

ENVIRONMENT INSTITUTE OF AUSTRALIA AND NEW ZEALAND INC.

GUIDELINES FOR IMPACT ASSESSMENT

Introduction

Impact assessment (IA) is a process through which environmental inputs contribute to the development process for projects. The International Association for the Impact Assessment describes IA as follows:

Impact assessment (IA) is a structured process for considering the implications, for people and their environment, of proposed actions while there is still an opportunity to modify (or even, if appropriate, abandon) the proposals. It is applied at all levels of decision-making, from policies to specific projects.

In professional practice in Australia and New Zealand, the scope of IA can extend well beyond its literal meaning as commonly interpreted. Impacts embrace both beneficial and adverse effects (including benefits deriving from the objectives of the proposal), and can extend it to effects of the environment on the proposal (as an opportunity or constraint), as well as the effects of the proposal on the environment.

The term 'environment' should be interpreted in a broad sense, incorporating biophysical, socio-economic and cultural aspects, as defined in most relevant government legislation and in the EIANZ Rules of Association.

Specialised components of IA, such as social impact assessment or health impact assessment may overlap or be embraced by the broad scope of environmental impact assessment, and the distinction between these is not clear-cut. The following guidelines are generally relevant to all aspects of IA.

The IA process is applicable not only at the individual project level but also, and sometimes more importantly, at the strategic planning level. Strategic environmental assessment (SEA) will often provide a valuable context for addressing the impacts of multiple smaller projects and for establishing a broad strategic planning and policy framework within which such projects should be implemented. The following guidelines are intended to apply primarily to specific projects, but can apply also at the strategic level to a large extent.

The purpose of IA is to review a proposal before decisions are made which may have significant environmental implications as a result of that proposal, with a view to maximising opportunities to avoid or reduce impacts and enhance positive outcomes. A major part of this review relates to the effect of the proposal on the environment and the extent to which the proponent has addressed these effects in planning the project. It also extends to more fundamental matters such as the justification for the proposal, the consideration of prudent and feasible alternatives which meet the objectives of the proposal, and the consequences of taking no action (the 'do-nothing option').

A feature of IA for larger or more contentious projects is the opportunity provided for the wider community to make comment and provide input to the proposal through an independently managed process. For smaller projects, the assessment may be limited to review by the decision-making authority, sometimes in consultation with other agencies. The formal IA process is one of several possible mechanisms for seeking community input into the decision-making process, and for addressing environmental issues in the development process.

According to the International Association for Impact Assessment, IA aims to:

- provide information for decision-making that analyses the biophysical, social, economic and institutional consequences of proposed actions;
- promote transparency and participation of the public in decision-making;
- identify procedures and methods for follow-up (monitoring and mitigation of adverse consequences) in policy, planning and project cycles; and
- contribute to environmentally sound and sustainable development.

Most projects involve a series of decisions in which consideration of environmental issues may be a significant input. The optimum timing for the use of IA varies with the project and it is often desirable for it to be applied in different ways at several points or on a continuous basis throughout the planning, review and implementation stages of the project, as described in the EIANZ position statement, *Incorporating environmental considerations into development projects* (draft 15/8/14). It must be accepted that IA inputs early in the project may involve a lack of uncertainty about the final development form, which may limit the accuracy to which some impacts can be assessed. On the other hand, delaying IA to a point where there is greater certainty in identifying impacts may mean that the opportunity to influence some fundamental decisions is lost. This conflict arises particularly in relation to the timing of the external review of projects, but should not constrain the proponent from treating IA as an integral element of the project's planning throughout the development process. Indeed, the early planning stage, rather than the external review stage, is often the most important period in terms of achieving the best environmental outcome.

The main steps involved in IA are as follows:

- Scoping – to determine the environmental issues relevant to a project and the points in the decision-making process when these issues need to be addressed.
- Screening – to determine the appropriate form of IA for a project, in particular whether it justifies the preparation and publication of a formal environmental impact statement (EIS) or similar public document.
- Technical analysis and assessment – in terms of understanding the environmental effects (adverse and beneficial) of a proposal, comparing options for achieving the proposals objectives, and identifying mitigation measures or offsets for adverse impacts.
- Reporting and stakeholder involvement – commonly through an EIS or similar document for government agency and community response, although other

forms of consultation may also be implemented, including measures implemented outside the statutory review process.

- Independent review – review of the EIS or other public document and agency/ community responses by the authority responsible for administering the statutory review process.

The IA process should incorporate the results of environmental investigations undertaken by or on behalf of the proponent outside any regulatory processes. Such investigations can then provide the basis for external review through a regulatory process, either involving the public EIS or similar document in the case of a major project, or for consideration by determining authority without community input. Following the necessary approvals, the implementation of the project should incorporate provisions to reflect the findings of the IA process (see EIANZ position statement, *Incorporating environmental considerations into development projects*, draft 15/8/14).

The Institute encourages excellence in the IA process in all Australian and New Zealand jurisdictions. Where EIANZ members are involved in IA as decision-makers or as practitioners, the Institute encourages them to comply with and to advocate the following principles.

General Principles

Principles which should govern and guide the IA process had been developed at the national and international level over many years. A core set of principles is as follows:

- **Transparency.** IA should be undertaken through an established process. The process should have clear content requirements which are easily understood by all stakeholders. Limitations and difficulties should be acknowledged. Assessment methodologies should be fully explained and detailed. Assumptions made during the assessment should be fully detailed.
- **Certainty.** The assessment should have clear objectives, be consistent and be conducted within an agreed process.
- **Participatory.** The assessment process should provide appropriate opportunities to inform and involve interested and affected stakeholders. Their inputs and concerns should be addressed explicitly as part of the impact assessment and decision making.
- **Accountability.** Decision makers are responsible to all parties for their actions and decisions under the assessment process. The IA process should cover the life of the proposal. Proponents must be accountable for commitments made during project approvals.
- **Practicality.** The process should result in information and outputs which assist with problem solving and are acceptable to and able to be implemented by proponents.
- **Flexibility/ Adaptability.** The assessment should be able to adapt to deal efficiently with the proposal and decision-making process without compromising the integrity of the assessment. The assessment should be

iterative, incorporating changes and outcomes throughout the life of the proposal.

- **Cost-effectiveness.** The assessment process should meet its objectives while avoiding unnecessary costs to participants, including the proponent.
- **Credibility.** Decisions need to be based on the best available information. The process should be undertaken with professionalism, rigour and objectivity. Where impacts are uncertain, outcomes should rely on sound risk assessment and management.
- **Rigorous.** The process should apply best practicable science, utilising methodologies and techniques appropriate to the proposal being investigated.
- **Precautionary.** Where there are threats of significant and irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental impacts. The precautionary principle should be employed in such instances.

Practice Guidelines

The following practices reflect the above principles and are recommended as guidance for all environmental practitioners involved in IA:

1. General procedures and responsibilities

- The primary objectives of IA are to achieve good environmental outcomes and to provide a positive net benefit in environmental, social and economic terms. While compliance with statutory processes is also important, this should not be seen as the primary purpose of IA.
- The IA process should be undertaken by persons with environmental skills and qualifications appropriate to the nature of the proposal and its environmental aspects. Such persons should perform their work in accordance with the EIANZ *Code of Ethics and Professional Conduct*.
- The proponent should be involved in the IA process to ensure that the information about the project is presented accurately, and that the proponent appreciates the environmental issues relevant to the project. The proponent should be encouraged to consider constructive measures for mitigating adverse impacts or enhancing environmental benefits.
- As far as practicable, proposals should be assessed holistically rather than being segmented into component parts. It may be desirable to undertake an initial strategic assessment at a broad level, then to address components sequentially in more detail. In this situation, the latter assessments should be assessed in the full context of the proposal. Cumulative impacts should be addressed at the broad level.
- Those components of the IA process which under the control of the proponent should be funded by the proponent.
- The IA process is an interactive process involving the proponent, one or more government authorities and, for many projects, the wider community. The process should have adequate flexibility to encourage effective interaction in a

way which achieves as far as practicable the proponent's objectives, good environmental outcomes and community satisfaction with the process.

- While it is common practice to use environmental consultants, both general practitioners and specialists, to implement the IA process on behalf of the proponent, proponents with appropriate skills may undertake IA in-house, provided that an appropriate level of objectivity and professional rigour is maintained.

2. Scoping

- Effective scoping is an essential part of the IA process for any project and should be undertaken as early as possible in the process in order to guide the screening process to determine the appropriate level of external review and to establish the requirements for technical analysis and assessment to assist in subsequent decision-making.
- It is desirable that the proponent or the proponent's agents, who are commonly the persons most familiar with the project at the start of the IA process, should be primarily responsible for initiating the scoping process.
- If the primary responsibility for scoping in relation to regulatory processes rests with an external authority (e.g. because of legislative constraints), scoping should be undertaken in close consultation with the proponent.
- Any known community views should be reflected in the scoping process. For major projects, those views may be sought through a public draft scoping document or preliminary identification of environmental issues which is released for community feedback early in the IA process, or through direct consultation with known stakeholders.
- Scoping should be based on a site-specific assessment, involving the person responsible for the scoping, who should personally inspect the site of the project and consult with the proponent. While a standard checklist may be used as an aid, it does not form an adequate scoping report.
- The scoping process should identify the relative importance of various environmental issues at different decision points in the project, and use this information to justify the depth of technical information required in an EIS or alternative environmental report. As well as identifying those issues which are important to the current level of decision-making, the scoping process should also clarify which issues are irrelevant or not important, and thus may be ignored or treated only briefly.
- Scoping should be consistent with the relevant level of decision-making. For example, decisions which have already been made and accepted through an appropriate process should not need to be reviewed, while fine details beyond the current level of investigation should not need to be addressed, although they may be noted for future investigation.
- The proponent should have the opportunity to challenge an external scoping assessment if it is considered not to fairly reflect the balance of environmental issues associated with the project at the relevant level of decision-making.

3. Screening

- All projects requiring external approval should be subject to IA at a level appropriate to the scale and impact of the project and the level of public interest. Those projects with potentially significant environmental impacts or a high level of public interest should be subject to a formal screening process to determine if the IA should involve the wider community in an external review through an EIS or other mechanism.
- Screening decisions should be independent of the proponent and should be based on objective guidelines which, as far as practicable, reflect the level of environmental impact in the context of the project and/ or the level of community interest. It is not sufficient for screening to be based solely on the type of project without consideration of its scale and environmental context. On the other hand, it is not acceptable for screening to be based solely on a discretionary process without objective guidelines.
- The screening process should involve a site-specific assessment of the project. This may necessitate a site inspection in consultation with the proponent by whoever is responsible for the screening, if there is doubt about the screening outcome.

4. Technical analysis and assessment

- The technical assessment must be objective, and should consider prudent and feasible alternatives for meeting the objectives of the proposal where practicable, rather than just attempting to justify the proponent's preference.
- The technical assessment should focus on the agreed outcomes of the prior scoping assessment, and should avoid the collection of information for its own sake, without a clear understanding of how it would be used productively. Excessive information collection runs the risks of obscuring more important issues, and of constituting professional overservicing, and should not be undertaken by consultants or encouraged by regulatory authorities.
- The analysis of information to make impact predictions should be transparent and technically rigorous to the extent that this is possible. The data and information sources, analytical methods, assumptions, uncertainties, judgements and basis for conclusions should be clearly stated, both in identifying environmental and social values and in predicting environmental outcomes. Where there is a high level of uncertainty, it may be appropriate to identify a range of potential outcomes and explain the basis for uncertainty.
- It is acknowledged that it is often necessary to predict the impacts of a proposal on an environment which is complex and dynamic with little hard data to support the predictions. Where practicable, such predictions should be couched in terms of risk or margins of error, and should identify situations where professional judgement is involved.
- Where measures to avoid, reduce, mitigate or offset adverse impacts are identified in the planning for the project, the IA process should take account of these measures and review their adequacy, and may identify further such measures, if appropriate.
- The application of common sense is considered an acceptable approach for addressing many environmental issues, particularly those of a minor or less complex nature.

- Assessment of biophysical impacts should extend beyond their immediate effects to include the ways in which people and their values may also be affected. The EIANZ position statement, *Social aspects of sustainability*, may be of relevance in this context.
- Where inputs are significant and have the potential to contribute to cumulative impacts, the relative contribution to such cumulative impacts should be identified, together with measures by the proponent to mitigate or offset such impacts. It is desirable, but not always practicable, for cumulative impacts to be addressed through a strategic environmental assessment approach.

5. Reporting and stakeholder involvement

- The process of stakeholder involvement should recognise the diverse interests and technical skills of different stakeholders in the way that information from the IA process is presented. Stakeholders may include government agencies other than those responsible for implementing the regulatory process and a wide range of individuals and interest groups within the community.
- The presentation of the findings of the IA process to the community should be done in a way which encourages interest and response. EISs and similar reports should be presented in plain language with appropriate explanation where technical language is unavoidable, and should present the environmental analysis in a logical and objective manner. Such reports should be kept to the minimum length consistent with the scoping assessment and with adequately presenting and justifying the analysis and conclusions to the lay reader.
- Where detailed technical information and data have been compiled and may be required by certain agencies or be of interest to specialist readers, this should be made available through supporting reports or electronic means (e.g. CD/ DVD or website), unless it is of a confidential nature. Such information should be referenced in the general public report.
- As the EIS or equivalent document is often the only document readily available to the community, it is important that it presents adequate general information about the proposal, and is not focused just on environmental impacts. Community understanding of a proposal will be enhanced if the report is written to reflect the rationale underlying the project and relevant past and potential future decisions.
- In order to encourage the most effective presentation of proposals and their environmental issues, the use of a standard report template should not be mandatory. Every project is different and should have the opportunity to be presented as the proponent sees fit, subject to all necessary matters being adequately addressed.
- Public consultation should not be restricted to formal reports but, at the discretion of the proponent or the approving authority, may include other written material, public meetings or information sessions, or direct stakeholder consultation. Further information is provided in the EIANZ position statement, *Public participation in environmental decision-making*.

- The proponent should be informed of the outcomes of any community involvement and should be given the opportunity to respond to any points raised. Any public submissions received should be available for scrutiny and response by the proponent.

6. Independent review

- The independent review of the IA process should be undertaken by an authority which does not have a vested interest in either supporting or opposing the project or at least by a part of that authority which does not have such vested interest. The review process should be managed by suitably qualified environmental practitioners.
- Any decisions which may significantly alter the course of a project or involve the proponent in major additional costs or other conditions should be discussed with the proponent before they are finalised, in order to offer the proponent the opportunity to identify more acceptable approaches which could achieve the same objectives.
- The outcomes of the IA process, other than those of a confidential nature, should be publicly available through an appropriate medium.
- If a project has changed significantly as a result of the public consultation or independent review, the proponent may be required to prepare a revised or supplementary report for community information. Such a report would not normally be expected to be subject to further review.

7. Implementation

- The findings of the IA process should continue to be applied as appropriate throughout the implementation stage of the project. An important outcome of the IA process is the identification of mechanisms for ensuring that this takes place, for example, through an environmental management plan and appropriate supervision and monitoring. This responsibility should rest primarily with the proponent.
- Implementation may include measures to avoid, reduce or offset adverse impacts or to maximise positive impacts beyond those identified by the proponent.
- Performance standards should be established in relation to environmental outcomes that are consistent with legislative and policy requirements and agreed stakeholder expectations, and which protect important environmental values and resources.
- Consent authorities should be responsible for ensuring that there are effective mechanisms for enforcing their approval conditions and achievement of performance standards, and for rectifying any deficiencies. This may include a requirement for the proponent to engage a suitably experienced practitioner to undertake monitoring of compliance and performance standards.
- During and following the implementation of the project, the actual impacts and effectiveness of mitigation or offset measures should be assessed to provide feedback on the reliability of the IA process and thus guide IA for future projects of a similar nature.

- In the event that actual impacts are more significant than predicted impacts or that mitigation measures are not effective in controlling impacts and achieving performance standards, the IA process should propose contingency measures for addressing such shortcomings.