



Integrated Environmental Management Information Series

*Environmental
Assessment for
International Agreements*

19



Department of
Environmental Affairs and Tourism

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PREFACE

This document is one of a series of overview information documents on the concepts of, and approaches to, integrated environmental management (IEM). IEM is a key instrument of South Africa's National Environmental Management Act (NEMA). South Africa's NEMA promotes the integrated environmental management of activities that may have a significant effect (positive and negative) on the environment. IEM provides the overarching framework for the integration of environmental assessment and management principles into environmental decision-making. It includes the use of several environmental assessment and management tools that are appropriate for the various levels of decision-making.

The aim of this document series is to provide general information on techniques, tools and processes for environmental assessment and management. The material in this document draws upon experience and knowledge from South African practitioners and authorities, and published literature on international best practice.

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Summary

This document is intended to give an overview of the guidelines for environmental assessment provided in international agreements. This overview is given within the context of the principles of international law, the status of international law in South Africa and the historical development of international agreements governing environmental assessment. The document then considers a number of guidelines for environmental assessment provided by international agreements, including:

- * Activities requiring environmental assessment ("listed" activities);
- * Effects on sensitive environments requiring environmental assessment;
- * Contents of environmental assessment reports; and
- * Effects on sensitive species requiring environmental assessment;
- * Public participation principles.

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1. INTRODUCTION

A summary of the international environmental agreements that are relevant to the field of environmental assessment is provided in this document. An introduction to international environmental law as well as an overview of the status of international environmental agreements in South African law is presented. The various forms and sources of international agreements are highlighted. A short overview of the development of international agreements regarding environmental assessment is presented, and the specific requirements of a number of international agreements highlighted. These serve as examples of worldwide practice from which South Africa can draw in the development of its own environmental assessment dispensation.

2. PURPOSE OF THE DOCUMENT

This document has been written for a wide audience to serve as an introductory guide to the environmental assessment requirements of international law, and to provide an indication as to how this law has affected South African law on environmental assessment. The document also provides input into the continuing development of South African environmental assessment legislation, particularly at the present time, when the second generation of EIA regulations is being developed. The document provides a context within which South Africa can assess the effectiveness of its own legislation against international standards, as well as providing environmental assessment practitioners with an opportunity to review and improve their interpretation and implementation of domestic legislation in the light of global environmental assessment practice.

3. DEFINITION AND PURPOSE OF ENVIRONMENTAL ASSESSMENT

Environmental assessment is regarded as "a generic term for all forms of environmental assessment for projects, plans, programmes and policies" (Department of Environmental Assessment and Tourism (DEAT), 2002). Thus, environmental assessment includes Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA). In the context of this document, it is important to consider some of the common elements of environmental assessment encountered in international environmental agreements.

Environmental assessment is a predictive tool and should be used before the commencement of a project, plan or programme to determine the likely environmental consequences of the activity before its implementation.

Secondly, one of the most important purposes of environmental assessment is to integrate environmental factors into the decision-making process.

4. THE NEED TO CONSIDER ENVIRONMENTAL ASSESSMENT OF INTERNATIONAL AGREEMENTS

There are a number of reasons why the environmental assessment of international agreements need to be considered, including:

- * The trans-boundary nature of environmental impacts;
- * The existence of areas of international importance in South Africa; and
- * The activity of South Africa in areas outside the country's borders.

4.1 *Trans-boundary nature of environmental impacts*

As a consequence of the nature and scale of environmental impacts, many environmental problems have a trans-

boundary nature. South Africa can no longer afford to consider the environmental impacts of development projects within its national borders in isolation without also considering its neighbouring countries. This is especially true in a water-stressed environment like South Africa where several major rivers cross international borders. There have been a number of projects in recent years (e.g. the Lesotho Highlands Water Project and the natural gas pipeline from Mozambique) that have trans-boundary implications.

4.2 *Areas of international environmental importance in South Africa*

South Africa contains a number of areas of international environmental importance as a result of their listing in terms of international agreements such as the World Heritage Convention and the Ramsar Convention. World Heritage Sites such as the Ukhahlamba Drakensberg Park and the Cradle of Humankind, and Ramsar Sites such as Nylsvlei and the Greater St. Lucia Wetland Park, necessitate that South Africa should not only look after its own interests in the protection of these areas, but must also consider international guidelines when applying instruments of environmental protection such as environmental assessment.

4.3 *South African activity in areas of international importance outside South Africa*

South Africa is active in various capacities in areas that are of global environmental importance. These areas have been designated as such by international environmental agreements. The best known of these areas is Antarctica. All activities in Antarctica are governed by the Antarctic Treaty and the Madrid Protocol to the Antarctic Treaty, which lay down a number of requirements to ensure the protection of the Antarctic environment and to ensure that environmental assessments of human activities are undertaken.

5. APPROACH

The approach adopted in this document is all-inclusive. In other words it addresses all forms of international agreements and is not limited to those agreements to which South Africa is a party. This approach is explained in further detail below.

5.1 *Forms of international agreements*

This document follows an all-encompassing approach in the consideration of international agreements and addresses all forms of international agreements, including the following:

- * Conventions, treaties, protocols and annexures to these;
- * Recommendations and resolutions of the above;
- * Guidance documents for implementation of the agreements e.g. handbooks and operational guidelines for the implementation of conventions and treaties; and
- * Non-binding environmental assessment instruments developed by an international organisation such as the United Nations Environment Programme (UNEP).

5.2 *Inclusion of agreements to which South Africa is not a party*

This document has not been confined to international agreements to which South Africa is a signatory but includes all international agreements that have some form of implication for environmental assessment. The requirements of international agreements, irrespective of South Africa's signature, accession or ratification of these agreements, have been treated as universal standards upon which South Africa can draw for the improvement of its own environmental assessment practice.

6. INTRODUCTION TO INTERNATIONAL ENVIRONMENTAL LAW

Growth of international environmental law as a separate area of public international law began with the Stockholm Conference on the Environment in 1972. Since then interest has increased steadily and it is now one of the fastest growing areas of international law. A current issue of international concern covered by environmental law is the principle of sustainable development. Environmental law also interacts with other areas of international law such as commercial or business law, trade, and human rights.

International cooperation in the form of treaties, agreements and resolutions created by intergovernmental organisations, is being used to protect the environment. International law may be defined as "a body of rules and principles which are binding upon states in their relations with one another" (Brierly, 1963).

When attempting to determine the boundaries of international environmental law it is apparent that no clear definition is applicable. Like many other branches of international law, international environmental law is interdisciplinary, intersecting and overlapping with numerous other areas of activity, including economics, political science, ecology, human rights and navigation.

The sources of international environmental law, the enforcement of such law and the resolutions of international organisations, are described in the sections that follow.

6.1 Sources of international environmental law

The sources of international law are set out in article 38(1) of the Statute of the International Court of Justice (Birnie and Boyle, 1992) as:

- * International conventions and treaties;
- * Customary law;
- * General principles of law recognized by civilized nations;
- * Judicial precedent;
- * Text writings;
- * Codification;
- * Jus cogens (peremptory norms); and
- * Non-traditional sources ("soft law").

Of the above, customary law and international conventions and treaties are the two main sources of international law.

A treaty is defined by the Vienna Convention on the Law of Treaties as "an international agreement between states in written form and governed by international law, whether embodied in a single instrument, or in two or more related instruments and whatever its particular designation." (Dugard, 2000: 328).

Treaties may be multilateral (binding many states) or bilateral (binding on two states only). Treaties can be divided into three categories (Dugard, 2000: 27).

- * Contractual: where states enter into contracts with each other to form a binding relationship, for example trade treaties;
- * Legislative: where states codify existing customary law, or where states create new law; and
- * Constitutional: by means of which organisations such as the United Nations are constituted.

Even though "soft law" is not binding per se, it is extremely important in developing international law. Soft law has been defined as consisting of "codes of practice,

recommendations, guidelines, resolutions, declarations of principles, standards and so-called "framework" or "umbrella" treaties which do not fit neatly into the categories of legal source referred to in article 38 (1)(c) of the International Court of Justice (ICJ) Statute" (Birnie and Boyle, 1992: 27).

The function of soft law is that it points in the direction of the most likely of formally binding legal obligations (Glazewski, 2000). Examples of soft law are the Stockholm Declaration, Rio Declaration, and the principle of sustainable development expounded in a large number of international agreements.

Although the sources of soft law are not law for the international community, it may develop into binding customary law, provided the normal requirements for custom are met. These requirements are twofold, namely general practice and acceptance as law. When states repeatedly adopt a resolution on a certain topic (for instance environmental assessments), because they feel under a legal obligation to do so, the requirements for customary law are met.

6.2 Enforcement of International law

The International Court of Justice (ICJ) is the principal judicial organ of the United Nations. Its seat is at the Peace Palace in The Hague (Netherlands). It began work in 1946, when it replaced the Permanent Court of International Justice which had functioned in the Peace Palace since 1922. It operates under a Statute, largely similar to that of its predecessor, which is an integral part of the Charter of the United Nations.

The Court has a dual role: to settle in accordance with international law the legal disputes submitted to it by States, and to give advisory opinions on legal questions referred to it by duly authorized international organs and agencies.

6.3 Resolutions of International Organisations

Resolutions of international organizations are not formal international agreements and, in most instances, they are not binding on member states. If South Africa wishes to translate a resolution of one of these organisations into domestic law it must do so by legislation. This principle is supported in various examples of case law, such as *Binga v Administrator-General, South West Africa*.

The main international organisations that are involved in the development and implementation of environmental resolutions or decisions that may have an effect on environmental assessment are the following:

- * The United Nations Environment Programme (UNEP);
- * The United Nations Commission on Sustainable Development (CSD);
- * United Nations Development Programme (UNDP);
- * The International Law Commission (ILC);
- * The Food and Agriculture Organisation (FAO);
- * The United Nations Education and Scientific Organisation (UNESCO);
- * The International Maritime Organisation (IMO);
- * The International Atomic Energy Agency (IAEA); and
- * The World Conservation Union (IUCN).

7. STATUS OF INTERNATIONAL LAW IN SOUTH AFRICA

The status of international law in South Africa is described in this section in terms of the following:

- * The Constitution;
- * The status of international agreements in Domestic law; and
- * Private/public responsibility for obligations arising from international agreements.

7.1 The Constitution

For over a hundred years, prior to the Constitution of 1996 (Act No. 106 of 1996), South African courts simply assumed that the laws and principles of customary international law may be applied by domestic courts as if they were in some way part of South African law (Dugard, 2000: 47). Chapter 4 of the 1996 Constitution (Act No. 106 (consisting of Sections 231, 232 and 233)) heralded a new phase for public international law in South Africa by constitutionally endorsing international customary law, thereby giving it additional weight (Dugard, 2000: 51).

Section 233 of the Constitution provides that: "When interpreting any legislation, every court must prefer any reasonable interpretation of the legislation that is consistent with international law over any alternative interpretation that is inconsistent with international law".

With regards to international agreements, Section 231 of the Constitution provides that

- "1. The negotiating and signing of all international agreements is the responsibility of the national executive.
2. An international agreement binds the Republic only after it has been approved by resolution in both the National Assembly and the National Council of Provinces, unless it is an agreement referred to in subsection (3).
3. An international agreement of a technical, administrative or executive nature, or an agreement which does not require either ratification or accession, entered into by the national executive, binds the Republic without approval by the National Assembly and the National Council of Provinces, but must be tabled in the Assembly and the Council within a reasonable time.
4. Any international agreement becomes law in the Republic when it is enacted into law by national legislation; but a self-executing provision of an agreement that has been approved by Parliament is law in the Republic unless it is inconsistent with the Constitution or an Act of Parliament.
5. The Republic is bound by international agreements which were binding on the Republic when this Constitution took effect"

This section ensures that Parliament will continue to play an active role in the development of international agreements, and compels the Constitutional Assembly to require an Act of Parliament or other form of 'national legislation', in addition to the resolution of ratification, for the incorporation of treaties into domestic law. Even though international law takes longer to become part of domestic law, this provision safeguards the 'separation of powers' doctrine. This section also confirms that all binding international agreements entered into prior to the advent of the new constitution, will continue to be in force.

Section 232 of the 1996 Constitution confirms the common law principle that customary international law is recognized as law in the Republic unless it is inconsistent with the Constitution or an Act of Parliament (Glazewski, 2000).

7.2 The status of International Agreements in South African Domestic law

International environmental law for the most part consists of principles rather than treaties. The Stockholm Declaration and Rio Declaration are broadly phrased expositions of principles, which are part of a deliberate co-operative strategy to promote sustainable development, since treaties are time-consuming to draft and ratify. Conference declarations premised on broad consensus rather than consent do not impose obligations on states but they do reflect a set of principles or standards to guide states. They may be held politically, albeit not legally accountable, for any violations of these principles and standards. These soft law instruments are generally not enforceable but some of their principles are expounded in legally binding treaties such as the African Charter on Human and Peoples' Rights, which declares in article 24: "All people shall have the right to a general, satisfactory environment favourable to their development"

7.3 Private/Public responsibility for obligations arising from International Agreements

The State has, according to the Rio and Stockholm Declarations, a duty "to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction". The liability of states can be divided into direct and indirect liability. With respect to environmental law, a state is directly liable if it violates an international law obligation it owes to another state. A state is indirectly liable if it fails to prevent a harmful act or fails to minimize the harm done. In terms of such a duty, it is important that states ensure that the environmental impacts of development projects that may affect neighbouring countries are investigated by means of environmental assessment.

8. TYPES OF INTERNATIONAL ENVIRONMENTAL AGREEMENTS

International environmental agreements encompass a diverse group of topics, including the following:

- * Sustainable development (e.g. The Rio Declaration on Environment and Development, Rio de Janeiro, 1992);
- * Trans-frontier pollution (e.g. Convention on Long-Range Transboundary Pollution, Espoo, 1992);
- * Biodiversity (Convention on Biological Diversity, Rio de Janeiro, 1992);
- * Marine pollution (e.g. Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, London, 1972);
- * Endangered species (e.g. Convention on International Trade in Endangered Species (CITES), Washington, 1973);
- * Hazardous materials and activities (e.g. Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 1989);
- * Cultural preservation (Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris, 1972);
- * Desertification (e.g. United Nations Convention to Combat Desertification, Paris, 1994)
- * Uses of the seas (e.g. United Nations Convention on Law of the Sea (UNCLOS), New York, 1982);
- * Climate change (e.g. United Nations Framework Convention on Climate Change, New York, 1992 and the Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto, 1997);
- * Wetlands (e.g. the Convention on the Conservation of Wetlands especially as Waterfowl Habitat, Ramsar, 1971); and
- * Antarctica (e.g. the Antarctic Treaty, Washington, 1959 and the Protocol on Environmental Protection to the Antarctic Treaty, Madrid, 1991).

There are few international environmental agreements

that are focused specifically on environmental assessment of which the following are the most notable:

- * Convention on Environmental Impact in a Transboundary Context (Espoo, 1991); and
- * Convention on access to information, public participation in decision-making and access to justice in environmental matters (Aarhus, 1998).

9 THE DEVELOPMENT OF INTERNATIONAL AGREEMENTS AND POLICIES FOR ENVIRONMENTAL ASSESSMENT

9.1 The Stockholm Declaration

Until the late 1960s, most international agreements aimed at protecting the environment served narrowly defined utilitarian purposes. However, beginning with the 1972 Stockholm Declaration of the United Nations Conference on the Human Environment, international agreements came to reflect a desire to limit damage to the environment. The 1972 Stockholm Declaration identified the need for a common outlook and principles that encourage and guide the world in the preservation and enhancement of the rapidly degrading environment.

The Stockholm Declaration included 26 principles which guide and exert efforts to preserve and enhance the human environment. It was acknowledged during the Stockholm Conference that it was time the world paid meticulous attention to its activities that might cause irreversible harm to the environment. Most importantly, it was acknowledged that international cooperation is vital for achieving the goal of environmental protection because environmental problems know no political boundaries.

Principle 21 of the Stockholm declaration states the following: "States have, in accordance with the Charter of the United Nations and principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction of control do not cause damage to the environment or other states or of areas beyond the limits of national jurisdiction". This principle is widely accepted to be a part of customary international law (Sands 1995; Birnie and Boyle 1992; Fuggle and Rabie 1996). Customary international law is stronger than so-called 'soft law', therefore the acceptance of the principle as customary law, gives it greater effect and enforceability.

Although the tool of environmental assessment was not explicitly addressed in the Stockholm Declaration (it is widely agreed that formal environmental assessment commenced with the USA's National Environmental Policy Act in 1969), the acceptance of the concept of sustainable development laid the foundation for the consideration of environmental assessment in later international agreements.

9.2 International agreements and sustainable development

The term sustainable development was first defined in 1987 in the Brundtland report of the World Commission on Environment and Development (WCED) entitled *Our Common Future* (WCED 1987) as "economic development which meets the needs of the present generation without compromising the ability of future generations to meet their own needs". Sustainable development has also been defined as "... development that delivers basic environmental, social and economic services to all without threatening the viability of the natural, built and social systems upon which the services depend" (International Council for Local Environmental Initiatives (ICLEI), 1995).

Sustainability involves the maintenance and enhancement

of environmental, social and economic resources, in order to meet the needs of current and future generations (DEAT, 2000). The three components of sustainability are:

1. Environmental sustainability, which requires that natural capital remains intact. This means that the source and sink functions of the environment should not be degraded.
2. Social sustainability, which requires that the cohesion of society and its ability to work towards common goals be maintained.
3. Economic sustainability, which occurs when development, which moves towards social and environmental sustainability, is financially feasible (Gilbert et al, 1996).

Sustainable development has been identified as an important factor for resolving international environmental disputes in cases heard before the International Court of Justice (ICJ). One of the first instances where the concept of sustainable development received attention in an international legal dispute was in the ICJ's judgement in September 1997 concerning the Gabčíkovo-Nagymaros project (Fuyane and Madai 2001). This dispute concerned the joint construction of a hydroelectric dam on the Danube River by Hungary and the former Czechoslovakia from which Hungary (citing environmental concerns), withdrew in 1989. Until that time, no environmental assessments of the project had been undertaken (Fuyane and Madai 2001). The case was subsequently brought before the ICJ in 1993 after a protracted dispute between the two countries (Fuyane and Madai 2001). In spite of the fact that the majority of the judgement was in Slovakia's favour, the judgement has important implications for environmental assessment.

The ICJ's Judge Weeramantry described the principle of sustainable development as "an integral part of modern law" in balancing the competing demands of development and environmental protection. While acknowledging that the right to development is an inalienable human right, he held that "the protection of the environment is likewise a vital part of contemporary human rights doctrine, for it is a sine qua non for numerous human rights such as the right to health and the right to life itself". He also noted that sustainable development is now a principle of international law, and that the right to development does not exist in the absolute sense, but is always relative to its tolerance by the environment.

A second important aspect on which Judge Weeramantry commented extensively is what he termed the Principle of "Continuing Environmental Assessment". He pointed out that "environmental impact assessment means not merely an assessment prior to the commencement of the project but a continuing assessment and evaluation as long as the project is in operation". In the judgement he asserted that contemporary environmental law implies a duty of environmental assessment of international projects where they may reasonably be considered to have a significant impact on the environment. This also implies a duty of monitoring the environmental impacts of any substantial project during the scheme's operation, whether or not this is required explicitly by international environmental agreements.

9.3 The Rio Declaration

The Rio Declaration of 1992 laid down several principles that have direct and indirect implications for environmental assessment. These requirements are summarised below in Table 1.

Table 1: Rio Declaration Principles

Principle	Implication for environmental assessment
<p>Principle 4: In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.</p>	<p>Environmental assessment, as a tool of environmental protection, must be integrated in the development and decision-making process.</p>
<p>Principle 10: Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.</p>	<p>Public participation is a key component of all environmental assessment processes. Interested and affected parties must at all times be able to make inputs to the environmental assessment process, and must have the opportunity to influence the decision-making process.</p>
<p>Principle 14: States should effectively cooperate to discourage or prevent the relocation and transfer to other states of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.</p>	<p>The potential environmental impacts on the environment of neighbouring countries must be assessed. Such impacts must be prevented, where possible.</p>
<p>Principle 15: In order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.</p>	<p>Where the occurrence of a particularly serious impact is suspected, but there is a lack of conclusive evidence to support this, decision-making should nonetheless err on the side of caution by disallowing the proposed activity that could cause the impact.</p>
<p>Principle 17: Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.</p>	<p>South Africa must provide a regulatory framework for the assessment of the environmental impacts of activities likely to have a significant adverse environmental impact.</p>

9.4 The Johannesburg Summit

The Johannesburg Summit of 2002 (also referred to as Rio +10), a follow up to the 1992 Rio Conference, led to the adoption of a Plan of Implementation (Anon, 1992) for the decisions taken at the conference. A number of the implementation measures in this document are pertinent to environmental assessment, including the following (only relevant portions cited):

Σ Paragraph 19. "Encourage relevant authorities at all levels to take sustainable development considerations into account in decision-making, including on national and local development planning, investment in infrastructure, business development and public procurement. This would include actions at all level to:

(e) Use environmental assessment procedures";

Σ Paragraph 97: "Continue to enhance the mutual supportiveness of trade, environment and development with a view to achieving sustainable development through actions at all levels to:

(d) Encourage the voluntary use of environmental impact assessments as an important national tool to better identify trade, environment and development interlinkages. Further encourage countries and international organisations with experience in this field to provide technical assistance to developing countries for these purposes."

9.5 Trends in implementing the requirement for environmental assessment

Environmental assessment is a fairly recent tool of environmental management, having emerged prominently in the 1970s after the promulgation of the USA's National Environmental Policy Act (NEPA). NEPA made EIAs of US federal government projects mandatory. Most of the

international environmental agreements from the 1970s and early 1980s therefore make no reference to Environmental Assessment (EA) as a tool to ensure sustainable development. Many agreements that were first developed in the 1970s (e.g. the Ramsar Convention) do not contain direct reference to EA but have incorporated EA as a technique through later recommendations and resolutions. It is only a fairly recent development for EA to be required directly by the main text of international agreements, primarily since the 1992 Rio Summit. In the period since then international agreements have required not only EIA but have also advocated the use of SEA as a tool to overcome the limitations of EIA.

10. SPECIFIC ENVIRONMENTAL ASSESSMENT REQUIREMENTS OF INTERNATIONAL AGREEMENTS

The specific requirements for the environmental assessment of international agreements will be discussed in terms of the following themes:

- * Activities for which environmental assessment is required;
- * Environments for which environmental assessment is required;
- * Sensitive species for which environmental assessment is required;
- * Contents of EIA reports; and
- * Requirements for public participation.

10.1 Activities requiring environmental assessment

Some international environmental assessment guidelines do not provide lists of activities that require environmental assessment, but rather stipulate that the activities which are assessed must be prioritised for the effective and optimal allocation of human and financial resources. This is, for example the approach of the Economic Commission for Europe (Anon 2002b), which states that EIA should be applied particularly to activities that are likely to cause significant environmental impacts, especially those of long-term or irreversible nature.

However, two international agreements stipulate specific activities that are deemed to have potentially significant impacts on the environment and which, by implication, are required to be subjected to environmental assessment

before implementation. These lists of activities are found in the Espoo Convention (Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 1991) and the Aarhus Convention (Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, Aarhus, 1998). The Espoo Convention deals with the procedures for undertaking EA of activities that create trans-boundary impacts, whereas the Aarhus Convention deals with access to environmental information generally and specifically in the context of environmental assessment.

The activities listed in these conventions are compared in Table 2 below. The activities have been listed in the order of their listing in the Espoo Convention, with similar activities listed in the Aarhus convention placed next to those of the Espoo Convention.

Table 2: Listed activities of the Espoo and Aarhus Conventions

No ⁷	Espoo Convention, 1991	Aarhus Convention, 1998	No ⁸
Refineries, gasification & liquifaction of coal			
1	Crude oil refineries (excluding undertakings manufacturing only lubricants from crude oil) and installations for the gasification and liquefaction of 500 tonnes or more of coal or bituminous shale per day.	Energy sector: - Mineral oil and gas refineries; - Installations for gasification and liquefaction.	1
Energy generation & transmission			
2	Thermal power stations and other combustion installations with a heat output of 300 megawatts or more and nuclear power stations and other nuclear reactors (except research installations for the production and conversion of fissionable and fertile materials, whose maximum power does not exceed 1 kilowatt continuous thermal load).	Energy sector: - Thermal power stations and other combustion installations with a heat input of 50 megawatts (MW) or more. Construction of overhead electrical power lines with a voltage of 220 kV or more and a length of more than 15 km.	1 17
Nuclear industry			
3	Installations solely designed for the production or enrichment of nuclear fuels, for the reprocessing of irradiated nuclear fuels or for the storage, disposal and processing of radioactive waste.	n.a.	
Production of metals			
4	Major installations for the initial smelting of cast-iron and steel and for the production of non-ferrous metals.	Production and processing of metals: - Metal ore (including sulphide ore) roasting or sintering installations; - Installations for the production of pig-iron or steel (primary or secondary fusion) including continuous casting, with a capacity exceeding 2.5 tonnes per hour; - Installations for the processing of ferrous metals: (i) Hot-rolling mills with a capacity exceeding 20 tonnes of crude steel per hour; (ii) Smitheries with hammers the energy of which exceeds 50 kilojoules per hammer, where the calorific power used exceeds 20 MW; (iii) Application of protective fused metal coats with an input exceeding 2 tonnes of crude steel per hour; - Ferrous metal foundries with a production capacity exceeding 20 tonnes per day; - Installations: (i) For the production of non-ferrous crude metals from ore,	2

7 Activities as numbered in Appendix 1 of the Espoo Convention

8 Activities as numbered in Annex 1 of the Aarhus Convention

No ⁷	Espoo Convention, 1991	Aarhus Convention, 1998	No ⁸
		concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes; (ii) For the smelting, including the alloying, of non-ferrous metals, including recovered products (refining, foundry casting, etc.), with a melting capacity exceeding 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals; - Installations for surface treatment of metals and plastic materials using an electrolytic or chemical process where the volume of the treatment vats exceeds 30 m ³ .	
Asbestos products			
5	Installations for the extraction of asbestos and for the processing and transformation of asbestos and products containing asbestos: for asbestos-cement products, with an annual production of more than 20,000 tonnes finished product; for friction material, with an annual production of more than 50 tonnes finished product; and for other asbestos utilization of more than 200 tonnes per year.	Mineral industry: - Installations for the production of asbestos and the manufacture of asbestos-based products ;	3
Chemical industry			
6	Integrated chemical installations	Chemical industry: Production within the meaning of the categories of activities contained in this paragraph means the production on an industrial scale by chemical processing of substances or groups of substances listed in subparagraphs (a) to (g): (a) Chemical installations for the production of basic organic chemicals, such as: (i) Simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic); (ii) Oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters, acetates, ethers, peroxides, epoxy resins; (iii) Sulphurous hydrocarbons; (iv) Nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate compounds, nitriles, cyanates, isocyanates; (v) Phosphorus-containing hydrocarbons; (vi) Halogenic hydrocarbons; (vii) Organometallic compounds; (viii) Basic plastic materials (polymers, synthetic fibres and cellulose-based fibres); (ix) Synthetic rubbers; (x) Dyes and pigments; (xi) Surface-active agents and surfactants; (b) Chemical installations for the production of basic inorganic chemicals, such as: (i) Gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides, sulphur compounds, nitrogen oxides, hydrogen, sulphur dioxide, carbonyl chloride; (ii) Acids, such as chromic acid, hydrofluoric acid, phosphoric acid, nitric acid, hydrochloric acid, sulphuric acid, oleum, sulphurous acids; (iii) Bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide; (iv) Salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate; (v) Non-metals, metal oxides or other inorganic compounds such as calcium carbide, silicon, silicon carbide; (c) Chemical installations for the production of phosphorous, nitrogen or potassium-based fertilizers (simple or compound fertilizers); (d) Chemical installations for the production of basic plant health products and of biocides; (e) Installations using a chemical or biological process for the production of basic pharmaceutical products; (f) Chemical installations for the production of explosives; (g) Chemical installations in which chemical or biological processing is used for the production of protein feed additives, ferments and other protein substances	4

No ⁷	Espoo Convention, 1991	Aarhus Convention, 1998	No ⁸
Transport infrastructure			
7	Construction of motorways, express roads ⁹ and lines for long-distance railway traffic and of airports with a basic runway length of 2,100 metres or more.	(a) Construction of lines for long-distance railway traffic and of airports ¹⁰ with a basic runway length of 2 100 m or more; (b) Construction of motorways and express roads ¹¹ ; (c) Construction of a new road of four or more lanes, or realignment and/or widening of an existing road of two lanes or less so as to provide four or more lanes, where such new road, or realigned and/or widened section of road, would be 10 km or more in a continuous length.	8
Oil & gas pipelines			
8	Large-diameter oil and gas pipelines.	Pipelines for the transport of gas, oil or chemicals with a diameter of more than 800 mm and a length of more than 40 km.	14
Ports & inland waterways			
9	Trading ports and also inland waterways and ports for inland-waterway traffic which permit the passage of vessels of over 1,350 tonnes.	(a) Inland waterways and ports for inland-waterway traffic which permit the passage of vessels of over 1 350 tons; (b) Trading ports, piers for loading and unloading connected to land and outside ports (excluding ferry piers) which can take vessels of over 1 350 tons.	9
Waste management			
10	Waste disposal installations for the incineration, chemical treatment or landfill of toxic and dangerous wastes.	Waste management: - Installations for the incineration, recovery, chemical treatment or landfill of hazardous waste; - Installations for the incineration of municipal waste with a capacity exceeding 3 tonnes per hour; - Installations for the disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day; - Landfills receiving more than 10 tonnes per day or with a total capacity exceeding 25 000 tonnes, excluding landfills of inert waste.	5

⁹ "Motorway" means a road specially designed and built for motor traffic, which does not serve properties bordering on it and which:
a. Is provided, except at special points or temporarily, with separate carriageways for two directions of traffic, separated from each other by a dividing strip not intended for traffic or, exceptionally, by other means;
b. Does not cross at level with any road, railway or tramway track, footpath; and
c. Is specially sign-posted as a motorway

"Express road" means a road reserved for motor traffic only from interchanges or controlled junctions and or which, in particular, stopping and parking are prohibited on the running carriages.

¹⁰ "Airport" means an airport which complies with the definition in the 1994 Chicago Convention setting up the International Civil Aviation Organisation (Annex 14)

¹¹"Express road" means a road which complies with the definition in the European Agreement on Main International Traffic Arteries of 15 November

No ⁷	Espoo Convention, 1991	Aarhus Convention, 1998	No ⁸
Storage & transport of water			
11	Large dams and reservoirs.	(a) Works for the transfer of water resources between river basins where this transfer aims at preventing possible shortages of water and where the amount of water transferred exceeds 100 million cubic metres/year; (b) In all other cases, works for the transfer of water resources between river basins where the multiannual average flow of the basin of abstraction exceeds 2 000 million cubic metres/year and where the amount of water transferred exceeds 5% of this flow. In both cases transfers of piped drinking water are excluded. Dams and other installations designed for the holding back or permanent storage of water, where a new or additional amount of water held back or stored exceeds 10 million cubic metres.	11 13
Groundwater abstraction			
12	Groundwater abstraction activities in cases where the annual volume of water to be abstracted amounts to 10 million cubic metres or more.	Groundwater abstraction or artificial groundwater recharge schemes where the annual volume of water abstracted or recharged is equivalent to or exceeds 10 million cubic metres.	10
Pulp & paper industry			
13	Pulp and paper manufacturing of 200 air-dried metric tonnes or more per day.	Industrial plants for the: (a) Production of pulp from timber or similar fibrous materials; (b) Production of paper and board with a production capacity exceeding 20 tons per day.	7
Mining & quarrying			
14	Major mining, on-site extraction and processing of metal ores or coal.	Quarries and opencast mining where the surface of the site exceeds 25 hectares, or peat extraction, where the surface of the site exceeds 150 hectares.	16
Hydrocarbon production			
15	Offshore hydrocarbon production	Extraction of petroleum and natural gas for commercial purposes where the amount extracted exceeds 500 tonnes/day in the case of petroleum and 500 000 cubic metres/day in the case of gas.	12
Hazardous chemical storage facilities			
16	Major storage facilities for petroleum, petrochemical and chemical products	Installations for the storage of petroleum, petrochemical or chemical products with a capacity of 200 000 tonnes or more.	18
Deforestation			
17	Deforestation of large areas		n.a.
Agriculture			
n.a.	n.a.	Installations for the intensive rearing of poultry or pigs with more than: (a) 40 000 places for poultry; (b) 2 000 places for production pigs (over 30 kg); or (c) 750 places for sows.	15
Mineral industry			
n.a.	n.a.	- Installations for the production of cement clinker in rotary kilns with a production capacity exceeding 500 tons per day or lime in rotary kilns with a production capacity exceeding 50 tonnes per day or in other furnaces with a production capacity exceeding 50 tonnes per day; - Installations for the manufacture of glass including glass fibre with a melting capacity exceeding 20 tonnes per day; - Installations for melting mineral substances including the production of mineral fibres with a melting capacity exceeding 20 tonnes per day; - Installations for the manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain, with a production capacity exceeding 75 tonnes per day, and/or with a kiln capacity exceeding 4 m ³ and with a setting density per kiln exceeding 300 kg/m ³ .	19

No ⁷	Espoo Convention, 1991	Aarhus Convention, 1998	No ⁸
Other activities			
n.a.		Other activities: - Plants for the pretreatment (operations such as washing, bleaching, mercerization) or dyeing of fibres or textiles where the treatment capacity exceeds 10 tonnes per day; - Plants for the tanning of hides and skins where the treatment capacity exceeds 12 tonnes of finished products per day; (a) Slaughterhouses with a carcass production capacity greater than 50 tonnes per day; (b) Treatment and processing intended for the production of food products from: (i) Animal raw materials (other than milk) with a finished product production capacity greater than 75 tonnes per day; (ii) Vegetable raw materials with a finished product production capacity greater than 300 tonnes per day (average value on a quarterly basis); (c) Treatment and processing of milk, the quantity of milk received being greater than 200 tonnes per day (average value on an annual basis); - Installations for the disposal or recycling of animal carcasses and animal waste with a treatment capacity exceeding 10 tonnes per day; - Installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, with a consumption capacity of more than 150 kg per hour or more than 200 tonnes per year; - Installations for the production of carbon (hard-burnt coal) or electrographite by means of incineration or graphitization.	19
Other activities			
n.a.		Any activity not covered by paragraphs 1-19 above where public participation is provided for under an environmental impact assessment procedure in accordance with national legislation.	20
n.a.		The provision of article 6, paragraph 1 (a) of this Convention, does not apply to any of the above projects undertaken exclusively or mainly for research, development and testing of new methods or products for less than two years unless they would be likely to cause a significant adverse effect on environment or health.	21
n.a.		Any change to or extension of activities, where such a change or extension in itself meets the criteria/thresholds set out in this annex, shall be subject to article 6, paragraph 1 (a) of this Convention. Any other change or extension of activities shall be subject to article 6, paragraph 1 (b) of this Convention.	22

Thus, it can be seen that there is a multitude of activities that are required to undergo environmental assessment by international agreements. Some of these activities are likewise required to undergo environmental assessment by South African legislation, but many are not listed at all, or are not explicitly listed by South African legislation.

10.2 Sensitive environments that require environmental assessment

There are a number of international agreements for the protection of sensitive environments. These agreements require environmental assessments for any activities that may occur within these environments or have the potential to affect these environments.

The agreements that cover sensitive environments are:

- * The Antarctic Treaty (Washington, 1959) and the Protocol on Environmental Protection to the Antarctic Treaty (Madrid, 1991);
- * The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar, 1971); and
- * The World Heritage Convention (Paris, 1972).

10.2.1 The Antarctic Treaty and Madrid Protocol

The Antarctic Treaty covers the area south of 60°S latitude. The Madrid Protocol to the Treaty is designed to protect

the environment and dependent and associated ecosystems and the intrinsic value of Antarctica, including its wilderness and aesthetic values and its value as an area for the conduct of scientific research. The Protocol requires that all activities¹² undertaken in the Antarctic Treaty area must be undertaken to avoid adverse impacts on all aspects of the Antarctic environment (Australian Antarctic Division 2004). Annex 1 of the Protocol stipulates the environmental assessment procedures that must be followed. South Africa has adopted the requirements of this agreement into its national legislation through the Antarctic Treaties Act, 1996 (Act No. 60 of 1996).

¹² Such activity can relate to an increase or decrease in the intensity of an existing activity, the addition of a new activity, the decommissioning on an existing activity or otherwise

10.2.2 *The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar, Iran, 1971)*

The purpose of the Ramsar Convention is the protection of wetlands especially for their value as habitat to waterfowl. At the time of the treaty's adoption in 1971 environmental assessment was not yet a well developed methodology and the Convention text itself, therefore, does not contain any reference to environmental assessment. However, Article 3 of the Convention requires that "Each Contracting Party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory is likely to change as the result of technological developments, pollution or other human interference". The obligation to act when change is likely requires a predictive tool such as EA to determine the possible effects of activities (Ramsar Convention Secretariat 2004).

Over the years, however, the Ramsar Convention has broadened its scope to include the necessity for environmental assessment of activities that could transform wetland habitats.

Thus, resolution 5.1 (1993) of the Conference of the Parties (COP), which spells out interpretations of the responsibilities of the parties, requires that parties must undertake an "environmental impact assessment before the transformation of wetlands" (Ramsar Convention Secretariat, 2004).

A recommendation regarding environmental assessment was also adopted at the 6th meeting of the COP in March 1996. This recommendation required that existing EA guidelines need to be examined and, if necessary, guidelines for Ramsar wetlands be drafted. This was followed up by Resolution VII.16 of 1999, which required that:

Σ Parties had to reinforce and strengthen their efforts to ensure that any projects, plans, programmes and policies with the potential to alter the ecological character of wetlands on the Ramsar List, or impact negatively on other wetlands within their territories, are subjected to rigorous impact assessment procedures and to formalise such procedures under policy, legal, institutional and organisational arrangements; and
Σ Impact assessment procedures identify the true values of wetland ecosystems to allow these environmental, economic and broader social values to be included in decision-making and management processes. Resolution VIII.9, adopted in 2002 (Ramsar Convention Secretariat, 2002), urges parties to the convention to make use of the Guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or processes and in strategic environmental assessment.

It is clear, therefore, that the Ramsar Convention requires parties to adopt legislation requiring environmental assessment not only for wetlands on the Ramsar List but for the protection of all wetlands within their territories.

10.2.3 *World Heritage Convention*

The text of the World Heritage Convention itself (United Nations Educational Scientific and Cultural Organisation (UNESCO), 2004) does not make any reference to environmental assessment. However, the Operational Guidelines for the Implementation of the World Heritage Convention (UNESCO 1998: 20) requires that parties to the Convention must submit "impact studies" each time circumstances occur or work is undertaken which may have an effect on the state of conservation of the property.

In South Africa, the operational guidelines have been adopted in terms of Section 3 of the World Heritage Convention Act, 1999 (Act No. 49 of 1999). Section 4(2)(h) of this act requires that "negative impacts on the environment and on the environmental rights of the people must be anticipated and prevented, and where

they cannot be prevented, must be mitigated". This clearly indicates the intention in South African legislation that EA must be applied to projects within South African World Heritage Sites, thus giving effect to the World Heritage Convention's Operational Guidelines.

10.3 *Sensitive species requiring environmental assessment*

Two international agreements that require EA of activities that may have an impact on sensitive species are:

- * The Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1979); and
- * The Convention of Biological Diversity (Rio de Janeiro, 1992).

10.3.1 *The Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 1979*

The purpose of the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) is to protect migratory species of animals and their habitats. The convention itself contains no reference to environmental assessment. However, Resolution 7.2 of the Conference of Parties (COP) held in 2002 was adopted to urge parties to use EIA and SEA as tools to prevent and mitigate the impacts on migratory species. As with the Ramsar Convention, this Resolution of the Bonn Convention also recommends the use of the Guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or processes and in strategic environmental assessment (see below).

10.3.2 *Convention on Biological Diversity, Rio de Janeiro, 1992*

The purpose of the Convention on Biological Diversity is to conserve the variability among living organisms, at all levels (including diversity between species, within species and of ecosystems). This Convention is one of the few conventions that require EA directly in the main text of the Convention. In signing the Convention the parties have acknowledged the imperative to take biodiversity into consideration at all levels of decision-making. The Convention provides a strong basis through Article 14 for implementing environmental assessment techniques (Bagri, McNeely and Vorhies, 1998).

Article 14.1 of the Convention on Biological Diversity states that each contracting party shall as far as possible, and as appropriate, introduce procedures requiring an EIA of its proposed projects that are likely to have significant effects on biodiversity with a view to avoiding, or minimising such effects. It also requires that arrangements be made to ensure that the environmental consequences of its programmes and policies that are likely to have significant adverse impacts on biodiversity are taken into account. By reference to programmes and policies, it is clear that the Convention's intent is not only for the use of EIA but also that SEA should be applied.

The COP of the Convention adopted "Guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or processes and in strategic environmental assessment" at its 6th meeting in 2002 (Anon, 2004). These guidelines provide guidance on the incorporation of biodiversity into the various stages of the EA process (e.g. screening, scoping, assessment, reporting, review and decision-making) and contains screening criteria to determine when biodiversity issues should trigger an EA process.

10.4 Contents of EA reports

The most important agreements with respect to the contents of EIAs are the Espoo Convention and the Aarhus Convention.

Table 3 below provides a comparison of the requirements of the Aarhus and Espoo Conventions.

Table 3: EIA content requirements of the Aarhus and Espoo Conventions

Aarhus Convention	Espoo Convention
Activity	
A description of the proposed activity and its purpose	The proposed activity and the application on which a decision will be taken
Environment	
A description of the environment likely to be significantly affected by the proposed activity and its alternatives	A description of the site and the physical and technical characteristics of the proposed activity, including an estimate of the expected residues and emissions
Environmental Impact	
A description of the potential environmental impact of the proposed activity and its alternatives and an estimation of its significance	A description of the significant effects of the proposed activity on the environment
Mitigation	
A description of mitigation measures to keep adverse environmental impact to a minimum	A description of the measures envisaged to prevent and/or reduce the effects, including emissions
Summary	
A non-technical summary including a visual presentation as appropriate (maps, graphs, etc.).	A non-technical summary of the above
Alternatives	
A description, where appropriate, of reasonable alternatives (for example, locational or technological) to the proposed activity and also the no-action alternative	An outline of the main alternatives studied by the applicant
Methods and assessments	
An explicit indication of predictive methods and underlying assumptions as well as the relevant environmental data used	n.a.
Knowledge gaps	
An identification of gaps in knowledge and uncertainties encountered in compiling the required information	n.a.
Monitoring and management	
Where appropriate, an outline for monitoring and management programmes and any plans for post-project analysis	n.a.

10.5 Requirements for public participation

The Aarhus Convention is the most important agreement with regard to the right of the public to obtain information about the environmental impact of development activities. The purpose of the Convention is to guarantee the following rights:

- * Access to information;
- * Public participation in decision-making; and
- * Access to justice in environmental matters.

The Convention requires that authorities must make information available to the public without an interest having to be stated and in the form requested. The fact

that no interest has to be stated is important, since it implies that any person, whether affected by the activity or not, can be regarded as an interested and affected party. The Convention does provide for a request for information to be refused under certain defined conditions (e.g. where the confidentiality of commercial information would be affected). In the case of a refusal to provide information, the reason for refusal must be stated. Authorities may charge a reasonable fee for supplying information.

The Convention requires that the public must be informed of the following information regarding the process early in the environmental assessment process (Anon, 1998):

- a) decision will be made;
- b) The nature of possible decisions;
- c) The public authority responsible for making decisions;
- d) The envisaged procedure including:
 - i. The commencement of the procedure;
 - ii. Opportunities for the public to participate;
 - iii. The time and venue of any envisaged public hearings;
 - iv. An indication of the public authority from which relevant information can be obtained and where the information has been provided for examination by the public;
 - v. An indication of the public authority or any other body to which comments or questions can be submitted and of the time schedule for transmission of comments or questions;
 - vi. An indication of what information relevant to the proposed activity is available.

It is required that the public participation procedure includes reasonable time frames for informing the public and for them to respond. It is also required that the applicant should identify the public concerned, enter into discussions with them and provide information about their application before applying for authorisation. Furthermore, it is required that the public must be involved to the same extent as during the original EA process, should the authority review or update the

conditions of an authorisation.

It is stipulated that the public must have the opportunity to participate in the development of plans, programmes and policies relating to the environment and in the development of legislation.

11. CONCLUSION

International law (which includes international agreements), is now part and parcel of South African law and international agreements have become of great importance. Since the advent of the 1996 Constitution, various Acts have been promulgated and programmes incorporated, which give effect to the requirements for environmental assessment contained in various international agreements.

In the continuing development of South African environmental legislation, sight should not be lost of the requirements of international environmental agreements that have implications for environmental assessment, including those agreements to which South Africa is not a party. Many of these agreements and other instruments of international law contain valuable lessons for our legislation and environmental assessment practice.

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GLOSSARY

Definitions

Affected Environment

Those parts of the socio-economic and biophysical environment impacted on by the development.

Affected Public

Groups, organizations, and/or individuals who believe that an action might affect them.

Alternative proposal

A possible course of action, in place of another, that would meet the same purpose and need. Alternative proposals can refer to any of the following but are not necessarily limited thereto:

- * alternative sites for development
- * alternative projects for a particular site
- * alternative site layouts
- * alternative designs
- * alternative processes
- * alternative materials

In IEM the so-called "no-go" alternative also requires investigation.

Authorities

The national, provincial or local authorities, which have a decision-making role or interest in the proposal or activity. The term includes the lead authority as well as other authorities.

Baseline

Conditions that currently exist. Also called "existing conditions."

Baseline Information

Information derived from data which:

- * Records the existing elements and trends in the environment; and
- * Records the characteristics of a given project proposal

Decision-maker

The person(s) entrusted with the responsibility for allocating resources or granting approval to a proposal.

Decision-making

The sequence of steps, actions or procedures that result in decisions, at any stage of a proposal.

Environment

The surroundings within which humans exist 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 interrelationships 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. This includes the economic, cultural, historical, and political circumstances, conditions and objects that affect the existence and development of an individual, organism or group.

Environmental Assessment (EA)

The generic term for all forms of environmental assessment for projects, plans, programmes or policies. This includes methods/tools such as EIA, strategic environmental assessment, sustainability assessment and risk assessment.

Environmental consultant

Individuals or firms who act in an independent and unbiased manner to provide information for decision-making.

Environmental Impact Assessment (EIA)

A public process, which is used to identify, predict and assess the potential environmental impacts of a proposed project on the environment. The EIA is used to inform decision-making.

Fatal flaw

Any problem, issue or conflict (real or perceived) that could result in proposals being rejected or stopped.

Impact

The positive or negative effects on human well-being and/or on the environment.

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 and decision-making process. The IEM philosophy (and principles) is interpreted as applying to the planning, assessment, implementation and management of any proposal (project, plan, programme or policy) or activity - at the local, national and international level - that has a potentially significant effect on the environment. Implementation of this philosophy relies on the selection and application of appropriate tools to a particular proposal or activity. These may include environmental assessment tools (such as Strategic Environmental Assessment and Risk Assessment); environmental management tools (such as monitoring, auditing and reporting) and decision-making tools (such as multi-criteria decision-support systems or advisory councils).

Interested and affected parties (I&APs)

Individuals, communities or groups, other than the proponent or the authorities, whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. These may include local communities, investors, business associations, trade unions, customers, consumers and environmental interest groups. The principle that environmental consultants and stakeholder engagement practitioners

should be independent and unbiased excludes these groups from being considered stakeholders.

Lead authority

The environmental authority at the national, provincial or local level entrusted in terms of legislation, with the responsibility for granting approval to a proposal or allocating resources and for directing or coordinating the assessment of a proposal that affects a number of authorities.

Mitigate

The implementation of practical measures to reduce adverse impacts.

Non-governmental organizations (NGOs)

Voluntary environmental, social, labour or community organisations, charities or pressure groups.

Proponent

Any individual, government department, authority, industry or association proposing an activity (e.g. project, programme or policy).

Proposal

The development of a project, plan, programme or policy. Proposals can refer to new initiatives or extensions and revisions to existing ones.

Public

Ordinary citizens who have diverse cultural, educational, political and socio-economic characteristics. The public is not a homogeneous and unified group of people with a set of agreed common interests and aims. There is no single public. There are a number of publics, some of whom may emerge at any time during the process depending on their particular concerns and the issues involved.

Role-players

The stakeholders who play a role in the environmental decision-making process. This role is determined by the level of engagement and the objectives set at the outset of the process.

Scoping

The process of determining the spatial and temporal boundaries (i.e. extent) and key issues to be addressed in an environmental assessment. The main purpose of scoping is to focus the environmental assessment on a manageable number of important questions. Scoping should also ensure that only significant issues and reasonable alternatives are examined.

Screening

A decision-making process to determine whether or not a development proposal requires environmental assessment, and if so, what level of assessment is appropriate. Screening is initiated during the early stages of the development of a proposal.

Significant/significance

Significance can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. intensity, duration and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. level of significance and acceptability). It is an anthropocentric concept, which makes use of value judgements and science-based criteria (i.e. biophysical, social and economic). Such judgement reflects the political reality of impact assessment in which significance is translated into public acceptability of impacts.

Stakeholders

A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term therefore includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties (I&APs). The principle that environmental consultants and stakeholder engagement practitioners should be independent and unbiased excludes these groups from being considered stakeholders.

Stakeholder engagement

The process of engagement between stakeholders (the proponent, authorities and I&APs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can therefore be described by a spectrum or continuum of increasing levels of engagement in the decisionmaking process. The term is considered to be more appropriate than the term "public participation".

Stakeholder engagement practitioner

Individuals or firms whose role it is to act as independent, objective facilitators, mediators, conciliators or arbitrators in the stakeholder engagement process. The principle of independence and objectivity excludes stakeholder engagement practitioners from being considered stakeholders.

ABBREVIATIONS

CBO	Community-based Organization
COP	Conference of the Parties (in reference to a particular convention)
CSD	United Nations Commission on Sustainable Development
DEAT	Department of Environmental Affairs and Tourism
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMS	Environmental Management Systems
FAO	Food and Agriculture Organisation
I&AP	Interested and Affected Party
IAEA	International Atomic Energy Agency
ICJ	International Court of Justice
ICLEI	International Council for Local Environmental Initiatives
IEM	Integrated Environmental Management
ILC	International Law Commission
IMO	International Maritime Organisation
IUCN	International Union for the Conservation of Nature and Natural Resources
NGO	Non-governmental Organization
SEA	Strategic Environmental Assessment
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational Scientific and Cultural Organisation
WCED	World Commission on Environment & Development



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