



Department of Environmental Affairs and Development Planning
Departement van Omgewingsake en Ontwikkelingsbeplanning
ISEbe leMicimbi yeNdalo esiNgqongileyo noCwangciso loPhuhliso



Chief Directorate : Environmental and Land Management

**NEMA ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS
GUIDELINE AND INFORMATION DOCUMENT SERIES**

GUIDELINE ON ALTERNATIVES

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ABBREVIATIONS

DEA&DP	Department of Environmental Affairs and Development Planning
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
I&APs	Interested and Affected Parties
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)

1. INTRODUCTION

On 21 April 2006 the Minister of Environmental Affairs and Tourism promulgated regulations in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (“NEMA”) (Government Notice No. R. 385, R. 386, and R. 387 in Government Gazette No. 28753 of 21 April 2006 refer). The regulations replace the environmental impact assessment (“EIA”) regulations that were promulgated in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989) in 1997 and introduce new provisions regarding environmental impact assessment.

This guideline forms part of this Department’s *NEMA Environmental Impact Assessment Regulations Guideline and Information Document Series* and provides information and guidance for applicants, authorities and interested and affected parties (“I&APs”) on this Department’s requirements for the consideration of alternatives during the EIA process. This guideline should be read in conjunction with NEMA and the regulations and is not intended to be a substitute for the provisions of NEMA or the regulations in any way.

2. DEFINITIONS, TERMS AND CONCEPTS

“**alternatives**”, in relation to a proposed activity, means different means of meeting the general purposes and requirements of the activity, which may include alternatives to –

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;

- (d) the technology to be used in the activity; and
- (e) the operational aspects of the activity;

“applicant” means a person who has submitted or intends to submit an application to the Department in compliance with the provisions of the NEMA EIA Regulations;

“competent authority”, means the authority indicated in regulation 3 of the NEMA EIA Regulations as the competent authority for the application;

“days” means calendar days.

Note: When a period of days must in terms of these Regulations be reckoned from or after a particular day, that period must be reckoned as from the start of the day following that particular day to the end of the last day of the period, but if the last day of the period falls on a Saturday, Sunday or public holiday, that period must be extended to the end of the next day which is not a Saturday, Sunday or public holiday.

“Department”, means the Western Cape Department of Environmental Affairs and Development Planning;

“Environmental Assessment Practitioner” means the individual responsible for planning, management and co-ordination of environmental impact assessments, strategic environmental assessments, environmental management plans or any other appropriate environmental instrument introduced through regulations;

“NEMA EIA Regulations” means the Environmental Impact Assessment Regulations in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (Government Notice No. R. 385, R. 386, and R. 387 in the Government Gazette of 21 April 2006 refer).

“no-go option” – *this is the option of not proceeding with the activity* , implying a continuation of the current situation / status quo.

“**previous regulations**” means the regulations published in terms of sections 26 and 28 of the Environment Conservation Act, 1989 (Act No. 73 of 1989), by Government Notice R. 1183 of 5 September 1997, as amended by Government Notice R. 1355 of 17 October 1997, Government Notice R. 448 of 27 March 1998 and Government Notice R. 670 of 10 May 2002.

“**Registered I&APs**” refers to only those interested and affected parties (“I&APs”) whose name is recorded in the register opened for an application (in terms of Regulation 57). Only those I&APs that submitted written comments and/or attended public participation meetings or has requested in writing for their names to be added to the register, will be recorded in the register. All organs of state, which have jurisdiction in respect of the activity to which the application relates, are also recorded in the register.

3. PURPOSE

This guideline provides an overview of how to consider alternatives in the Environmental Impact Assessment (“EIA”) process. It is aimed at government authorities, non-governmental organizations, environment assessment practitioners, project applicants, and interested and affected parties. The guideline will create a common understanding amongst the different stakeholders of what is required in the identification and assessment of alternatives.

It includes information on:

- (a) the legal requirements for identifying and assessing alternatives in the EIA process;
- (b) overview of the range of alternatives that could be considered; and
- (c) a summary of the role of alternatives in the EIA process.

4. IDENTIFICATION AND ASSESSMENT OF ALTERNATIVES

4.1 NEMA

In order to give effect to the general objectives of integrated environmental management laid down in Chapter 5 of the National Environment Management Act (Act 107 of 1998) (“NEMA”), the potential impact on the environment of listed activities must be considered, investigated, assessed and reported on to the competent authority. The procedures for the investigation,

assessment and communication of the potential impact of activities must, *inter alia*, include with respect to every application for an environmental authorisation -

- (a) an investigation of the environment likely to be significantly affected by the proposed activity and alternatives thereto;
- (b) an investigation of the potential impact of the activity and its alternatives on the environment and assessment of the significance of that potential impact, and
- (c) an investigation of mitigation measures to keep adverse impacts to a minimum, as well as the option of not implementing the activity.

It is clear from the above that the consideration of alternatives is an integral part of the EIA process.

4.2 The NEMA EIA Regulations

In terms of the NEMA EIA Regulations one of the criteria to be taken into account by the competent authority when considering an application is “*any feasible and reasonable alternatives to the activity which is the subject of the application and any feasible and reasonable modifications or changes to the activity that may minimise harm to the environment*”. Alternatives are defined in the Regulations as “*different means of meeting the general purpose and requirements of the activity*”. It is therefore necessary to provide a description of the need and desirability of the proposed activity and any identified alternatives to the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives will have on the environment and on the community that may be affected by the activity.

The “*feasibility*” and “*reasonability*” of an alternative will therefore be measured against the general purpose, requirements and need of the activity and how it impacts on the environment and on the community that may be affected by the activity. It is therefore vital that the identification, investigation and assessment of alternatives address the issues/impacts of a proposed development.

Note: Alternatives must be identified as early as possible in the process. It must however be remembered that alternatives are to be considered throughout the process. (See 5.1 below dealing with alternatives and modifications and changes to activities). The identification of alternatives should be broad, objectively done and well documented.

Key criteria when identifying alternatives are that they should be “feasible” and “reasonable”. The consideration of alternatives must be well documented and substantiated, with an explanation as to why certain alternatives are not considered in detail. Stakeholders and the public must be afforded an opportunity to provide inputs into the consideration of alternatives.

The Competent Authority may request that additional alternatives be considered during the Basic Assessment or Scoping and EIA process.

On deciding on an application the competent authority may approve an alternative or any part thereof in terms of Regulation 36(2) as if it was applied for.

4.3 Alternatives and Public Participation

Interested and affected parties must be notified of a proposed activity and its alternatives and must be afforded an opportunity to provide inputs into the consideration of alternatives. Refer to the Department’s Guideline on Public Participation which forms part of the Department’s *NEMA Environmental Impact Assessment Regulations Guideline and Information Document Series* for further information in this regard.

5. TYPES OF ALTERNATIVES

5.1 Alternatives and Modifications and Changes to activities

Although alternatives are to be identified and considered during the assessment process (Basic Assessment or Scoping and EIA), the need might also arise to consider modifications and changes to activities in order to prevent and/or mitigate environmental impact identified during the assessment process. Whereas discrete alternatives are therefore generally identified during the early stages of a project (pre-feasibility and feasibility) and comparatively assessed during the assessment phases (Basic assessment and Scoping and EIA processes), incremental modifications and changes to activities might also be proposed later in the process when a development proposal is amended in an incremental manner throughout the EIA process to address impacts and issues as and when they are identified. Both the identification and consideration of alternatives and the generation and consideration of modifications and changes to activities must be well documented.

5.2 Types of Alternatives

“Alternatives” are defined in the regulations as different means of meeting the general purpose and requirements of the activity, which may include alternatives to: (a) the property on which or location where it is proposed to undertake the activity; (b) the type of activity to be undertaken; (c) the design or layout of the activity; (d) the technology to be used in the activity; and (e) the operational aspects of the activity. However, a range of alternatives exists, not all, which are appropriate for each EIA.

TYPE OF ALTERNATIVE	EXPLANATION/EXAMPLES
Location alternatives	Location alternatives refer to both alternative properties as well as alternative sites on the same property.
Activity alternatives	Incineration of waste rather than disposal at a landfill site/ Provision of public transport rather than increasing the capacity of roads.
Design or layout alternatives	Design: E.g. Different architectural and or engineering designs Site Layout: Consideration of different spatial configurations of an activity on a particular site (e.g. Siting of a noisy plant away from residences).
Technology to be used in the activity/Process alternatives	Consideration of such alternatives is to include the option of achieving the same goal by using a different method or process (e.g. 1000 megawatt of energy could be generated using a coal-fired power station or wind turbines).
Demand alternatives	Arise when a demand for a certain product or service can be met by some alternative means (e.g. The demand for electricity could be met by supplying more energy/using energy more efficiently by managing demand).
Input alternatives	Input alternatives are applicable to applications that may use different raw materials or energy sources in their process (e.g. Industry may consider using either high sulphur coal or natural gas as a source of fuel).
Routing alternatives	Consideration of alternative routes generally applies to linear developments such as power lines, transport and pipeline routes.
Scale alternatives	Activities that can be broken down into smaller units and can be undertaken on different scales (e.g. for a housing development there could be the option 10, 15 or 20 housing units. Each of these alternatives may have different impacts).

Note: The No-Go Option - The assessment of alternatives must at all times include the consideration of the “no-go” option as a baseline against which all other alternatives must be measured. The option of not proceeding with the activity must always be assessed. It is best practise to consider at least two alternatives against the no-go option.

6. ROLE OF THE VARIOUS PARTIES

6.1 The role of the EAP according to the regulations is *inter alia* to:

- consider feasible and reasonable alternatives;
- afford opportunities for interested and affected parties to provide input into the identification and evaluation of alternatives;
- disclose all information relevant to the identification and evaluation of alternatives to the applicant and competent authority;
- document the process of identification and selection of alternatives (providing the criteria used to select certain alternatives and how the level of investigation applied to each alternative was established).
- provide a comprehensive consideration of the impacts of each of the alternatives; and
- document the process of evaluation of alternatives.

6.2 The role of the applicant in terms of the regulations is *inter alia* to:

- consider all feasible and reasonable alternatives (not only the preferred option); and
- provide the EAP with access to all information at the disposal of the applicant regarding the application.

6.3 The role of I&APs in terms of the regulations is to *inter alia*:

- declare their interests
- assist in the identification of alternatives, particularly where local knowledge is required;
- within the specified timeframes, provide comment on the alternatives being proposed.

7. REFERENCES

DEAT (2004) Criteria for determining alternatives in EIA, Integrated Environmental Management, Information Series 11, Department of Environmental Affairs and Tourism (DEAT), Pretoria.

DEAT (2005) Guideline 5: Assessment of Impacts and Alternatives, Integrated Environmental Management Guideline Series, Department of Environmental Affairs and Tourism (DEAT), Pretoria.

DEAT (2006) *Environmental Impact Assessment Regulations in terms of the National Environmental Management Act (Act No. 107 of 1998)* (Government Notice No. R. 385, R. 386, and R. 387 in Government Gazette No. 28753 of 21 April 2006 refer).