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THE INTEGRATION OF STRATEGIC
ENVIRONMENTAL ASSESSMENTS WITH THE
INTEGRATED DEVELOPMENT PLANNING
PROCESS

By

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ABSTRACT

Since the first living forms emerged miraculously from earth's cloak of gas millions of years ago, the planet has maintained a capacity to support life in a myriad of ever changing forms. Among all the species that have evolved during the earth's long history, modern people have been the most successful. This resulted in a drastic increase in human population. In the second half of the 20th century the relationship between human beings and their environment has become the topic of widespread concern. It is now universally accepted that, according to present trends, we must expect the world, and South Africa, to become more crowded, more polluted, less ecologically stable and more vulnerable to natural hazards in the years ahead. There are two components to environmental deterioration. One is the depletion of essential resources for the maintenance of present-day life styles. The other is the deterioration and destruction of natural processes which ultimately sustain life on earth.

South Africa is a unique country with unique problems. It has a developed, or First World, component which has been responsible for some terrible environmental degradation. It also has a developing, or Third World, component which has a dire need for socio-economic development. This implies the need for sustainable development. Sustainable development means improving the quality of human life while living within the carrying capacity. It is universally recognised that sustainable development should occur at local level, which in turn could contribute, to the global healthy state of the environment.

The dire need for development among underdeveloped communities and the lack of capacity (financially and administratively) among existing municipalities in the new dispensation resulted in the introduction of Integrated Development Planning. The Integrated Development Planning process is a strategic decision-making tool that assists local authorities in fulfilling their development mandate given by the new constitution. In general, Integrate Development Plans tend to focus on socio-economic development tied to a spatial development framework. A need to ensure sustainable development therefore exists within Integrated Development Planning.

Strategic Environmental Assessments could be used as a means in achieving sustainable development. A Strategic Environmental Assessment (SEA) is an Integrated Environmental

Management (IEM) strategic decision-making support tool that proactively considers the opportunities and constraints the environment places on development. By integrating a Strategic Environmental Assessment with the Integrated Development Planning process sustainable development can be ensured.

The means to integrate the two processes, theoretically as well as practically, poses a challenge for environmental managers and planners in South Africa. The aim of this study is to provide some guidelines in achieving the successful integration of Strategic Environmental Assessment as a component of the Integrated Development Planning process. This will be achieved by integrating the elements of a Strategic Environmental Assessment into the various phases of Integrated Development Planning process. The Integrated Development Planning process involves one process with many products, one of which is a Strategic Environmental Assessment.

GLOSSARY

Affected environment – “Those parts of the socio-economic and bio-physical environment impacted on by the development”(RSA a, 1998).

Alternatives – “A possible course of action, in place of another, that would meet the purpose and need (of the proposal)” (RSA a, 1998).

Cumulative Impact – “ An action that in itself is not significant but is significant when added to the impact of other similar actions”(RSA, 1992).

Development – “ The act of altering or modifying resources in order to obtain potential benefits” (RSA a, 1998).

Environment – “Environment means the surroundings within which humans exists and that are made up of –

- i. The land, water and atmosphere of the earth;
- ii. Micro-organisms, plant and animal life;
- iii. Any part or combination of (i) and (ii) and the inter-relationships among and between them; and
- iv. The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.” (RSA c, 1998).

Environmental Impact Assessment (EIA) – “ A detailed study of the environmental consequences of a proposed course of action. An environmental assessment or evaluation is a study of the environmental effects of a decision, project, undertaking, or activity. It is most often used within an Integrated Environmental Management planning process, as a decision support tool to compare different options” (RSA a, 1998).

Environmental Implementation Plans and Environmental Management Plans – In terms of the National Environmental Management Act (Act No. 107 of 1998), these plans are to be

prepared by provincial and national government departments. The purpose of environmental implementation and management plans is to coordinate the environmental policies, plans, programmes, and decisions of various government departments at a local and provincial level, which exercise functions, which effect the environment. The aim is to minimise the duplication of procedures and provide consistency in the protection of the environment across the country as a whole.

Environmental Management System – A system which provides a structured process for continual improvement and which enables an organization to achieve and systematically control the level of environmental performance that it sets itself. In general, this is based on a dynamic cyclical process of “plan, implement, check, and review”.

Environmental Resources – Goods, services, or environmental conditions that have the potential to enhance social well being.

Impacts – The outcome of an action, whether considered desirable or undesirable” (RSA, 1992).

Integrated Development Plan (IDP) – Integrated Development Planning is a process through which a municipality can establish a development plan for the short, medium, and long term. It integrates planning across different development sectors and identifies and sets priorities for delivery. An Integrated Development Plan is a decision-making support tool for municipalities and prospective developers in order to ensure that development occurs on an effective and efficient way in the backdrop of limited resources. It also addresses the needs of local communities in a rational comprehensive manner. The Local Government Transitional Act (Act No. 97 of 1996) requires all local governments to produce and Integrated Development Plan, and is binding in all nine provinces.

Integrated Environmental Management (IEM) – “ A philosophy which prescribes a code of practice for ensuring that environmental considerations are fully integrated into all stages of the development process in order to achieve a desirable balance between conservation and development” (RSA, 1992).

Interested and affected parties (I&AP's) – “ Individuals and groups concerned with or affected by an activity and its consequences. These include the authorities, local communities, investors, workforce, customers and consumers, environmental interest groups and the general public.” (RSA a, 1998).

Land Development Objectives (LDO) – Land Development Objectives are developed in terms of the Development Facilitation Act (Act No. 67 of 1995). LDO's provide for a new system of urban management at local government, which is aimed at transforming the systems and procedures and facilitate integrated, efficient, and coordinate service delivery. The LDO's will essentially link public expenditure to a new vision and strategies that have been prioritised in conjunction with communities and other major stakeholders. LDO's can be considered as synonymous with Integrated Development Plans.

Plan – “A purposeful, forward-looking strategy or design, often with coordinated priorities, options and measures that elaborate and implement policy” (CSIR, 1997).

Policy – “ A general course of action or proposed overall direction that is being pursued and which guides ongoing decision-making” (CSIR, 1997).

Precautionary Principle – This involves applying a “ risk-adverse and cautious approach that recognises the limits of current knowledge about the environmental consequences of decisions or actions” (RSA d, 1998).

Programme – “ A coherent, organised agenda or schedule of commitments, proposal instruments and/or activities that elaborate and implement policy” (CSIR, 1997).

Scoping –“ A procedure for narrowing the scope of an assessment and ensuring that the assessment remains focussed on the truly significant issues and impacts” (RSA, 1992).

Screening – “ The classification of proposals” (RSA, 1992).

Strategic Environmental Assessment (SEA) – There is no universal decision for SEA, however it is referred in the White Paper on Environmental Policy for South Africa (1998), as “ a process to assess the environmental implications of a proposed strategic decision, policy, plan, programme, piece of legislation or major plan.” A notable problem with this decision is that it could imply that SEA is separate from the policy, plan, and programme formulation process. Furthermore, this definition focuses on the impact of the environment on the development. However, the principle of evaluating the opportunity, which the environment offers to development and the constraints, which it imposes, should be included in the definition of SEA.

A more proactive approach to SEA is reflected in Tonk and Verheem’s (1998) definition of SEA as “ a structured, proactive process to strengthen the role of environmental issues in strategic decision-making.” Sadler (1995) states that SEA aims to integrate environmental (biophysical, social and economic) considerations into the earliest stages of policy, plan and programme development. In the Guideline Document on Strategic Environmental Assessment in South Africa (2000), SEA is defined as a process of integrating the concept of sustainability into strategic decision-making.

Sustainability – “The concept of sustainability relates to the maintenance and enhancement of environmental, social and economic resources, in order to meet the needs of current and future generations. The three components of sustainability are:

- Environmental sustainability: which requires that natural capital remains intact. This means that the source and sink functions of the environment should not be degraded. Therefore, the extraction of renewable resources should not exceed the rate at which they are renewed; the absorptive capacity to the environment to assimilate wastes should not be exceeded. Furthermore, the extraction of non-renewable resources should be minimised and should not exceed agreed minimum strategic levels.
- Social sustainability: which requires that the cohesion of society and its ability to work towards common goals be maintained. Individual needs, such as those for health and well-being, nutrition, shelter, education and cultural expression should be met.

- Economic sustainability: which occurs when development, which moves towards social and environmental sustainability, is financially feasible” (Gilbert et al, 1996).

ACRONYMS

CFC's – Chlorofluorocarbons

CSD – united Nations Commission for Sustainable Development

DCD – Department of Constitutional Development

DEA - Department of Environmental Affairs

DEAT – Department of Environmental Affairs and Tourism

EIA – Environmental Impact Assessment

EIP – Environmental Implementation Plan

EMP – Environmental Management Plan

EMS – Environmental Management System

FAO – Food and Agricultural Organisation

GEF – Global Environmental Facility

GHG's – Greenhouse gasses

ICLEI – International Council for Local Environmental Initiatives

IDP – Integrated Development Plan

IEM – Integrated Environmental Management

LDO – Land Development Objective

LDP – Local Development Plan

OECD Organisation for Economic Cooperation and Development

ROCR – Resource Opportunities and Constraints Report

SABS – South African Bureau of Standards

SEA – Strategic Environmental Assessment

SEMP – Strategic Environmental Management Plan

UN – United Nations

UNCED – United Nations Conference on Environment and Development

UNEP – United Nations Environmental Programme

WCED – World Commission on Environment and Development

WWF – World Wide Fund for Nature

1. INTRODUCTION

1.1 General Introduction

In light of the fact that environmental degradation and natural resource depletion occurs on a global scale at an accelerating rate, it is important that South Africa acts locally by implementing the concept of sustainable development. South Africa is a country that has a rich natural resources base and faces the challenge to uplift the quality of live of its citizens through social and economic development.

The rapid increase in the population growth, the consumption patterns of the South African Society, the increase in pollution activities and the exploitation of natural resources are a few examples of factors that increases the stress on the natural environment's carrying capacity. The demand for the provision of basic services (water, electricity, sewerage disposal systems, etc.) in under developed areas and the promotion of socio-economic development by local authorities lead to the emergence of the Integrated Development Planning process. Many Integrated Development Plans are biased towards socio-economic development and does not include the concept of sustainable development into planning. Sustainable development ensures that all development does no exceed the limits for acceptable change of the environment. Thus development stays within the carrying capacity of the environment and therefore ensures a sustainable economy.

The best practical way to ensure that sustainable development occurs at a local level is to integrate the elements of a Strategic Environmental Assessment into the Integrated Development Planning process. The opportunities and constraints that the environment places on development as well as the limits for acceptable change are determined by Strategic Environmental Assessments. These limits may be used to guide planning, to ensure that development does not degrade the environment and deplete natural resources.

1.2 Study Area

The study area, for the purpose of the study, focus primarily on the integration of the Strategic Environmental Assessment (SEA) with the Empangeni Local Development Plan (LDP) which is an Integrated Development Plan within the municipal boundaries. Due to the fact that ecological, social and economic systems covers a wider area, the study can therefore not be restricted to the municipal boundaries of the Empangeni Transitional Local Council.

It is important to stress the fact that the study focuses on the integration of Strategic Environmental Assessments with Integrated Development Plans to ensure efficient and effective service delivery as well as sustainable development by municipalities. Without the integration of SEA's with the IDP process, all future development will not be done in a sustainable manner which in turn will lead to an unsustainable economy. The integrated Development Plan (IDP) guides all strategic decision-making regarding development. The Integrated Development Planning process therefore functions as the dominant process of the two processes.

The study illustrates the important challenge with which Environmental Managers are faced today in ensuring that the concept of sustainable development is incorporated in strategic decision-making and planning.

1.3 Purpose of the Study

The state of the environment and the demand for development in all spheres of society implies that the study has a specific purpose. Development should be implemented in such a manner that the positive impacts of development are maximized and the negative impacts are minimized on the physical, social and economic environment. Integrated Development Plans or Local Development Plans is an instrument that assists local authorities in strategic decision-making on development implementation. It is important that development occur on a sustainable way. Therefore, Strategic Environmental Assessments should be

incorporated into the Integrated Development Planning process to ensure sustainable development.

Thus the purpose of the study is to examine the processes of Integrated Development Planning and Strategic Environmental Assessment to determine a methodology to integrate the two processes logically and on a practically feasible way. Thus the study will demonstrate the practical implementation of integrating the elements of the Strategic Environmental Assessment with Integrated Development Planning process.

1.4 Methodology

In order to achieve the purpose of the study, a deductive approach will be followed by gathering information in literature and interviews with key persons. The theory of integrating the elements of Strategic Environmental Assessments into the Integrated Development process will be empirically verified by applied research. The applied research will be illustrated by the Empangeni case study.

The study can therefore be divided into two components. The first component entails a theoretical base where the second component entails the practical implementation of the theoretical base by integrating the Empangeni Strategic Environmental Assessment into the Empangeni Local development Plan. Subsequently, certain recommendations will be made on the integration process.

1.5 Structure of the Document

As mentioned the study entails two components, namely, a theoretical component and an empirical component with conceptual recommendations for integrating the elements of a Strategic Environmental Assessment with the Integrated Development Planning process.

The theory is presented in Chapters 2 and 3. Chapter 2 involves the predominant theory and approaches underlying sustainable development. In Chapter 3, the integration of

Strategic Environmental Assessment into the Integrated Development Planning Process is examined.

In order to empirically verify and illustrate the practical implications of integrating the two processes, the Empangeni case study will be covered in chapter 4. This case study will highlight the issues arising of integrating the two processes as well as provide recommendations to address problem areas.

2. SUSTAINABLE DEVELOPMENT

2.1 Introduction

Sustainability or sustainable development forms the centre of the development route to be followed by the world as well as South Africa in the twenty first century. According to Therivel et al (1994: 22) Strategic Environmental Assessments is a way of implementing the concept of sustainability or sustainable development. It is therefore important to have a firm understanding of the concept of sustainable development that is central to Strategic Environmental Assessments. The rapid increase in the population growth worldwide places increasing pressure on the environment that necessitates the implementation of the concept of sustainable development on a global scale. In this chapter the value of sustainable development will be highlighted by providing a discussion on the demand for development in the background of depleting resources and environmental degradation.

In this chapter, a historic perspective on sustainable development will be provided. The concept of sustainable development will be examined. Environmental issues on a global scale and in South Africa specifically will be highlighted. The international context in achieving sustainable development will also be discussed. Finally, South Africa's Local Agenda 21 in achieving sustainable development will be examined.

2.2 A Historical Perspective on Sustainable Development

The earth has evolved over a period of 4.6 billion years from a system of no life on it to the vibrant planet on which we live today. Throughout history living organisms have depended on the earth to provide them with three basic requirements (Harrison, 1992):

- Resources for consumption, thereby satisfying energy requirements for growth and reproduction;
- A physical environment within which organisms can maintain a presence; and

- A sink for wastes which all organisms discard and which are toxic to survival.

Over the millennia there have been many changes to the shapes and sizes of landmasses, as well as the consumption of the atmosphere (RSA, 1996: 11). Numerous types of living organisms have evolved, only to disappear when they have been unable to survive in the prevailing conditions. When this has occurred, one or all of the above-mentioned requirements have been missing.

There have been several global-scale phenomena which resulted in enormous changes in the earth's environment and thus been crucial to the composition of life. These are highly relevant to the survival strategies and there is much to be learnt by studying the early history of the earth to establish the reasons why various forms of life disappeared (RSA, 1996:12).

Of all the millions of species that have evolved during the earth's long history, modern people, or more formally, *Homo sapiens*, have undoubtedly been among the most successful (Yeld, 1997: 11).

In a relatively blink of geological time, the human race has evolved from a relatively small and highly vulnerable group to a huge, confident mass of people who made their presence felt in every corner of the globe, and even in space. Technological innovation contributed to the accelerated population growth of the human race. Cultural changes, referred to as the agricultural (10 000 BC) and the scientific / industrial revolution (1750 AD), provided further stimuli to the success of humans.

The unsustainable pressures of increasing human populations and human activities on the environment greatly increased as domestication of animals and the cultivation of crops became common. Research and monitoring by environmental scientists over the last 100 years has painted a picture of continuous deterioration in the quality of the earth's environment (Harrison, 1992). Population growth and development activities, intended to

improve the quality of human life, have exacted a high cost on to the environment (Figure 2.1).

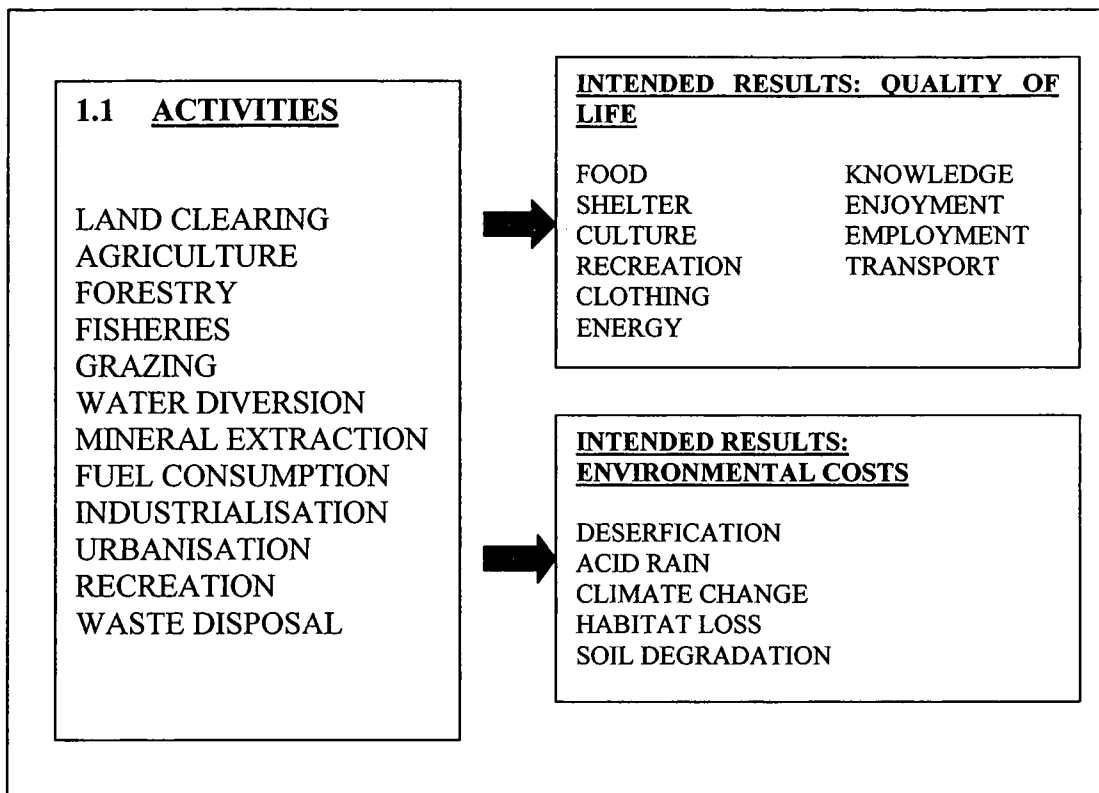


Figure 2.1: Human activities affecting the sustainability of the biosphere (from the International Association for Ecology, 1991)

Although all of this development has been local in nature, it has acted in a cumulative and global manner to threaten the capacity of the earth to sustain vital life support systems and natural resources (WCED, 1987). Scientists have been able to quantify and assess the dimensions of many environmental issues such as global warming, destruction of the ozone layer, acid rain, air and water pollution, soil erosion, deforestation, and biodiversity loss. It has also been possible to pinpoint and explain the causes and reasons behind these problems: in almost every case, development activities have made use of the earth's natural resources without adequate replenishment or cognisance of their capacity to absorb wastes (Harrison, 1992).

For humans to survive, the fertility and productivity of the earth must be guaranteed. To care for the earth means two things: helping people everywhere achieve lives that are as healthy and fulfilling as possible, and at the same time maintaining for future generations the full range and complexity of life on earth (Yeld, 1997:11). That means both preservation or conservation and exploitation or development: conservation to protect both earth's diverse life-forms (including humans) and the complex ecological processes which allows these forms to survive, and development, which provides the material means for humans to prosper and enjoy life.

2.3 The Concept of Sustainable Development

The term "sustainable development" originated in German forest management practices during the 19th century, but was popularised in the 1980's. In theory, it means development that meets the needs of the present without compromising the ability of future generations to meet their needs (Yeld, 1997: 12). This was the definition used by the United Nations sponsored World Commission on Environment and Development chaired by the Norwegian Prime Minister Mrs Gro Harlem Brundtland, in its influential report of 1987, "Our Common Future".

It is not possible to give a definition of "sustainable development" that will meet the approval of all people. Sustainable development has indeed become one of the most widely used expressions in the context of economy, environment, and development (DEAT, 1996:20). It is used to describe an intended approach to development which will provide solutions to all current and future social, economic, and environmental problems (e.g. poverty, disease, unemployment, violence, environmental pollution and loss of biodiversity). In many instances the term has either been used inappropriately, misunderstood or been misinterpreted by the audiences who have been exposed to it. Throughout the world many people are confused by the term, mainly because it represents a still as yet unknown and unproven conceptual approach (DEAT, 1996: 20).

Sustainable development is a path along which to travel, rather than a single goal or target at which to aim, and depends on the philosophical basis of *Caring for the Earth* which

involves protecting and safeguarding the fertility of the planet (Yeld, 1997: 13). This can be achieved by meeting three basic objectives:

- Maintaining essential ecological processes and life-support systems;
- Preserving biological diversity; and
- Using natural resources or ecosystems sustainably or, where this is not possible, wisely, as in the case of non-renewable resources such as most minerals.

A prerequisite for achieving sustainable development is that the human population must be in equilibrium with the natural resource base on which it depends. This is because we depend on the resources such as air, water, and food, through to the materials we use for shelter, transport, work opportunities, and recreation.

According to Yeld (1997) some of these resources, like mineral and fossil fuels, are, in practical terms, finite and hence non-renewable. They are formed over geological time spans (millions of years) and most will eventually run out if we continue exploiting them at current rates. Most of the earth's resources however are infinitely renewable, although only under certain strict conditions: they cannot be stressed beyond certain limits; cannot be reduced to less than certain critical levels or consumed too quickly within too short a period of time, at a rate faster than their capacity to regenerate or reproduce themselves.

The deteriorating global situation (refer to section 2.4) demanded action, so in 1991 the three leading agencies – World Conservation Union (IUCN), World Wide Fund For Nature (WWF) and the United Nations Environment Programme (UNEP) – again combined forces to produce *Caring for the Earth: A Guide to Sustainable Living*. This was the blueprint for a new way of life to break the existing pattern that was causing environmental chaos throughout the world (Yeld, 1997: 14).

In this report, sustainable development is defined as “improving the quality of human life while living within the carrying capacity of supporting ecosystems”. By implication, this means that ecosystems have to be protected as far as possible, so that successive generations can also use them to improve their quality of life (Yeld, 1997:15). It also means that human population growth will have to be curbed.

It follows, then, that a “sustainable economy” is the product of sustainable development. Such an economy can continue to develop – not in the old pattern of economic growth through the ever-increasing consumption of natural resources, but through improvements in human knowledge, better organisation, less waste, improved technical efficiency, and the application of wise investment decisions. The ultimate goal of *Caring for the Earth* is a sustainable society: a society which grows and prospers while living within the carrying capacity of its supporting ecosystems, and which is underpinned by the philosophy of caring for all living creatures. Such a society can be achieved through applying nine principles for sustainable living.

Fuggle and Rabie (1994: 2-3) summarizes these nine principles as follows:

1. Respect and care for the community of life

This ethical principle requires that human actions should not be at the expense of other human groups or later generations nor threaten the survival of other species. It recognizes that our survival depends on the use of other species, but that we need not and should not use them cruelly or wastefully.

2. Improve the quality of human life

The underlying aim of all development is to improve the quality of human life. It is a process that enables people to lead lives of dignity and fulfilment and to realize their potential. People everywhere want to lead long and healthy lives, to have access to education and the resources needed for a decent standard of living, to attain political

freedom from violence. Development must address all these factors and not only economic growth.

3. Conserve the earth's vitality and diversity

The human species is utterly dependent upon the earth's natural systems. There must be deliberate action to protect the structure, functions, and diversity of the world's ecosystems. The ecological processes that govern climate, recycle essential elements, form soil, disperse wastes, and keep the planet fit for life, must be conserved. The variety of plants and animals and other organisms as well as the different ways these are assembled in communities must be preserved, and human use of living resources must be within the resource's capacity for renewal.

4. Minimize the depletion of non-renewable resources

Minerals and fossil fuels are non-renewable, so they cannot be used sustainably. Nevertheless, avoiding over-use or wasteful use, through recycling and by using renewable substitutes where possible, can extend their usefulness to human beings.

5. Keep within the earth's carrying capacity

Policies that bring human numbers and all life styles into balance with nature's capacity must be developed together with technologies and management practices that enhance that capacity.

6. Change personal attitudes and practices

Through educational programmes and the dissemination of information individuals must be encourage to re-examine their values and to alter their behaviour to accord with the ethic of living sustainably.

7. Enable communities to care for their own environments

Authorities and governments are to far removed from the everyday activities of communities for them to constantly intervene to protect the environment from human actions. Communities must themselves be empowered to contribute to and enforce decisions that effect their environment. Care for the environment is the responsibility of all communities; it must not be made to appear the predominant responsibility of government or conservation agencies.

8. Provide a national framework for integrating development and conservation

To ensure action to harmonize conservation and development, all countries needs an acceptable framework of law and institutions consistent with their social and economic norms. Such programmes must be adaptive and responsive to changing national circumstances. What will work in one country will be different from what will work in another; each country must therefore assume responsibility for a framework that will ensure a movement towards sustainability within its own domain.

9. Create a global alliance

All nations of the world are interdependent. No nation is economically self-sufficient and the life supporting of the planet do not respect political boundaries. For sustainable living, all nations of the world must act in accord. It is fallacious to think that either the developed or the developing countries will be able to proceed towards sustainability without the co-operation of the other.

2.4 Global Environmental Issues

Over the last 30 years scientific monitoring and research has prevented unevequivocal evidence that human activity is altering the characteristics of the earth's environment (DEAT, 1996: 16). Development activities at the local level, with its consumption of resources and disposal of wastes, has acted in a cumulative way to affect what is known as

the "global commons". This includes all rivers, lakes, wetlands, oceans, land and atmosphere which are shared or used by more than one nation.

Almost every nation in the world is contributing to global environmental change including South Africa. Some of the environmental issues of global significance include the following:

2.4.1 Global climate change

Gases such as carbon dioxide, methane, and nitrous oxide are known as greenhouse gases (GHG's). Increases in their ambient concentrations within the atmosphere raises the potential of the atmosphere to absorb and hold heat radiation from the sun, ultimately raising the temperature of the earth. The ramifications of this are far-reaching with respect to weather patterns, agricultural productivity, and even coastal and island land masses (DEAT, 1996: 16). There is evidence to show that atmospheric carbon dioxide concentrations have increased substantially over the last 50 years, primary as a result of economic activities of local nature (industrial, energy and transport being the main contributors).

The major sources of global carbon dioxide emissions are via the combustion of oil, natural gas, coal and burning of natural vegetation (DEAT, 1996: 17). According to the World Resources Institute (1994), South Africa is ranked 14th in the as the major contributors to carbon dioxide emissions.

Based on the projected rates of carbon emissions, it is predicted that the earth's average temperature could rise by 2.8 °C during the 21st century (World Bank, 1992). While some estimates suggest as much as a 1,5 m increase in sea level before the middle of the 21st century, an average of several estimates puts it closer to 0,5 m or less (DEAT, 1996: 17). In South Africa, historical records of the mean sea level from tide gauges at Port Nolloth show a significant rise of 1.23 mm per year. Similar trends were noted at Simons Town and Luderitz. Huges *et al* (1991) predicted that, in South Africa, the sea level would rise

by about 20 cm in the next 40 years, followed by 70 – 100 cm by the end of the 21st century. Along the South African east coast access roads and some buildings, for example in the Durban Bluff area, could be undermined by erosion if the mean sea level would rise by one meter (Cooper, 1995).

2.4.2 Depletion of the ozone layer

The ozone layer surrounds the earth and provides a protective blanket against damaging UV-light which is harmful to biological life. Data show that the total amount of ozone in the upper atmosphere has declined by between 4% and 5% over the past decade (Cunningham and Saigo, 1992). The main causes for the increasing hole in the ozone layer are Chlorofluorocarbons (CFC) gas emissions which emanate mainly from refrigeration and aerosol technologies. It is estimated that the extra UV light allowed to reach the earth's surface could lead to increased occurrences of human health problems such as skin cancers, skin aging and eye complaints.

2.4.3 Deforestation

Forests are an integral part of the earth's life support systems, playing a crucial role in regulating the atmosphere and climate through their ability to store carbon and drive local hydrological cycles. They protect soils from excessive erosion, regulate run-off, reduce the effect of floods, and consequently silt loads in rivers. Natural forests are usually highly diverse ecosystems, supporting millions of species and providing human beings with a wealth of benefits (Yeld, 1997:49). Furthermore, the role in removing excess carbon dioxide from the atmosphere and hence diminishing the greenhouse effect is considered to be vital in ensuring a global balance of the atmosphere (DEAT, 1996: 18).

It has been estimated that almost 20 000 km² of tropical forest is being lost each year because of clearing for commercial logging, fuel wood and conversion to agricultural land. An example of deforestation in South Africa is the destruction of the Dukuduku forest near St. Lucia in KwaZulu-Natal.

2.4.4 General pollution

Human activities, commercial or domestic, generate enormous amounts of wastes which are released into the environment. The ability of specific systems to absorb and process such wastes without experiencing long-term ecological damage is of concern (DEAT, 1996: 18). This includes oceans, lakes, rivers, land areas and the atmosphere. In South Africa, air pollution in some areas of Gauteng and in parts of Mpumalanga, arguably, are as bad as anything in the heavily polluted areas of industrial Eastern Europe (Yeld, 1997: 15).

2.4.5 Biodiversity loss

The ability of the earth to provide resources and absorb waste is dependant on the variety of life which is present. Over the last 200 years human activity and development have systematically destroyed habitats and caused many species to become extinct (DEAT, 1996: 19). It has been estimated that there are hundreds of species, which have become extinct since the seventeenth century when global migration escalated (McNeely et al, 1990). At present thousands of species are threatened with extinction.

2.4.6 Loss of arable land

Development activities generally lead to the conversion and/or degradation of land (DEAT, 1996:19). Of particular concern is the conversion of arable land into industrial or residential areas, as well as the loss of topsoil through poor agricultural purposes. According to Yeld (1997:35) soil erosion has escalated dramatically in South Africa, with an estimated three tonnes of topsoil per hectare been lost annually- far higher than the rate of topsoil formation (0,1 tonne per hectare per year). According to Yeld (1997: 36) ecologists point out that soil is South Africa's biggest "export product", with an estimated 200 million tonnes being lost annually from the land to the sea.

The Food and Agricultural Organisation (FAO) estimates that total global cropland losses per annum amount to almost 11 million hectares. Conversion of land to non-agricultural

purposes, urbanisation, roads, industrial sites, strip mining, and abandonment of marginal farmland is responsible for 25 % of this loss (Cunningham and Saigo, 1992).

2.4.7 Urbanisation

The migration of people from rural to urban areas has resulted in the creation of "mega-cities" with populations higher than 10 million people. There are currently 35 cities in the world with populations greater than five million, and of these at least 15 have populations greater than 10 million (DEAT, 1996: 20). This has led to cities which are totally dependent on outside areas and regions for their resources as there are unable to sustain themselves. Furthermore, such cities have become renowned for the generation of pollution and wastes. It is predicted that by the end of the next century more than 80 % of all humans will live in cities (DEAT, 1996:20).

The worldwide trend is towards rapid urbanisation, and this is likely to continue because of long-term structural changes in the global economy. Africa's rate of urbanisation is the highest in the world, estimated to be doubling every 14 years. South Africa is no exception, and this country's urban population is likely to increase from just over 16 million in 1985 to approximately 36 million in 2000. Already, more than 40 per cent of the population live in the four largest metropolitan areas, and it is estimated that at present, some 80 per cent of the population lives in cities. The most immediate and critical environmental problems in South African cities, both now and the future, are a lack of reliable energy supplies, lack of safe water, inadequate waste management and pollution control, accidents linked to congestion and crowding, the occupation and degradation of sensitive lands, and the interrelationships between these problems which are cumulatively referred to as the "brown agenda". In order to achieve sustainable development in South Africa, Integrated Development Planning will have to be equitable, sustainable, practical, sensitive to local norms and cultures and welcomed by those affected.

2.5 The international context in achieving sustainable development

Following the World Commission on Environment and Development's report (1987), there has been an escalation of efforts aimed at promoting sustainable development. The United Nations has been the main agency through which many international programmes have been implemented. The Economic and Social Council of the UN acts as an umbrella for many programmes, functional commissions, and international organisations.

One of the major contributions, which the UN has made, was the successful convening of the 1992 UNCED Earth Summit in Rio de Janeiro. The summit has been attended by more than 30 000 people, including 103 heads of state and had many positive outcomes (RSA, 1992: 21).

The Treaties and Agreements which were tabled and generally accepted at Rio included:

- **The Rio declaration on Environment and Development**

It provides 27 principles on which countries should base their development and environmental proposals.

- **A declaration of Principles on Forests**

It is designed to protect indigenous forests

- **The Framework Convention on Climate Change**

The convention addresses the threat of global climate change by urging governments to reduce the sources of greenhouse gasses. It is therefore designed to reduce and control emission of Greenhouse gasses (GHG's).

- **The Convention on Biological Diversity**

The aim is to effect international co-operation in the conservation of biological diversity and promotes the sustainable use of living natural resources worldwide. It is aimed at controlling and reducing the loss of habitats and species, as well as the use of genetic material.

- **Agenda 21**

Agenda 21 is a non-binding programme of action to achieve sustainable development, covering 40 chapters and 115 programme areas (Regency Press, 1992). Of all the documents which were generated at UNED, this is probably the most important because it provides an integrated perspective on how sustainable development should be implemented (DEAT, 1996: 21).

There is currently an International Council for Local Environmental Initiatives (ICLEI), based in Canada, which is attempting to encourage local authorities to develop their own Local Agenda 21 programmes (ICLEI, 1994).

Countries have been encourage to participate in the international forums which have been set up to deal with Agenda 21, Forests, Climate Change and Biodiversity. At the same time they have also been encouraged to initiate internal programmes which deal with each issue relative to national priorities (DEAT, 1996: 22). It was recommended that Agenda 21 should form the basis of all national development programmes over the next 10 years (Regency Press, 1992).

There are numerous UN organs and agencies which are supportive of the sustainable development concept. Some key environmental agencies include:

1. The United Nations Environmental Programme (UNEP)

UNEP was initiated in 1972 following a resolution made at the UN conference in Stockholm (UNEP, 1992). It is an ongoing programme which comprises all the activities undertaken within the UN system that relate to the environment. Among numerous other activities, UNEP operates the largest information system in the world (INFOTERRA) which links 149 countries and some 6 500 institutions. According to DEAT (1996), other activities include: the Global Environmental Monitoring System (GEMS), Global Resource Information Database (GRID), and the International Register of Potentially Toxic Chemicals (IRPTC).

2. The United Nations Commission on Sustainable Development (CSD)

The United Nations Commission on Sustainable Development (CSD) was set up to provide a forum to deal with international activities and develop international consensus on approaches to sustainable development. It is therefore important to monitor Agenda 21 activities. The Commission on Sustainable Development has a permanent secretariat and meets regularly to deal with priority issues. Since its inauguration in 1993, it has had several meetings.

3. The Global Environmental Facility (GEF)

GEF is a financial mechanism that provides grants and concessional funds to developing countries for projects and activities that aim to protect the global environment. The UNDP, UNEP and the World Bank jointly implement it. According DEAT (1996) twenty-six countries, eight from the developing world, have pledged more than two billion US\$ to the GEF Trust Fund.

The activities of the UN have been well supported by intergovernmental agencies such as the OECD and European Union, as well as non-governmental organisations such as the World Conservation Union (IUCN), the World Wildlife Fund (WWF), and the World

Resources Institute. All these agencies contributed substantially to promoting sustainable development.

2.6 Local Agenda 21 and Integrated Development Planning

The Local Agenda 21 has its origins in the international concern among governments and NGO's over the long-term sustainable use of the environment. This concern led to the United Nations Conference on Environment and Development (UNCED, also known as the Earth Summit) which was held in 1992 in Rio de Janeiro, Brazil. This conference resulted in a global action plan being adopted by many countries, including South Africa. The Agenda 21 Action Plan is broad-based and takes a long-term view of the environment. The Local Agenda 21 programme is aimed at achieving the sustainable development of local communities by the 21st century. In South Africa a number of planning and development programmes that are similar in nature to the processes of Local Agenda 21 have been adopted. Of particular importance is the Integrated Development Planning process that is similar in nature. Table 2.1 below illustrates the similarities between the Local Agenda 21 and Integrated Development Planning principles.

LOCAL AGENDA 21 PRINCIPLES:	INTEGRATED DEVELOPMENT PLANNING PRINCIPLES:
<ul style="list-style-type: none"> • Ecological Limits • Partnerships • Accountability • Participation and Transparency • Systematic Approach • Equity and Justice • Concern for the Future 	<ul style="list-style-type: none"> • Safeguarding for Sustainability • Enabling Environment • Accountability of Authorities • Interaction and participation • Integrated Process Approach • Regulation for Equity • Planning before Doing

Table 2.1: The Similarities between the Local Agenda 21 and Integrated Development Planning Principles (from WESSA, 1999: A Guide to Local Agenda 21 Training Workshop).

Due to the similarities between Local Agenda 21 and Integrated Development Planning, it is clear that Integrated Development Plans should be used as a vehicle or instrument for implementing sustainable development. More specifically, Strategic Environmental Assessments as a sustainable development tool should be integrated with the Integrated Development Planning process.

2.7 Conclusion

One can come to the conclusion that sustainable development is absolutely vital to the existence of humans on earth. It is clear on a global scale that we have a great challenge lying ahead of us in achieving sustainable development. Our activities locally have an impact on the environment globally.

Furthermore, due to the fact that environmental degradation is occurring at a fast rate, we do not have a lot of time in achieving sustainable development. On the short-term, Strategic Environmental Assessments (SEA's) as part of the Integrated Development Planning process will also ensure that local communities contribute to sustainable development globally by providing a framework for sustainable development locally. An educational process of the nine principles of a sustainable living is the only way in achieving a sustainable society. This is however a long-term process which will not happen overnight.

Due to the fact that Strategic Environmental Assessments requires a lot of expertise and funding, the United Nations and other non-governmental agencies can play an important role in assisting counties in achieving sustainable development as set out in Agenda 21. By integrating the concept of sustainable development into the Integrated Development Planning process via Strategic Environmental Assessments, costs can be reduced, duplication of functions can be avoided and a more effective and efficient process for the implementation of sustainable development can be achieved.

3. THE INTEGRATION OF STRATEGIC ENVIRONMENTAL ASSESSMENTS INTO THE INTEGRATED PLANNING PROCESS

3.1 Introduction

In South Africa, Town and Regional Planning developed as a control-orientated physical planning system. A weakness of this system is that zoning land for a specific use, by itself, would not initiate development. Although this weakness in the Town and Regional Planning system has long been felt, it is only recently, with the large numbers of impoverished people streaming to cities, that serious efforts are being made to make planning more development-orientated and less control orientated, more pro-active and less reactive, more process-orientated and less blueprint-orientated (Fuggle & Rabie, 1994: 716). Town and Regional Planning today is trying to shake off its technocratic, bureaucratic, social engineering image, and it is striving to become a people-orientated system to be utilized by the whole community and to which a wide range of professions contributes. Environmental Management has a valuable role to play in incorporating the concept of sustainable development into planning.

Furthermore, the crisis in local government was a major force to the national reform process that began in 1990. Historically, underdeveloped areas have experienced huge backlogs in service infrastructure, requiring municipal expenditure far in excess of the revenue currently available within the local government system (Department of Constitutional Development, 1998: 1). At present, approximately one third of all municipalities in South Africa are facing serious financial difficulties or administrative problems. Municipalities face an enormous challenge to fulfil the development mandate given to them by the new constitution. The need for a new integrated system for planning for local government gave rise to the Integrated Development Planning Process. The new system of local governance that has been entered into after the local government elections

on 5 December 2000 further emphasise the importance of Integrated Development Planning in fulfilling the municipality's developmental mandate due to the fact that more underdeveloped areas will be the responsibility of the municipality.

In light of the fact that sustainable development has to be ensured globally by acting locally, Integrated Environmental Management (IEM) has been derived as a system in South Africa. As mentioned, all local authorities have a legislative mandate to be developmental local authorities by formulating and implementing Integrated Development Plans (IDP's). Therefore, the concept of sustainable development should be incorporated into Integrated Development Planning process via Strategic Environmental Assessments.

Strategic Environmental Assessment (SEA) is becoming an accepted and widely used instrument for integrating environmental issues into the formulation of plans and programmes (DEAT, 2000: 10). Although Strategic Environmental Assessments can also be applied at policy level, current experience, both locally and internationally, relates to Strategic Environmental Assessment at plan and programme level. According to the Department of Environmental Affairs and Tourism (2000: 10), it is becoming apparent that that the application of Strategic Environmental Assessment (SEA) to policies is significant different to that of plans and programmes. Strategic Environmental Assessment methodologies at the policy level are therefore developing separately. This study will therefore focus on Strategic Environmental Assessments at plan level by integrating it into the Integrated Development Planning process. The methodology for formulating Integrated Development Plans will be used as a basis to which the elements of a Strategic Environmental Assessment can be incorporated.

In this chapter, the reasons why Strategic Environmental Assessments should be incorporated into the Integrated Development Planning Process will be discussed. Secondly, Strategic Environmental Assessments and Integrated Development Planning will be placed into its constitutional, legislative and policy contexts. Thirdly a proposed methodology for incorporating the elements of Strategic Environmental Assessment into the Integrated Development Planning process will be outlined on a theoretical level.

3.2 Why Integrate Strategic Environmental Assessments into the Integrated Development Planning Process?

In order to highlight the need for the integration of Strategic Environmental Assessments into the Integrated Development Planning process, it is important to focus first of all at the need for an Integrated Development Planning approach as well as Strategic Environmental Assessments. This will then be followed with discussion on the need to integrate the two processes.

3.2.1 The Need for an Integrated Development Planning Approach

In the "new" South Africa, the local government system of the transitional phase will soon mature into a new system of local governance, which will be characterised by an array of institutional and political interventions in order to realise the vision, goals and objectives of our new democracy (DCD, 1998).

These interventions include experimenting with institutional models in an attempt to "right size" local government, revising the demarcation of institutional boundaries, the development of legislation and policies for a clear ideological framework, developing new procedures for rapid service delivery, fostering co-operative governance, facilitating the process of democratisation through public participation, institutionalising performance management, promoting local economic development and emphasising global competitiveness.

National government plays an important role in leading and directing the course of change, but local government is perceived to be the agent of change and a vehicle for development. As mentioned, the constitution and various pieces of legislation devolve a variety of new competencies and functions to local government, in an attempt to bring government closer to people. Local governments are thus burdened by mandates, responsibilities and functions bestowed upon them by legislation. These mandates are called "unfunded mandates" due to the fact that most local authorities have a lack of financial resources to fulfil these mandates. Many local authorities are poorly resourced having a severe lack of

skills and capacity in fulfilling their new role for growth and development. Newly elected councillors are new to operations of local government and have limited experience in meeting the demands of their constituencies. Experienced officials are confronted with new challenges, systems, processes, and tasks for which they lack appropriate skills. Furthermore, the majority of local governments are in a poor financial state due to the inheritance of a culture of non-payment for services and inadequate financial management.

According to the former Department of Constitutional Development (1998), Integrated Development Planning is an important way, in which municipalities can develop strategic policy capacity, to mobilise resources and target their own activities. It is a planning process through which a municipality can establish a development plan for the short, medium, and long term. The White Paper on Local Government (1996) highlights the way in which IDP's will promote developmental local government as follows:

- They enable municipalities to align and direct their financial and institutional resources toward agreed policy objectives and programmes;
- They are vital tools to ensure the integration of local government activities with other spheres of development planning at provincial, national and international levels, by serving as a basis for communication and interaction;
- They serve as a basis for engagement between local government and citizens at local level, and with various stakeholders and interest groups. Participatory and accountable government only has meaning if it is related to concrete issues, plans and resource allocations;
- They enable municipalities to weigh up their obligations and systematically prioritise programmes and resource allocations. In a context of great inequalities, IDP's serve as a framework for municipalities to prioritise their actions around meeting urgent needs, while maintaining the overall economic, municipal and social infrastructure already in place;

- They assist local governments to focus on the **environmental sustainability** of their delivery and development strategies. Sustainable development is development that delivers basic social and economic services to all, without threatening the viability of the ecological and community system upon which these services depend;
- Integrated development planning will assist local government to develop a holistic strategy for poverty alleviation.
- Integrated Development Plans will assist municipalities to find a focus within a complex and diverse set of demands, and help them to direct resource allocations and manage institutional systems around a new set of development priorities.

3.2.2 The Need for Strategic Environmental Assessments (SEA)

According to Therivel and Partidario (1996: 8) the reasons Strategic Environmental Assessment (SEA) is needed are generally divided into two groups: SEA counteracts some of the limitations of project Environmental Impact Assessments (EIA), and it promotes sustainable development.

3.2.2.1 Counteracting the Limitations of Project Environmental Impact Assessments (EIA)

In this study the term "project" is taken to mean an individual development as distinct from a strategy for development of a particular type or in a particular region. A project Environmental Impact Assessment (EIA) cannot in itself lead to comprehensive protection of the environment, for several reasons.

Firstly, it reacts to development proposals rather than anticipating them (Therivel et al, 1992: 19). Thus it cannot steer developments towards environmentally resilient locations or away from sensitive areas; it only allows proposals to be accepted or rejected. Environmental Impact Assessments at a strategic level would allow a more proactive approach to be taken.

Secondly, it does not adequately consider the cumulative impacts of more than one project. Cumulative impacts can take several forms:

- The additive impacts of developments that are not considered during Environmental Impact Assessments, such as small-scale projects, defence-related projects and many agricultural projects (Therivel et al, 1992: 20).
- Synergistic impacts where several projects' total impacts exceed the sum of their individual impacts. For instance, several projects that each encroach on a wildlife site only minimally may, together, affect the site to an extent where it can no longer support certain species.
- Threshold / saturation impacts where the environment may be resilient up to a certain level and then becomes rapidly degraded (Therivel et al, 1992: 20). An example would be a stream that is self-purifying up to a given level of pollutants and then loses its self-purifying ability.
- Induced impacts, where one project stimulates other development. For instance, the construction of a new road can induce both new traffic and new developments such as out-of-town shopping centres or new towns. The EIA for power stations, which clearly cannot function without transmission lines, generally do not consider the environmental impacts of these lines (Sheate, 1995).
- Time-crowded or space crowded impacts, where the environment does not have the time or the space to recover from one impact before it is subject to the next one. An example would be a forestry operation with an overly rapid rotation period, which could cause soil productivity to fall (Therivel et al, 1992:21).
- Global impacts such as biodiversity loss and greenhouse gas emissions (Wood, 1995).

The consideration of cumulative impacts in project EIA is often limited by the lack of knowledge concerning other development proposals, and a lack of control over these proposals (Montgomery, 1990).

Thirdly, project EIA only addresses alternatives to the proposed project in a limited manner. This is partly due to the lack of guidance and emphasis generally given to alternatives in EIA legislation, and partly due to the fact that in many cases a project's details are already drawn up quite specifically, with irreversible decisions taken, by the time the EIA is prepared. SEA allows for alternatives in the early stages of planning.

In the fourth instance, the measures for mitigation of impacts proposed in project EIA's are similarly limited. Mitigation measures can be viewed in some senses as a form of alternative (Therivel et al, 1992: 21).

Fifthly, the timescale for preparing a project EIA is often determined by other factors, particularly financial constraints, and the timing of planning applications. As a result, many project EIA's are undertaken in a compressed period time, often within a few months.

Finally, the nature and extent of public consultation undertaken in project EIA may be limited for similar reasons (Contant and Wiggans, 1991; Montgomery, 1990).

The relative significance of these problems will depend on the type of project involved and the place where it is to be located. Strategic Environmental Assessments on the other hand can deal with a lot of the mentioned difficulties. It can incorporate environmental issues intrinsically into project planning by influencing the context within which project decisions are made. It allows the consideration of alternatives or mitigation measures that go beyond the confines of individual projects. Strategic Environmental Assessments could also allow for consultation on these more strategic issues.

3.2.2.2 Promoting Sustainable Development

Strategic Environmental Assessments is also a way of implementing the concept of sustainability. According to Therivel et al (1992: 21) sustainability – or the version that seems in many quarters to be more palatable, sustainable development – has become accepted as the goal of many environmental policies, especially since the Brundtland Commission's report of 1987.

The actual implementation of sustainable development is however more problematic. In theory, sustainability requires a proactive approach that encompasses a wide range of human activities and environmental factors. Sustainability need to be made an intrinsic part of Integrated Development Plans (IDP's) and should then be "trickled-down" through programs and ultimately to projects. Strategic Environmental Assessments could help to ensure that environmental and sustainability considerations are incorporated into the objective of Integrated Development Planning; it could identify environmental and sustainability benchmarks by which the effects of an Integrated Development Plan can be tested; and it could appraise whether the impacts of an Integrated Development Plan are likely to be in accordance with sustainability objectives.

3.2.3 The Need for the Integration of Strategic Environmental Assessments with the Integrated Development Planning Process.

It is clear that there exists a definite need for both Integrated Development Planning as well as Strategic Environmental Assessments. Furthermore, Integrated Development Planning consists of one process with many products. These products include sectoral plans as well as Strategic Environmental Assessments. In order for local government to fulfil its developmental mandate in a sustainable manner, it is necessary to integrate Strategic Environmental Assessments into with the Integrated Development Planning process.

Strategic Environmental Assessment can play a significant role in assisting in the implementation of the concept of sustainable development by integrating it into planning. Strategic Environmental Assessments, therefore add value the Integrated Development

Planning process. This is achieved through the development of sustainability objectives, criteria and objectives. In the Strategic Environmental Assessment process, limits of acceptable change are defined, which indicate the ability of the environment to sustain development (DEAT, 2000: 23). These limits may therefore be used as a guide in planning, to ensure that development does not degrade the environment or deplete environmental resources.

Strategic Environmental Assessments should be integrated and adapted to the Integrated Development Planning process in order to avoid duplication of functions and to use the resources of local government optimally. Due to the fact that both Strategic Environmental Assessment and Integrated Development Planning are cyclic processes at a strategic level striving for ongoing improvement, it will assist in the appropriate decisions to be made in a holistic and co-ordinated manner. An example of the optimal use of resources, is to allocate the monitoring and review function of Strategic Environmental Assessment to the already established Integrated Development Planning forum that performs a similar function for the Integrated Development Planning process.

As mentioned, Strategic Environmental Assessment counteracts the limitations of Environmental Impact Assessments and promotes sustainable development. The Department of Environmental Affairs and Tourism (1998) identified Strategic Environmental Assessment as a strategic decision-making instrument in Integrated Environmental Management. It is important determine what Integrated Environmental Management (IEM) is as well as Strategic Environmental Assessments' context as an appropriate IEM instrument for Integrated Development Planning.

The Department of Environmental Affairs and Tourism in its discussion document, "A national strategy for Integrated Environmental Management in South Africa" (1998), defines Integrated Environmental Management as:

"...a combination of pre-active and preventive processes and procedures that maintain the environment in a good condition for a variety of short and long range sustainable uses."

The key words in this definition are *pre-active* and *preventive*. Integrated Environmental Management (IEM) provides the overarching philosophy for the integration of environmental principles into decision-making in South Africa. These principles are described in the National Environmental Management Act (Act no 107 of 1998) (refer to Annexure 1). These principles of Strategic Environmental Assessments, their implications and key questions are listed in Annexure 2.

Besides Strategic Environmental Assessment, a wide range of instruments are available that serve different purposes in Integrated Environmental Management. These instruments or tools can be classified as follows (DEAT 1998):

Key Integrated Environmental Management instruments

- Environmental Management Frameworks (EMF's);
- Conditions Agreements.

Decision-support systems

- Scoping;
- Strategic Environmental Assessment (SEA);
- Environmental Impact Assessment (EIA);
- Environmental Optimisation Assessment (EOA);
- Cost-Benefit Analysis (CBA).

Management instruments

- Environmental Management Systems (EMS);
- Environmental Management Programmes (EMP);
- Rehabilitation plans, Life-Cycle Assessments (LCA);
- Incident registers.

Monitoring Instruments

- Environmental Management Audits;
- Compliance monitoring;

- Environmental Monitoring;
- Environmental Performance Evaluation (EPE).

Market-based instruments

- Resource charges;
- Non-consumptive user charges;
- Pollution charges / Product charges;
- Land-use charges;
- Input charges;
- Investment Credits;
- Accelerated depreciation;
- Product / services subsidies;
- Basic needs subsidies;
- Tradable permits;
- Tradable quotas;
- Tradable shares;
- Deposit refund systems;
- Environmental performance bonds;
- Green Funds;
- Environmental valuation.

Information and communication instruments

- Environmental performance reporting;
- Environmental labelling.

Crisis response instruments

- Contingency plans.

In order to select a package of instruments, it is useful to compare the available instruments by evaluating them against a checklist of criteria. These criteria include environmental

effectiveness, economic efficiency, equity, administrative feasibility, acceptability, micro financial impacts, and macro-economic impacts.

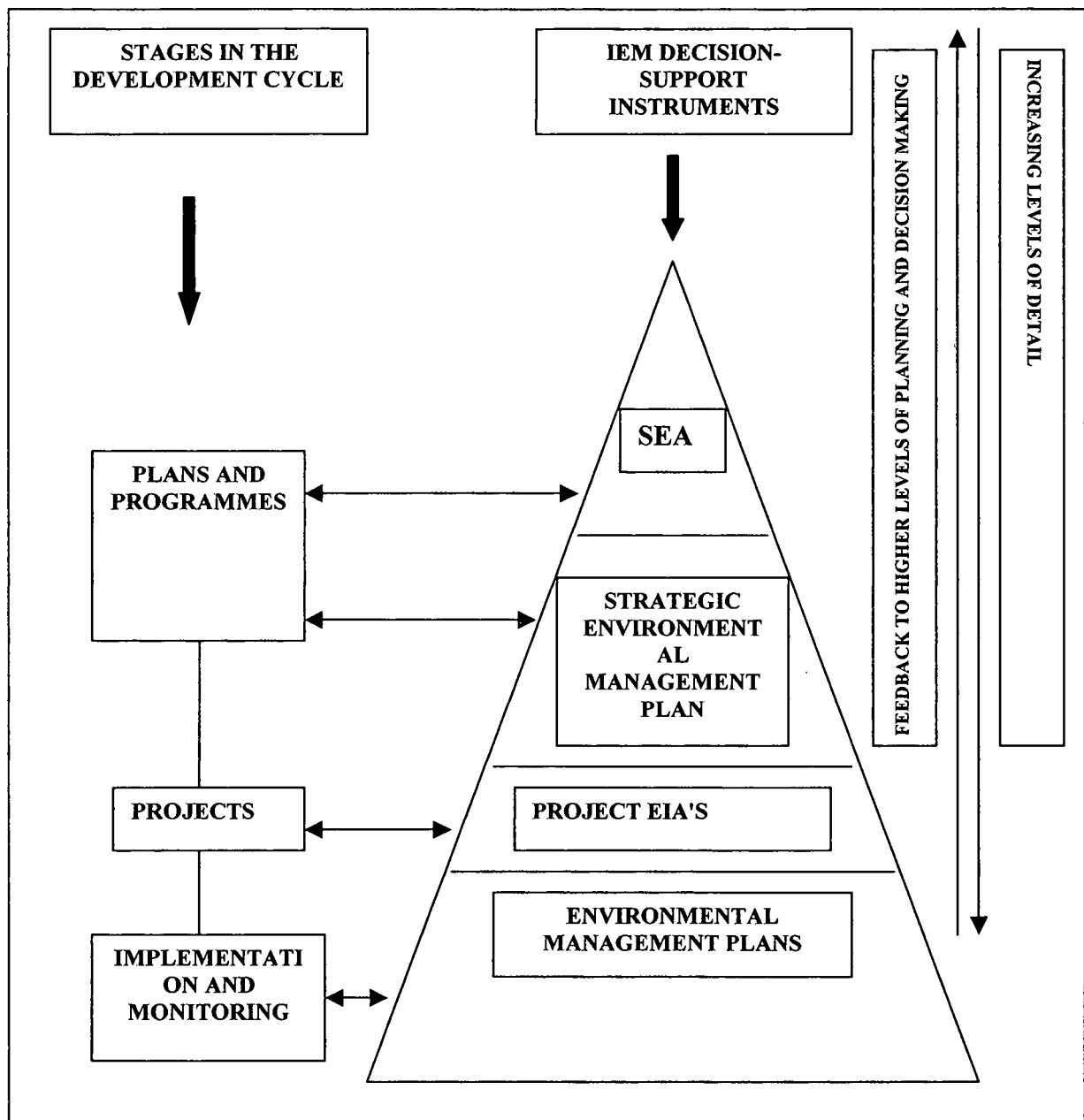


Figure 3.1: Example of a tiered approach to SEA and project-level EIA in South Africa (from the Department of Environmental Affairs and Tourism's Guideline Document on Strategic Environmental Assessment In South Africa, 2000).

In order to manage the environment efficient and effectively, decision support systems are necessary. Decision-support systems should provide relevant, accurate, and understandable information to decision-makers in order to enable a well-informed judgement about a certain course of action. These instruments do not provide decision-makers with ready-made answers, but should provide understandable information on which to base a decision.

Strategic Environmental Assessment has been identified as an appropriate instrument, both locally and internationally, to incorporate environmental aspects into higher level planning processes of a more strategic nature (DEAT, 2000: 12).

It is not intended that Strategic Environmental Assessments should replace Environmental Impact Assessments, but rather it should complement project-level assessments, by providing an effective instrument for environmental assessments at plan and programme level. The relationship of these decision-support instruments to levels in the development cycle is shown in figure 3.1.

3.3 Strategic Environmental Assessments and Integrated Development Planning in Context

Before the integration of Strategic Environmental Assessment with the Integrated Development Planning process can be examined, it is important to understand the context wherein the two processes have been placed in South Africa. A brief discussion on the constitutional, policy, and legal context will follow. For more detailed information, please consult the various legislation and policies.

3.3.1 The Constitutional Context

The Constitution of South Africa (Act no 108 of 1996) provides the primary, overarching framework within which local government planning must be contextualised. According to the Integrated Development Planning Process Manual for Local Government (1998) one

needs to be familiar with the constitutional mandate that the Constitution gives to local government, to:

- Provide a democratic and accountable government for all communities;
- Ensure the provision of services to communities in a sustainable manner;
- Promote social and economic development;
- Promote a safe and healthy environment;
- Encourage the involvement of communities and community organisations in the matters of local government.

Local Government must comply with the constitutional right to have the environment protected by taking protective steps. Government including local government must make laws and by-laws that:

- prevent pollution and damage to the environment;
- promote conservation;
- balance economic, social and environmental development.

Local Government must ensure that reasonable measures are taken to protect the environment against harmful activities that may come with social and economic development, even if social and economic development is much needed.

The Constitution also enables local government as a sphere of government in its own right. This means that local government is no longer a function of national and provincial government, but an integral part of the democratic state. The Constitution promotes the principle of co-operative governance.

3.3.2 The Policy Context

The Reconstruction and Development Programme (RDP) and the Growth, Employment and Redistribution Strategy (GEAR) have a big impact on Integrated Development Plans (IDP's).

The RDP (1994: 1) provides the context for Integrated Development Planning in its opening sentences: “ The RDP is an integrated, coherent socio-economic policy framework. It seeks to mobilise all our people and all of our country's resources towards the final eradication of apartheid and the building of a democratic, non-racial and non-sexist future.”

Emphasising the developmental role of local government, the RDP lists:

- Integrating areas which were once divided under apartheid;
- Providing and maintaining affordable infrastructure services;
- Strengthening the capacity of local government to provide services;
- Ensuring a more equitable role of women;
- Ensuring meaningful participation by residents and stakeholders.

GEAR places important implications on an export orientated economy, and will lead to increased international openness and competition. GEAR has important implications for planning in the following areas:

- Initiatives to enhance private sector involvement in development through investment;
- Broader investment in infrastructure;
- More effective local spending and reprioritising of budgets;
- Rationalisation of local government personnel.

The Local Government White Paper (RSA b, 1996) is another policy framework that has significant implications for Integrated Development Planning. The White Paper puts forward a vision of “developmental local government” which centres on working with local communities to find sustainable ways to meet their needs and improve the quality of their lives (DCD, 1998:4). It establishes the following characteristics of developmental local government:

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- Exercising municipal powers and functions in a manner that maximises their impact on social development and economic growth;
- Playing an integral and co-ordinating role to ensure alignment between public and private investment within the municipal area;
- Democratising development;
- Building social capital through providing community leadership and vision, and seeking to empower marginalized and excluded groups within the community.

The White Paper provides the following approaches to assist municipalities to become more developmental (DCD, 1998):

- Integrated development planning and budgeting;
- Performance management;
- Working together with local citizens and partners.

Integrated development planning is therefore central to realizing the developmental local government vision. It is seen as a mechanism to enable prioritisation and integration in municipal planning processes and to strengthen the links between the developmental (external) and institutional (internal) planning processes (CDC, 1998: 4). The range of policy documents that have implications for local government is listed in Annexure 3.

The White Paper on Environmental Management Policy for South Africa (1998) has the overarching goal of sustainable development. The intention is to move away from a previous situation of unrestrained and environmental intensive development to sustainable development with the aim of achieving an environmental sustainable economy in balance with ecological processes. Within the framework of the overarching goal of sustainable development, government has identified seven strategic goals for achieving environmental sustainability and integrated environmental management:

- Goal 1: Effective Institutional Framework and Legislation
- Goal 2: Sustainable Resource Use and Impact Management

- Goal 3: Holistic and Integrated Planning and Management
- Goal 4: Participation and Partnerships in Environmental Governance
- Goal 5: Empowerment and Environmental Education
- Goal 6: Information Management for Sustainable Development
- Goal 7: International Cooperation

The strategic goals above highlight the need for Strategic Environmental Assessments as well as Integrated Development Planning, therefore providing a policy framework for the two processes.

3.3.3 The Legal Context

3.3.3.1 Local Government Transition Act, Second Amendment Act (Act no 96 of 1997)

The formulation of an Integrated Development Plan is a statutory requirement for local authorities in terms of the Local Government Transition Act, Second Amendment Act (Act no 96 of 1997). This plan deals with the integration of land-use planning, transportation planning, social development planning, local economic development planning, and infrastructure planning.

An Integrated Development Plan (IDP) is defined in terms of the Local Government Transition Act, Second Amendment Act (Act no 96 of 1997) as:

“a plan aimed at the integrated planning and management of the area of jurisdiction of the municipality concerned in terms of its powers and duties, and which has been compiled having regard to the general principles contained in Chapter 1 of the Development Facilitation Act (Act no 67 of 1995), and where applicable, having regard to the subject matter of a land development objective contemplated in Chapter 4 of that act.”

3.3.3.2 Development Facilitation Act (Act no 67 of 1995)

The Development Facilitation Act (Act no 67 of 1995) provides extraordinary measures for implementing the Reconstruction and Development Program (RDP) and expediting development. It puts forward a guiding framework for development at local level and enforces the integration of spatial and non-spatial planning as well as budgeting and implementation. The guiding principles put forward in Chapter 1 of the Development Facilitation Act (Act no 67 of 1995) impact on any development undertaken in South Africa and follow from the basic principles underlying the Reconstruction and Development Programme (RDP).

Certain provinces have adopted the Development Facilitation Act (DFA) as their planning legislation. In some provinces, regulations have been passed in terms of this Act that require local government to prepare Land Development Objectives (LDO's). According to the Department of Constitutional Development (1998), the following provinces have these regulations in place:

- Eastern Cape;
- Free State;
- Mpumalanga;
- Northern Cape;
- Northern Province; and
- North West Province.

Some provinces have opted for the formulation of Provincial Planning Acts in the context of the Development Facilitation Act (DFA). The KwaZulu-Natal legislation has been enacted, whilst Gauteng and the Western Cape are still busy with their legislative processes. The provincial planning legislation includes:

- The Gauteng Development Planning Bill;
- The KwaZulu-Natal Planning and Development Act;

- The Northern Cape Draft Planning and Development Bill;
- The Western Cape Planning and Development Bill.

Although the KwaZulu-Natal Planning and Development Act have been promulgated, the regulations still have to be passed.

3.3.3.3 Other Legislative Requirements

The plethora of acts put forward by national government are aimed at providing the context for development and steering development towards certain goals. The following legislation is also of importance to local authorities and has certain legal requirements for local authorities, namely:

- **The Urban Transport Act**

The Urban Transport Act (UTA) currently requires the formulation of Urban Transport Plans (UTP's).

- **The Water Services Act**

This Act has been promulgated by the Department of Water Affairs and Forestry and requires that Water Authorities prepare Water Services Plans.

- **The Environmental Conservation Act (Environmental Impact Assessment Regulations)**

A set of regulations has been promulgated by the Department of Environmental Affairs and Tourism and requires the preparation of Environmental Impact Assessments (EIA's) for certain development projects.

- **The Housing Act**

The Department of Housing has promulgated this Act which requires the planning and management of land use and development.

In the short to medium term some of the older Acts will be added or replaced with new legislation.

- **The National Draft Transport Bill**

This Bill is being prepared by the Department of Transport and will require the formulation of integrated transport plans by municipalities and transport authorities.

- **The National Transport Interim Arrangements Bill**

The Department of Transport is also responsible for this Bill which makes provision for the designation of core cities and requires that integrated transport plans is integrated with the land development process in the context of the Development Facilitation Act and the Local Government Transition Act.

- **The Environmental Management Act (NEMA)**

This Act has been prepared by the Department of Environmental Affairs and Tourism and provides that the Minister may make regulations on the manner in which municipalities need to adhere to the principles set out in the Act in the preparation of any policy, programme or plan, including IDP's and LDO's. Section 2 of the National Environmental Act (Act no 107 of 1998) states that we all have a right to sustainable development; therefore all important environmental factors must be considered before development decisions are taken. Every person has the right that the government will make rational decisions that address the needs of people and ensure that development is socially, environmentally and economically sustainable. The environmental factors that must be taken into account include:

- not disturbing ecosystems and cultural assets;
- not polluting and wasting resources;
- being responsible and cautious when using resources where the effects are uncertain.

- **The Local Government Municipal Structures Act**

The Department of Constitutional Development is responsible for this Act. It prescribes the exercise by municipalities of the powers and functions assigned to them in terms of section 156 and 229 of the Constitution, which, among other things, include municipal planning.

An outline of the planning requirements of those acts that will shape the planning responsibilities of local governments are listed in Annexure 4.

3.4 The Integration of Strategic Environmental Assessments with the Integrated Development Planning Process

Due to the fact that the Integrated Development Planning process form the dominant process into which a Strategic Environmental Assessment should be integrated, this section will provide a methodology on a theoretical level along the phases of the Integrated Development Planning process. The Integrated Development Planning process follows a phased approach with each phase consisting of several steps. The six phases in the planning process are:

- Preparing a Workplan;
- Vision;
- Development Framework;
- Development Strategies;
- Operational Planning for Implementation;
- Monitoring, Evaluation and Review.

Both processes are cyclic in nature with the main aim of ongoing improvement. The integration of Strategic Environmental Assessments with the Integrated Development Planning process can be accomplished by identifying the elements of Strategic Environmental Assessment that will add value to the IDP process and therefore should be incorporated into it. Figure 3.2 provides an illustration of the integration of the elements of Strategic Environmental Assessments with the Integrated Development Planning process.

3.4.1 Phase 1: Preparing a Workplan

A nominated committee should prepare a draft workplan for the Local Council. A workshop on the workplan should be held to obtain input of councilors and officials and allow them to own the plan. This workshop will not only serve to get agreement on the way the local government will implement the planning process, but also create a useful opportunity to built capacity with regard to the new system of local government planning as well as environmental management. The workplan phase should take four to six weeks to complete. The workplan phase consists of the following steps:

- **Step 1: Formulate a Workplan Introduction**
The introduction outlines the purpose of the workplan, the legal, and environmental and planning requirements and a profile of the municipality involved.
- **Step 2: Consensus on Planning Process**
This includes a common understanding on sustainable development and integrated development planning principles, point of departure, and the planning and budgeting consolidation.
- **Step 3: Defining Institutional Arrangements**
This involves management and decision-making arrangements, co-ordination arrangements as well as administration and support arrangements for the SEA and IDP processes.

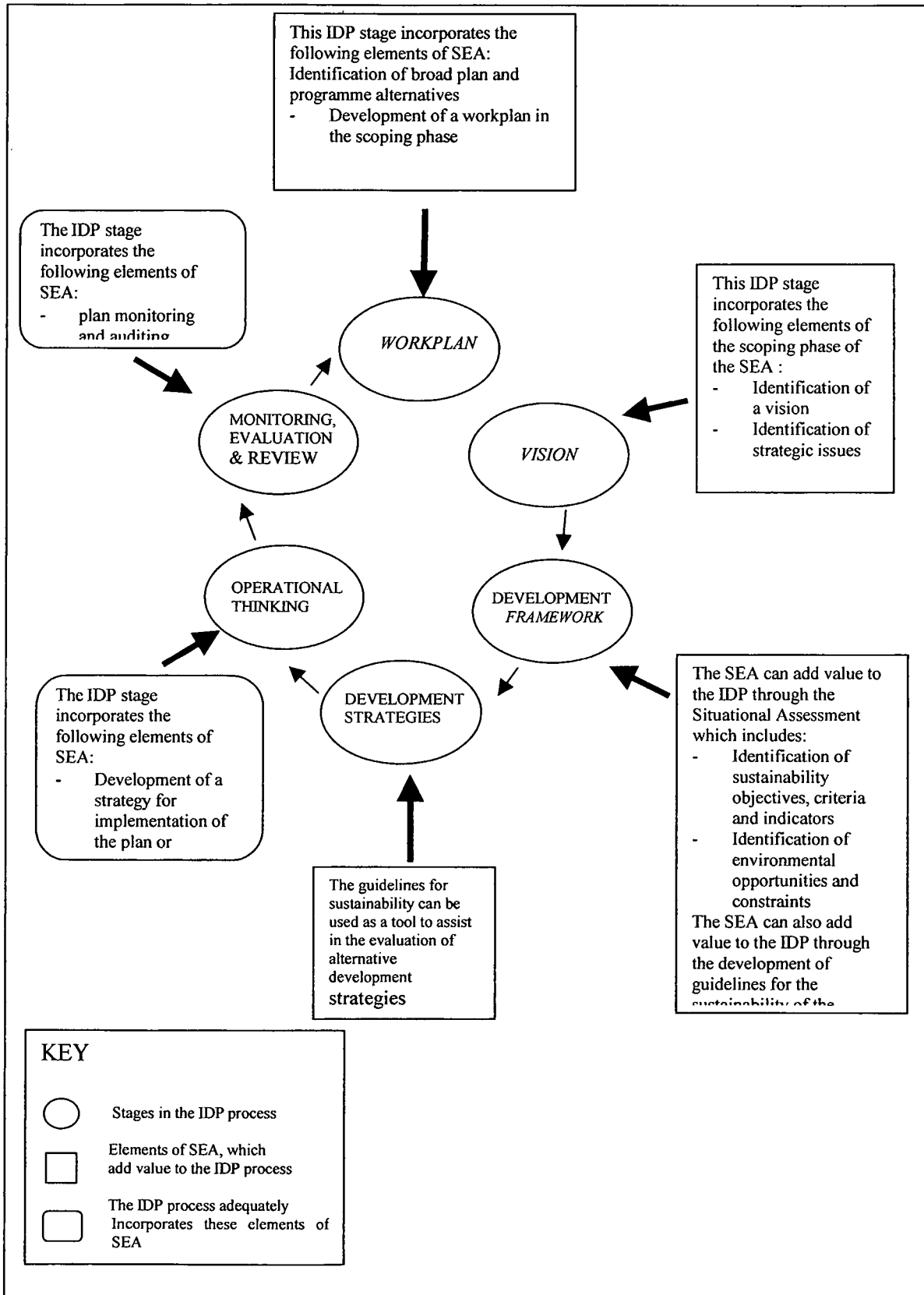


Figure 3.2: Integrating the IDP Process and Elements of SEA (Source: SEA Guideline Document, Department of Environmental Affairs and Tourism (2000: 24))

- **Step 4: Public Participation Arrangements**
Public participation should occur in accordance with legislative requirements and in context with local conditions for both the SEA and IDP processes.
- **Step 5: Develop an Empowerment Strategy**
This will ensure meaningful participation in the SEA and IDP processes and secure an appropriate skills base. It is useful to determine when a capacity building workshop should be conducted and who should attend.
- **Step 6: Develop a Communication Plan**
This will keep citizens informed about the IDP and SEA processes. A newsletter as well as utilizing existing community structures and forums is useful mechanisms that could assist the communication plan.
- **Step 7: Technical Support Arrangements**
A local authority should never "contract out" its responsibility for Integrated Development Planning as well as Strategic Environmental Assessment. Instead, external capacity should only be procured for specific well-defined tasks. For the SEA, specialists will have to be procured to conduct specialist studies on air quality, water quality, waste management, etc. Municipalities should thus become increasingly independent in carrying out its Integrated Development Planning and Strategic Environmental Assessment responsibilities.
- **Step 8: Information Management Arrangements**
Information on the strategic issues of the environment, the local economy, the spatial make-up of the area, existing infrastructure, the municipality's internal capacity as well as local and external financial resources should be used via indicators to inform the performance management systems in order to monitor the performance of the municipality's IDP and SEA processes. Appropriate key performance indicators thus have to be identified.
- **Step 9: Political Approval Process**
The process should be streamlined in accordance with legislative requirements. Well-structured processes are needed for the approval of

results. At present Strategic Environmental Assessments is not a legislative requirement, but should be initiated due to potential benefits it holds for ensuring sustainability and promoting investment in the local area and its people.

- **Step 10: Formulating a Workplan**

The programme will enable the council to monitor the progress and will assist the role-players to make provision for their participation in the planning events ahead of time. The programme should coincide with the municipality's financial cycle to ensure that the results will be in time to inform the local government budgeting process. The budgeting process should be informed of the requirements for institutional capacity to implement the SEA and IDP processes.

- **Step 11: Budget**

In principal, the local government must pay for the SEA and IDP process from its own resources. Local government is ultimately responsible and accountable for sustainable development in its area of jurisdiction. Municipalities with a lack of financial resources should source donor funding from local and international institutions to fund the processes. In most cases a lack of baseline data exists which could make the Strategic Environmental Assessment an expensive process.

It is clear from the steps outlined above that the workplan phase incorporates the SEA elements of identifying broad plan alternatives for Strategic Environmental Assessment by indicating conceptual development options. Another element of the SEA process that is incorporated by the workplan phase is screening. The environmental context and local requirements will determine whether a Strategic Environmental Assessment is required. Furthermore, the public participation and technical support arrangements will form the workplan for the scoping phase. Once the local government has a workplan in place, it has a clear framework for proceeding with Integrated Development Plan and its Strategic Environmental Assessment as one process.

3.4.1 Phase 2: Vision (Where do we want to go?)

A vision is an ambitious, credible, attention grabbing and inspiring statement about the future of the area. The key stakeholders in the area should participate in the visioning process. The vision phase will vary from municipality to municipality, depending on the local conditions and level of participation. It could be as short as a week or as long as a month. The vision phase consist of the following steps:

- **Step 1: The Current Reality**

The current reality or status quo enables the municipality to develop a profile of local development issues, forces and trends. The SEA will add value by providing the local government with significant strategic environmental issues of the status quo. This will form the platform from where the Integrated Development Plan and Strategic Environmental Assessment are directed towards continual improvement as contained in the vision to be formulated.

- **Step 2: Development and Environmental Issues**

Scoping will determine the nature and extent of the Strategic Environmental Assessment and ultimately Integrated Development Planning. Scoping should be undertaken by key interested and affected parties that will play a coordinating role (DEAT, 2000). During scoping, a SWOT (strengths, weaknesses, opportunities and threats) analysis of environmental and development issues and the status quo (current reality) needs to be carried out to obtain clarity. The SWOT analysis will provide information on the opportunities and the constraints the environment provides for development as well as the development needs of the local community.

- **Step 3: The Identification of Development Priorities**

The prioritised environmental and development issues, both positive and negative, will drive the planning process. These issues need to be prioritised in order to address the issues effectively and efficiently.

- **Step 4: The Vision Statement**

The vision is the overarching statement of what the Integrated Development Plan is aiming to achieve. It is important that the concept of sustainability be incorporated into the vision statement to ensure sustainable development. The vision statement described a shared picture of the desired future for the local authority area with a time horizon of up to 25 years.

The vision should be realistic and achievable by using the identified significant strategic issues as a base for the vision. The vision should to be acceptable to all participants to make the Integrated Development Plan acceptable to the local community.

3.4.2 Phase 3: Development Framework (What benefits do we want to deliver?)

The framework must provide general direction to strategise development and decision making over the medium term. This phase involves more technical support than the vision process and may take four to six weeks. A more profound and focused analysis is required to formulate goals than to develop a vision. The development framework phase consist of the following steps:

- **Step 1: Situational Analysis**

This will enable the municipality to develop a focussed and in-depth evaluation of the development priorities identified during the visioning phase. In order to ensure sustainable development, development issues should be based on the opportunities and constraint the environment offers. The situation assessment element of Strategic Environment Assessment will add value to development framework phase by preparing a resource inventory of the social, economic and biophysical resources that must be maintained and/or enhanced. A development projects inventory also needs to be established. The service standards and the development gap between developed and underdeveloped areas needs to be determined. Furthermore, existing institutions in the local area, planning and environmental legislation

and policies, needs to be identified which will influence the maintenance and enhancement of the environmental resources. A spatial profile of the area needs to be established. The spatial profile will include information on demographic, environmentally sensitive areas, physical characteristics, land-use, cadastral information, etc. The opportunities and constraints that the biophysical and socio-economic environment places on the Integrated Development Plan should be identified. A financial profile on the local government and other agencies should be established.

- **Step 2: Core Issues**

The development priorities that were identified and analysed during the vision phase and situation assessment should be grouped into themes in order to set goals. Cognisance should be taken of significant environmental issues to ensure that development priorities are grouped under sustainable development goals.

- **Step 3: Development Goals**

The Strategic Environmental Assessment can add value to the IDP by formulating sustainability objectives and translating these into context-specific criteria and indicators (DEAT, 2000). These objectives, criteria and indicators should relate to the environmental resources identified in the scoping phase and to the nature and scale of the Integrated Development Plan. They relate to the local area, scale and level of decision-making.

The sustainable objectives may then be translated into sustainability criteria. These should reflect the social, economic and biophysical context of the Integrated Development Plan (DEAT, 2000). The criteria are typically based on limits for acceptable change within the environment and may be quantitative, qualitative or spatial in nature.

Measurable sustainability indicators may then be identified to determine whether the criteria are being met. It is difficult to measure the environment in quantitative terms. Furthermore, where a lack of environmental baseline

data exists, it could be expensive to establish biophysical indicators. Socio-economic indicators include demographic data and projection, economic growth, housing, etc. Sustainability criteria and indicators will ensure that sustainable development goals are formulated at this step.

- **Step 4: Spatial Framework**

Spatial Town and Regional Planning and environmental principles guide the graphic representation of the development framework. The opportunities and constraints which the biophysical and socio-economic environment place on the Integrated Development Plan guide the graphical representation of the spatial framework. Ultimately, the spatial development framework should reflect a spatial mirror of the vision. Ian McHarg's spatial overlay method could assist in determining the most appropriate areas for specific types of development in order to minimize negative environmental impacts. The spatial overlay method could be tied to a Geographical Information System (GIS) that will make its application more effective.

3.4.3 Phase 4: Development Strategies (How do we get there?)

In this phase one address how you intend bridging the gap between the current reality and the vision with a set of integrated strategies. Strategies are specific plans that a municipality will use to achieve a sustainable development goal by addressing the core environmental and development issues. In order to achieve sustainable development, development goals should keep within limits of acceptable change of the environment. According to DEAT (2000:24) the guidelines for sustainability can be used as a tool to assist in the evaluation of alternative development strategies. This phase could take between four and eight weeks to complete. It involves all the role-players in the local government area. This phase consist of the following steps:

- **Step 1: Alternative Strategy Statements**

The purpose of this step is to develop alternative but integrated development strategies and to choose the preferred sustainable development strategies

based on the strategic environmental assessment and the analysis of different strategy alternatives. It involves turning development goals into alternative, purposeful, action-orientated statements of intent called alternative strategy statements. It is important that these strategy statements be formulated in an integrated way. Multi-disciplinary groups or teams should develop the strategies to address the development goals.

Once alternative strategies have been developed, they need to be assessed in terms of their strategic impact, viability, sustainability, policy compliance and a range of other locally developed and adopted criteria, in order to arrive at a set of development strategies.

The successful implementation of a development strategy often depends on the existence of an appropriate planning and environmental policy framework at local level.

- **Step 2: Local Policy Update**

The local policy environment needs to be assessed and, where necessary, local policies need to be amended to create an enabling environment for the implementation of the sustainable development strategies.

- **Step 3: Project Definition**

Once the strategy to bridge the gap between the situational analysis and the development vision is established, the bridge needs to be planned in detail (projects). The Strategic Environmental Assessment will indicate the gaps to be addressed in order to ensure sustainable development. An example will include a sustainable development strategy to maintain or enhance a clean and healthy atmosphere. A project will be to establish air quality monitoring system that will assess if air quality falls within sustainable limits. A project is a set of interrelated actions or activities in support of realising a development strategy. Once a set of projects has been identified to achieve each goal, one needs to unpack ones projects into activities. Related functional activities can be grouped so that line functions can carry out the

project activities. The municipality's health department could for example monitor air quality by setting up air quality monitoring points.

- **Step 4: Sector Programmes and Targets**

The purpose is to identify sectoral activities relating to the identified projects and to highlight the responsibilities of the different line functions or departments in implementing these projects.

- **Step 5: Environmental Assessments**

Environmental Impact Assessments have to be carried out for relevant projects and programmes in order to ensure the long-term sustainability of development initiatives. Activities that may harm the environment are listed under Section 21 of the Environmental Conservation Act (Act no 73 of 1989). The Strategic Environmental Assessment will add value to the IDP by streamlining and thus fast tracking the EIA process as well as considering cumulative impacts.

- **Step 6: Spatial Impact**

This step involves developing a spatial assessment of the development proposals. This step should locate projects on a map of the area, map the areas of impact, and assess the compliance of development proposals with the spatial framework. It is important that environmentally sensitive areas are located on a map and that the proposed Metropolitan Open Space System (MOSS) be represented spatially. Environmentally sensitive areas will form nodes while features like rivers, streams and hills form the corridors of the Metropolitan Open Space System. By blending the natural environment with the built environment, a high quality of life can be ensured

- **Step 7: Programme of delivery targets**

This step lists the targets that have been set, across all sectors, and creates a single programme of delivery targets. The Strategic Environmental Assessment will set environmental monitoring programmes with specific time frames. This will enable local authorities to assess whether their delivery targets comply with their vision, development framework and strategies. Environmental monitoring programmes will enable IDP to keep

within limits of acceptable change and indicate possible problem areas that needs mitigation measures.

- **Step 8: Submission of IDP for Approval**

At present, Land Development Objectives (LDO's) needs to be formulated in terms of the Development Facilitation Act (Act no 67 of 1995). Integrated Development Plans have to be formulated in terms the Local Government Transitional Act (Act no 109 of 1993). LDO's and IDP's all follow the Integrated Development Planning process and are similar in nature and extent. No legislative requirements exist to compel local authorities to formulate Strategic Environmental Assessments (SEA's). Furthermore, no legislative responsibility exists to review a Strategic Environmental Assessment. The intension to formulate a Strategic Environmental Assessment should arise from the benefits that it provides for the decision-maker, whether it is a local authority or a potential investor. Whether a LDO or IDP is formulated, it should be submitted to the provincial MEC for approval, so that it receives legally binding status in order to:

- Bind the decisions of any authority which relate to development in the local area;
- Override those parts of any structure plan or guide plan that are inconsistent.

3.4.4 Phase 5: Operational Planning (What do we need to do to make it happen?)

Once development strategies have been formulated and projects defined, one needs to ensure that appropriate capacity and resources are in place to implement the Integrated Development Plan as well as the elements of the SEA. The Operational Phase consist of the following steps:

- **Step 1: Financial Plan**

The formulation of the financial plan involves producing a medium-term (five year) projection of capital and operational expenditure. According to

the White Paper on Local Government (1996), a plan should also be developed for raising revenue to support strategies. The Strategic Environmental Assessment could assist in raising revenue by applying appropriate market-based Integrated Environmental Management instruments (please refer to section 3.2.3). The plan should show how the priorities in the five-year budget would serve to achieve the goals developed during the planning process. The capital side of the plan will include the formulation of a coherent infrastructure an investment plan.

- **Step 2: Institutional Plan**

This plan should include a human resource development plan that is intended to guide institutional transformation and re-organisation in support of carrying out the delivery mandate and delivering the sustainable development commitments made during the IDP and SEA.

- **Step 3: Communication Plan**

This will ensure that the necessary arrangements are put in place to ensure that the stakeholders in the area are informed about the progress with the implementation of the SEA and IDP. A monthly newsletter compiled by the local authority could keep all citizens informed about the progress being made by the SEA and IDP. Existing forums should be informed that could report back to their constituencies.

- **Step 4: Project Implementation Plan**

This step involves drawing up an annual budget that reflects the development priorities of the area. The annual budget will be based on the medium-term financial and institutional plans in order to direct and manage resources in a focussed and disciplined way, to achieve the sustainable development goals of the IDP and SEA. The impact of short-term capital investment on the medium to long-term operational budget needs to be considered and the appropriate trade-offs needs to be made.

- **Step 5: Project Implementation Plan**

Once the budget is approved, one will be in the position to formulate a project implementation programme, which will give a detailed account of the year's activities, delivery targets, and delivery milestones.

- **Step 6: Sectoral Submissions**

One will also be in the position to make relevant line department submissions as required by legislation, such as:

- A water services plan (the Water Services Act);
- A transport plan (the National Land Transport Act)

Operational planning will take between four to six weeks and will involve relevant councillors and officials. The respective plans need to be made available for public comment.

3.4.5 Phase 6: Monitoring, Evaluation and Review (Are we still on track?)

Although it is described as a phase of the planning process, it should be implemented as an ongoing or cyclical activity that constitutes an essential and integral part of all the phases of the SEA and IDP. Performance and development indicators need to be developed during the course of the IDP process. As mentioned, the SEA will develop sustainability objectives, criteria and indicators to ensure that the IDP keeps within limits of acceptable change of the biophysical environment.

According to the White Paper on Local Government (1996), performance management is critical to ensure that plans are being implemented, that they have the desired development impact and that resources are being used efficiently.

- **Step 1: Monitoring**

Monitoring is a continuous activity that forms the basis for performance management. The monitoring process in step one measures both efficiency

on the short-term outputs of the development planning process. The results of monitoring will enable one to make adjustments to the plans and implementation programmes and to take corrective action where necessary.

▪ **Step 2: Evaluation**

Evaluation is medium term activity that is designed to measure whether, and to what degree, development goals are being achieved through the implementation of the strategies.

Evaluation assesses the outcomes of the planning and development initiative in terms of sustainable development indicators. Evaluation results provide information to reappraise the sustainable development goals and to assess the appropriateness of goals, strategies and policies and whether they need to be amended and adjusted.

▪ **Step 3: Review**

The purpose of review is to assist the local authority to measure project outcomes. The SEA and IDP are reviewed and adjustments and revisions are made on the basis of the monitoring and evaluation.

3.5 Conclusion

The Integrated Development Planning Process has been introduced within a plethora of new planning legislation and policies due to a vast range of responsibilities being placed on local authorities. The main purpose of the Integrated Development Planning process is to assist local authorities in more efficient and effective survive delivery and fulfilling their "developmental local authority" mandate imposed by the Constitution.

A range of problem areas has been identified in the formulation and implementation of the Integrated Development Planning Process. The most important is the lack of sufficiently ensuring sustainable development in all the delivery aspects of the integrated development process.

It is clear that Strategic Environmental Assessment provides a practical means for integrating the concept of sustainable development into the development objectives of South Africa. It adds value to the Integrated Development Planning process by providing a decision-making support tool for decision-makers to ensure sustainability. The principles of Strategic Environmental Assessment are concurrent with the principles contained in the National Environmental Management Act (NEMA) as well as the principles underpinning Integrated Environmental Management (IEM).

Although Strategic Environmental Assessment (SEA) does not enjoy statutory status in South Africa, it can be applied in conjunction with other legislative processes like the Integrated Development Planning process. SEA is therefore a valuable decision-making support tool that pro-actively ensures sustainability by determining the opportunities and constraints the environment places on development at a strategic level. The shortcomings of project-specific Environmental Impact Assessments (EIA's) are thus being addressed by Strategic Environmental Assessments by considering cumulative impacts.

Environmental Managers are faced with various challenges in South Africa in ensuring sustainable development. One such challenge is the integration of Strategic Environmental Assessment elements with the Integrated Development Planning process. Due to the fact that Integrated Development Planning is the dominant process, a methodology was developed where the elements of the Strategic Environmental Assessment were integrated into the various phases and its underlying steps. Both the SEA and IDP are context-specific processes; therefore, the integration methodology should be adapted to the specific circumstances of the local authority in question. The SEA will ensure the sustainability of the SEA on a strategic decision-making level that ideally should trickle down to the various project formulated. Where an EIA is required for a specific project, the SEA will streamline and fast track the process, resulting in development facilitative environment for investment and economic growth.

4. CASE STUDY: THE INTEGRATION OF THE EMPANGENI STRATEGIC ENVIRONMENTAL ASSESSMENT WITH THE EMPANGENI LOCAL DEVELOPMENT PLAN

4.1 Introduction

Due to the fact that the theory of sustainable development and specifically the integration of the elements of Strategic Environmental Assessments with the Integrated Development Planning process have been examined, it is necessary to examine the practical implications of implementing the theory. The theory of integrating the elements of Strategic Environmental Assessments with the Integrated Development Planning process will be empirically verified by the Empangeni case study.

At present the integration of the elements of a Strategic Environmental Assessment with the Empangeni Local Development Plan is the first case study in South Africa. In order to avoid confusion, it is necessary to mention that terms of the KwaZulu-Natal Planning and Development Act (Act no 5 of 1998) Integrated Development Plans are called Local Development Plans. Furthermore, the Empangeni Local Development Plan was formulated before the Empangeni Strategic Environmental Assessment was formulated. In general, it is however desirable to start both process simultaneously. This will ensure that the duplication of functions are minimised, that resources are not wasted, that the implementation of the process are conducted in a co-ordinated manner and ultimately, the effective and efficient functioning of the processes.

The main reason for incorporating the elements of a Strategic Environmental Assessment after the Empangeni Local Development Plan has been formulated is to ensure that the Local Development Plan adheres to the principles sustainable development as well as promote investment in the region that will ultimately lead to a sustainable economy.

4.2 The Formulation of the Empangeni Local Development Plan (LDP)

4.2.1 The Purpose of the Empangeni Local Development Plan

Historically the Empangeni Transitional Local Council embarked on the formulation of a number of plans that include:

- Integrated Development Framework (1997);
- Empangeni Structure Plan (1996); and
- Strategic Plan for Empangeni Municipality (1997).

All these plans are similar in nature to a Local Development Plan, however, they shortfall in not enjoying statutory status. The main reasons why the Empangeni Transitional Local Council formulated the Empangeni Local Development Plan were to:

- have a business plan for the development of Empangeni with the support of all stakeholders comprising a spatial development plan, financial plan, capital programme and human resources plan;
- meet legislative requirements;
- have a consolidated participation process resulting in an unanimous vision;
- consolidate undertaken up to date; and
- to take forward in terms of development and investment.

A Town and Regional Planning consulting firm, Vuka Town and Regional Planners, were subsequently appointed to assist the Empangeni Town Planning Department in the formulation of the Local Development Plan. At that stage the Empangeni Transitional Local Council lacked to formulate a Strategic Environmental Assessment as part of the Local Development Plan. The Empangeni Local Development Plan has been formulated

by taking cognisance of the new demarcated municipalities that were established after the local government election on 5 December 2000.

4.2.2 The Formulation Process of the Empangeni Local Development Plan

The formulation process consisted of two phases being the formulation of a development planning perspective and the formulation of the Local Development Plan. The development perspective phase consisted firstly of a status quo report. Secondly, public participation has been done where the vision was confirmed, a SWOT analysis was conducted, needs identification, the formulation of a spatial development plan, and participation structures were set up. The Local Development Plan phase consisted of a strategic framework, spatial development plan, an implementation plan, an action plan as well as targets for monitoring and evaluation.

The following key development issues were identified for Empangeni during the public participation process:

- Infrastructure Upgrading and Maintenance;
- Economic Development;
- Social Development and Skills Training; and
- Organisational Capacity Building.

These issues were ranked in order of importance by the participants of the public workshop sessions (Vuka Town and Regional Planners, 1999: 11). It was recognised that infrastructure upgrading and maintenance is normally the largest expenditure on a local authority's budget and that this expenditure had to be sustained in Empangeni to ensure that the good condition of infrastructure is maintained. Economic development and social development are however also very important factors to be dealt with and it was therefore important that resources were allocated towards these issues. Where a specific function is not a local authority function, the Empangeni Municipality could still play an instrumental role in liaising with other levels of government and service providers to ensure that the needs are met. This however necessitated adequate organisational capacity in terms of

personnel, equipment and finances, therefore the current healthy condition of the Empangeni Municipality should still be promoted.

The development strategies that were formulated for Empangeni as well as the implementation of plans and budgets should reflect the importance of these four aspects, while not neglecting other important local authority functions, such as land use management.

The Development Planning Perspective and Development Framework dealt with the current situation, objectives, policies, needs and development strategies per development sectors (Vuka Town and Regional Planners, 2000: 15). It was decided to deal with these aspects on a sectoral basis in order to ensure that all development aspects are explored and that appropriate strategies are formulated per development sector. The identified development sectors are illustrated in Table 4.1 below:

SECTOR	DEVELOPMENT ASPECTS
Land Use Management	<ul style="list-style-type: none"> ➤ Town Planning (Land Use Planning, Management and Control) ➤ Environmental Management ➤ Housing
Infrastructure	<ul style="list-style-type: none"> ➤ Water ➤ Sanitation ➤ Electricity ➤ Roads and Stormwater ➤ Transportation ➤ Solid Waste
Economic Development	<ul style="list-style-type: none"> ➤ Local Economic Development ➤ Job Creation ➤ Tourism ➤ Economic diversity and linkages
Social Development	<ul style="list-style-type: none"> ➤ Education

	<ul style="list-style-type: none"> ➤ Education ➤ Health ➤ Welfare ➤ Sports, arts and culture ➤ Recreation ➤ Protection Services
Institutional Development	<ul style="list-style-type: none"> ➤ Organisational transformation ➤ Capacity Building ➤ Finance ➤ Communication

Table 4.1: The Development Sectors of the Empangeni Local Development Plan (Source: Vuka Town and Regional Planners, 1999).

The Sectoral Development approach does not imply that the integration of aspects is not considered. The various development sectors are all intertwined and impact on one another; these linkages are explored through the projects and programmes as well as the spatial development plan. As indicated in table 4.1, Environmental Management falls under the land use management development sector. This implies that Environmental Management is a responsibility and function of the Town Planning Department due to the many similarities between the principles of Local Agenda 21 and Integrated Development Planning (refer to table 2.1).

Due to the fact that a Strategic Environmental Assessment has not been incorporated in the formulation of the Empangeni Local Development Plan, most of the development sectors do not fall within the parameters of sustainable development. Each development sector will have to adhere to the principles of sustainable development. Subsequently, one of the needs identified under the Environmental Management development aspect is a Strategic Environmental Assessment of Empangeni that will support the local authority and developers in decision-making. Unfortunately, sufficient funds were not at the disposal of

the local authority to formulate a Strategic Environmental Assessment as an integral part of the Empangeni Local Development Plan.

Various environmental management consultants were invited to submit proposals, with cost estimate and time frame, for the formulation of a Strategic Environmental Assessment as part of the Empangeni Local Development Plan. The Empangeni Transitional Local Council budgeted R 300 000-00 for its 2000/2001 budget to formulate a Strategic Environmental Assessment. The Council for Scientific and Industrial Research (CSIR) – Environmentek has been appointed to assist the Empangeni Town Planning Department in the formulation of the Strategic Environmental Assessment as integral part of the Empangeni Local Development Plan in June 2000.

4.3 The Formulation and Integration of a Strategic Environmental Assessment (SEA) as an Integral Part of the Empangeni Local Development Plan

4.3.1 The Purpose of the Empangeni Strategic Environmental Assessment

The purpose of the Empangeni Strategic Environmental Assessment (SEA) was to:

- promote sustainable and integrated development decision-making, for example to integrate with other strategic planning initiatives such as the Empangeni Local Development Plan (LDP) and Richards Bay SEA;
- facilitate the design of policies and plans for sustainable future development of Empangeni by providing an environmental information base, procedural guidelines and appropriate processes for policy formulation and decision-making;
- provide for the consideration for the consideration of a larger range of alternatives than is normally possible in project Environmental Impact Assessments (EIA's);
- strengthen and streamline project Environmental Impact Assessments (EIA's) by:
 - prior identification of impacts and information requirements;
 - clearance of strategic issues and concerns;
 - reducing time, cost and effort taken to conduct studies; and
 - promote capacity building and skills development for decision-makers (CSIR a, 2000: 4).

The Richards Bay Industrial Strategic Environmental Assessment is a sectoral Strategic Environmental Assessment that focuses on the future industrial development in Richards Bay's industrial area. The contribution this SEA could make is limited due to the fact that it focuses only on industrial development. The Empangeni Strategic Environmental Assessment addresses all sectors of development in Empangeni, and not just the industrial sector compared to the recently completed SEA for Richards Bay (CSIR a, 2000: 5). The information of the Richards Bay SEA will be of value in the extension of the Empangeni SEA to cover the new demarcated municipality that covers both the Richards Bay and Empangeni areas of jurisdiction.

4.3.2 Integrating the Concept of Sustainable Development into Empangeni's Vision

It is understood that economic development cannot be broadened in Empangeni without understanding the complex natural systems that provide the ecological context for sustainable development.

Empangeni Municipality's vision for development is as follows:

"Empangeni is committed to being the commercial and administrative centre of Zululand Region, with a strong industrial and agricultural base. This will be achieved through sound financial policy and optimisation of resources, while maintaining efficient service delivery. The overall aim of development is to improve the quality of life of our residents as well as the residents of our surrounding rural areas." (Vuka Town and Regional Planners, 1999).

During the SEA public participation process, the Local Development Plan vision was amended and all stakeholders involved formulated a new common vision by incorporating the concept of sustainable development. The revised vision for Empangeni's future development is as follows:

"Empangeni is committed, through the process of sustainable development, to being the commercial and administrative centre of the Zululand region with a strong agricultural and tourism base, and a carefully managed industrial base. This goal will be achieved through the development and implementation of sound financial, social and environmental policies, and the optimisation of resources, while maintaining efficient service delivery and environmental sustainability. The overall aim of sustainable development is to improve the quality of life of our residents as well as the residents of our surrounding rural areas, while ensuring that our assets remain intact"

The study limitations to the Empangeni Strategic Environmental Assessment involved significant gaps in the baseline data of the area.

4.3.3 The Formulation of the Empangeni Strategic Environmental Assessment

A phased approach has been adopted in the formulation of the Empangeni Strategic Environmental Assessment involving the following phases:

- Phase 1: Preparation of a Project Action Plan and Terms of Reference;
- Phase 2: Collation of baseline data;
- Phase 3: Integration of findings of Phase 2, (preparation of a Resource Opportunities and Constraints Report), including the development of a dedicated web page;
- Phase 4: Preparation of a Strategic Environmental Management Plan;
- Phase 5: Capacity building and skills development within the Empangeni Transitional Local Council;
- Phase 6: Closure and sign off by the Empangeni Transitional Local Council (CSIR a, 2000: 7).

Due to the fact that the Strategic Environmental Assessment was formulated after the Empangeni Local Development Plan, a different approach has been followed to the Integrated Development Planning process. The goals, strategies and action plans will be incorporated into the Empangeni Local Development Plan during its annual revision and then the SEA will be aligned to run concurrent with the Integrated Development Planning

process. The Local Development Plan together with the following terms of reference defined the scope of the SEA process:

➤ **Preliminary Environmental Scan**

The preliminary environmental scan took the form of reviewing all existing environmental information of Empangeni. It also resulted in the identification of strategic issues for environmental management.

- Natural Environment
 - air quality
 - hydrological characteristics of the study area (ground and surface water)
 - biodiversity; and
 - soil resources of the study area.

- Socio-economic issues
 - social processes of Empangeni; and
 - health issues.

- Infrastructure
 - solid and effluent waste management;
 - access to Empangeni (roads, port, rail and airfreight);
 - energy supply;
 - bulk water supply.

The economic considerations for development in Empangeni have been derived from the Local Development Plan. It is important to recognize that the source of environmental impacts may extend beyond the bounds of the study area. Ecological and economic processes do not adhere to man made boundaries. Specialist studies employed more flexible boundaries in considering environmental aspects.

➤ **Review of existing plans and spatial policies**

Existing plans and policies of the Empangeni Local Development Plan have been reviewed to determine the strategic environmental implications of the development sectors. It resulted in the identification of areas and development where conflict could occur. The strategic environmental issues that influence development have been considered.

➤ **Review of legal and administrative considerations**

The policy and legal review took into consideration the local, provincial and national laws and policies which have bearing on the strategic environmental management of Empangeni. The review considered three levels of policy and legislation including:

- Framework policies which are intended to provide broad principles for action, and guide a wide range of other policies and activities (e.g. the Constitution of South Africa);
- Cross-cutting policies which impact on a range of sectors, but which deal with a narrower slice of the environment (policies on biodiversity, implication of the Demarcation Act no 27 of 1998); and
- Sectoral policies which focus on specific natural resources (e.g. water, air etc.) (CSIR, 2000 b: 9).

The administrative capacity of Empangeni Transitional Local Council to implement the strategic environmental management plan has been assessed. It took account of the responsibilities as identified in the legal and policy review as well as the capacity and responsibilities of officials at national and provincial levels.

➤ **Preparation of a Resources Opportunities and Constraints Report (ROCR)**

The preliminary environmental scan and public participation process determined the opportunities and constraints that the environment places on development. Specialists have

been appointed to validate the environmental scan and to interpret the information contained in the report within the context of sustainable development. The following information gaps were identified in the Resources Opportunities and Constraints Report:

- Air quality data;
- Bulk water supply requirements and estimated yields of Mhlathuze System;
- Quality and quantity of surface and groundwater;
- Ecological requirements of water systems; and
- Waste database for hazardous and medical waste.

➤ **Web site**

A web site has been generated to ensure the broadest public exposure to the study. The web site is <http://dbn.csir.co.za>.

➤ **Preparation of the Environmental Management Plan**

A Strategic Environmental Management Plan (SEMP) has been developed to assist the Empangeni Transitional Local Council to implement the findings of the Resources Opportunities and Constraints Study. The purpose of the SEMP is to put the Resources Opportunities and Constraints Report into operation:

- establish a structure in participation of stakeholders;
- establish environmental guidelines for planning;
- establish environmental indicators;
- promote standards.

The SEMP cannot be regarded as an end product in itself, it was designed to assist with decision-making by providing the correct information base to decision-makers over time (CSIR, 2000: 9). It serves as a reference point and guide to ensure that sustainability issues are addressed in future policy formulation, planning, decision-making and the implementation of developments in Empangeni. Ideally the SEMP should be used as:

- A reference document providing a strategic context to inform the Empangeni Transitional Local Council with the Local Development Planning process and other local planning initiatives which would impact on the environment;
- A screening tool for Empangeni municipal officials who need to inform developers on the level of EIA's required for certain developments;
- An information base for Empangeni municipal officials involved with policy formulation and planning, thereby ensuring that environmental sustainability issues are addressed in these processes (CSIR b, 2000: 10).

The SEMP will identify environmental indicators which may be used to determine whether the implementation of policies and plans has resulted in the desired environmental condition. A decision-making framework for sustainable development in Empangeni has been proposed. In order to implement sustainable development, an indicator system has to develop, reference value has to be identified and a decision support system has to be established.

The decision-making framework concentrates on environmental sustainability indicators, but does not address social and economic issues. The types of indicators include pressure, state and response indicators (CSIR, 2000 b: 14). The pressure-state-response framework is based on a cause-effect social response logic and was developed by the Organisation for Economic Co-operation and Development (OECD) during the late 1980's (CSIR b, 2000):

- Pressure: measure the stresses or pressures from human activities which cause environmental change;
- State: measure the state or quality of the environment; and
- Response: measure efforts to mitigate or remediate degradation.

When selecting indicators, one must identify sustainability indicators that are:

- easy understandable (clear in value and content);
- relevant (for all stakeholders);

- feasible (measurable at a reasonable cost);
- appropriate in scale (not over-or under-aggregated);
- democratic (people should have inputs to the indicator choice and have access to the results).

The Strategic Environmental Management Plan has been prepared in such a manner that it may be updated readily. It is necessary since it is based on a current understanding of the environmental management practices and current resource opportunities and constraints.

4.3.4 Integrating the Empangeni Strategic Environmental Assessment with the Empangeni Local Development Plan

As mentioned, ideally, the Strategic Environmental Assessment and Integrated Development Planning processes should be carried out in conjunction with each other of which the Integrated Development Planning process should be the dominant one. Furthermore, no methodology currently exists for incorporating environmental management into development planning.

An Integrated Development Plan and a Local Development Plan are exactly the same processes, although they are named differently in terms of the different legislation they are formulated. In order to allow the efficient integration of the two processes, the same dynamics and format were used for the Strategic Environmental Management Plan as the case for the Local Development Plan. The vision for Empangeni has been revised at one of the public participation workshops in order to keep future development within sustainable limits. The spatial development framework of the Local Development Plan will have to be revised using the findings of the Strategic Environmental Assessment. The Development Planning Forum that will guide the implementation of the Local Development Plan will also be used to guide the implementation of the Strategic Environmental Management Plan.

The SEMP will be incorporated into the LDP in the next annual review (July 2001) to create one working document. Each strategic issue of the SEMP have been broken down

into key sections (mission, objectives and project actions) similar to the Local Development Plan. The time frame, budget and responsible line function/department will have to be determined at the annual review of the Local Development Plan. Indicators for social and economic development will have to be identified in order to maintain a balance between the biophysical, economic and social sectors of the environment for the monitoring, evaluation and review phase of the process.

The main aim of the integration of the two processes is to add value to Empangeni Local Development Plan by ensuring that environmental management and specifically sustainable development are incorporated in development planning.

4.4 Recommendations

Now that the study covered the theory and practice of integrating the Strategic Environmental Assessment's element with the Integrated Development Planning process, it is important to provide general recommendation on the integration process. Cognisance should therefore be taken of the following recommendations in integrating the two processes:

1. Ideally both the Strategic Environmental Assessment and Integrated Development Planning processes should be conducted concurrently. This will ensure the effective and efficient utilisation of the local authority's existing resources. Duplication of functions will also be minimised by calibrating the two processes.
2. The Integrated Development Planning process should form the dominant process to which a Strategic Environmental Assessment can add value by ensuring that all development remains within limits of acceptable change of the environment.
3. Due to the fact that both the Integrated Development Planning and Strategic Environmental Assessment processes are context specific processes, the proposed methodology outlined in chapter 3 should only be used as a generic framework or

model. The processes and its integration should therefore adapt to the specific circumstances and needs of the local area.

4. It is important that both processes adhere to the various policy and legislative requirements by being formulated within that framework. However, the emphasis should be on a business like approach in formulating a practical and workable process for implementing sustainable development.
5. The Chief Executive Officer and the Development Planning Forum should champion and implement both processes as one process. Members will include relevant councillors, heads of departments, business, environmental groups, service providers etc. The involvement of all relevant role players in the local community will ensure that it is an accountable and transparent process for the municipality and the public. The forum should however not be too large in size to ensure the effective and efficient management of the process.
6. A natural resource management capacity building study of the uThungulu Regional Council area that has been conducted by the Institute for Natural Resources under the auspices of the European Union (2000) revealed that the Empangeni Municipality lacked sufficient capacity to undertake environmental management. As in the case of Empangeni, many municipalities lack sufficient capacity. In order for a Strategic Environmental Assessment to be implemented successfully the institutional plan and financial plans of the Integrated Development Plan should make provision for sufficient staff and funding to conduct environmental management in the municipality's area of jurisdiction. The Institute of Natural Resources (2000) proposes that if it is not feasible to create an environmental management department, an existing department should be identified as the environmental management lead agent. In Empangeni's case, the Town Planning Department has been appointed as lead agent due to the overlapping between Town and Regional Planning and Environmental Management.

7. It is important to gain political support for the Strategic Environmental Assessment in order to implement it successfully. This can be achieved during the workplan phase of the Integrated Development Planning process where the need for a Strategic Environmental Assessment will be identified.
8. The formulation of a Strategic Environmental Assessment is an expensive exercise that requires a large amount of funding for its implementation. Where a lack of funding exists at a municipality, donor funding should be sourced from various institutions (e.g. the United Nations Global Environmental Facility, the International Council for Local Environmental Initiatives, etc.). A comprehensive business plan indicating the project action plan, funding and time frame should be formulated for this purpose.
9. In most case a lack of baseline environmental data on air, water, soil, etc exists. Where this is the case, projects should be identified and implemented in order to obtain the relevant information. Strategic Environmental Assessments are aligned to work with the best knowledge currently available in the study area and strives for continual improvement. It will however take time to establish trends and tendencies on all aspects of the environment.
10. It is important that relevant and effective indicators be identified on the biophysical, economic and social sectors of the environment to ensure sustainable development. It should be democratic process involving all stakeholders as well as specialists. Due to the fact that Integrated Development Planning focuses on social and economic development, it should not be assumed that it has the necessary indicators in place for the monitoring of social and economic aspects of the environment.

4.5 Conclusion

It is clear from this study that the rapid increase in population growth and the consumption patterns of the South African society are placing increasing stress on the environment. Environmental degradation and the depletion of South Africa's resources have a negative

impact on the environment on a global scale. Furthermore, poverty and unemployment places a high demand on development in all spheres of the South African society. The need to ensure effective and efficient service delivery and to facilitate development by local authorities gave rise to integrated development plans.

Local Authorities also have a responsibility to ensure that development remains within the limits of acceptable change of the environment. Sustainable development has to be implemented at a local level and contribute to the healthy state of the environment globally. To achieve this goal, Integrated Environmental Management has been introduced as a philosophy in South Africa. One of the decision-making instruments of Integrated Environmental Management is Strategic Environmental Assessments.

In many circles, especially in Town and Regional Planning circles, it is believed that the Integrated Development Planning and Strategic Environmental Assessment processes are one and the same process. It should be emphasised that these processes are not essentially the same. However, many similarities exist between the Integrated Development Planning and Strategic Environmental Assessment processes which allows for the effective and efficient integration of the two processes.

Although Strategic Environmental Assessments addresses the limitations of Environmental Impact Assessments (EIA's) by taking cognisance of the cumulative impacts of human activities on the environment and ensuring sustainable development at the early stages of decision-making, it will not replace Environmental Impact Assessments.

Integrated Development Planning should form the dominant process where to Strategic Environmental Assessments can add value. In order to integrate the two processes effectively, it is important to formulate the two processes simultaneously. Existing resources and support structures of the Integrated Development Planning process should also be utilised for the Strategic Environmental Assessment to ensure better co-ordination and to minimise duplication of functions.

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ANNEXURE 1:

**NATIONAL ENVIRONMENTAL MANAGEMENT PRINCIPLES IN TERMS OF THE
NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO 107 OF 1998)**

CHAPTER 1.

Appendix B

National Environmental Management Principles in terms of the National Environmental Management Act (No. 107 of 1998) Chapter 1

CHAPTER 1

NATIONAL ENVIRONMENTAL MANAGEMENT PRINCIPLES

Principles

2.(1) The principles set out in this section apply throughout the Republic to the actions of all organs of state that may significantly affect the environment and

(a) shall apply alongside all other appropriate and relevant considerations, including the State's responsibility to respect, protect, promote and fulfil the social and economic rights in Chapter 2 of the Constitution and in particular the basic needs of categories of persons disadvantaged by unfair discrimination;

(b) serve as the general framework within which environmental management and implementation plans must be formulated;

(c) serve as guidelines by reference to which any organ of state must exercise any function when taking any decision in terms of this Act or any statutory provision concerning the protection of the environment;

(d) serve as principles by reference to which a conciliator appointed under this Act must make recommendations; and

(e) guide the interpretation, administration and implementation of this Act, and any other law concerned with the protection or management of the environment.

(2) Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.

(3) Development must be socially, environmentally and economically sustainable.

(4) (a) Sustainable development requires the consideration of all relevant factors including the following:

(i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

(ii) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

(iii) that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;

(iv) that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;

(v) that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;

(vi) that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;

(vii) that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and

(viii) that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

(b) Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.

- c) Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons.
 - d) Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.
 - e) Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.
 - f) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.
 - g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge.
 - h) Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.
 - i) The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.
 - j) The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.
 - k) Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.
 - l) There must be intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment.
 - m) Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures.
 - n) Global and international responsibilities relating to the environment must be discharged in the national interest.
 - o) The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage.
 - p) The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.
 - q) The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.
- Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.

ANNEXURE 2:

THE PRICIPLES, THEIR IMPLICATIONS AND KEY QUESTIONS FOR STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) (SOURCE: SEA GUIDELINE DOCUMENT, DEAT (2000: 15 – 16)

TABLE 1: PRINCIPLES, THEIR IMPLICATIONS AND KEY QUESTIONS FOR STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

SUBSTANTIVE/CONTENT PRINCIPLES		
<p>SEA is driven by the concept of sustainability.</p>	<p>The focus of SEA is on integrating the concept of sustainability into the objectives and outcomes of plans and programmes.</p> <p>Sustainability objectives are applicable to the level, scale and sector of the plan or programme; as well as to the environmental resources to be sustained. The sustainability objectives should be developed with the participation of interested and affected parties.</p> <p>Targets and measurement tools are defined to guide development towards sustainability.</p>	<p>How can the concept of sustainability be integrated into different levels of decision-making, within the spatial context of the plan or programme?</p>
<p>SEA identifies the opportunities and constraints which the environment places on the development of plans and programmes.</p>	<p>The environmental resources needed to achieve the sustainability objectives are identified. These resources are maintained and enhanced through the plan or programme. The resources are prioritised through effective participation procedures.</p> <p>The environmental resources form the basis for the identification of opportunities and constraints, which guide the formulation of plans and programmes.</p>	<p>What are the environmental resources which should be maintained and/or enhanced in the plan or programme?</p>
<p>SEA sets the criteria for levels of environmental quality or limits of acceptable change.</p>	<p>The levels of acceptable change of the environmental resources are determined. This process reflects public views and scientific information.</p> <p>The plan or programme is developed in such a way as to maintain and enhance the level of environmental quantity and quality of these resources. This includes an iterative process of developing alternatives and predicting whether the resources will be maintained and enhanced.</p> <p>Management programmes are identified. These are implemented should the limits of acceptable change of the environmental resources be exceeded, or are threatened to be exceeded.</p>	<p>What is the level of acceptable change of the environmental resources identified?</p>
PROCEDURAL PRINCIPLES		
<p>SEA is a flexible process which is adaptable to the planning and sectoral development cycle.</p>	<p>SEA is integrated into existing processes for plan and programme formulation and implementation.</p> <p>There is not one SEA process to be used in all contexts, but different processes for various contexts and strategic tasks.</p> <p>The focus is on understanding the context-specific decision-making and plan or programme formulation procedure. The objectives of sustainability are then integrated into this process at key decision points, throughout the various levels and scales of plan and programme development. The SEA consistently interacts with the plan and programme procedure in an iterative way.</p>	<p>How can sustainability objectives be integrated effectively into existing context-specific processes for plans and programmes?</p>

TABLE 1: PRINCIPLES, THEIR IMPLICATIONS AND KEY QUESTIONS FOR STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

SUBSTANTIVE/CONTENT PRINCIPLES		
<p>1. SEA is driven by the concept of sustainability.</p>	<p>The focus of SEA is on integrating the concept of sustainability into the objectives and outcomes of plans and programmes.</p> <p>Sustainability objectives are applicable to the level, scale and sector of the plan or programme; as well as to the environmental resources to be sustained. The sustainability objectives should be developed with the participation of interested and affected parties.</p> <p>Targets and measurement tools are defined to guide development towards sustainability.</p>	<p>How can the concept of sustainability be integrated into different levels of decision-making, within the spatial context of the plan or programme?</p>
<p>2. SEA identifies the opportunities and constraints which the environment places on the development of plans and programmes.</p>	<p>The environmental resources needed to achieve the sustainability objectives are identified. These resources are maintained and enhanced through the plan or programme. The resources are prioritised through effective participation procedures.</p> <p>The environmental resources form the basis for the identification of opportunities and constraints, which guide the formulation of plans and programmes.</p>	<p>What are the environmental resources which should be maintained and/or enhanced in the plan or programme?</p>
<p>3. SEA sets the criteria for levels of environmental quality or limits of acceptable change.</p>	<p>The levels of acceptable change of the environmental resources are determined. This process reflects public views and scientific information.</p> <p>The plan or programme is developed in such a way as to maintain and enhance the level of environmental quantity and quality of these resources. This includes an iterative process of developing alternatives and predicting whether the resources will be maintained and enhanced.</p> <p>Management programmes are identified. These are implemented should the limits of acceptable change of the environmental resources be exceeded, or are threatened to be exceeded.</p>	<p>What is the level of acceptable change of the environmental resources identified?</p>
PROCEDURAL PRINCIPLES		
<p>4. SEA is a flexible process which is adaptable to the planning and sectoral development cycle.</p>	<p>SEA is integrated into existing processes for plan and programme formulation and implementation.</p> <p>There is not one SEA process to be used in all contexts, but different processes for various contexts and strategic tasks.</p> <p>The focus is on understanding the context-specific decision-making and plan or programme formulation procedure. The objectives of sustainability are then integrated into this process at key decision points, throughout the various levels and scales of plan and programme development. The SEA consistently interacts with the plan and programme procedure in an iterative way.</p>	<p>How can sustainability objectives be integrated effectively into existing context-specific processes for plans and programmes?</p>

ANNEXURE 3:

**A LIST OF THE RANGE OF POLICY DOCUMENTS THAT HAVE IMPLICATIONS
FOR LOCAL GOVERNMENT (SOURCE: INTEGRATED DEVELOPMENT PLANNING
PROCESS MANUAL FOR LOCAL GOVERNMENT, DEPARTMENT OF
CONSTITUTIONAL DEVELOPMENT, 1998)**

White Papers	Date	Notice number	Responsible department
White Paper for Social Welfare	8 August 1997	1108 of 1997	Department of Welfare and Population Development
Water Supply and Sanitation White Paper	November 1994	Not gazetted	Department of Water Affairs and Forestry
Housing White Paper	23 December 1994	1376 of 1994	Department of Housing
The Development and Promotion of Tourism in South Africa White Paper	1996	Not gazetted	Department of Environmental Affairs and Tourism
National Transport Policy White Paper	1996	Not gazetted	Department of Transport
Education White Paper	15 March 1995	196 of 1996	Department of Education

Notes



Urban Development Strategy	3 November 1995	1111 of 1995	Ministry in the Office of the President
Rural Development Strategy	3 November 1995	1153 of 1995	Ministry in the Office of the President
White Paper on RDP	23 November 1994	1954 of 1994	Ministry in the Office of the Deputy President
Growth Employment and Redistribution Policy	1996	Not gazetted	Department of Finance
White Paper on South African Land Policy	April 1997	Not gazetted	Department of Land Affairs and Agriculture
White Paper on Local Government	13 March 1998	423 of 1998	Department of Provincial Affairs and Constitutional Development
White Paper on Environmental Management Policy for South Africa	15 May 1997	749 of 1998	Department of Environmental Affairs and Tourism

Notes



ANNEXURE 4:

**A N OUTLINE OF THE PLANNING REQUIREMENTS OF THOSE ACTS AND BILLS
THAT WILL SHAPE THE PLANNING RESPONSIBILITIES OF LOCAL
GOVERNEMNT IN THE MEDIUM TO LONG TERM (SOURCE: INTEGRATED
DEVELOPMENT PLANNING PROCESS MANUAL, DEPARTMENT OF
CONSTITUTIONAL DEVELOPMENT, 1998)**

The Legal Context

Local government bodies face a complex set of legislated planning requirements. Different legislation is making a range of demands on local government bodies to comply with various requirements. This section of the manual provides a brief, consolidated overview of the legislative context within which local governments need to operate, as at July 1998. It will need to be updated as legislation changes.

The Local Government Transition Act

The Local Government Transition Act (LGTA) compels municipalities to develop negotiated IDPs for their areas of authority. According to the LGTA, IDPs must aim at integrating the development and management of municipal areas in terms of the municipalities' powers and duties, and where applicable, having due regard to the subject matter of land development objectives as contemplated in Chapter 4 of the Development Facilitation Act.

The Development Facilitation Act

The Development Facilitation Act (DFA) aims to put in place extraordinary measures to

facilitate the implementation of reconstruction and development. These measures include the fundamental transformation of planning processes, mechanisms and institutions, in order to facilitate the newly envisaged developmental role of local government.

Certain provinces have adopted the DFA as their planning legislation. In some provinces, regulations have been passed in terms of this Act that require local government bodies to prepare Land Development Objectives (LDOs).

These provincial regulations include:

Eastern Cape

Extraordinary Provincial Gazette No 274, 24 October 1997: Notice No 33 of 1997, Regulations relating to Land Development Objectives in terms of Chapter IV of the Development Facilitation Act, 1995. (Act No 67 of 1995)
Eastern Cape Land Development Objectives Regulations, 1997

Also refer to the *Planning Handbook for Eastern Cape Local Authorities* Department of Housing and Local Government, Eastern Cape. 1997

Free State

Provincial Gazette No 68, 14 November 1997.

Notes



Notice No 246, 1997: Regulations relating to Land Development Objectives in terms of Chapter IV of the Development Facilitation Act, 1995. (Act No 67 of 1995)

Gauteng

Extraordinary Provincial Gazette No 257, 30 August 1996, Notice No 3004 of 1996: Regulations relating to Land Development Objectives in terms of Chapter IV of the Development Facilitation Act, 1995. (Act No 67 of 1995) *Gauteng Land Development Objective Regulations, 1996*

Mpumalanga

Provincial Gazette No 260, 15 August 1997. Notice No 9 of 1997: Procedures for the formulation of Land Development Objectives in terms of Chapter IV of the Development Facilitation Act, 1995. (Act No 67 of 1995)

Northern Cape

Provincial Gazette No 254, 11 August 1997, Notice No 10 of 1997: Regulations relating to Land Development Objectives in terms of Chapter IV of the Development Facilitation Act, 1995. (Act No 67 of 1995)

Northern Province

Provincial Gazette No 273, 1 August 1998. Notice No 8 of 1997: Regulations relating to Land Development Objectives in terms of

Chapter IV of the Development Facilitation Act, 1995. (Act No 67 of 1995)

North West Province

Provincial Gazette No 40, 20 June 1997. Notice No 8 of 1997: Regulations relating to Land Development Objectives in terms of Chapter IV of the Development Facilitation Act, 1995. (Act No 67 of 1995)

Some provinces have opted for the formulation of provincial Planning Acts in the context of the DFA. The KwaZulu-Natal legislation has been enacted, whilst Gauteng and the Western Cape are still busy with their legislative processes. The provincial planning legislation includes:

- The Gauteng Development Planning Bill
- The KwaZulu-Natal Planning and Development Act
- The Northern Cape Draft Planning and Development Bill
- The Western Cape Planning and Development Bill

In addition a range of other national Acts contain planning requirements for local government.

The Urban Transport Act

The Urban Transport Act (UTA) currently requires the formulation of Urban Transport Plans (UTPs).

Notes



The Water Services Act

This Act has been promulgated by the Department of Water Affairs and Forestry and requires that Water Authorities prepare Water Services Plans.

*The Environmental Conservation Act
Environmental Impact Assessment Regulations*

A set of regulations has been promulgated by the Department of Environmental Affairs and Tourism and requires the preparation of Environmental Impact Assessments (EIAs) for certain development projects.

The Housing Act

The Department of Housing has promulgated this Act which requires the planning and management of land use and development.

In the short to medium term some of the older Acts will be added to or replaced with new legislation. Various national departments are in the process of drafting new Bills. The Bills that are currently in process and have implications for local government planning include:

The National Draft Transport Bill

This Bill is being prepared by the Department of Transport and will require the formulation of integrated transport plans by municipalities and transport authorities.

The National Land Transport Interim Arrangements Bill

The Department of Transport is also responsible for this Bill which makes provision for the designation of core cities and requires that integrated transport plans be integrated with the land development process in the context of the DFA and the LGTA.

The Draft Environmental Management Bill

This Bill is prepared by the Department of Environmental Affairs and Tourism and provides that the Minister may make regulations on the manner in which municipalities need to adhere to the principles set out in the Bill in the preparation of any policy, programme or plan, including IDPs and LDOs .

Local Government Municipal Structures Bill

The Department of Constitutional Development is responsible for this Bill. It provides that municipalities have the powers and functions assigned to them in terms of sections 156 and 229 of the Constitution which, among other things, includes municipal planning.

An outline of the planning requirements of those Acts and Bills that will shape the planning responsibilities of local governments in the short to medium term follows below.

Notes

Name of Act/ Regulation/Bill	Municipal Planning Requirements	Notes
Development Facilitation Act, 67 of 1995	<ol style="list-style-type: none"> 1. Contains general principles for land development. 2. Provides that LDOs must be prepared by municipalities, failing which the MEC will set them. 3. Time limits and procedures are to be covered in regulations. Provinces, excluding KwaZulu/Natal and the Western Cape have passed regulations on the drawing up of LDOs. 4. The regulations in general provide for their preparation on an annual basis. 5. The regulations all contain stipulations on public participation, co-ordination and time limits. 6. The subject matter of LDOs is set out in the DFA but is supplemented by the different provincial regulations. 7. In broad terms the subject matter from the Act is as set out below: <ul style="list-style-type: none"> • LDOs must deal with how people will gain access to basic services the standard of those services. • LDOs must contain objectives relating to urban and rural space and form, particularly how poorer areas will be integrated into the area as a whole; how the environment will be used in a sustainable manner; how transportation will be planned; how bulk infrastructure for the purpose of land development will be provided; what densities there should be in settlements; how land development should be co-ordinated with other authorities; how land use should be controlled; and how natural resources should be optimally used. • LDOs must contain strategies in relation to how to optimise the involvement of sectors of the economy, particularly financial institutions and developers in land development; how to obtain finance for land development; and how to build adequate administrative and institutional capacity to deal with land development in the area. 	



Name of Act/ Regulation/Bill	Municipal Planning Requirements
	<ul style="list-style-type: none"> • LDOs must contain goals that are quantifiable, such as the number of housing units and other facilities planned for; the nature of housing development; and the rate of delivery and how much it will increase in the future. • A municipality may require that environmental evaluations are undertaken to check on the impact LDOs are likely to have on the environment. <p>8. LDOs must be approved by the MEC, which approval can only be withheld if they do not deal with the required subject matter, they are inconsistent with other planning objectives or the procedures have not been followed.</p> <p>9. LDOs form the basis of decision-making by tribunals, and they override plans made in terms of the Physical Planning Act, 1991.</p>
Local Government Transition Act, 209 of 1993	<p>1. Municipalities must draw up IDPs.</p> <p>2. IDPs must be seen as one of a number of matters that municipalities must address in order to ensure that their finances, budgets and expenditure are properly managed.</p> <p>3. Municipalities must regularly monitor and assess their performance against their IDPs and must annually report to and receive comments from the community regarding the objectives set in IDPs.</p> <p>4. An IDP is defined as 'a plan aimed at the integrated development and management of the area of jurisdiction of the municipality concerned in terms of its powers and duties, and which has been compiled having regard to the general principles contained in Chapter I of the Development Facilitation Act, and where applicable, having regard to the subject matter of a land development objective contemplated in Chapter 4 of that Act'.</p>

Notes



Name of Act/ Regulation/Bill	Municipal Planning Requirements
	<ol style="list-style-type: none"> 5. The Schedules state that metropolitan councils and metropolitan local councils must formulate IDPs which incorporate metropolitan land use planning, transport planning, infrastructure planning and the promotion of integrated economic development. 6. Municipalities must prepare financial plans in accordance with the IDPs and they must ensure that their budgets are set are in accordance with the IDPs they have set. Capital programmes must be compiled which include investment programmes for municipal infrastructure, and these must 'have regard to IDPs. 7. The LGTA does not state that IDPs must be approved by the MEC.
National Land Transport Bill	<ol style="list-style-type: none"> 1. Contains general principles for transport and its role in land development. 2. Provides that transport plans and spatial development frameworks prepared by any sphere of government must be integrated with LDOs, IDPs or provincial and other plans and that plans drawn up by authorities in terms of other laws must take into account public transport planning. 3. Provides that integrated transport plans (ITPs) must be prepared by municipalities. 4. Provides for interim public transport plans. 5. Provides that transport authorities and municipalities required to do so by the MEC must prepare ITPs for each financial year which are to be a component of relevant IDPs and/or LDOs. They must comply with and influence the development strategy contained in LDOs and IDPs. 6. Provides that an integrated transport plan must contain long-term plans which must include a spatial development strategy to indicate the transport component of LDOs and IDPs, which is developed to minimise travel distances, costs and times.

Notes



Name of Act/ Regulation/Bill	Municipal Planning Requirements
	<p>7. Provides that an integrated transport plan must contain a five year transport improvement programme which is drawn up with participation of communities, affected public agencies, private providers etc. This programme contains a priority list of projects, a description of the operational public transport system, current municipal or transport authority policies on transport, a business plan and financial plan.</p> <p>8. Provides that if development proposals conflict with ITPs the MEC (transport) must refer such proposals to the MEC or MECs responsible for local government and housing for approval in terms of the DFA principles and the principles in the Transport Bill.</p> <p>9. Sets out various factors that must be taken into consideration when ITPs are drawn up including:</p> <ul style="list-style-type: none"> • the effect of transport policy on development and land use; • the consistency of transport plans and projects with development plans prepared by other agencies; • the need for consistency between ITPs, IDPs and LDOs. <p>10. Provides that regulations, requirements and guidelines may be published by the MEC on procedures for preparing ITPs, public participation etc.</p>

Notes



Name of Act/ Regulation/Bill	Municipal Planning Requirements
	<p>2. Provides for the content of the draft water services development plan, including among others:</p> <ul style="list-style-type: none"> • physical attributes of area • population information • five year implementation programme • existing water services • existing industrial water use and effluent disposed of in the area • number of people not receiving water in the area • future water services, including providers, contracts and proposed contracts, proposed infrastructure needed, water sources to be used, estimated capital and operating costs and funding arrangements including tariff structures • number of people and their location, who will not receive water over next five years • environmental protection measures. <p>3. Provides for public perusal and exposure to draft water plan and opportunity for comment.</p> <p>4. After consideration is given to comment, the plan may be adopted by the water services authority and submitted to Minister, MEC and neighbouring water service authorities.</p> <p>5. New plans must be prepared at intervals to be determined by the Minister in consultation with the Minister of Constitutional Development.</p> <p>6. A water services authority must report on the implementation of its development plan during each financial year.</p>

Notes

Name of Act/ Regulation/Bill	Municipal Planning Requirements
Draft National Environmental Management Bill	<ol style="list-style-type: none"> 1. The Bill sets out general environmental principles that apply throughout the country. 2. All listed national departments and each province must prepare environmental implementation and management plans every four years. 3. Provides that the Minister may make regulations on the manner in which municipalities are required to adhere to the principles set out in the Bill in the preparation of any policy, programme or plan, including the establishment of IDPs and LDOs. 4. Provides that an organ of state (including municipalities) must consider every environmental implementation and management plan when exercising any function it may have under any law. 5. The Director-General may give written notice, if there is non-compliance, calling for the organ of state to comply or remedy any failure to comply. Conciliation procedures are provided for. 6. Provinces are specifically tasked with the duty to ensure that the relevant provincial environmental plans are complied with by each municipality in the province. 7. Provides that MECs may publish regulations laying down procedures to investigate environmental impacts of policies, programmes, plans or projects.
Housing Act No 107 of 1997	<ol style="list-style-type: none"> 1. The Act sets out general housing principles that must form the backdrop of municipal actions. 2. Provides that every municipality, when taking part in the municipality's process of integrated development planning, must take all reasonable and necessary steps to ensure, <i>inter alia</i>, that <ul style="list-style-type: none"> • all inhabitants of the area are adequately housed (on a progressive basis), have healthy conditions and basic services such as water, sanitation,

Notes



Name of Act/ Regulation/Bill	Municipal Planning Requirements
	<p>electricity, roads, transport etc.</p> <ul style="list-style-type: none"> • housing delivery goals are set • land is designated for housing • a public environment conducive to housing is created and maintained • housing development is initiated, planned, co-ordinated and promoted in the area • bulk engineering services, and revenue-generating services are provided • land use and development is planned and managed.
<p>Local Government : Municipal Structures Bill, 1998</p>	<ol style="list-style-type: none"> 1. Provides for different forms and structures of municipalities to be created. 2. Provides for either Executive Committee or Executive Mayor type councils. 3. Executive Committees or Executive Mayors must <ul style="list-style-type: none"> • identify the needs of the municipality • review and evaluate those needs in order of priority • recommend to the council strategies, programmes and services to address priority needs through the integrated development plan and estimate the revenue and expenditure • recommend or determine the best way to deliver that strategy, programme and services to the maximum benefit of the community. 4. IDPs are defined as plans aimed at the integrated development and management of a municipal area. 5. Provides that municipalities have the powers and functions assigned to them in terms of section 156 and 229 of the Constitution, which among other things includes municipal planning as a function.

Notes



Name of Act/ Regulation/Bill	Municipal Planning Requirements
	<ul style="list-style-type: none"> • guide resource allocation by all spheres of government, parastatals and the private sector. <ol style="list-style-type: none"> 6. Provides for procedures, including publication of draft local IDPs and public participation. 7. Local IDPs must be approved by the MEC, which approval can only be withheld if they do not deal with the required subject matter, they are inconsistent with other planning objectives or the procedures have not been followed. 8. The subject matter is set out and should include, <i>inter alia</i>, a SWOT analysis of the area, a spatial representation of the area, a determination of the needs of the community, a vision, an audit of available resources, a prioritisation of needs, the development of strategies and goals, the development of an environmental strategy, the formulation of projects and programmes with targets for implementation and monitoring and evaluation strategies. 9. Provides that LDOs drawn up in terms of the DFA and LDO regulations are deemed to be local IDPs until the MEC approves local IDPs drawn up in terms of this new Bill. 10. Provides that when municipalities draw up local IDPs they must endeavour to meet the requirements of any existing legislation or future laws that impose duties on municipalities to undertake development planning.
The KwaZulu-Natal Planning and Development Act, No 5 of 1998	<ol style="list-style-type: none"> 1. Provides for general planning and development principles (similar to those in the DFA) that apply in the province. 2. Provides for development plans to be drawn up that have as their purpose, the co-ordinated, harmonious and sustainable development of the area. 3. Provides that the subject matter of development plans should <ul style="list-style-type: none"> • be a co-ordinated policy framework

Notes



Name of Act/ Regulation/Bill	Municipal Planning Requirements
	<ul style="list-style-type: none"> • include such planning controls and performance criteria as may be prescribed • consist of a programme and budget for the implementation of the plan • procedures for public participation • prescribed environmental management components <p>4. The provisions of a local development plan must not be incompatible with a provincial, metropolitan or regional development plan.</p> <p>5. Provides for community involvement in drawing up development plans through a planning and development committee.</p> <p>6. Provides that any development plan prepared in terms of this Act and any valid scheme or plan shall constitute LDOs as contemplated in the DFA.</p>
Western Cape Planning and Development Bill	<p>1. Provides for general planning and development principles (similar to those in the DFA) that apply in the province and inform frameworks.</p> <p>2. Provides for municipalities to prepare development frameworks for land in their area to be approved of by the MEC.</p> <p>3. A development framework means a plan or written strategy to attain the objectives of development planning and may be either an integrated development framework (this lays down strategies, proposals and guidelines including development objectives and implementation plans) or a specific development framework (this lays down detailed strategies, proposals and guidelines for specific sector, elements or subjects and includes a spatial development framework).</p> <p>4. Must be approved by the MEC, which approval can only be withheld if they do not deal with the required subject matter, they are inconsistent with other planning objectives, the procedures have not been followed or substantial objections were received.</p>

Notes

Name of Act/ Regulation/Bill	Municipal Planning Requirements
	<ol style="list-style-type: none"> 5. The provisions of development frameworks override previous frameworks or structure plans. 6. Provisions are made for public participation in the drawing up of frameworks. 7. Frameworks must be reviewed before 31 Dec 2001 and thereafter as prescribed but not less than every five years. 8. Provides that the provisions of this Bill on integrated development frameworks must be seen to supplement the provisions in the LGTA on formulation of integrated development plans. 9. Provides that regulations may be made that , <i>inter alia</i>, set out the contents and the manner of preparation of development frameworks, including development objectives, the manner of public participation, the implementation, review and amendment of development frameworks, and funding of development frameworks.
<p>The Northern Cape Planning and Development Draft Bill</p>	<ol style="list-style-type: none"> 1. States that the DFA general principles apply. 2. Provides for District Council Settlement and Infrastructure Development and Management Plans (District Plans) to be drawn up by all District Councils. 3. Purpose of these plans is to provide a spatial and infrastructural framework to guide the location, distribution and servicing of existing settlements, and to ensure integrated and co-ordinated policies, strategies, etc. aimed at implementing the principles of the provincial Growth and Development Strategy, providing public infrastructure, leveraging finance and using and protecting the environment. 4. The contents should be : <ul style="list-style-type: none"> • a set of sectorally-integrated policies, objectives and strategies informed by the principles of the provincial strategy, the demographics of the area, current and future economic activities and opportunities, a set of identified

Notes

Name of Act/ Regulation/Bill	Municipal Planning Requirements
	<p>needs and the fiscal and budgetary capacity of the District Council;</p> <ul style="list-style-type: none"> • prioritised programmes and projects aimed at implementing the policies, objectives and strategies through defining targets, a prioritised three to five year expenditure programme, securing funding, and through partnerships. <ol style="list-style-type: none"> 5. The procedures for formulating the plan are set out and involve public participation and publication of a draft plan for comment. 6. The District Council must have regard to the plan when drawing up its budget, must regularly monitor and assess its performance against the policies and annually report back to the community on its performance. 7. Provision is made for amendments and revision of the plan. 8. Provides for local and representative council Land Development Plans which are similar to district council plans but apply in local and representative council areas and are more concerned with local spatial issues and projects that enhance the environment. 9. Provides for procedures to draw up local plans, and that budgeting must be aligned to these plans as above. 10. Approved by the MEC unless they do not deal with the required subject matter, they are inconsistent with other planning objectives or the procedures have not been followed. 11. District Council Plans or Land Development Plans are deemed to be LDOs. If there are already LDOs they will be deemed to be approved of in terms of this Bill.

Notes

Appendix B

National Environmental Management Principles in terms of the National Environmental Management Act (No. 107 of 1998) Chapter 1

CHAPTER 1

NATIONAL ENVIRONMENTAL MANAGEMENT PRINCIPLES

Principles

- (1) The principles set out in this section apply throughout the Republic to the actions of all organs of state that may significantly affect the environment and
 - (a) shall apply alongside all other appropriate and relevant considerations, including the State's responsibility to respect, protect, promote and fulfil the social and economic rights in Chapter 2 of the Constitution and in particular the basic needs of categories of persons disadvantaged by unfair discrimination;
 - (b) serve as the general framework within which environmental management and implementation plans must be formulated;
 - (c) serve as guidelines by reference to which any organ of state must exercise any function when taking any decision in terms of this Act or any statutory provision concerning the protection of the environment;
 - (d) serve as principles by reference to which a conciliator appointed under this Act must make recommendations; and
 - (e) guide the interpretation, administration and implementation of this Act, and any other law concerned with the protection or management of the environment.
- (2) Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.
- (3) Development must be socially, environmentally and economically sustainable.
- (4) (a) Sustainable development requires the consideration of all relevant factors including the following:
 - (i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
 - (ii) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
 - (iii) that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;
 - (iv) that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;
 - (v) that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
 - (vi) that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;
 - (vii) that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and
 - (viii) that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.
- b) Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.

- c) Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons.
 - d) Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.
 - e) Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.
 - f) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.
 - g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge.
 - h) Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.
- The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.
- The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.
- i) Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.
- There must be intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment.
- j) Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures.
 - k) Global and international responsibilities relating to the environment must be discharged in the national interest.
 - l) The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage.
 - m) The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.
 - n) The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.
- Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.

ANNEXURE 2:

THE PRICIPLES, THEIR IMPLICATIONS AND KEY QUESTIONS FOR STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) (SOURCE: SEA GUIDELINE DOCUMENT, DEAT (2000: 15 – 16)