Environment Institute of Australia and New Zealand Inc.

Good practice scoping in impact assessment

Scoping is the process of identifying and prioritising the key issues associated with a project to be assessed in an impact assessment (IA) and the extent of work that needs to be undertaken to address those issues. Good practice scoping:

Context

- Ensures IA is based on a thorough understanding of the environmental and social values in the receiving environment and the interrelationships between different elements of the physical, biological and social environment
- Requires baseline studies to be of sufficient geographic and temporal coverage to provide for an understanding of seasonal and regional variations in environmental values
- Has regard to the characteristics of the project and the site
- Clearly defines the temporal and spatial boundaries within which cumulative impact assessment could occur
- Considers the broader strategic planning and policy framework, and any decisions that have already been made within this framework that affect the proposed project

Focus

- Focuses on the potentially significant impacts of an action with the depth and scope of the assessment proportionate to the values that are potentially impacted and the scale, intensity and duration of potential impacts
- Restricts IA to the matters that will be considered by the decision maker when determining whether or not to approve a project and conditions to apply. It does not include matters that will not influence the decision
- Takes account of other regulatory processes, including the extent to which they will mitigate potential impacts of the proposed project, and avoids duplication with those regulatory processes to the extent practicable
- Provides greater certainty for the proponent in setting out the work required for the IA, with changes only occurring as a result of substantial new information or significant changes in project design

Rigour

- Is undertaken by suitably qualified, experienced and competent practitioners who have a sound understanding of the project and a good first-hand familiarity with the project site
- Is given appropriate time and resources to ensure it is done well, recognizing the benefits of good scoping in providing for a more effective and efficient assessment process
- Requires the IA to clearly state data and information sources, methodologies, assumptions, uncertainties and judgements used in identifying baseline environmental values and in predicting environmental outcomes
- Requires a comprehensive risk assessment using agreed criteria

Consultative

- Provides for effective community input to scoping requirements and tailors community engagement strategies to stakeholder needs
- Involves close collaboration between the regulator and the proponent

Flexibility

- Is integrated into project development and delivery so that the outcomes of studies undertaken for the impact assessment can influence project design, implementation or monitoring and maximize opportunities to avoid, minimise or offset predicted impacts.
- Includes mechanisms for incorporating new or unforeseen issues that may arise during the course of investigations.

Content

A good practice scoping document (guidelines/terms of reference) includes the following:

- Brief description of the project including any timescales (e.g. for construction), ancillary features (such as pipelines or highway improvements), and plans/maps/photos to aid description of the site and the proposal
- Feasible alternatives that will be examined in detail and others that have been discounted, and the reasons why
- Any relevant strategic or policy decisions that have already been made and which may affect the project
- Relevant regulatory standards, policies, guidelines and other documentation that determine the outcomes that will be considered acceptable by regulators
- A list of stakeholders, their interests and how they will be engaged in the IA process
- Methodology to be adopted for impact and risk assessment including how significance of impacts and risks will be rated
- An initial desk top study of the current environment (including social and economic) values and systems
- Identification of applicable studies that have been undertaken by the proponent or other party to date and the relevance and quality of the studies as they might apply to the project
- Work that must be undertaken by the proponent to address any information gaps, including:
    - the purpose of each of the further studies to be undertaken
    - methodologies to be adopted for the assessment of each issue
    - the extent (spatial and temporal) of the study area to be considered for each issue
    - the intended output for each study.
- Timing and milestones for the IA
- Secondary approvals required and the matters they will consider
- The process for dealing with changes to the scoping document in response to significant project changes or substantial new information.

How can we improve the practice of scoping in the IA process?

Background paper prepared by the EIANZ Special Interest Section (SIS) on Impact Assessment (IA)

The SIS-IA has prepared this paper because we identify that scoping is a process that is important to effective IA, but not always suitably undertaken. As practitioners (whether consultants, regulators or academics), members of the SIS-IA believe that scoping is an area that needs attention in IA. The objective of this paper is to inform a set of 'good practice' guidelines to encourage a more consistent and effective approach to scoping across all jurisdictions.

Introduction

There are a number of issues identified with the current practice of scoping which this paper will explore. Some of these issues such as competent IA practioners and being risk adverse are much broader than just a scoping issue. However, the EIANZ-SIS-IA group believes addressing scoping is a step in the right direction.

Impact assessment (IA) is a tool that is used to identify the potential effects of an action (or development proposal). Within the IA process there are a number of steps:

- Screening – where it is established if an IA is needed, and hence whether an EIS (or equivalent) is to be prepared or whether some other form of reporting would be adequate
- Scoping – where the likely environmental effects are identified and the extent to which each will be investigated is considered
- Prediction – where specific environmental impacts are forecast
- Evaluation – where the significance of the impacts is determined and all the impacts are presented for comparison
- Reducing impacts – where programs are devised to mitigate unavoidable impacts
- Monitoring – where monitoring programs are developed to check the effectiveness of the predictions and the mitigation programs
- Conclusions – where information and results are synthesised to make conclusions about the environmental impacts and make recommendations about the proposal being considered, its alternatives, and the mitigation and monitoring programs (Elliott 2014).

These last five points are presented as part of the EIS and what this paper presents is a detailed analysis of the purpose of ***scoping*** and what can be done to improve this fundamental step in the IA process.

What is Scoping?

Scoping has been defined as 'the process of identifying and assigning priority to the issues associated with a project for the purposes of focusing the impact assessment' (Ross 1987). The WA EPA (2013) add that scoping should also 'identify the studies and investigations that need to be carried out'.

More broadly, Barnes, Hardwick and Chan (2010) consider scoping is a set of activities at the front-end of IA that involve discretionary determinations by decision making authorities on:

- Process determination – definition of the regulatory process (i.e. which laws and processes apply and who will participate?)
- Scope of project – the scope of the project to be assessed (i.e. what is the project that will be assessed?)
- Scope of the assessment – the factors, including the scope of the factors, to be considered in the assessment (i.e. what needs to be studied, how will the considered factors be assessed and to what extent?).

Fischer and Phylip-Jones (2008) state the purpose of scoping is:

- To identify the important issues to be considered in an IA (including the baseline and alternatives)
- To determine the appropriate space and time boundaries for the IA
- To establish the information necessary for decision making
- To anticipate the significant effects and factors to be studied in detail.

To summarise all of the above, scoping is essentially identifying the key issues associated with the project to be assessed as part of the IA and the work that needs to be undertaken to address those issues.

Why do we undertake Scoping?

Hogg (2006) suggests that scoping is an important element of sound environmental practice for the following reasons:

1. Scoping focuses on those issues which are most important at each point in the decision-making process, thus clarifying the process and resulting in more reasoned decisions.
2. Scoping provides a commonsense basis for guiding the efficient and effective collection and analysis of environmental information that is necessary for decision-makers and the wider community to understand the project and its environmental implications
3. Effective scoping also avoids the risk of important environmental issues being overlooked or being given insufficient weight in the planning and assessment process
4. A scoping approach which emphasises the matters which are agreed by stakeholders to be important to a decision should enhance the confidence of both proponents and the wider community in the scoping process.

Similarly, IEMA (2011) argues effective scoping provides opportunities to:

1. Reduce costs: By allowing the EIA co-ordinator to avoid duplicated effort and ensure that topic specialist proposals and stakeholder expectations are proportionate.
2. Reduce objections: By listening to consultee views.

3. Avoid delays: By taking onboard relevant information from consultees to tailor the assessment.
4. Build relations with stakeholders:
    - Stakeholder benefits include enhanced trust in the competence of EIA co-ordinator and thus the quality of IA.
    - Practitioner benefits include improved quality of inputs into the assessment and development of contacts that could generate efficiency in future work.
5. Speed up decision-making: By setting a marker for the content of the IA and potentially reducing the number of documents submitted alongside the application.

Wilkinson (2007) adds that effective scoping can reduce the potential for disagreement between the regulator and proponent over the adequacy of an IA when it is submitted for consideration. This results in less requests for further information – a process that can be resource intensive and frustrating for all sides.

ACT Planning (n.d.) notes that IAs that are not well scoped can result in:

- extensive and unnecessary information collection with a decrease in efficiency and effectiveness
- a lack of identification of/or focus on key impacts
- slower assessment process
- increased costs.

Simply stated, scoping involves the bringing together of the ideas for the contents of the IA held by a variety of people in the community – the proponent, government, non-government organisations and interested individuals for a particular development proposal, action or policy. Hogg (2006) suggests scoping is 'one of the most fundamental skills required by general practitioners working in environmental planning and assessment, and should be applied, if only subconsciously, to every project'.

What are the current issues with scoping?

Good scoping must reflect the community's interests while achieving efficiency and effectiveness in the IA process. Snell and Cowell (2006) argue that scoping practices can be seen as emerging from the interplay between the somewhat conflicting aims to give effect to the precautionary principle, but to make decision-making processes more efficient. Scoping has been identified as a common weakness in the IA processes of many countries (Abaza *et al*. 2004 in Barnes et al) and has been an issue within the Australian context for some time. Issues commonly identified by participants in the IA process include the following.

1. <u>Lack of focus on the things that matter</u>

While scoping is used to identify the matters that need to be assessed as part of the IA for a project, the biggest challenge is often deciding on the matters that do not require further assessment. Scoping out matters can be difficult for participants. Inexperienced practitioners may struggle in assigning significance to potential impacts. Matters may also

be included that more reflect the personal interests of the practitioner preparing the scoping document than the actual level of risk. In addition, in what is perceived to be streamlining, some jurisdictions have moved to using generic guidelines or terms of reference for IAs (e.g. Queensland). EIANZ (2013) notes:

The range and severity of impacts varies significantly from location to location and project to project, however the same level of assessment and evaluation is often required. For example, the level of detail of visual impact assessment required in Terms of Reference is often the same for an underground coal mine in an area of existing open cut mining as it is for a development in the Great Barrier Reef World Heritage Area.

Similarly, Hogg (2006) argues:

Contrary to the practice of some government authorities, scoping does not involve regurgitation of a standard checklist, although a well presented checklist can be a useful background tool for scoping, particularly by less experienced practitioners. Bypassing the scoping process by writing environmental reports according to a standard template invariably leads to reports which are presented illogically and may not help readers to appreciate the rationale of the project and the ways in which it has been developed to address environmental concerns.

EIANZ (2013) consider:

Tighter scoping of ESIAs would benefit proponents in terms of cost and time requirements, as well as reducing the burden on regulators and other stakeholders required to review documentation. Tighter scoping would also allow more focus on key issues, delivering more detailed information on the potentially important issues rather than broad information on many issues.

Ross, Morrison-Saunders and Marshall (2006) argue that:

… the key purpose [of IA] is to focus on what matters to decision-makers when determining whether or not to approve a project. The common sense of this is that, if an impact will not influence the project decision, it is not appropriate to require that it be studied in an EIA designed to improve project decision making.

They do qualify this view slightly by also noting the need to address public concerns. Nevertheless, this reflects a frustration commonly aired by proponents when they are asked to provide information which they see as having no bearing on the approval decision. Hogg (2006) sums this up by noting the key question for regulators in setting the scope is: 'What do I really need to know about this project before I can make the current decision?'

Hogg (2006) further elaborates:

… the failure to focus on environmental issues which are most relevant in a holistic context can lead to the production of environmental reports which are either superficial or excessively complex, and are of limited value to decision-makers, as well as resulting in much waste of both professional effort and public or private funding.

Ross, Morrison-Saunders and Marshall (2006) express a similar concern:

Failure to reject issues that will not influence the project decision results in the proponent spending time and resources on unimportant issues, resources that should be directed to issues that truly matter. Worse still, other participants will see the results of this work in the EIS and spend their resources reviewing it and commenting on it, falsely thinking they are contributing to effective decision making.

Given IA seeks to 'promote transparency and participation of the public in decision-making' (IAIA 2009), the not uncommon sight of an environmental impact statement occupying an entire bookshelf can hardly be consistent with this aim.

Involving regulators at an early stage is essential and allows the regulator and the proponent to agree on the scope of the studies.

2. Risk aversion

Scoping is a risk based process. A judgement has to be made as to whether the level of risk that a matter presents to the environment justifies further assessment. As the IA process proceeds, further information may become available that shows that the initial judgement was incorrect. This is a concern commonly held by regulators when faced with a scoping exercise – How confident am I that this issue won't come back to bite me? Not surprisingly, many take a risk averse approach.

IEMA (2011) note risk aversion is not restricted to regulators:

> Many of the parties involved in the EIA scoping process tend to act in a risk averse manner when it comes to scoping the assessment. Consenting authorities and statutory environmental bodies, with limited resources or a lack of experience in EIA, find that retaining a broad scope provides a level or reassurance that they have not missed any potentially relevant environmental issues. Legal advisers will tend to act to ensure that all issues are rigorously assessed in case the project needs to be defended at a public inquiry and developers are unlikely to act against such advice. Less experienced EIA practitioners also tend to err on the side of caution and include a broader scope, in particular where environmental specialists push for additional surveys. This 'just in case' culture tends to extend both the number of environmental topics covered by the EIA and the sub-issues that each topic is assessed against.

An overly risk averse approach can, once again, result in a large unfocused IA document that inhibits public participation and decision making. If all matters are given similar attention, those that actually warrant comprehensive assessment may not receive it. Alternatively, proponents may end up having to make their own decisions about the relative merit of matters. Barnes, Hardwick and Chan (2010) make this criticism:

> At the heart of inefficiency in IA are scoping practices of [decision making authorities] that have the tendency to avoid taking responsibility for mandated scoping decisions. These include Broad Scoping and other management approaches that divert the responsibility of scoping to proponents. This deferral of decision-making and responsibility not only adversely affects proponents, but also any interested stakeholder or the public.

However, we should be focusing on the potential risks of the project on the environment; not making the IA a risk adverse process in itself. There is a concern that IA is becoming more and more process driven, not practice driven.

3. Failure to consider the characteristics of the proposed development and site context

Effective scoping is project specific focusing on the way in which a proposed development will interact with the environment and the environmental context within which it sits. However, some IA scoping guidelines (also referred to as 'scoping documents' or 'terms of reference' for the IA) appear to give little regard to these characteristics and/or demonstrate a lack of understanding of the project and its site. Some of the more extreme examples of this have included requirements to:

- assess the impact on koalas in an area where there are no suitable habitat trees
- design an upgraded intersection to 100 kph design speed on a road where the maximum practicable speed is 40 kph

- assess the risk of flood flows to a reservoir sited on the top of a ridge (Hogg 2006).

These problems have generally arisen from the following causes:

- use of generic scoping guidelines for IAs (discussed above)
- 'recycling' of IA scoping guidelines
- lack of regulator training, experience and/or resources
- lack of familiarity with the site and/or project.

These problems are often inter-related.

If scoping can more clearly identify what is important, then this may reduce effort at the later stages of IA process on matters not significant.

Recycling
While recycling is generally a good thing, this does not apply to IA scoping guidelines. The tendency to develop scoping guidelines by modifying those from a recent similar project often reflects a lack of staff resources and experience in regulatory agencies. Fay, Quatermain and Eisenegger (2014) consider:

> One of the key concepts or EIA is that it is a flexible process that can be tailored to the assessment of impacts that are relevant to the development. Unfortunately, there is a tendency for determining authorities to provide the EIA assessment requirements that do not respect the particulars of the development and its local environmental context. Often EIA assessment requirements are recycled from one project to another. This is despite proponents providing clear and valid reasoning in their scoping documents as to why certain impacts should not be addressed.

Recycling of scoping guidelines can be quite obvious at times. IEMA (2011) cite the example of an urban regeneration project where the scoping opinion contained substantial sections related to the potential impacts associated with a wind farm development.

Clearly, though, there is no need to re-invent the wheel. The scoping guidelines from a similar project do provide a good starting point for developing the scope for the assessment of a new project. It does, however, need to be thoroughly reviewed to reflect the risks posed by the current project. It should not be assumed that what was significant for one project is also significant for other similar projects.

Regulator training, experience and resources
The last few years has seen significant cut-backs in staffing and resources in government agencies responsible for IA in Australia and the departure of many highly experienced staff. Barnes, Hardwick and Chan (2010) note: 'in some circumstances, poor scoping decisions are a consequence of a lack of resources and capacity to do the job'.

As noted above, over-scoping can occur when inexperienced practitioners don't have the confidence to make risk-based decisions. Resource limitations can also mean regulators are unable to put the time needed into developing an effective scoping document and are more likely to rely on generic lists or recycle previous scoping guidelines. The reduction in resources and the lack of training and experienced IA practioners also results in many of the issues highlighted in this paper and not just for scoping.

Snell and Cowell (2006) in a survey of practitioners in the United Kingdom found:

… concern being expressed about [statutory agencies] minimal input, the provision of bland, noncommittal responses, and problems of delayed and poorly coordinated feedback. This is highly problematic given the pivotal role that the statutory consultees are deemed to play in scoping, and the disinclination to consult the wider public. It also highlights another impact of efficiency, albeit this time in the way that overstretched regulatory bodies manage pressures on their time and resources. Put simply, the statutory agencies prefer not to participate pro-actively in the early stages of individual EIAs in the way that precautionary, deliberative framings of scoping might suggest, but to issue brief standardised responses which retain their flexibility in downstream stages of assessment.

Lack of familiarity with project

Inappropriate scoping can derive from regulators not being sufficiently familiar with the project and the site. Hogg (2006) argues: 'On-site review of potential environmental issues is essential. One cannot undertake effective scoping from an office desk'. He notes, however, that regulators may 'not have the resources to develop a strong familiarity with site-specific issues and sometimes may not even have the opportunity within their work priorities to undertake a site visit'. With increasing budgetary pressures, the potential for regulators to undertake site visits is decreasing.

Hogg (2006) believes scoping should be undertaken by proponents with regulators and the community acting in a review capacity to ensure the project team has not overlooked any specific issues which are important to them or of which they may have specialist knowledge. He argues:

While external agencies and members of the community may be well informed about some issues relevant to the project, they generally do not have the same comprehensive overview as the project team.

He also notes:

Fundamental requirements for effective scoping include a comprehensive appreciation of environmental issues, a sound understanding of the proposal and a firsthand knowledge of the environment affected. This necessitates primary involvement in the scoping process of both the proponent and a general environmental practitioner who is closely involved with the project.

4. <u>Timing</u>

Hogg (2006) argues that scoping 'should commence at an early stage in the environmental planning process, while ideas on the project are still being developed by the proponent. This avoids the risk of the project proceeding too far down a narrow path without adequate consideration of the important environmental issues'. This is supported by the Environment Agency (2002) who consider it 'should be carried out at a stage when alternatives are still being considered and mitigation measures can be incorporated into project designs'.

For this to occur, scoping would generally need to commence when projects are at a conceptual or pre-feasibility stage. However, to commence a formal assessment process, some clarity around project definition is usually required. This means that the scoping

referred to above may have already been undertaken by the proponent, including determination of preferred design options, before the statutory process commences.

There is a balance to be struck for a proponent in deciding when to submit an application and commence the formal assessment process:

- Submitting too early may mean a project may still be subject to substantive change, potentially resulting in a need to revise the scoping guideline.
- Submitting too late means it may be costly for the proponent to make changes to project design to address matters that arise in the assessment.

This emphasizes the need for proponents to be engaging with government to understand their expectations and requirements well in advance of commencing the formal assessment process. It also highlights the need for scoping to be a flexible process where the scoping document can be revisited in response to project changes.

5. Inadequate information from proponents

Regulators are not solely responsible for poor scoping. Barnes, Hardwick and Chan (2010) note: 'Often, proponents do not provide the information needed to support scoping decision-making, and concerns of the public or other policy and political issues around the proposed project can make scoping decisions a complicated balancing of interests'. Information provided by proponents can lack clarity around the project definition and have little or no information on the environmental values that may be impacted. A regulator then is faced with the choice of seeking further information or taking a conservative approach in developing the scoping guideline. Given the time pressures that can be placed on the scoping step, the latter is more likely.

6. Scope Creep

Proponents are known to complain that, having prepared an IA based on the approved scoping guidelines and submitted it to government for review, agencies then seek further information beyond that required by the scoping guidelines.

IEMA (2011) note:

> Where a request to undertake additional assessment, on top of the EIA's existing scope, arises developers must weigh up whether the risk of trying to negotiate an appropriate scope for such an assessment outweighs the risks that would result should the lack of such information lead to a delay in the consent decision. In many cases the costs associated with undertaking additional environmental assessment are relatively small compared with those that would be associated with a delay to the proposed development's programme.

Changes in scope can reflect new issues arising as studies are undertaken and further information becomes available. This does not necessarily represent a failure in the scoping process – some issues can arise unexpectedly. A comprehensive risk assessment at the scoping stage should minimise the chance of issues being missed. Good communication between proponents and regulators will also help to ensure the implications of any new issues are quickly considered and the scope adjusted before the IA process has progressed to the point where additional scoping requirements will result in a major delay.

Scope creep can also result from inadequate attention (by regulators and/or proponents) to identifying all the relevant issues during scoping and regulators realising later in the process that key issues have been missed. It can also be caused by changes in personnel or more senior managers becoming involved during the assessment, particularly in regulatory agencies as proponents are less likely to want to add new issues to the scope. Staff new to an assessment process that is already underway may have different ideas to their predecessors on issues that should be addressed.

7. Lack of guidance on regulatory standards and requirements

Scoping guidelines vary across Australia and New Zealand in the extent to which they clearly set out the standards, criteria and other requirements that a proponent must meet for a project. This may be in part because of the varying IA processes within each jurisdiction – some are more onerous than others (for example an EIS will have more scoping requirements than a PER). The level of IA may determine the detail of any scoping guideline prepared. A lack of clarity on this point makes it difficult for proponents to know where the 'goal posts' are, i.e. what do they need to do to ensure approval?

Scoping guidelines need to be more specific on the minimum requirements and they need to be more specific in the scope about the level of detail required in relation to the really important aspects.

The Productivity Commission (2013) referred to a submission from the Minerals Council:

> Major project proponents should be able to rely on compliance with clear policy on impacts, mitigation measures and other matters, to assess the viability of the project and determine whether to proceed, alter the project or abandon the project as unviable.

The Commission recommended:

> Governments should provide clear, upfront information and guidance on the development assessment and approval pathways that apply to major projects, including on the processes, generic information requirements, assessment criteria, standard and model conditions, and statutory timelines that apply under a given pathway.

Where possible, the standards to be met should be unambiguous. This is generally easier with 'brown' issues (e.g. air emissions and waste discharge) than 'green' ones (e.g. acceptable impacts on abundance and diversity of fauna). Improving guidance on relevant standards will increase the likelihood that proponents will develop appropriate avoidance and mitigation measures to ensure their project is acceptable. Consequently, clear guidance on regulatory standards should be part of a scoping guideline.

8. Failure to recognize other decision making processes

IA occurs within an overall environmental planning framework. Before the IA process for a project commences, certain matters have already been considered and decided through strategic assessments, policy development and other planning processes. For example, a strategic assessment may have identified a section of coastline as suitable for port development. Consequently, an IA for a proposed port development within that area should not be seeking information to demonstrate the suitability of this land use (other than recognizing any specific site constraints).

If a project is approved, it will still need to meet other regulatory requirements and may be subject to approval of environmental management plans or other documents. Consequently, scoping should take into account:

- The decisions that have already been made that are relevant to the project (and which should not be revisited)
- The matters that need to be considered through the IA process
- The matters that will be subject to further secondary approvals and which do not need to be considered at this point in time.

Proponents commonly complain about matters being included in IA scoping guidelines that are trivial to the approval decision and can be readily dealt with through secondary approvals. EIANZ (2013), for example, argues:

Often a range of issues that are not particularly relevant to the decision are included in the scope of an ESIA process in the mistaken belief by agencies of government that the ESIA provides the only opportunity to negotiate specific details of projects. For example, Terms of Reference require appraisal of impacts of traffic on road pavements in the ESIA, when, for many projects, this matter could readily be dealt with in later agreements with road managers, once the real traffic impacts become clear.

The implication of this, according to EIANZ (2013) is:

This results in too much attention being given to less relevant issues that are inappropriate to assessment of projects at a conceptual planning level. It also detracts time and resources away from the delivery of effective environmental outcomes, with many projects affording to meet only statutory compliance rather than generate any environmental enhancements.

Similarly, Horvath and Barnes (2015) note:

Unfortunately, what we have seen in many EIAs in Canada is that there is often little consideration of the protections afforded by the existing environmental and regulatory frameworks and, as a consequence, time and resources are spent unnecessarily during the EIA on assessing project components, environmental effects, and mitigation measures that are already well regulated and managed through mandatory requirements.

WA EPA (2013) consider this in their scoping. Where the expected impact on an environmental factor is not significant, no further assessment against that factor is required in the IA. This includes impacts that may be significant but are 'readily mitigated by other regulatory processes' to below the significance threshold.

As discussed above, over-scoping can result in large IA documents that discourage public involvement. It also results in greater cost to the proponent at a time when they may have limited funding. Provision of further project funding may be dependent on achieving successful regulatory approval.

9. Public input to scoping

The opportunity for the public to comment on draft scoping guideline varies across Australia and New Zealand. Some jurisdictions that previously provided for public comment have removed this step in the interests of 'streamlining' (e.g. South Australia). The Environment Agency (2002), however, notes:

The early involvement of stakeholders in the EIA has benefits for the developer in terms of good public relations and obtaining information about the local area. Moreover, by addressing concerns at the outset

there is less likelihood of the project being delayed, for example, at the decision stage because important information has been overlooked. By seeking to accommodate the concerns of stakeholders, the developer is more likely to gain the confidence of local people, rather than risking the suspicion and mistrust that may be generated by new developments.

The Productivity Commission (2013) reached a similar view. A submitter suggested a lack of consultation at the scoping stage may be counter-productive:

… since submissions are not generally sought until project proposals are well-developed, it is much harder to incorporate public suggestions and thus much harder to provide meaningful opportunities for participation. The easiest way for the public to engage in such process is to criticise project proposals, or to focus discussions on superficial issues such as managing impacts during construction.

The Commission consequently recommended:

To achieve greater transparency, accountability and certainty in the process for setting the scope of major project primary assessments, governments should ensure that key stakeholders (including local governments, the public and proponents) have input to the draft terms of reference for primary assessments and that such input, and how it has been addressed, should be made public.

Greater public involvement in scoping, however, can lead to over-scoping as it can result in more attention on perceived issues, rather than those that may actually be of concern. Ross, Morrison-Saunders and Marshall (2006) argue:

Good scoping sets priorities and decision-makers have an obligation to reject some concerns before setting EIA terms of reference. Scoping should identify information and concerns pertinent to the subsequent tiers of impact assessment; it is ineffective when it just records opinions.

The Environment Agency (2002) cautions against rejecting perceived risk in assessments:

'Perceived' risk is the risk posed to individuals or communities as they themselves interpret it. Perceived risk is a complex phenomenon and is not directly dependent on the "real" risk posed by an event. Thus, particular stakeholders may have great concern about some aspects of a proposal for which the real risk is low. These issues should not be discounted and must be explicitly addressed in an EIA about the development. The mere provision of data on real risk may not resolve an issue that stakeholders perceive to be a concern. (Environment Agency 2002)

Sandman (2014) writes in a similar vein:

The most important fact about risk communication is the incredibly low correlation between a risk's "hazard" (how much harm it's likely to do) and its "outrage" (how upset it's likely to make people).

Sandman promotes the message that 'Risk = Hazard + Outrage'. Canter and Ross (2014) also caution that practitioners should not to 'assume responsibility for making decisions on behalf of society'.

Consequently, a judgement needs to be made about how readily a view held by community members should be rejected at the scoping stage or whether it should be taken forward into the assessment. Proponents should be able to demonstrate to the public why an issue that is perceived by them to be of concern does not require further investigation. If this argument cannot be made convincingly, then it may need further consideration. Alternatively, if a significant proportion of the community continue to hold a view which is clearly erroneous, this would suggest the proponent's community engagement is ineffective and it may be better to focus the resources on this area.

Finally, the capacity of the community to participate in scoping needs to be considered. Diduck and Sinclair (2002) note:

> Scoping processes, appropriately designed, may offer an additional opportunity for involvement in impact assessment, but do not, of themselves, address intractable barriers of information, resources and efficacy which restrict the participation of wider publics.

Ultimately, proper engagement with the community and key stakeholders will generally ensure issues will be raised and resolved earlier in the IA process.

10. Inadequate attention to risk

As noted above, a failure to utilise an effective risk based approach may result in over-scoping. However, it can also result in important matters being missed. Risk is a combination of consequence and likelihood. A scoping framework that focuses on the significant impacts that are likely to occur may miss low likelihood, high consequence events. For example, decades of experience with nuclear power station indicate that failure events resulting in a significant impact on humans and the environment are extremely rare – they are certainly not likely. Such events, however, can have a catastrophic consequence (e.g. Chernobyl).

Other risk scenarios may not be so well-known. Practitioners may not have any experience or knowledge of the potential for a particular rare event. This highlights the need for scoping to start from a broad base and research issues carefully before they are scoped out.

11. Facilitated impacts and cumulative impacts

Assessment of cumulative environmental effects (i.e., those environmental effects arising from the project in combination with other projects and activities), is a challenging issue in IA. The assessment of cumulative environmental effects may require information that is not available to the proponent or may not be within the capacity of a single project proponent to complete. The nature of some cumulative environmental effects is, in some cases, unknowable and recognition of these limitations at scoping is necessary so as not to unreasonably burden the IA. Loosely stated requirements regarding the assessment of cumulative environmental effects can result in unclear or unbounded expectation for analysis.

Sometimes, regulators are themselves unclear as to how to address cumulative effects and cannot provide a relevant framework for the proponent to use. At times, requirements for information on cumulative impacts can exceed the matters that the decision maker is able to consider through the relevant legislation. This highlights the need for clear definition of the expected temporal and spatial boundaries for the cumulative impact assessment.

12. Recognition of scoping as an ongoing process

As noted several times above, scoping also needs to be flexible – unknown factors/issues may arise during the course of preparing the IA and the proponent will need to investigate these emerging issues. In addition, changes can occur to the project design that introduce

new impacts or different levels of risk. In these cases, scoping guidelines may be amended.

Following site selection, scoping should progressively consider a decreasing range of issues, but in increasing detail. It should ensure that a balance is struck between incorporating all the significant effects and eliminating the insignificant impacts from further study. An effective scoping exercise should ensure that detailed surveys and assessments focus on the key environmental issues and that disproportionate resources are not allocated to minor issues. Scoping should be an ongoing activity undertaken throughout the course of the project (Environment Agency 2002).

References

ACT Planning and Land Authority (n.d.) Preparation of an application for scoping/ Preparation of an application for an Environmental Significance Opinion – A guide.

Abaza, H., Bisset, R. and Sadler, B, 2004, *Environmental Impact Assessment and Strategic Environmental Assessment: Towards an Integrated Approach*. United Nations Environment Programme.

Barnes, Hardwick and Chan, 2010, 'IAIA10 Conference Proceedings' The Role of Impact Assessment in *Transitioning to the Green Economy* 30th Annual Meeting of the International Association for Impact Assessment 6-11 April 2010, International Conference Centre Geneva - Switzerland (www.iaia.org)

Diduck and Sinclair, 2002, "Public Involvement in Environmental Assessment: The Case of the Nonparticipant", Environmental Management 29(4): 578-588

EIANZ SEQ Division 2013 *Environmental and Social Impact Assessment Reform: A discussion paper*

Elliott, M, 2014, *EIA in Australia: theory and practice*, 6th ed, The Federation Press, Annandale, NSW.

Environment Agency 2002, Environmental Impact Assessment: A handbook for scoping projects

Fay, C, Quatermain, H and Eisenegger, M, 2014, "EIA Systems and Processes: A Global Perspective", Regional EIA Symposium: Shaping EIA for the Future, 9th-11th January 2014, Hong Kong SAR, P.R. China

Fischer, T.B. and Phylip-Jones, J, 2008, *Scoping in environmental assessment*, in Fischer, T, B, Gazzola, P, Jha-Thakur, U, Belcakova, I, and Aschemann, R, (eds). *Environmental Assessment Lecturers' Handbook*, ROAD Bratislava, 136-142.

Hogg, D, 2006, "Scoping as an Effective Tool" in Environmental Planning and Assessment, EIANZ Conference, Adelaide

Horvath and Barnes, 2015, “Aligning Environmental Impact Assessment (EIA) with Existing Regulatory and Management Frameworks to Improve EIA Quality”, International Association for Impact Assessment Conference, Florence 2015

Institute of Environmental Management & Assessment, 2011, *Special Report – The State of Environmental Impact Assessment Practice in the UK*

International Association for Impact Assessment, 2009, “What Is Impact Assessment?” Special publications. Available at: http://www.iaia.org/publications-resources/downloadable-publications.aspx

Productivity Commission, 2013, *Major Project Development Assessment Processes*, Research Report

Ross, W.A, Morrison-Saunders, A, Marshall, R, 2006, “Improving quality”, Impact Assessment and Project Appraisal, 24:1, 3-22

Ross, W.A, 1987, “Scoping in Canadian environment assessment reviews”, Paper for the United Nations Economic Commission for Europe, Seminar on EIA, Warsaw, Poland, 21-25 September, Geneva UNECE

Sandman, 2014, *Introduction to risk communication* http://www.psandman.com/index-intro.htm Downloaded 30/6/15

Snell, T, & Cowell, R, 2006, "Scoping in environmental impact assessment: Balancing precaution and efficiency?" Environmental Impact Assessment Review, 26(4), 359–376. http://doi.org/10.1016/j.eiar.2005.06.003

WA EPA, 2013, *Environmental Assessment Guideline for Scoping a proposal*, EAG 10

Weston, J, 2000, EIA, “Decision-making Theory and Screening and Scoping in UK Practice”, Journal of Environmental Planning and Management, 43(2):185-203.

Wilkinson, L, 2006, Scoping workshop, EIANZ Conference 2006, Wellington