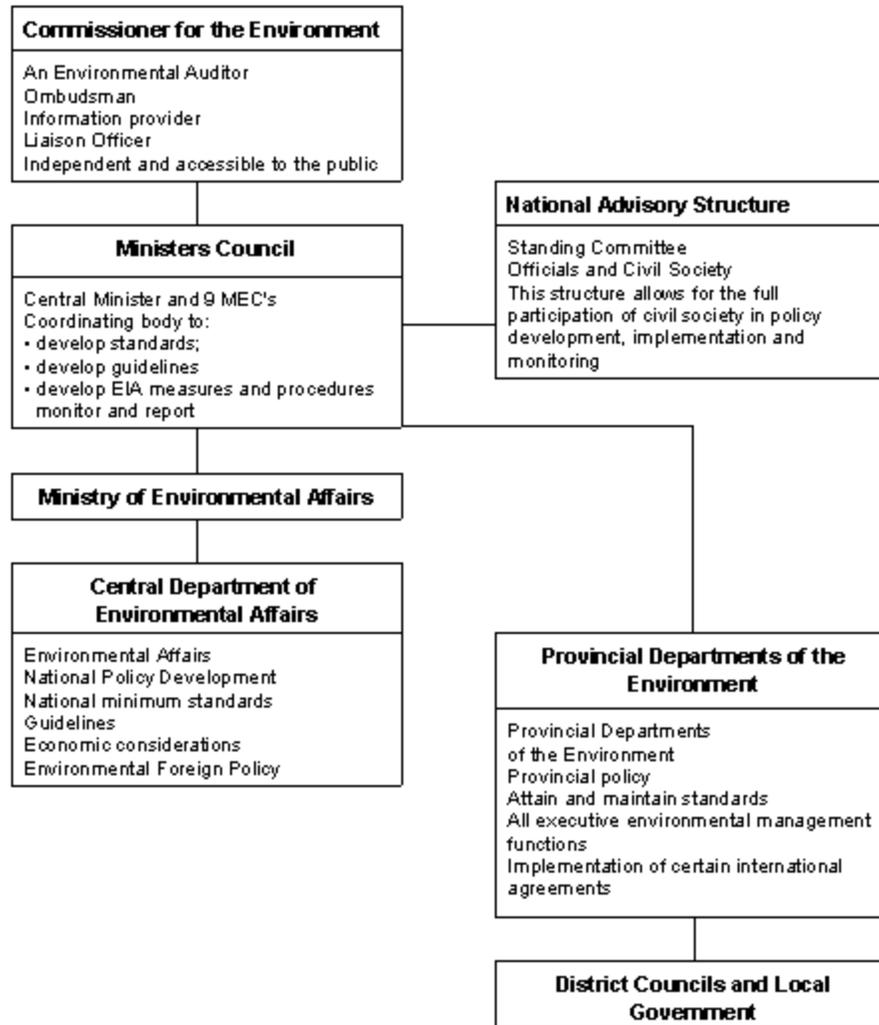
The model envisages advisory structures similar to the National Environmental Advisory Structure at provincial and local level where and as appropriate.

Model One Option A



Model One - Option B

Model Two



Model Two

The Ministry of Environmental Affairs and Department of the Environment

The responsibilities and interests of the national government in safeguarding and accommodating national environmental matters include:

- matters of foreign policy relating to the environment, in particular negotiating and entering into international agreements and ensuring that South Africa meets its international obligations

- ensuring that policies or practices of sectoral ministries and departments do not result in significant adverse environmental impacts beyond our borders or in maritime areas within South Africa's jurisdiction or the sub-Antarctic, Marion and Prince Edward Islands
- facilitating the cooperative development of national environmental standards and guidelines for all aspects of sustainable environmental management
- ensuring that functional economic considerations do not override environmental objectives in the public policy process.

Minister's Council

A Ministers Council should be established composed of representatives of national and provincial government and chaired by the central government Minister for the Environment. Decisions should be made by a simple two third majority.

The Minister's Council should be assisted by:

- a standing committee of officials and representatives from civil society. The committee will be composed of one representative from the central Department of Environmental Affairs and one from each of the provincial departments and one representative each from NGOs, CBOs, Labour, Business and Industry. Representative may be accompanied by persons able to assist with deliberations of the Council. The national Department of Environmental Affairs will ensure that the Council has access to scientific and technical information, and advice on environmental, economic and social implications of matters considered by the Council.
- legislation establishing the Ministers' Council must provide for a permanent executive officer and appropriate support staff.

This Council should coordinate measures to protect the environment for the benefit of South Africa's people such as:

- ambient air quality standards
- ambient marine, estuarine and freshwater quality standards
- general guidelines for assessment of site contamination
- the environmental impacts associated with hazardous wastes
- environmental impacts associated with agriculture, mining and forestry
- the reuse and recycling of used materials

It must monitor them and report on their implementation and effectiveness.

The provinces will be responsible for attainment and maintenance of agreed and jointly set national standards or goals and compliance with national guidelines in the area of their jurisdiction through appropriate mechanisms.

The measures established and adopted in accordance with the above procedure will not prevent a province from introducing more stringent measures to reflect specific circumstances or to protect special environments or environmental values located within its jurisdiction.

Parliamentary Commissioner for the Environment

It is proposed that a Parliamentary Commissioner for the Environment be appointed whose office will be responsible for monitoring the activities of the executive branches of government. The commissioner will act as an:

Environmental auditor

- auditing the proposed policies and programmes of central government
- Ombudsman to receive complaints and initiate investigations on environmental matters
- information provider to standing committees, and a
- Liaison Office with other Ministries on environmental matters.

International Environmental Matters and Conventions

International environmental issues have in the past been an area of dispute between the central and provincial governments and this requires attention.

National government must exercise its responsibility for negotiating and entering into international agreements in consultation and cooperation with the Provincial governments.

Responsibilities and Interests of the Provincial Governments

The provincial governments are responsible for environmental management at the regional / provincial level. In principle the authority vested in the provincial governments must be wide ranging, including:

- coordinating the implementation of development planning
- setting environmental standards in terms of the national standards
- approval of location / development permits and other licences / permits for new developments / projects
- natural resource management including protected areas
- monitoring and adherence to environmental legislation and regulations
- enforcement of environmental laws.

The institutional capacity for environmental management at the provincial level remains weak. This can be remedied by the devolution of functions, authority and responsibility (and corresponding expertise and finances) from national to provincial levels of government. This may require the redefinition of the legal mandate for a number of agencies, the creation of new agencies and significant changes in the financial relationships between levels of government. It will also require a concerted effort to involve local community groups and the private sector in the environment and development process.

Responsibilities at provincial level should include:

- the development of policy in relation to environmental matters that have no significant effect on responsibilities of national government or any other province
- the policy, legislative and administrative framework for managing living and non living resources in the Province
- a role in the development of South Africa's position in relation to any proposed international environmental agreement which may impact on the discharge of their responsibilities
- participation in developing national environmental policies and standards.

Responsibilities and Interests of local governments

Local governments have a responsibility for the development and implementation of locally relevant and applicable environmental policies within their jurisdiction in cooperation with the provincial governments and the local community.

Accommodation of interests

The environmental management system must establish a system or mechanism and procedures for accommodating the interests of the various levels of government in environmental issues. These procedures should emphasise timely consultation, a greater streamlining of intergovernmental processes and the need to avoid duplication of decision making.

A mechanism should be put in place to handle issues involving national and provincial governments, such as the cooperative setting of targets and standards

Identification of Interests

Where responsibility for an issue is not readily apparent, the agreement will establish a consultative process between central government and the provinces to determine the nature of the interest and how it should be handled.

Duplication of Interest

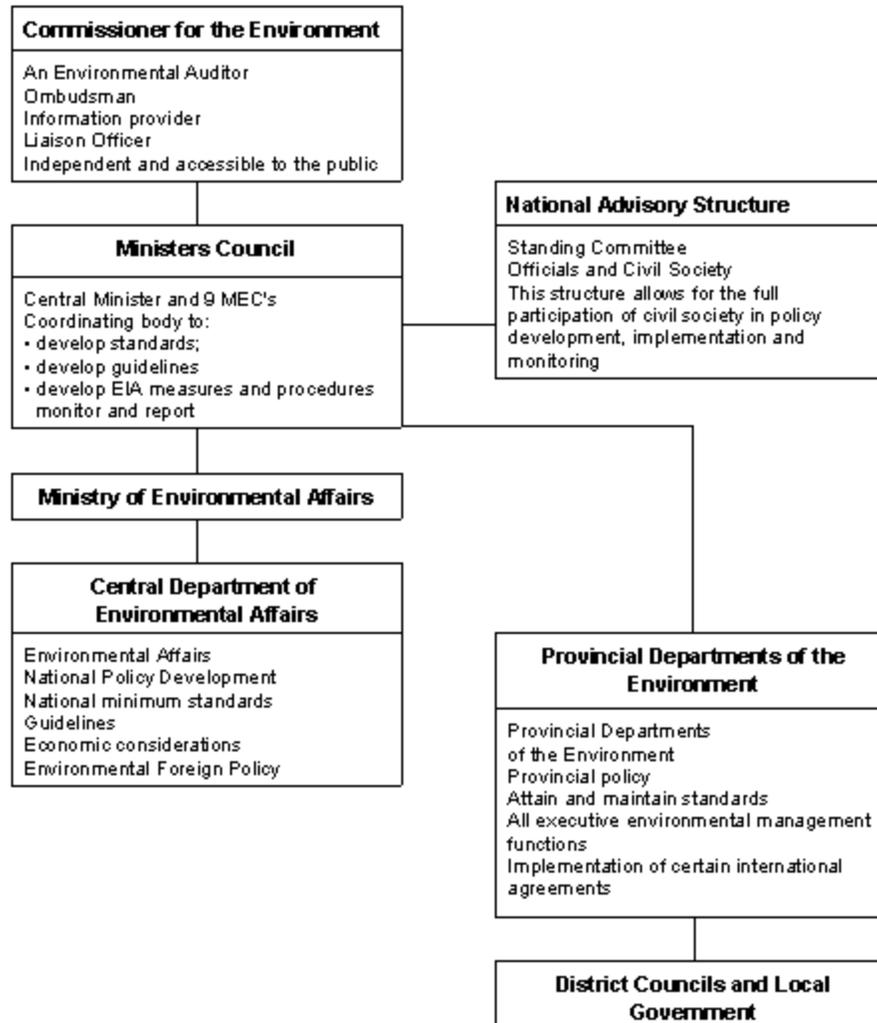
With a view to eliminating functional duplication where the interests of different levels of government are accommodated, the relevant levels of government will review the need and justification for retaining any comparable processes or institutions.

Where some duplication or overlap of interest between levels of government is unavoidable, the relevant levels of government will seek clear and distinct liaison and consultative procedures to coordinate and harmonise actions to avoid dispute.

National Interest

It must be accepted that all levels of government have a responsibility to ensure that matters of national interest are properly taken into account in their activities.

Model Two



Model Three

Certain trends suggest that environmental policy is moving away from centralised decision-making, costly proliferation of structures, detailed regulation and command-and-control approaches towards the setting of objectives, clear standards and the provision of information appropriate to an effective facilitated, participatory self-regulation system.

The appropriate institutional arrangements, structures and issues relating to environmental decision-making should be separated from those relating to environmental management.

Civil society

The public, NGOs and CBOs have important watchdog roles to play in ensuring responsible environmental management on the part of the government and the private sector. However, government has a role, at the appropriate level, of ensuring that the pressure of public opinion never results in an inappropriate balance between the needs of environmental protection and economic development.

The governance model presented does not specifically indicate an institutional role for NGOs, CBOs, industry and commerce and the public. At local levels, environmental and developmental community forums should be established which form the fundamental basis for interaction between institutional and political structures and civil society. These forums provide a clear and focussed method for communities to communicate and participate on environmental issues and the entire decision making process.

A well defined appeals process, managed by local, provincial and national governmental structures provides the opportunity to communicate dissatisfaction with the decision making process. At each level, elected political structures play a decision making role. In cases of dissatisfaction, decisions can be referred up to the next level with national Cabinet being the ultimate political level of decision making and appeal.

Structures

Cabinet

Cabinet is the key senior political coordinating link at national level for environmental matters. A recommended route for managing environmental issues would be to establish a cabinet committee of ministers with responsibilities for environment, tourism, nature conservation, water, forestry, minerals and energy, land and agriculture, finance trade and industry and planning. Cabinet or the cabinet committee would be advised by an ad hoc independent advisory body.

Ad Hoc Independent Advisory Body

This body is convened, when required, from a standing list of candidates competent to advise national and provincial cabinets on environmental matters. The list is drawn up through an appropriate consultative process involving stakeholders. A transparent selection and screening process will be established and the ultimate choice of nominees will be through the parliamentary Portfolio Committee.

The advisory bodies will function at both national and provincial level. The bodies will play a role in the appeal process by advising and guiding the provincial and national cabinets on specific cases. As ad hoc bodies called for specific reasons and constituted with the relevant skills and expertise, they will adequately and effectively advise the appeals process.

Independent Commission for the Environment

The Commission reports to the national Parliament and is responsible for monitoring and auditing the environmental performance of government departments. It has an 'ombudsman' function, receiving complaints and initiating investigations on environmental matters. The Commission also acts the 'convenor' and secretariat for the national ad hoc environmental advisory body to the Cabinet.

All Ministers can seek advice and input from the Commission and/or request it to undertake investigations.

Central Department of the Environment

The department is responsible for setting and auditing national environmental policies and standards. It is the link with international institutions and all global environmental issues and communicates and coordinates responses after liaison and consultation with local structures and frameworks.

Provincial Departments of the Environment

They are responsible for setting provincial policy, in consultation with national structures, and for the executive environmental management function.

Committee for Environmental Coordination

The Committee for Environmental Coordination ensures communication and liaison on environmental matters between government departments. It plays an important role in the smooth functioning of departmental environmental management systems.

MINMEC

MINMEC acts as a coordinating structure for environmental matters in the provinces and as a link, through the Minister of Environmental Affairs, with national environmental structures.

Mechanisms

Sectoral Approach

In a sectoral approach, all departments should have a well defined and auditable Environmental Management System (EMS) for regulating the environmental impact of activities in their sectors.

Provincial departments of the environment and local government authorities play significant roles in the monitoring programmes of sectoral departments.

Sectoral departments need to develop sufficient internal capacity and structure to avoid 'conflicts of interest' between sectoral responsibilities and environmental management and protection.

Procedures

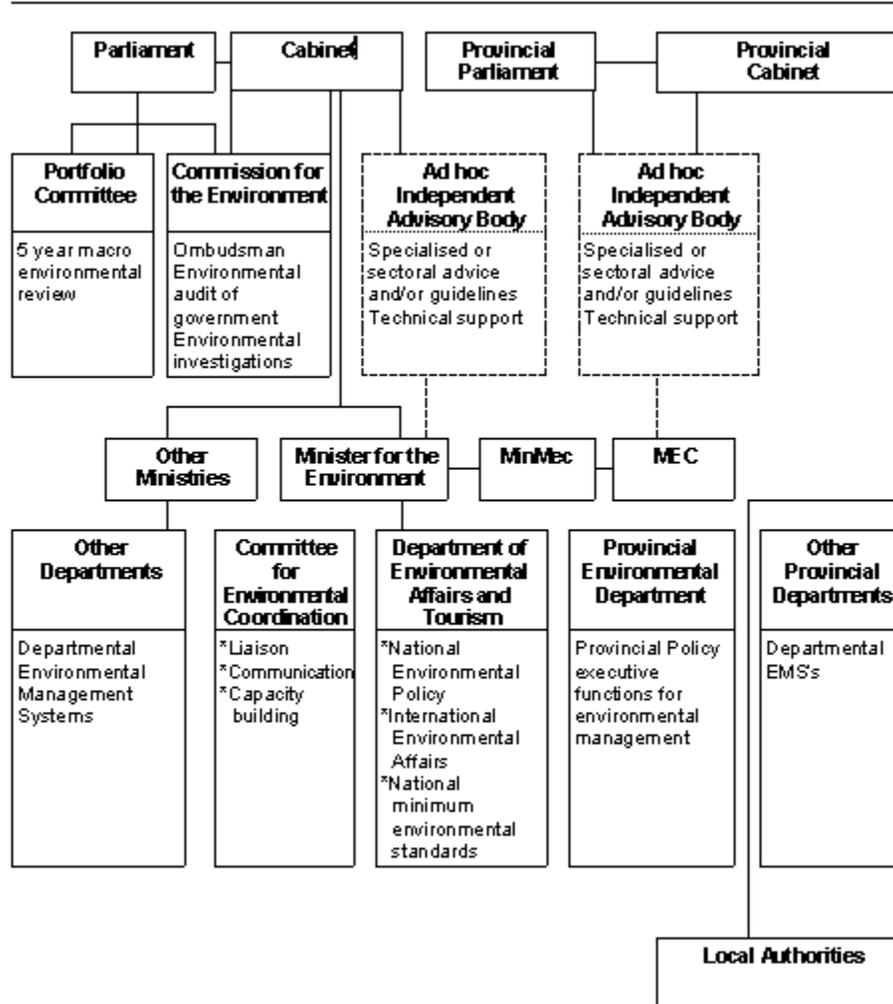
The process of decision-making should be subject to clear procedures including well defined time scales and communication mechanisms.

Appeals

The institutional framework must have a well defined process of appeal that is readily accessible and integral to the environmental decision making process. Appeals should commence at the lowest possible level and pass on to provincial and, if necessary, national level. Community forums will have access to the appeals process and will be encouraged to use it to satisfy concerns with the environmental decision making process.

Various environmental departments administer the appeals process with political structures taking responsibility for decision making.

Model Three



Footnotes:

1. At the time of writing, the draft Constitution has been referred back for further consideration by the Constitutional Assembly

6 Governance regulatory mechanisms

Introduction

Regulatory mechanisms are some of the methods or techniques that will be used to ensure that policy principles are applied and that action is taken to reach specified objectives.

Approach to regulation

The debate around regulatory approaches has become polarised and labels such as 'strict-liability' and 'self-regulation' are used to characterise the viewpoints of different sectors. In drafting the Green Paper it became evident that, in order to avoid the dangers of extreme positions, it was best not to use these labels. Instead we have attempted to devise a balanced and holistic package of mechanisms to ensure that regulation takes place in a consistent and effective manner.

Implementation and enforcement of environmental legislation, standards, policies and principles needs to be strengthened and the limitations of the traditional command and control approach overcome. Government will do this by means of a balanced and comprehensive approach. The emphasis will be on efficient environmental management to prevent environmental harm rather than retroactive punishment involving costly and time consuming litigation. However, where transgressions continue to occur and reactive regulation becomes necessary, it will be severe.

The balanced approach will comprise the following elements:

- the criteria of governance to be used
- proactive regulation/ implementation
- methods to secure compliance, and
- reactive regulation

Criteria of Government regulation

Mechanisms used to regulate the environment will be most effective where government applies them in a consistent, fair and equitable manner. In order to achieve this the regulatory system will be based on the following seven premises:

- legal accountability of officials and politicians
- regular audits of the performance of government departments
- the development of partnerships with all stakeholders
- officials will emphasise the spirit and aims of the Constitution in carrying out their duties
- co-operative relationships with other organs of state, and

- the development of a system that can ensure compliance through procedures and processes that recognise the capacity and responsibility of different groups

Debate

This criterion has two interpretations

- one group argues for its use to protect the disadvantaged in recognition of the disparity between highly developed and underdeveloped segments of society.
Example: squatters should not be held strictly liable for air pollution emanating from the use of coal where electricity is not available or affordable.
- another group argues for its use as a basis for self regulation.

- a commitment by government to give effect to the aims, principles and objectives of the constitution, policy and legislation through their regulation in a transparent way
- all government organs and parastatals shall be equally bound by compliance and accountability standards
- the development of policy, legislation and standards that are effective, explicit, current, consistent and that contain detailed implementation procedures. A single act should set out the principles of liability for pollution and other environmental degradation. (This is addressed in section 4 Objectives, page 35).

Proactive regulation/ implementation

The purpose of proactive regulation is to ensure that environmental consequences are determined, considered and integrated into decision making before negative impacts occur. Policy principles and objectives must be incorporated into environmental decision making. Government will use two measures to achieve this:

- integrated environmental management and planning
- environmental information

Integrated environmental management and planning

Integrated environmental management and planning will be prerequisites for government approval of all activities likely to have an adverse effect on the environment. The purpose of this requirement is to give decision makers adequate information detailing the possible adverse environmental effects of the activity, as well as possible policies, programmes and alternatives. The process adopted to achieve this must ensure the participation of stakeholders and their ability to influence decision making. Tools that may be used in securing integrated environmental management and planning include:

- Integrated Environmental Management (IEM)
- Environmental Impact Assessment (EIA), and
- Risk Assessment.

Environmental information

Under the Interim Constitution everyone has, amongst other rights, a right of access to:

- any information held by the state, and
- any information that is held by another person and that is required for the exercise or protection of any rights.

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. It is an integral part of ensuring the implementation of environmental standards and legislation. The availability and accessibility of such information allows for prevention and mitigation. It also facilitates compliance monitoring and successful participation by interested parties. Information may influence consumer behaviour and raise public and business awareness, encouraging the prioritisation of environmental issues and compliance.

Action to promote the accessibility of information will include the following and other relevant techniques:

- information exchange
- reporting and publication of information
- consultation
- monitoring and surveillance
- notification of emergency situations
- public education, awareness and debate
- industry education and awareness, and
- eco-labelling, eco-auditing and accounting.

Securing Compliance with Policy

Compliance mechanisms offer alternatives for achieving adherence to legislation and standards before resorting to prosecution and litigation. Mechanisms will therefore be set up that encourage stakeholders to comply with set standards, principles and objectives. Three methods are proposed to assist in securing compliance:

Economic Instruments

Economic instruments try to ensure that full environmental costs are accounted for in private economic decision making.

Government will develop a system of economic instruments which may include:

- charges and taxes
- deposit-refund systems
- subsidies
- enforcement incentives, and
- tradeable pollution permits

Debate

Many sectors are concerned that tradeable pollution permits may compound those negative impacts already experienced by disadvantaged communities.

- trade measures (subject to the principles/ conventions of international law)
- consumer information incentives

Audits

Private sector environmental audits and audits of projects undertaken by government and parastatals will become mandatory as capacity and resources become available. Audits will serve a dual purpose namely:

- providing some of the data necessary for a national state of the environment report and fulfilling the function of an ongoing environmental census
- providing a mechanism for monitoring industry's compliance with legislation and standards.

Covenants and agreements

Government will be entitled to enter into transparent covenants where the aim is to improve existing minimum standards. Covenants will be specific to sectors, will be limited to a specific time period and will seek methods of achieving sustainable development regarding issues not yet covered by legislation. They will provide a method of furthering environmental protection. Such agreements may also be considered for the purposes of pilot projects, for example, in the case of cleaner technology. In no instance shall such agreements contain provisions that are less environmentally friendly than existing legislation and standards.

Covenants may also be used in specific situations where stricter standards are needed to protect the environment, but where it would not be appropriate to amend national minimum standards.

Covenants will be entered into in accordance with participatory principles and all stakeholders will be involved in determining their contents.

Debate

Voluntary instruments, covenants and other tools

An alternative view is that covenants should be freely available as a regulatory alternative, provided they do not compromise minimum standards.

In addition, voluntary regulatory mechanisms should be used to achieve significant benefits beyond legal requirements and in areas where legal approaches are limited or less effective. Existing examples of such voluntary instruments include:

- the Industrial Environmental Forum's code of principles

- the South African Chemical Industry's CFC substitution programme
- Wastewise, and
- Chemical and Allied Industries Association's (CAIA) responsible care initiative.

Securing compliance through administrative controls

Government will develop uniform and consistent administrative control procedures. They must provide for good administration, rapid results and should include:

- abatement notice procedures
- suspension or cancellation of authorisation
- detention/ seizure of articles
- powers of investigation, and
- permitting conditions.

Reactive regulation and/or enforcement

Reactive regulation will be used where the above mentioned mechanisms cannot be used to secure compliance or have not been successful and illegal conduct occurs. Reactive regulation will adopt the following premises:

Status of environmental transgressions

Traditionally, offences committed in terms of environmental legislation have not been viewed as crimes, or moral wrongs. However, in order to secure sustainable use of environmental resources and protect the well-being of citizens, this perception must change. Therefore punishment of environmental crimes will reflect the gravity with which the degradation and abuse of the environment is considered.

Swift and efficient prosecutions

In the past, relatively few prosecutions have been initiated against transgressors and they have met with limited success. Government will cooperate with the relevant state organs, and in particular, the Department of Justice, to ensure that prosecutions are initiated promptly, and processed quickly.

They shall also cooperate in adopting measures to make prosecutions more effective. Such measures will include:

- training inspectors in gathering information and evidence necessary for prosecutions
- training inspectors in the requirements of the justice system, and
- investigating the possibility of establishing teams of specialised prosecutors.

Punishment and compensation

Fines Historically, legislation has stipulated maximum fines for environmental offences. There has also been a large discrepancy in fines between different legislation. To redress this problem, government will cooperate with the Department of Justice to establish a method of determining fines linked to cost of living standards and the cost of the offence to the environment in accordance with the trend in the Department of Justice. Environmental legislation will set out a system for determining a fine commensurate with a crime, rather than setting specific fines.

Prison sentences There has also been a difficulty in imposing prison sentences on transgressors. Government will similarly cooperate with the Department of Justice in establishing a sentencing formulae for transgressors which will identify the likely punishment for an offence with certainty and less discretion. For example, a repeat offender will automatically be subject to the imprisonment sentence plus x years. Certain offences will carry mandatory prison sentences.

Alternative sanctions Government will also explore the feasibility and desirability of alternative sanctions, for example, community service, the ability of the court to seize the assets used to commit the crime, a penalty based on the value derived to the accused by the transgression, withdrawal of permits/licenses.

Compensation and remediation In addition to the possible imposition of fines and imprisonment, the Government will ensure that mechanisms are put in place to allow for compensation and remediation. This would include clean up costs/ remediation as well as compensation of victims. This will relieve victims, often poor people, of the burden of litigation costs. It will also reduce the pressure on the justice system by eliminating the duplication of trials resulting from criminal and civil cases.

Burden of proof and liability

As far as possible, Government will emphasise the use of secondary, rather than primary criminal sanctions. Primary criminal sanctions are used when an activity harmful to the environment is itself the basis of legal action. For example polluting the air. Secondary sanction means that legal action is taken on the basis of failure to comply with administrative controls. For example, the offense originates from the failure to obtain a permit to emit substances into the air, or to comply with the conditions of a permit or notice of abatement.

Debate

Liability must be appropriate to the crime.

Example It will be appropriate in many instances to impose strict liability on industries for clean up costs and non-compliance, whereas strict liability for the failure of an informal community which does not have access to electricity to comply with air pollution legislation would be unjust.

An alternate view holds that double standards should not be introduced on principle. The judiciary should be allowed to use its discretion to decide individual cases on their merits.

Appendix I

Listing of persons who submitted written comments on the CONNEPP discussion document either as individuals or on behalf of organisations. The comments are contained on an electronic database at the Department of Environmental Affairs and Tourism in Pretoria.

Adams, A CLAREMONT	Lubbe, J Honorary Rangers Association National Parks Board BLOEMFONTEIN
Andrews, A Legal Resources Centre CAPE TOWN	Madhlaba, T EJNF DENILTON
Barlow-Weilbach, D BENONI	Mahiaga, Maria African National Healers Association JOHANNESBURG
Bell, D Shell and BP SA Refineries DURBAN	Manager: Group Risk Management Transnet PARKVIEW
Bennett, M Sunstove Girl Guide Organisation CRYSTAL PARK	Mantlana, Mandilakhe National Botanical Institute CLAREMONT
Blignaut, J DERDEPOORTPARK	Maritz, WJ East London Marine Services EAST LONDON
Blumenthal, C KALK BAY	McCartney, S Mondi Forests SABIE
Botha, FJ SASTECH JOHANNESBURG	Miles, P Border Chamber of Business SOUTHERN WOOD
Bothma, JF Western Cape Agriculture Union PAARL	Minnie, ND Mondi Ltd DURBAN
Brown, L Wildlife Society LINDEN	Minnie, ND Packaging Council of South Africa SANDTON
Brownlie, S De Villiers Brownlie Associates	Moahloli, J Majwemasweu Conservancy

CLAREMONT

Burger, S
Department of Agriculture
PRETORIA

Cameron, C
Department of Environmental Affairs and
Tourism
PRETORIA

Chevalier, C
Fish Hoek & Clovelly Residents Association
FISH HOEK

Claasens, SPF
Transvaal Sugar Ltd
MALELANE

Claassen, P
STELLENBOSCH

Crook, B
Umhali/Umvoti Environment Committee
UMHLALI

d'Oger de Speville, C P R
Earth Citizen Association
FARRARMERE

Davidson, B
Wildlife Society
LINDEN

Dominik, T
Urban Strategy Department
DURBAN METRO

Dowds, B
Institution of Nuclear Engineers
KERNKRAGE

Drammek, H
UNEP Water Branch
PRETORIA

Drodskie, P

BRANDFORT

Molden, A
South African Oil Industry Committee
ROGGEBAAI

Montz, I
Department of Welfare
PRETORIA

Moore, RP
East Cape Agricultural Union
NORTH END

Naude, HD
Department of Mineral and Energy Affairs
PRETORIA

Neethling, PJ
Consol Ltd
GERMISTON

Nel, J
ELARDUSPARK

Nicholson, S
PFG Building Glass
SPRINGS

Nkosi, T
KLIPTOWN FREEDOM SQUARE

Parris, D
National Parks Board
PRETORIA

Pellew, CH
DURBAN NORTH

Pickover, M
South Africans for the Abolition of Vivisection
HONEYDEW

Pieters, HB

South African Chamber of Business
AUCKLAND PARK

Drysdale, J
WITKOPPEN

Du Plessis JG
Federasie van Rapportryerskorpse
AUCKLAND PARK

Dunn, BA
Project of the Upliftment of Pets and People
TOKAI

Earthlife Africa
JOHANNESBURG

Environmental Justice Networking Forum
GAUTENG

Fedorsky, C
Eskom
JOHANNESBURG

Filmer, R
Eco Access
ROOSEVELT PARK

Godschalk, Col
National Defence Force
PRETORIA

Goldin, I
Development Bank of Southern Africa
HALFWAY HOUSE

Goldschagg, P
FOUNTAINBLEAU

Gore, BJ
EPPIC
BERTSHAM

Green Awareness Initiative and Nation

Town Council of Midrand
HALFWAY HOUSE

Potgieter, LS
Greater Pretoria Metropolitan Council
PRETORIA

Rashid Patel & Co
ESCOURT

Rawicz, Margaret

Read, B
FOURWAYS

Reid, J
Garden Route Branch of the Botanical Society
of South Africa
PLETTENBERG BAY

Ross-Watt, DAJ
The SA Institute of Mining and Metallurgy
JOHANNESBURG

Rudings, M
BELLVILLE

Ryan, P
Fitzpatrick Institute, University of Cape Town
RONDEBOSCH

Scheffer, CJ
Department of Arts, Science and Technology
PRETORIA

Scheuble, OE
Napier Farmer's Association
NAPIER

Smith, FCA
Faculty of Medicine, University of Pretoria
PRETORIA

Smuts, J

Support
DURBAN

Granger, S
International Association for Impact
Assesment
CAPE TOWN

Grant, DE
Knysna Development Trust (CBO)
KNYSNA

Group for Environmental Monitoring
NEWTOWN

Hartslief, R
Wild Water Conservancy
PARYS

Hawke, M
AECI Ltd
JOHANNESBURG

Hawkes, RB
The Tongaat Hulett Group
TONGAAT

Hendriks, A
Social Change Assistance Trust
TAMBOERSKLOOF

Holstenson, LA
Concerned Residents Group
PIET RETIEF

Hunter, D
Samancor: Palmiet Ferrochrome
KRUGERSDORP

Ireton, K
Industrial Environmental Forum
JOHANNESBURG

Jones, RFB
Northern Cape Mine Managers Association
KALK BAY

Democratic Party
CAPE TOWN

Stein, R
Environmental Law Association
JOHANNESBURG

Stevens-Maziya, SD
SANCO
JOHANNESBURG

Stewart, JM
Mining Industry Employees Caucus
Chamber of Mines
JOHANNESBURG

Strydom, YJ
Department of Transport
PRETORIA

Sugrue, A
ANC
NORTH EAST RAND

Surridge, AD
Department of Mineral and Energy Affairs
PRETORIA

Te Water Naude, ML
Department of Foreign Affairs
PRETORIA

The National Spiritual Assembly of the Beha'is
of South Africa
HOUGHTON

The Vegetarian Society of SA
LAMBTON

Thomas, YM
National Council of Women
JOHANNESBURG

Rasenti, Nora
Business & Professional Womens' Federation
RANDBURG

Kidi, CO
UNEP/UNDP
PRETORIA

Van Heusden, P
Earthlife Africa
CAPE TOWN

Kock, N
Collect-a-Can
KYALAMI

Van der Walt, S
Human Sciences Research Council
PRETORIA

Le Roux, M
Habitat Council
VREDEHOEK

Van Huysteen, B
PARKVIEW

Lennon, SJ
MULBARTON

Van Warmelo, W
CLAREMONT

Lentsoane, SM
City Council of Witbank
WITBANK

Visser, H
Kogelberg Biosphere Association
KLEINMOND

Liebenberg, FC
Samancor Mineral Mines
CENTURION

Walmsley, John
John Walmsley Consultancy
PARKVIEW

Lloyd, P
Associated Scientific & Technical Societies of
South Africa
YEOVILLE

Wasse, S, J Greenberg & E Charbonneau
SR Angelika Grail Centre
MELVILLE

London, L
Department of Community Health, Medical
School
University of Cape Town
OBSERVATORY

Wates, J & H Crosby
Integrated Pollution Control & Waste
Management Project
HALFWAY HOUSE

Longden-Thurgood, RM
Institute of Nuclear Enquiries
MILNERTON

Webber, J
Elderado Enviro Club
EAST LONDON

Lotter, L
Chemical Allied Industries Association
JOHANNESBURG

Whaley, D
United National Development Programme
PRETORIA

NB This list does not include all of the individuals and organisations who submitted comments to the provincial CONNEPP workshops. The electronic database contains the summary reports which were submitted to CONNEPP through the provincial participation processes.