

BETTER TOGETHER.



Environmental Impact Assessment (EIA):

An Introduction

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1. Background

Environmental impact assessment (EIA) is a tool to aid environmental decision making. It is a process that allows for public involvement when positive and negative impacts (opportunities and constraints) that are associated with a proposed course of action are assessed. The aim of this is to determine the best practicable course of action.

EIAs were adopted as a public policy tool in the United States of America (USA) in the 1970s. This decision was influenced by, firstly, the growth of the modern environmental movement, and secondly, the drive for a more rational, scientific and objective approach to environmental decisionmaking. These were further strengthened by the concern that project appraisal and review procedures in use at that time, such as cost-benefit analysis, did not take into account the environmental and social impacts of major projects or industrial accidents during that period. One of these, the Santa Barbara oil spill, proved to be a catalyst for the passage of the National Environmental Policy Act (NEPA) in the USA at the end of 1969. The enactment of the NEPA is recognized worldwide as the formal inception of EIA. It was intended to apply not only to projects, but to all "Federal actions", which included policy, plans, programmes and projects.

Legal provisions for EIA in South Africa were first incorporated in the Environment Conservation Act. 1989 (Act No. 73 of 1989) (ECA), and Regulations for EIA were promulgated in terms of Sections 21 and 26 of ECA on 5 September 1997. These initial EIA Regulations applied to only nine scheduled activities that were identified as having the potential to have a "substantial detrimental effect" on the environment. They were subsequently replaced by new EIA Regulations promulgated on 21 April 2006. 18 June 2010 and 4 December 2014, in terms of Section 24 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), which is the framework legislation for environmental management in South Africa.

2. What is an EIA?

An EIA evaluates the potential impact of human actions, for example, development proposals, on the receiving environment, and how the opportunities and constraints in this environment influence the intended human actions.

EIA is a systematic and consultative process that gathers detailed information on the social, economic and ecological consequences of a development proposal. The competent environmental authority uses the information gathered during this EIA process to inform a decision on the development proposal. The aim of this decision-making process is to maximize socio-economic outcomes, while ensuring ecological integrity by avoiding and/or mitigating potential negative biophysical impacts. In South Africa the environment is characterized by very high socio-economic needs, limited resources and a degrading biophysical environment.

EIA in South Africa is therefore a means for giving effect to the "environmental right" enshrined in Section 24 of the Constitution, which calls for the securing of ecologically sustainable development and the promotion of justifiable economic and social development. It is, however, important to remember that while one strives for the best environmental option, there are limitations to what is in fact feasible and practical in terms of time, cost and technology. The aim of EIA in South Africa, therefore, is to follow a process that will determine the best practicable environmental option, that is, to promote sustainable development through the effective management of social, environmental and economic impacts, so that:

- Valuable environmental resources are safeguarded by avoiding unacceptable negative irreversible changes through implementing acceptable mitigation measures;
- Human health and safety is protected; and
- The social and economic dimensions of the proposed development are enhanced.

An EIA process is systematic, holistic and multi-disciplinary. Its major benefit is advice on improved project design that lowers the costs of:

- Impaired human health:
- Loss of valuable natural resources:
- Financial penalties for remediation and compensation as a result of damage to the environment and human health and safety.



3. What are the steps in an EIA process?

The environmental impact assessment is a project-based process that consists of five distinct phases, namely:

- Screening:
- Scoping:
- Specialist studies:
- Integration and Assessment:
- Public Participation (which happens throughout the EIA process);
- Authority review and decision-making:
- Implementation of EIA Decision: and
- Monitoring

These phases of the EIA process are explained in more detail below.

3.1 The Screening Phase

Screening is an exercise undertaken during the planning and design of a proposed project. During screening, the need for an EIA is determined as well as the level of assessment that would be required. During this phase, potential fatal flaws ('showstoppers') must also be identified, such as unavailability of technical and scientific information that the EIA requires, or lack of funding or legal approvals (e.g. land use rights) for new infrastructure, such as water supply, housing, hospitals, schools, or lack

of services and infrastructure, e.g., water, electricity, sewage. This phase allows for corrective measures that are important to the EIA process to be undertaken, for example, acquisition of missing information that is critical for informed decision-making.

The outputs of the Screening phase are:

- A classification, according to its environmental sensitivity, of the project and its alternatives:
- Confirmation with regard to whether an EIA is required or not:
- If an EIA is required, confirmation on the level of assessment required.

The Scoping Phase 3.2

In order to ensure efficiency and effectiveness, an environmental assessment must be focused. It is not about gathering all possible information on all possible aspects, but about focusing on the key issues that are relevant to the specific course of action under consideration. Scoping does not. however, start with a blank slate. The legislation highlights a number of specific relevant considerations that must be considered during the EIA process, such as the minimum requirements set out in section 24(4) of NFMA

The Scoping phase is when the scope of the EIA is determined, by identifying the issues to be addressed and alternatives to be considered. Scoping is also informed by consultation with interested and affected parties (I&APs). I&APs are informed about the proposed project and its alternatives, and their comments on the issues to be addressed and alternatives to be considered are invited.

An important output from consultation with I&APs will be a clear understanding of the key issues and alternatives that must be further addressed in the EIA. A key issue is defined as an unresolved question or concern about the potential social, economic or ecological consequences of the development proposal or an issue that will have an influence on the decision. During the scoping phase the potential feasible options for avoiding negative impacts must firstly be identified. Secondly, the potential feasible options for mitigating and managing unavoidable negative impacts must be identified. Thirdly, the potential feasible options for compensating (offsetting) impacts of medium or higher significance that could not be

avoided or further mitigated should be identified. Fourthly, the scoping phase must also identify the potential feasible options for enhancing positive impacts of the development proposal.

Lastly, the Scoping phase must determine the terms of reference for the assessment and any specialist studies required in the next phase of the FIA

In the Screening phase a project and its alternatives are classified according to their likely environmental sensitivity to determine whether or not an EIA is required and what the level of assessment should be. This establishes the basis for the Scoping phase, where key issues to be studied are identified, and terms of reference for an EIA are established.

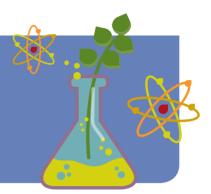
Note that in South Africa there are two main EIA processes that are followed, namely, the Basic Assessment and Scoping and Environmental Impact Reporting processes. "Scoping" is included in both of these EIA processes, but it is undertaken as the first part of an integrated scoping and assessment procedure during the Basic Assessment process, where it generates an integrated scoping and assessment report (the Basic Assessment Report). On the other hand, during the Scoping and Environmental Impact Reporting process there is a separate scoping phase from which a Scoping Report is generated before proceeding to the assessment phase.

3.3 The Specialist Study Phase

While specialist studies are usually prepared during the assessment phase of an EIA, the involvement of specialists might well be required during the Screening or Scoping phases. Specialists are experts in their field, for example, geologist, botanist, economist, etc., appointed to address key issues that were identified during the Scoping phase of the EIA. Their brief is to predict changes that are likely to result from the proposed project and its alternatives, assess the implications of these changes for the socioeconomic and ecological environment, and propose measures that will enhance impacts that are positive and avoid or mitigate those impacts that are negative.

Specialists must also recommend monitoring and review programmes to assess the effectiveness of mitigation and enhancement measures, and set quantifiable standards for measuring these.

The aim of the Specialist Studies Phase is to provide information on both the positive and negative impacts associated with the project alternatives. The studies also present recommendations for actions that may either enhance potential benefits or minimise harmful effects.



3.4 The Integration and Assssment Phase

During this phase of the EIA, the findings of the specialist studies are integrated with other available information and synthesized into an Environmental Impact Assessment Report (EIAR). Depending on the level of assessment required, this takes the form of either a Basic Assessment Report or an Environmental Impact Report. The EIAR includes a description of the impacts that remain after mitigation measures have been applied for the proposed project and its alternatives. This phase of the EIA is also informed by public participation with the I&APs being afforded the opportunity to comment, and the assessment being required to address these comments.

The aim of the Integration and Assessment Phase is to prepare information that assists in making a well-informed project decision (i.e. whether the project should proceed and if so, under what conditions). This information should be presented in a clear, understandable format to the project proponent, authorities and interested and affected parties.

3.5 **Public Participation**

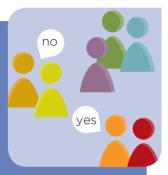
Public participation is required by the NEMA EIA Regulations in South Africa and forms an integral part of all phases of the EIA process. Its purpose is to provide a source of information for the EIA, with the following objectives:

- Inform stakeholders about the proposed project and its alternatives, and all potential environmental impacts:
- Provide an opportunity for the public to present their views, concerns and values, and to influence project design in a positive manner;
- Obtain local and traditional knowledge:
- Reduce conflict through early identification of contentious issues:
- Increase public confidence in the process and provide transparency and accountability in decision making by the project proponent and the authorities

The public participation process will be checked by the competent environmental authority for the following:

- Legal requirements: did the process comply with prescribed minimum legal requirements in terms of procedure?
- Was the consultation effective: did it fulfill the objectives for public participation, as described above?
- Access to and quality of the information provided during the public consultation process: was sufficient relevant information provided in a form that was easily understood? Were stakeholders given sufficient time to read, discuss, and consider the information and its implications? Were responses provided to issues/problems that were raised?
- Timing and venue for public consultation: were the venues and timing of events appropriate? Did it encourage maximum attendance and free exchange of views by stakeholders? Were these stakeholders generally representative of all interested and affected parties?

Public involvement is a fundamental principle of EIA. The inclusion of the views of the affected and interested public helps to ensure that the EIA process is open, transparent and robust. Project proponents must be willing to take into account the information, values and concerns of the community, and to amend the proposal to minimise community concerns, if necessary.



Public involvement improves the transparency and accountability of the decision making process, so that it is equitable and fair, wellinformed and leads to good environmental outcomes.

3.6 Authority Review and Decision Making

The final EIA Report is submitted to the competent environmental authority Department of Environmental Affairs & Development Planning and Department of Mineral Resources, Western Cape, who will review it to determine, firstly, whether its information is adequate for informed decision-making.

Secondly, once it is decided that the information presented is adequate, the authority will either grant or refuse environmental authorisation. This decision is subject to appeal by any I&APs, including the project developer.

The decision on the application will clearly state whether the environmental authorisation is granted or refused for the proposed project. If granted, the environmental authorisation will state which alternative was approved and why, and state the conditions attached to the authorisation.



Implementation of EIA Decision 37

EIA is ultimately about integrated environmental management and its outcomes are only as good as the implementation of the environmental management measures that are formulated during the assessment phase. A key outcome of an EIA process is therefore the formulation of an Environmental Management Programme (EMPr) that is prescribed for implementation through conditions in the environmental authorisation. An EMPr is a programme that sets out the environmental management outcomes to be achieved, the measures that must be taken to achieve the outcomes, roles and responsibilities for these, and requirements for monitoring and reporting.

3.8 Monitoring

Monitoring is important during the implementation of an EIA decision, to ensure that the environmental authorisation and its conditions (including the EMPr) are being complied with. It is also to check whether the assumptions made during the EIA process are shown to be correct, as well as to respond to information gained during implementation and to adjust accordingly. This requires a management approach that responds and adapts to new information that becomes available. The best practicable environmental option for today might well be overtaken by changes in technology, new scientific and other discoveries that lead to better solutions

4. When is the best time to do an EIA?

One of the outputs of an EIA process is a set of enhancement or mitigation measures. These will have an impact on the funding for the proposed project and its alternatives. While some measures will require additional financing, many measures will - in the long-term - save money that can then be used elsewhere. It stands to reason, therefore, that the best time for an EIA in any project life-cycle is during the pre-feasibility and feasibility stages.

This is when the various planning and design options are being investigated. The enhancement and mitigation measures can then be incorporated into these designs, and their funding and scheduling incorporated into the business plan for the project proposal.

The EIA for the Cape Town Stadium during the 2010 Soccer World Cup, for example, identified noise mitigation measures that were incorporated into the design phase, and the costs associated with this were budgeted for in the design and construction costs of the stadium. Infrastructure projects, such as roads and housing, should include the time and costs of doing an EIA in their project proposals from the start of their initial conceptual planning, and costs associated with this EIA process should be budgeted for accordingly. Often, large scale development projects are delayed because the need for an EIA is identified only after other design and planning activities have been completed and the project is moving towards implementation. This creates conflict that could have been avoided by scheduling and funding the EIA at the beginning of the project.

5. Is it expensive to do an EIA?

EIA costs vary from project to project and, amongst other factors are influenced by the type and number of specialist inputs or investigations that might be required. A study by the World Bank noted that the cost of preparing EIAs rarely exceeded one per cent of project costs, with an average of 0.06 per cent to 0.10 per cent of total project costs. The price varies from thousands of rands for a Basic Assessment process of a simple project where existing knowledge is sufficient for assessment and management of impacts, to millions of rands for an EIA of a large

and complex development proposal, where predicting significant impacts requires extensive data collection and analysis and extensive stakeholder engagement. EIA is, however, also about the assessment of and responding to risks on the one hand and opportunities on the other.

EIAs can therefore result in major project savings by timeously identifying and avoiding or responding to risks, while also identifying and responding to opportunities for doing things better. In this regard it can therefore be very costly not to do an EIA.

6. Frequently Asked Questions

How widely in the world is an EIA process applied? 6.1

The first legislation on EIA was the National Environmental Policy Act (NEPA) in the USA at the end of 1969. This was followed over the next 5 vears by:

- Administrative measures:
 - Japan 1972 (EIA guidelines only legislation passed only in 1997),
 - Canada 1973 (Federal Directive).
 - New Zealand 1974 (Cabinet Minute).
- Leaislation:
 - Australia 1974.
 - Colombia 1974.
 - West Germany 1975.

Today, more than 100 countries now have statutory measures that require an EIA for specified types of development projects.

Various factors led to the introduction of EIA in the USA in 1970, such as public concern about the environment, the increasing scale and wider repercussions of major development schemes and the failure of project appraisal and review procedures to account for evident ecological and community impacts. The presence of these factors in many other countries explains the continuing world-wide adoption of the EIA process.



6.2 Who administers EIA in South Africa, that is, who is the competent authority?

Inaccordance with Section 24(2) of the National Environmental Management Act (Act No. 107 of 1998) (NEMA), the national Minister responsible for the environment, or the relevant Provincial Member of the Executive Council (MEC) responsible for environmental management with the concurrence of the Minister, may identify activities that may not commence without environmental authorisation from a competent authority. In order to inform a decision on such an authorisation, the potential consequences for, or impacts on, the environment by listed activities or specified activities must be considered, investigated, assessed and reported on to the competent authority. The general provisions of NEMA that apply to an application for environmental authorisation also apply to, amongst others, the following applications (these are all considered to be an "environmental authorisation"):

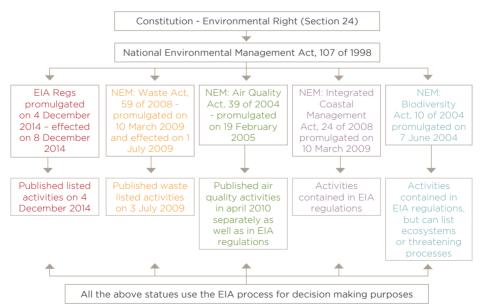
- An environmental authorisation in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) ("NEMA");
- An atmospheric emissions licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM: AQA");

- A waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) ("NEM: WA").
- An environmental authorisation in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 29 of 2002) ("MPRDA").

Therefore, an application for a mining licence, waste management licence or an atmospheric emissions licence must also be subjected to the EIA process, as stipulated in the EIA Regulations promulgated in terms of NEMA

While more than one authorisation might therefore be required, for example, an environmental authorisation, a waste management licence and/or an atmospheric emissions licence, the assessment process to be followed must be in accordance with the requirements stipulated in the EIA Regulations, with specific requirements of the relevant specific environmental management Act having also to be adhered to.

The competent authority for administering EIA in South Africa is either the relevant MEC responsible for environmental management, the Minister responsible for Environmental Affairs or the Minister responsible for Mineral Resources. Section 24C of NEMA specifies when the competent authority



is the Minister for Environmental Affairs or the MEC.

The Minister responsible for mineral resources is the competent authority where the activity is related to prospecting, exploration, extraction or primary processing of mineral or petroleum resources and related activities.

The Minister must be identified as the competent authority if the activity-

- Has implications for international environmental commitments or relations:
- Will take place within an area protected by means of an international environmental instrument, other than-
 - Any area falling within the sea-shore or within 150 meters seawards from the high-water mark, whichever is the greater;
 - A conservancy;
 - A protected natural environment:
 - A proclaimed private nature reserve:
 - A natural heritage site;
 - The buffer zone or transitional area of a biosphere reserve; or
 - The buffer zone or transitional area of a world heritage site:
- A development footprint that falls within the boundaries of more than one province or traverses international boundaries:
- Is undertaken, or is to be undertaken, by
 - A national department:
 - A provincial department responsible for environmental affairs or any other organ of state performing a regulatory function and reporting to the MEC; or
 - A statutory body, excluding any municipality, performing an exclusive competence of the national sphere of government; or
- Will take place within a national proclaimed protected area or other conservation area under control of a national authority.

Applications to undertake an EIA must be submitted to one of the following:

When the national Minister is the competent authority:

Department of Environmental Affairs

Director: Environmental Impact Evaluation

Private Bag X447 Pretoria, 0001

Physical address:

Department of Environmental Affairs

Environment House 473 Steve Biko Road Pretoria, 0002

Queries should be directed to Regional Manager at: Tel: 021-427-1000: Fax: 021-427-1046

Western Cape Government Department of Mineral Resources

Attention: Regional Manager (Western Cape)

Private Bag X9 Roggebaai, 8012

Physical address:

Department of Mineral Resources

Atterbury House, 9th Floor c/o Lower Burg and Riebeeck Street Cape Town, 8001

Queries should be directed to the Directorate: Environmental Impact Evaluation at: Tel: 012-399-9930: Fax: 012-322-1936

When the MEC in the Western Cape is the competent authority:

Western Cape Government **Environmental Affairs and Development** Planning

Attention: Directorate: Development Management (Regions 1 and 2) Private Bag X 9086

Cape Town, 8000

Physical address:

Registry Office

1st Floor Utilitas Building 1 Dorp Street Cape Town. 8001

Queries should be directed to the Directorate: Development Management (Region 1) at: Tel: (021) 483-5829. Fax (021) 483-4372 or (Region 2) at Tel (021) 483-8101. Fax (021) 483-3633

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Western Cape Government **Environmental Affairs and Development** Planning

Attention: Directorate: Development

Management (Region 3)

Private Bag X 6509 George, 6530

Physical address:

Registry Office

George,6529

4th Floor York Park Building 93 York Street

Queries should be directed to the Directorate: Development Management (Region 3) at: Tel: (044) 805-8600, Fax (044) 874-2423

Applications for a waste licence must be submitted to one of the following in the Western Cape:

General waste:

Western Cape Government **Environmental Affairs and Development** Planning

Attention: Director: Waste Management

Private Bag X 9086 Cape Town, 8000

Physical address:

Registry Office

1st Floor Utilitas Building 1 Dorp Street

Cape Town, 8001

Queries should be directed to the Directorate: Waste Management at:

Tel: (021) 483 2728: Fax (021) 483-4425

Hazardous waste:

Department of Environmental Affairs

Attention: Director: Authorisation and Waste Disposal Management Private Bag X447 Pretoria, 0001

Physical address:

Department of Environmental Affairs

Environment House 473 Steve Biko Road Pretoria, 0002

Queries should be directed to the Directorate: Authorization and Waste Disposal Management at: Tel: (012) 399 9759.

Applications for an atmospheric emissions licence (AEL) must be submitted to either the District or Metropolitan municipality as the competent authority that receives, reviews and decides on applications for atmospheric emissions licences in consultation with the relevant Provincial authorities. New establishments will require environmental authorisation before an AEL application is considered.

The details of the difference AEL Licensing Authorities in the Western Cape are provided below:

Licensing Authority	Contact Person	Telephone
City of Cape Town	Ian Gildenhuys	(021) 590 1419
West Coast	Piet Fabricius	(022) 713 5950
Cape Winelands	Marius Engelbrecht	(021) 888 5811
Overberg	Rian Du Toit	083 273 8357
Eden	Johan Schoeman	(044) 382 7214
Central Karoo	Leon Crafford	083 245 2002
DEA&DP	Joy Leaner	(021) 483 2798

How are EIAs implemented in South Africa? 6.3

The implementation of EIAs in South Africa is described below.

Screening: identifying listed activities

As previously discussed in Section 5, screening is the process of:

- Classifying a project according to its likely environmental sensitivity:
- Determining whether or not an EIA is required;
- What the level of assessment should be

In South Africa a formal screening process consists of identifying activities that must be subjected to EIA in terms of Section 24(2) of NEMA. As such, no one may commence with an activity listed in the Listing Notices (Listing Notices 1, 2 and 3 (Government Notices No. R.983, R.984, R.985 of 4 December 2014 refer) without first subjecting it to an EIA process for obtaining environmental authorisation. The level of assessment (either Basic Assessment, or Scoping and Environmental Reporting) has also been prescribed in each Listing Notice. Therefore, in South Africa there is no discretion for a competent authority to exempt someone from having to subject a listed activity to EIA for obtaining environmental authorisation. However, there is some discretion that allows the relevant competent authority to consider granting exemption from some procedural steps that must be followed

In South Africa, the constituent activities of a project and its alternatives are screened, firstly, to see whether they are listed in terms of legislation and, secondly, if listed, whether they exceed specified thresholds for an activity or not. In other words, an EIA is not required if an activity is not listed or, if listed, does not exceed the specified threshold.

In addition to the three Listing Notices published in terms of NEMA, the list of waste management activities under the Waste Act with thresholds was amended in November 2013 in Government Notice 921; as well as a list of activities which require an atmospheric emission licence in terms of the Air Quality Act was promulgated in March 2010 in Government Notice 248. None of these activities may commence without the relevant environmental authorisation from the relevant competent/licensing authority that may either be the national Department of Environmental Affairs or provincial environmental departments, or - in the case of atmospheric emission licences - a metropolitan or district municipality.

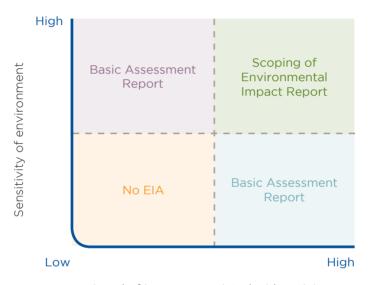
In the Southern Cape, an additional authorisation is required for specified small-scale activities at individual erf level in the Garden Route coastal area from Tergeniet in the west to the Bloukrans River in the east. These are sensitive coastal areas in terms of the Outeniqua Sensitive Coastal Area Extension Regulations under Sections 26 and 28 of the Environment Conservation Act. Certain activities described in these Regulations are prohibited unless a private landowner has obtained a permit from a local authority prior to the activity being undertaken.

Reporting and process requirements

Reporting and process requirements are published in the EIA Regulations (GN R. 982, 4 December 2014). It distinguishes between a Basic Assessment (BA) process with a BA Report, and a Scoping and Environmental Impact Reporting (S&EIR) process with Scoping and Environmental Impact Reports.

An applicant for environmental authorisation of an activity must appoint an Environmental Assessment Practitioner ("EAP") to manage the application on his/her behalf. The EAP must determine which process to follow, that is. whether Basic Assessment or Scoping and EIR.

Broadly speaking, a BA Report is based on information that is readily available. It does not require a separate Scoping phase since the issues, impacts and solutions associated with the activity are known with relative certainty and the environmental risks are manageable. A full EIA with Scoping, on the other hand, is required for activities where new information needs to be generated to address issues and assess impacts that are associated with higher levels of uncertainty and environmental risk in highly sensitive environments. This is illustrated in the figure below:



Level of impact associated with activity

How an activity's environmental sensitivity, described in terms of thresholds, determines whether or not an EIA is required, and what the level of assessment should be, can be understood with the following example of construction of facilities or infrastructure for the generation of electricity:

- No EIA the electricity output is less than 10 megawatts and the facility covers an area of less than 1 hectare.
- Basic Assessment the electricity output is between 10 and 20 megawatts, or less than 10 megawatts and the facility covers an area in excess of 1 hectare:
- Full EIA the electricity output is 20 megawatts or more.

Basic Assessment Report and EMPR

The BA Report must be made available to and potential or registered interested and affected parties including State departments that administer laws relating to the environment. The BA Report will then be revised to include all responses to the comments received during the commenting period. Minimum requirements for public participation are prescribed by Regulations 39 to 44 in the EIA Regulations and Section 24 (4) (a) (v) of the National Environmental Management Act, 1998 (Act 107 of 1998).

Scopina Report

The Scoping Report must be made available to potential or registered interested and affected parties including State departments that administer laws relating to the environment. The Scoping Report will then be revised to include all responses to the comments received during the commenting period. Minimum requirements for public participation are prescribed by Regulations 39 to 44 in the EIA Regulations and Section 24 (4) (a) (v) of the National Environmental Management Act, 1998 (Act 107 of 1998).

To register, the person must either be an organ of state, request to be placed on the register by the environmental assessment practitioner (EAP). or submit comments, or attend a meeting with the EAP and applicant. The report will be made available for comment to all State departments that administer laws relating to the environment for comment. The revised report will include all responses to what was presented in the previous report.

In terms of Section 22(b) of the EIA Regulations, environmental authorisation may be refused after consideration of the Scoping Report if:

- The proposed activity is in conflict with a prohibition contained in legislation; or
- The Scoping Report does not substantially comply with the content requirements of the Regulations, and the applicant is unwilling or unable to ensure compliance with these requirements within the prescribed timeframe.

Investigation and Assessment

The Environmental Impact Report (EIR) includes a draft environmental management programme (EMPr) and Specialist reports that generate new knowledge in order to address key issues in a particular field, for example, an atmospheric emissions study that uses dispersion models to determine the extent of emissions and likely spread of air pollutants. The EIR and Specialist reports are made available for comment to all registered interested and affected parties, including all State departments that administer laws relating to the environment. The revised EIR and Specialist reports will be updated to take into account any comments from interested and affected parties.

Authority Review and Decision Making

The Competent Authority will decide either to grant or refuse environmental authorisation. This decision is subject to appeal. While there is no distinct public participation phase undertaken during the authority review and decision-making stage, the comments received during all the other stages of the EIA process must be considered by the authority during the authority review and decision-making stage.

The approval or refusal may be in whole or in part, that is, only part of what was applied for is approved. An application may also be approved with conditions that the applicant must comply with. Should it grant environmental authorisation, the environmental authorisation will include the following:

- Approval of the proposed project or an alternative because:
 - It meets legal requirements.
 - It meets the general purpose better than the other alternatives.
 - It is the best practicable environmental option, in that it is the feasible option that best avoids and/or mitigates negative impacts, while best enhancing positive impacts
- Reasons and reasoning to show that:

- All potentially adverse and beneficial environmental impacts were fully considered.
- The benefits assessed outweigh adverse environmental impacts.
- Implementation of the proposed project or an alternative will be socially, economically and environmentally acceptable.
- Measures to address mitigation and statements on further responsibilities in an EMPr.

Public participation

Section 23(2)(d) of NEMA calls for "adequate and appropriate opportunity for public participation in decisions that may affect the environment". One of the NEMA principles in Section 2(4)(f) is that "the participation of all interested and affected parties [I&APs] in environmental governance must be promoted". These I&APs must be afforded an opportunity to participate throughout the assessment process. Any applications for exemption must also be clearly communicated to I&APs that includes relevant organs of State, such as CapeNature, Heritage Western Cape, South African Heritage Resources Agency.

Regulation 43(1) states that registered I&APs are entitled to comment on all written submissions made to the competent authority, and to bring to its attention any issues which they believe may be of significance to the consideration of the application, on condition that they disclose any direct business, financial, personal or other interest which they may have in the approval or refusal of the application.

Appropriate participation measures should be put in place to deal with the range of cultural and language requirements of I&APs. The language used by I&APs must be taken into account when serving a notice, selecting a newspaper, holding a public meeting and writing a report.

Regulations 39 to 44 in the EIA Regulations specify that notices to I&APs must be in the form of a site notice, written notice to different parties, placing advertisements in newspapers, or a combination thereof as agreed to by competent authority. This includes notifying the owner or person in control of land if the applicant is not the owner or person in control of such land. Alternative methods may also be required, with the agreement of the competent authority, where people want to participate in the EIA process but cannot because of:

- Illiteracy:
- Disability: or
- Any other disadvantage.

The EIA Regulations allow for public participation to be initiated prior to the lodging of an application for authorisation with the Department. The EIA Regulations specify timeframes for all commenting periods. Excluded from the timeframes is the period from 15 December to 5 January. These are:

- Registration: The applicant or proponent (in cases where the I&AP registration process precedes the application for authorisation), must open and maintain a register of I&APs. A registered I&AP is entitled to comment on all reports released during the public participation process.
- Commenting Period on Reports. Basic Assessment Reports, Scoping Reports and Environmental Impact Reports must be made available to I&APs for comment for a minimum 30-day period, with the exception of State departments, who have a maximum 30-day period in which to provide comment. All comments must be recorded, responded to and included in the Comments and Responses Report to be submitted with the revised report. If necessary, any amendments in response to comments received must be effected in the report itself.
- Commenting Period on Additional Information/Revised Reports. If significant changes have been made or significant new information has been added to the BA Report or EIR, the applicant/EAP may notify the Competent Authority that additional 50 days will be required. This must include an additional minimum 30-day commenting period to allow registered I&APs to comment on the revised report.
- Notifying I&APs of the Department's Decision. The applicant must, in writing notify registered I&APs of the outcome of the decision on authorisation within 14 days of the date the decision was made by the competent authority. The reasons for the decision must be attached to the notice, and I&APs must be alerted to the fact that an appeal may be lodged against the decision.

The Comments and Responses Report must also include a description of the public participation process followed.

How long does an EIA take? 64

If a Basic Assessment or Scoping & EIR is well-managed, the timeframe which includes those timeframes that are prescribed - is as follows:

- Basic Assessment process, from the date that the application is submitted to the date that the application is decided should take between 202 and 252 days, depending on whether the Competent Authority has been notified by the applicant that an additional 50 days would be required.
- Scoping and EIR process, from the date that the application is submitted to the date that the application is decided should take between 305 and 355 days, depending on whether the Competent Authority has been notified by the applicant that an additional 50 days would be required.

In the event that the scope of work must be expanded based on the outcome of an assessment done in accordance with these Regulations, which outcome could not be anticipated prior to the undertaking of the assessment, or in the event that exceptional circumstances can be demonstrated, the competent authority may, prior to the lapsing of the relevant prescribed timeframe, in writing, extend the relevant prescribed timeframe and agree with the applicant on the length of such an extension.

Can an EIA process be shortened? 6.5

The length of the EIA process may be shortened through judicious application of, amongst others, the granting of certain permissions, written agreements and exemptions, as well as through the development of Environmental Management Frameworks, as described below.

Granting of certain permissions

The EIA Regulations allows for permission to be granted by the competent authority for:

A combined EIA process - for an application that also requires authorisation in terms of other legislation, to avoid duplication in regulatory processes and the submission of information.

- A single application if, within the area of jurisdiction of a competent authority:
 - A proponent or proponents intend(s) to undertake one or more than one activity of the same type at different locations:
 - A proponent or applicant intends undertaking more than one activity as part of the same development:
 - One or more proponents intend undertaking interrelated activities at the same or different locations:
- A maintenance management plan for maintenance work along a river or the coast, where maintenance work undertaken in accordance with the agreed plan does not require environmental authorisation.

Written agreements

NEMA provides for competent authorities to enter into a written agreement with organs of state in order to avoid duplication in the submission of information or the carrying out of a process. In other words it allows for an integrated process. Based on such a written agreement, a competent authority may consider the process undertaken in terms of the other legislation as "adequate for meeting the requirements of Chapter 5". However, such a process must comply with the minimum requirements in S24(4) of NEMA, including,

- Cooperation & coordination between authorities:
- The general objectives of integrated environmental management and national environmental management principles are taken into account in the findings of the assessment:
- Investigation of impacts and assessment of significance;
- Public participation:
- Investigation of alternatives:
- Investigation of mitigation measures:
- Investigation of heritage impacts:
- Reporting on gaps in knowledge, the adequacy of predictive methods and underlying assumptions, and uncertainties;
- Investigation and formulation of arrangements for monitoring and management of impacts.

Exemptions

An applicant may apply in writing to the Competent Authority for exemption from a provision of NEMA, the regulations or any notice issued under the Act. This excludes exemption from the requirement to obtain an environmental authorisation, or the minimum requirements for EIA set out in NEMA S24(4)(a).

A public participation process in the manner prescribed by the EIA Regulations must be conducted for such an application for exemption. In appropriate circumstances, a member of the public may be allowed by the Competent Authority to make oral representations.

If an application for exemption is granted, the Minister, Minister responsible for mineral resources or MEC, as the case may be, must issue a written exemption notice to the person applying for exemption.

While the legislation does not allow for exemption to be granted from the requirement to subject a listed activity to EIA (which must meet the minimum requirements set out in Section 24(4) of NEMA) and to obtain environmental authorisation, it does allow for exemption from certain of the procedural and content requirements. A competent authority may grant exemption from a provision of NEMA, on condition that:

- The granting of the exemption is unlikely to result in significant detrimental consequences for or impacts on the environment:
- The provision cannot be implemented in practice in the case of the application in question; or
- The exemption is unlikely to adversely affect the rights of interested or affected parties.

When applying for exemption, a notice of the intended exemption application, as well as the proposed method of notifying the I&APs of the intention to apply for exemption, must first be submitted to the competent authority. Such a notice must also specify the provisions from which exemption will be sought, how and to whom comments from I&APs must be submitted, and the date for such comments.

The Minister, Minister responsible for mineral resources or MEC, as the case may be, may-

- (a) from time to time review any exemption granted in terms of these Regulations; and
- (b) on good grounds suspend, withdraw or amend the exemption, or any part thereof.

Environmental Management Frameworks (EMFs)

On 18 June 2010 a set of regulations (the "EMF Regulations") was promulgated in Government Notice No. R 547, in which the procedures for the environmental authority to develop an EMF for a particular geographical area were set out. The EMF provides information on, amongst others, the biophysical and socio-cultural systems of the geographical area, indicates where specific land uses may best be practised, and provides performance standards for maintaining appropriate use of such land. Ideally, an EMF should be done as part of a Municipality's Spatial Development Framework.

All EIAs undertaken within the geographical area for which an EMF has been done must take into account the content of the EMF. In this way, an EMF lessens the burden of information gathering for project-level EIAs. since it would provide information on the environment in the geographical area.

66 What determines whether an EIA application for environmental authorisation is approved or not approved?

The purpose of an EIA is to consider, assess and evaluate the social, economic and ecological impacts of activities, including disadvantages and benefits. Decisions must, therefore, be appropriate in the light of such considerations and assessment. The reasons, thus, for granting or refusing environmental authorisation will vary from project to project based on the facts in each case. Decisions must be based on the merits of each application, based on the information on the relevant considerations generated during the EIA process and placed before the decision maker.

Environmental authorisation will be granted if the process has met the legal requirements and the negative ecological impacts of the project and its alternatives can be mitigated to an acceptable level, while ensuring that the social and economic implications of the project are acceptable. At times, the best practicable environmental option might be that for which certain impacts of medium or higher significance could not be avoided or further mitigated, but the development proposal can be justified if adequate compensation (offsets) is provided for the impacts. However, where the competent authority is of the opinion that the project will result in unacceptable ecological impacts, or have unjustifiable social and economic implications, environmental authorisation will be refused.

What are the relevant considerations the competent 6.7 environmental authority has to take into account when deciding on an environmental authorisation?

EIA decisions are not taken in a vacuum. There are broader public policy imperatives that must be taken into account, and the legislation highlights specific relevant considerations that must be considered during the EIA process in order to determine the need and desirability of a project. Relevant considerations must be addressed during the EIA and taken into account when making a decision, as they provide an objective test of whether the decision has served the public interest. A decision must, therefore, be based on the merits of each application, based on the information on the relevant considerations generated during the EIA process and placed before the decision maker.

The factors to be considered can be categorized into those that are related to the EIA process and the information it has generated, and those that pertain to the process of making the decision on environmental authorisation. These are discussed below.

- The procedures that were followed during the EIA process, and the information presented in its reports:
 - Compliance: Did the EIA process and the reports that emanated from it comply with all legal requirements and the minimum requirements of Sections 24(4)(a)-(c) of the National Environmental Management Act 107 of 1998, in particular.
 - Completeness: Were all potentially significant impacts identified and evaluated for the proposed project and its alternatives. Were there feasible and reasonable alternatives to the activity which is the subject of the application, were there any feasible and reasonable modifications or changes to the activity that may have minimises harm to the environment. Were the comments of any organ of state charged with the administration of any law that relates to the activity in question taken into account. Were public comments taken into account in the assessment of impacts.

- Adequacy: Were all material considerations, that is, key issues that are relevant for decision making, addressed in sufficient detail. Were the analyses and data that supported the assessment sufficient for decision making. Were the underlying assumptions and uncertainties that were encountered when compiling the information reported on, as well as gaps in knowledge and the adequacy of predictive methods.
- Public policy: Was government policy considered and does the EIA application comply with any guidelines, departmental policies and decision making instruments that have been developed.
- Integrity: Was the EIA process fair, open and transparent, Is there evidence of internal logic and consistency in the reports, and are the methods and their conclusions valid
- Accuracy: Is the information correct and technically sound. If models were used are they (with their assertions and assumptions) accurate
- Capacity: Does the applicant have the ability to implement mitigation measures and to comply with any conditions of authorisation.
- Did the decision making procedure comply with the following requirements:
 - Administrative justice. Section 6(2)(e)(iii) of the Promotion of Administrative Justice Act 3 of 2000 (PAJA) requires that administrative decisions be lawful, reasonable and procedurally fair, and take into account all relevant considerations.
 - Consideration of relevant considerations. These have already been discussed above, and they apply alongside the principles set out in Section 2 of the National Environmental Management Act 107 of 1998 (NEMA) that apply throughout the Republic to the actions of all organs of state that may significantly affect the environment.

- Rational connection between the information considered and the decision that was made. PAJA requires a rational link between the decision to approve or refusal to approve the EIA and:
 - The purpose for the decision.
 - The information that was considered when this decision was taken, and
 - The reasons for the decision

A rational connection means that there is a logical and reasonable relationship between the information that was considered and the decision that was made. In other words, how the facts meet the criteria for making the decision. In terms of the considering the merits of different alternatives it is, however, important to remember that while the best environmental option is to be pursued, there are limitations to what is in fact feasible and practical in terms of the realities of time, costs and technology. The ultimate decision, therefore, is about deciding which option is the best practicable option, that is, the feasible option that best avoids and/or mitigates negative impacts to acceptable levels, while best enhancing positive impacts - given the financial constraints.

Regulations 6.8

The National Appeal Regulations regulate the submission, processing and consideration of, a decision on an appeal. They apply to decisions by a Competent Authority in terms of the following:

- Environment Conservation Act, 1989 (Act No. 73 of 1989);
- National Environmental Management Act, 1998 (Act No. 107 of 1998);
- National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004):
- National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004); or
- National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008); and,
- Subordinate legislation made in terms of any of these Acts.

No appeal is available if the Minister or MEC took the decision himself or herself in his or her capacity as the competent authority, issuing authority or licensing authority.

An appeal against a decision by an official or municipal manager acting under delegated authority from a metropolitan, district or local municipality must be submitted, processed and considered in terms of section 62 of the Local Government: Municipal Systems Act, 2000 (Act No 32 of 2000).

An appellant must submit the appeal in writing to the appeal administrator. with copies of the appeal to the applicant, any registered interested and affected party and any organ of state with interest in the matter, within 20 days from:

- The date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or
- The date that the notification of the decision was sent to the applicant by the competent authority, issuing authority or licensing authority.

Responding statements, if any, must be submitted by the applicant, the decision-maker, interested and affected parties and organ of state to the appeal authority and the appellant within 20 days from the date of receipt of the appeal submission.

The appeal authority must reach a decision on an appeal, and notify the appellant, applicant, and any registered interested and affected party within 20 days of the recommendation on the appeal by the appeal administrator. The notification must contain written reasons for the decision.

What is the "best practicable environmental 6.9 option"?

We first need to understand the difference between "practical" and "practicable".

Practical means something that is concerned with actual use or practice, or as a synonym for useful. Practicable is a bit more than that - it means capable of being done, that is, a synonym for doable and feasible. Another important distinction is that practical applies to people and skills, while practicable applies to plans or actions.

The term "best practicable" was first used in Britain in section 5 of their Salmon Fishery Act of 1861 and their Alkali Amendment Act of 1874, that dealt with discharging of noxious gases from alkali works. However, as societal values develop and advances in techniques are made, what is regarded as "reasonably achievable", "best practicable" and "best available" at any particular time may change.

The concept of "best practicable environmental option" was introduced to Britain in 1976 by the Royal Commission on Environmental Pollution (RCEP), as part of managing waste and other environmental concerns.

RCEP provided the following definition of BPEO in its Twelfth Report in 1988:

"... the outcome of a systematic and consultative decisionmaking procedure which emphasises the protection and conservation of the environment across land, air and water.

The BPEO procedure establishes, for a given set of objectives, the option that provides the most benefit or least damage to the environment as a whole, at acceptable cost, in the long term as well as in the short term."

The key characteristics of a BPEO study are catered for in the EIA process. These are:

- It is a structured and systematic process done in an open and transparent manner, and its reasoning, data and assumptions are made explicit by documenting them.
- All alternatives are evaluated for environmental quality and practicability, which includes financial costs and/or benefits, as well as wider social and economic considerations. In addition, the values and perspectives of a range of stakeholders are also taken into account.
- It Involves consideration of environmental effects in both the short term and the long term.
- It is not necessarily restricted to direct emissions of pollutants to land, air and water, but may also consider life cycle issues such as energy use or carbon emissions.
- The aim of the study is to ensure that the rationale behind a decision, whether these be technical, scientific and more qualitative judgments, is made visible.
- Wherever possible, BPEO studies should be undertaken at the planning stage.

6.10 What can go wrong with an EIA - why does it sometimes fail?

An EIA can be delayed or fail for the reasons discussed below.

- **6.10.1** The process followed was deficient.
 - The EIA may have commenced too late in the project lifecycle, and it is delayed because:
 - There is a lack of technical data and time is needed to collect, analyse and assess it, for example, wave, wind or current measurements:
 - The information provided by the EIA is insufficient for a decision by the authority and time is needed to collect and prepare additional information;
 - It has to comply with statutory time frames, for example. periods for public comment on reports produced during the EIA process. This is not a delay for the EIA, but for the project.
 - The EIA or the project itself is not managed to a schedule.
 - The EIA practitioner has to re-do certain procedures in the process, either because they were never done, or done inadequately.
- 6.10.2 The reports that were produced during the EIA process have technical shortcomings and are inadequate.
 - There isn't sufficient information for the authority to make a decision, for example.
 - Poor project rationale need and desirability isn't justified;
 - Project purpose and alternatives are too narrowly defined, for instance, an EIA for a new road does not consider. public or rail transport as alternatives:
 - Inadequate description of the project and/or affected environment, for instance, the project activities at the site are described, but not secondary activities such as access routes through small towns or on narrow rural roads:
 - The content doesn't conform to what is prescribed by law.

6.10.3 Contributions from various roleplayers.

The Applicant:

- Reasonable and feasible proposal submitted?
- Is the proposal "needed" and desirable?
- Does the applicant comply with the requirements in the regulations, e.g., are documents signed originals, was the declaration completed, is the proposal lawful?

EIA practitioner:

- Is the practitioner independent, as defined by law?
- Practitioners sometimes "overreach". that is, to save money on specialist studies they make a professional iudament that is outside their field of expertise. This may later be guestioned and the authority may require a specialist study anyway:
- The practitioner is ignorant of what the law requires, and produces an EIA process and reports that are deficient and not approved.
- Unrealistic scheduling for completion and coordination of complex studies because of unwise time and budget constraints.

Specialists:

- Specialists sometimes recommend mitigation measures that are impractical or inappropriate:
- Some specialists are strong on description but weak on assessment and answering the "so what" questions;
- Terms of reference for specialist studies do not adequately address key issues raised during the scoping process:
- Poor integration between specialists and the findings of their reports.

Public:

- Members of the public sometimes do not engage according to agreed procedures and time frames.
- Vital issues may be misrepresented or not adequately addressed when representatives of civil society organisations express their own views rather than those of their constituency.
- If interested and affected parties make unrealistic demands, it can delay the EIA process.

Authorities:

- They are expected to know everything about everything. New information that becomes available or results of law reform may make it difficult to integrate timeously all information in the decision making process:
- Limited timeframes to review applications within a hierarchy of decision making and prioritization of work;
- Environmental authorisations that are poorly drafted and difficult to implement and later enforce:
- During the processing of an application the statutory timeframes applicable to the authority may be missed.
- Decisions on applications which are appealed, may significantly contribute to delays in the implementation of a proposal, even if the appeal decision grants environmental authorization for a development proposal.
- **6.10.4** The EIA presents a simplistic finding that does not take into account complex interconnections and feedback loops in the environment. This would be because the socio-ecological system that must be assessed requires an inter- or transdisciplinary approach (a team of specialists provides an integrated study on the various issues), but the EIA adopts a multi-disciplinary approach (separate specialist teams provide studies that are integrated into one report). Where there are separate specialist teams, the environmental practitioner should provide these separate teams an opportunity to comment on each other's terms of references and report findings in a specialist workshop, but this seldom happens.
- 6.10.5 The FIA is not the most suitable tool to address the issues raised during the EIA process, and it needs to be supplemented with other tools. For instance, some issues raised can only be addressed at a more strategic level with tools like strategic environmental assessment (SEA) or sustainability assessment (SA); these should have preceded the EIA process. The EIA, as a location-specific project-based assessment tool, may have limitations when addressing some "so-what" questions, for example, the macroeconomic impact of an aluminium smelter, or an assessment of human wellbeing.

- **6.10.6** The role of an EIA is misunderstood project proponents expect it to justify a project, rather than assess the impact of activities.
- **6.10.7** Assignment of significance to impacts is inconsistent;
- **6.10.8** It is difficult to integrate separate specialist findings that deal with observations and measurements that are a snapshot of processes that have natural cycles over millennia.
- **6.10.9** The process can be delayed further if environmental authorization is appealed, and the appeal decision is taken to the High Court on review. For example, if people opposed to power from nuclear or fossil fuel refuse to accept even a finding of low or medium but manageable environmental risk...

6.11 What GOFS RIGHT with an FIA?

The benefits of EIA include the following:

- The project complies with environmental standards that are designed to avoid or reduce social and environmental degradation;
- A project proponent makes decisions on location, land use and the scale, layout and design during early ph ases of the project life-cycle. By addressing environmental issues that the EIA uncovers, the project proponent avoids or reduces more costly mitigation measures at a later stage.
- The burdens on society of negative environmental impacts are avoided or reduced, and the benefits of positive impacts, such as growth in social and economic capital, are enhanced:
- Appropriate measures are identified to avoid, mitigate, monitor and manage negative impacts of the proposed project and/or its alternatives, and to enhance and manage positive impacts;
- Environmental resources are used appropriately and efficiently because the environmental design of the proposed project and/or its alternatives have been improved;

- There are savings in capital and operating costs because unanticipated risks and impacts were identified by the EIA. Such costs might well have escalated had they required rectification later in the project cycle;
- Because the EIA process is open and transparent with opportunities for public involvement, there is improved public acceptance for the proposed project and/or its alternatives:
- The EIA process facilitates informed decision making, which includes setting environmental terms and conditions for implementing the proposal.

7. Summative Remarks

The diversity and natural beauty of the Western Cape is an asset that delivers ecological, social and economic benefits. The EIA is a process used to ensure that ecological integrity is maintained and enhanced, while maximising the associated socio-economic benefits.

This document aims to provide an introduction to the EIA process, a tool used in many countries around the world to aid in decision making, and how it is administered in South Africa. The EIA process provides information on all potentially adverse and beneficial impacts of human actions on the environment. This information is used to guide a decision on whether environmental authorisation should be granted or refused. In general, an application for environmental authorisation in terms of the NEMA EIA regulations for a development proposal will be granted if ecological integrity will be maintained and the potential benefits from the proposed project or its alternatives outweigh the adverse impacts.

Notes

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