

Environmental Legislation and Managed Land Settlement

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Introduction

This report investigates the impact of environmental legislation for managed land settlement.

The National Environmental Management Act, 1998, (Act No. 107 of 1998) (NEMA) guarantees access to government information about the state of the environment, actual or future threats and hazardous waste if the request is reasonable. NEMA states that before certain listed development activities can be undertaken, an Environmental Impact Assessment (EIA) must be undertaken and Environmental Authorisation obtained. The environmental departments of the various provincial governments are responsible for evaluating applications that have been submitted in terms of the EIA Regulations. The purpose of these Regulations is to regulate procedures and criteria as contemplated in Chapter 5 of the Act for the submission, processing, consideration and decision of applications for environmental authorization of activities and for matters pertaining thereto.

The regulations identify two classes of projects that require some form of environmental approval and list them according to two schedules.

Listing 1 (No. R. 386) of the EIA Regulations lists those for which a basic assessment is mandatory. From the information that is stated in the EIA Regulations, Activities 1 to 5 as discussed below fall under listing 1. This means that if a project falls within those guidelines an applicant would have to complete a basic assessment report. In order for a basic assessment report not to be required the developer would have to make sure that the activity that is undertaken is less than the stated ranges.

Listing 2 (No. R. 387) of the EIA Regulations are those activities that require a scoping exercise and a full EIA. There is no discretion not to require EIA simply because other information about the project is available. Activity 6, 7, and 8 as discussed below falls under listing 2 meaning that a developer would need to conduct a scoping exercise and an EIA for this activity to be approved. However even though an activity may be listed under listing 2 there is a possibility that a full EIA would not have to be completed but the scope and purpose of the project would be taken into consideration when the decision is made on whether the activity will undergo the full EIA process or not. A basic assessment can not be done for an activity where scoping and EIA process is indicated.

Examples of activities for which basic assessment is required

The activities listed below are drawn from the listing 1 that relate to the development of low income housing as per a managed land settlement process, for which a basic assessment report is required. Depending on the size of the project, the infrastructure development could result in:

- physical impacts on ecosystems;
- visual impact;
- disturbance of cultural heritage (archaeological and historical remains)
- habitat loss;
- habitat fragmentation;
- disturbance of species movements and populations;
- introduction of invasive alien species; and
- increased run-off from surface areas (contamination by petro-chemicals).

Initial construction often leads to ribbon development or additional construction with increasing cumulative effects

Activity 1: The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.

Road construction and its supporting infrastructure (e.g. toll booths) may have the following **impacts**:

- ecosystem degradation by creating a barrier between ecosystems;
- Increasing road strikes of birds and wildlife (especially slow-moving organisms like frogs, tortoises); soil erosion.
- Interruption of ecosystem processes, especially if the road is built through sensitive areas (i.e. streams, wetland or alongside coastal strip).

There may also be socio-economic opportunities and impacts. Increased access to remote areas may bring economic benefits but may also result in transmission of diseases like HIV, degradation of natural areas due to increased human visitation and negative impacts on local livelihoods and culture.

Activity 2: The transformation of undeveloped, vacant or derelict land to establish infill development covering an area of 5 hectares or more, but less than 20 hectares; or residential, mixed, retail, commercial, industrial or institutional use where such development does not constitute infill (activity that takes place within an existing developed area) and where the total area to be transformed is bigger than 1 hectare.

Impacts may include:

- ecosystem impacts associated with construction and development (e.g. habitat destruction, impacts to animals and plants);
- infilling of existing vacant lots could further reduce green urban areas and impact on remaining essential habitats (i.e. threatened mole species, birds);
- further fragmentation of ecosystems, destruction of ecosystem integrity and reduction of ecosystem services; and

- increased residential development in an area may increase demand for water and electricity supplies, and increase waste production and traffic congestion.

Activity 3: The transformation or removal of indigenous vegetation of 3 hectares or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).

Impacts may include:

- habitat loss;
- erosion; and
- negative impact on populations of threatened species (vulnerable, endangered and critically endangered).

Activity 4: Phased activities where any one phase of the activity may be below a threshold specified in this Schedule but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.

Impacts may include:

- physical impacts on ecosystems;
- habitat loss;
- habitat fragmentation;
- species movements and disturbance of populations;
- introduction of invasive alien species

Activity 5: The subdivision of portions of land 9 hectares or larger into portions of 5 hectares or less.

Impacts may include:

- ecosystem impacts associated with construction and development (e.g. habitat destruction, impacts to animals and plants); and
- Infilling of existing vacant lots could further reduce green urban areas and impact on remaining essential habitats (i.e. threatened mole species, birds), cause further fragmentation of ecosystems, destruction of ecosystem integrity and reduction of ecosystem services. More residential development in an area may result in increased demand on water and electricity supplies, and increase waste production and traffic congestion.

Examples of activities for which scoping and EIA are required

Activity 6: Any development activity, including associated structures and infrastructure, where the total area of the developed area is, or is intended to be, 20 hectares or more. The impacts of a large development will vary with the site and the development proposal.

Impacts may include:

- habitat destruction;
- ecosystem degradation;
- further threats to Red Data species;
- introduction of invasive alien species;
- water pollution in the form of sewage, fertilizer, and soil;
- increased demands on scarce water resources; and
- social and health impacts caused by an influx of workers into the area.

Activity 7: The construction of facilities or infrastructure, including associated structures or infrastructure, for any purpose where lawns, playing fields or sports tracks covering an area of 10 hectares or more, will be established. The construction of sports fields reduces biodiversity by replacing the natural vegetation with a grass.

Impacts may include:

- increase in water usage and water pollution caused by herbicides and fertilizers;
- reduction in public open space;
- light pollution if facilities are used at night,
- increased impacts to plant and animal habitat from increased human entry into the area; and
- introduction of invasive alien species

Activity 8: The construction of facilities or infrastructure, including associated structures or infrastructure, for the final disposal of general waste covering an area of 100 square meters or more or 200 cubic meters or more of airspace.

Impacts may include:

- groundwater pollution and air pollution (due to improper management)
- visual impacts;
- odour impacts;
- disease transmitted by scavengers on the dump (birds, rats, flies etc); and
- increased vehicular traffic from transport of waste to the site may result in the spillage of waste.
- construction of roads and infrastructure to transport people and goods to and from the facility;
- water provision; and
- Waste management and sewerage during use of facility.

Basic assessments

The Environmental Assessment Practitioner/Consultant managing the application must follow the following procedure before submitting a Basic Assessment report to the competent authority:

1. Give notice of the Application to all interested and affected parties by fixing a notice board at a conspicuous place at the boundary or fence of the site (or an alternative site)
2. Give written notice to the owners and occupiers of land adjacent to the site where the activity is to be undertaken (or any alternative site); the owners and occupiers within 100 meters of the boundary of the site who may be affected by the activity; the municipal councilor of the ward in which the site is located; the municipality and any organ of state which has jurisdiction.
3. Place an advertisement in one local paper or any official Gazette that is published specifically for the purpose of providing public notice of Applications.
4. Place an advertisement in at least one provincial newspaper or national newspaper if the activity may have an impact extending beyond the boundaries of the metropolitan area or local municipality.
5. Open and maintain a register of interested and affected parties.
6. Provide registered interested and affected parties with the opportunity to comment on all written submissions made to the Competent Authority.

The person conducting the public participation must:

- ensure that information containing all relevant facts about the Application is made available to the Interested and Affected Parties and that the participation of Interested and Affected Parties is made easy so that they are provided with a reasonable opportunity to comment on the Application.
- consider all objections and representations received from *Interested and Affected Parties* following the public participation process and subject the proposed application to basic assessment by assessing:
 1. the potential impacts of the activity on the environment;
 2. whether and to what extent those impacts can be mitigated; and
 3. whether there are any significant issues and impacts that require further investigation;
- prepare a Basic Assessment Report; and give all registered *Interested and Affected Parties* an opportunity to comment on the Basic Assessment Report.

The Basic Assessment Report must contain all the information necessary for the Competent Authority to consider the Application and make a decision. The Basic Assessment Report must include:

- details of:
 1. the Environmental Assessment Practitioner/Consultant who prepared the report; and
 2. the expertise of the Environmental Assessment Practitioner/Consultant to carry out Basic Assessment procedures;
- a description of the proposed activity;
- a description of the property on which the activity is to be undertaken and the location of the activity on the property, or if it is a linear activity, a description of the route of the activity; or

- a description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity;
- an identification of all legislation and guidelines that have been considered in the preparation of the Basic Assessment Report;
- details of the public participation process conducted in connection with the Application, including -
 1. the steps that were taken to notify potentially Interested and Affected Parties of the proposed application;
 2. proof that notice boards, advertisements and notices notifying potentially Interested and Affected Parties of the proposed application have been displayed, placed or given;
- a list of all persons, organisations and organs of state that were registered as *Interested and Affected Parties* in relation to the application;
- a summary of the issues raised by Interested and Affected Parties, the date of receipt of and the response of the Environmental Assessment Practitioner/Consultant to those issues;
- 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;
- a description and assessment of the significance of any environmental impacts, including cumulative impacts, that may occur as a result of the undertaking of the activity or identified alternatives or as a result of any construction, erection or decommissioning associated with the undertaking of the activity;
- any environmental management and mitigation measures proposed by the Environmental Assessment Practitioner/Consultant;
- any inputs made by specialists to the extent that may be necessary; and
- Any specific information required by the Competent Authority.

Typically, Basic Assessment is applied to activities that are considered less likely to have significant environmental impacts and, therefore, unlikely to require a full-blown and detailed Environmental Impact Assessment. A Basic Assessment Report is a more concise analysis of the environmental impacts of the proposed activity than a Scoping and EIA Report. However, Basic Assessment still requires public notice and participation, consideration of the potential environmental impacts of the activity, assessment of possible mitigation measures, and an assessment of whether there are any significant issues or impacts that might require further investigation.

Scoping and EIA's

Scoping and EIA is the thorough environmental assessment required for activities contained in listing 2. The activities listed in listing 2 are activities that due to their nature and/or extent are likely to have significant impacts that cannot be easily predicted. Listing 2 activities are therefore higher risk activities that potentially cause higher levels of pollution, waste and environmental degradation.

The Scoping Report (including Plan of Study for EIA) requires a description of the proposed activity and any feasible and reasonable alternatives, a description of the property and the environment that may be affected and the manner in which the biological, social, economic and cultural aspects of the environment may be impacted by the proposed activity; description of environmental issues and potential impacts, including cumulative impacts that have been identified, and details of the public participation process undertaken. In addition, the Scoping Report must contain a roadmap for the Environmental Impact Assessment, referred to as the Plan of Study for the EIA, specifying the methodology to be used to assess the potential impacts, and the specialists or specialist reports that are required. The Applicant may only proceed with the EIA after the Competent Authority has approved the Scoping Report and the Plan of Study for the EIA.

The EIA procedure ensures that environmental consequences of projects are identified and assessed before authorisation is given. The public can give its opinion and all results are taken into account in the authorisation procedure of the project. The public is informed of the decision afterwards.

The objectives of an Environmental Impact Assessment:

- To ensure that environmental considerations are explicitly addressed and incorporated into decision-making processes;
- To anticipate and avoid, minimize or offset the significant adverse biophysical, social and other relevant effects of development proposals;
- To protect the productivity and capacity of natural systems and the ecological processes that maintain their functions; and
- To promote development that is sustainable and optimizes resource use and management opportunities.

It is generally accepted that an EIA comprises the following key stages: screening, scoping, assessment, evaluation, mitigation and optimization/ enhancement, reporting, decision-making, reviewing, implementation and management/monitoring. Today there exists an emphasis on effective scoping, such that each proposal is examined at a level, and in the detail appropriate to the activity's potential for environmental change. The Scoping and EIA Process culminates in the development and submission of the Environmental Impact Assessment Report and the Draft Environmental Management Plan to the Competent Authority.

Environmental Management Plans

This Environmental Management Plan (EMP) covers the principles, responsibilities and requirements applicable in order to implement effective environmental management during pre-construction, construction and rehabilitation phases of the project.

Mitigation measures in the form of environmental specifications are provided for purposes of minimising environmental impacts likely to be incurred during construction activities including the following:

- Clearing or disturbance of vegetation.
- Excavation or disturbances of soils, including working of borrow pits.
- Abstraction, use and disposal of water.
- Construction in and/or crossing of rivers, streams, wetlands, pans and/or other water bodies with vehicles and equipment.
- Generation and disposal of solid and liquid wastes.
- Storage, use and disposal of potentially harmful substances such as fuels, oils, bitumen, lubricants, cement, etc.
- Movement and accommodation of vehicles, equipment and on-site personnel that may result in general (social) nuisance impacts for neighbours such as noise, dust, litter/pollution, interrupted access and health, safety and/or security risks.

Exemptions

An applicant may apply for exemption from a provision of the regulations.

For activities for which Basic Assessment must be undertaken, a notice of intent to apply for exemption (for Basic Assessment) must be submitted to the competent authority. A Notice of Intent to Apply form is available from the Department. This notice must include an indication of exemptions that will be applied for.

Although the NEMA EIA Regulations specifies that an Environmental Assessment Practitioner (EAP) must submit the notice of intent to apply for exemption, the Notice of Intent Form makes provision for the applicant to apply to be exempted from this specific requirement (which will then allow the applicant to submit the notice of intent to apply).

When applying for exemption from any other provision of the regulations the relevant section of the general application form (for Basic Assessment or Scoping and EIA) or the separate exemption application form (depending on when during the process exemption is being applied for), must be completed.

According to the regulations, applications for exemption can be submitted at any time within the EIA process by completing and submitting the relevant section of the general application form (for Basic Assessment or Scoping and EIA).

A person may only be exempted from conducting a public participation process (or parts thereof) if the rights or interests of other parties are not likely to be adversely affected by the granting of the exemption.

It is recommended that in instances where an applicant intends applying for exemption from certain provisions of the regulations, the public participation process for such an exemption application be conducted at the same time as the public participation process related to a Basic Assessment or Scoping and EIA process.

Strategic environmental assessments

A Strategic Environmental Assessment or SEA entails considering environmental issues whilst making development plans and programmes. The process evaluates the opportunities that the environment offers to development and the constraints that it imposes. Essentially, a SEA is therefore a process that should be used to encourage and promote sustainable development on a strategic level (i.e. for areas, regions or sectors of development). The SEA is not a legislative requirement but is only a tool that can be used to identify activities would be most appropriate for a identified geographic area; or it could be used to look at a particular sector (e.g. housing) and determine where best housing could be located and the most appropriate form this housing should take.

Principles of a SEA

- SEA is driven by the concept of sustainability
- SEA identifies the opportunities and constraints which the environment places on the development of plans and programs
- SEA sets the criteria for levels of environmental quality or limits of acceptable change
- SEA is a flexible process which is adaptable to the planning and sectoral development cycle
- SEA is a strategic process, which begins with the conceptualization of the plan or programme
- SEA is part of a tiered approach to environmental assessment and management
- The scope of an SEA is defined within the wider context of the environmental processes
- SEA is a participative process
- SEA is set within the context of alternative scenarios
- SEA includes the concepts of precaution and continuous improvement

Different approaches can be followed during a SEA process and the selected approach will differ according to the problem statement as well as the Terms of Reference provided for the project. The process includes collecting of available information on the study area, integrating this information with issues collected from a public participation process and then formulating a vision and strategies to attain the Desired State of the Environment (DSoE). The last phase of the SEA process is the provision of guidelines, processes, procedures and tools to be used in managing development in the study area and implementing the SEA findings to reach the DSoE.

Link between SEA and EIA

The SEA can assess impacts which an EIA may not be able to assess, and the classic example, of course, is large-scale impacts or very long-term impacts -- long term in the sense of several decades and not just a few years ahead -- and also the notion of cumulative impacts that SEA can sometimes be more able to deal with than EIA. SEA has the potential to reduce the resources which are required for EIA both in terms of time and cost resources, only if it is well organised and well planned.

At the local level the EIA process often affects the development of projects because so much detail is required and not enough resources are available to undergo this process.

The following principles found in NEMA should also be used to work in the favour of any development:

- Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.
- Development must be socially, environmentally and economically sustainable.
- The disturbance of ecosystems and loss of biological diversity are avoided or minimized and remedied where they cannot be altogether avoided.
- The pollution and degradation of the environment are avoided or minimized and remedied where they cannot be altogether avoided

If a project seeks to provide for the people and without any notable harm to the environment then the project should be allowed to proceed without having to go through an extensive EIA process.

The EIA process has a tremendous effect at the local level because most municipalities have difficulty in raising the necessary resources that are required to complete this process. This would then result in the local government being faced with the difficulty of always having backlogs in their proposed developments and no progress is made at the local level, meaning that this will affect plans at the national level.

At the national level, the EIA & Managed Land Settlement processes need to make their work more public. The structure that has been set up by the national department of environment to look at reviewing the EIA legislation needs to look at how to streamline and improve the process of doing EIA's. For example, more attention needs to be given to exempting certain activities within the EIA process. Alternative ways to assess the potential impacts of the development on the environment have to be developed and to weigh whether this proposed development will be socially, environmentally and economically sustainable. Pilot projects have to be designed and implemented that show that even though a full EIA is not undertaken on a project and rather alternative environmental impact assessment processes are used, the development was still found to be sustainable..