
Outcomes of the Symposium for IA practitioners and researchers: Doing impact assessment in the context of uncertainty and risk

Background

This event was held on February 20th and 21st this year, attracting 36 professionals, practitioners and academics working in the IA area.

Day 1 involved five sessions:

- State of IA in Australia;
- Social and economic IA in uncertainty;
- Lesson from research;
- Lesson from case studies; and
- Discussion and how we better do impact assessment in the context of uncertainty and risk.

Day 2 was aimed primarily at IA academics and researchers, and had 2 sessions:

- Teaching IA; and
- Research round table.

A summary of the presentations is provided at the end of this document. You can download these presentations at the following link - <http://www.garrymiddle.net/2017-ia-symposium-downloads/>

Outcomes from the discussions

Day 1.

Five questions/issues emerged during the presentations and these were discussed in detail in the last sessions of the day:

1. Doing a first cut of SIA Guidelines;
2. The extent to which SIA can be integrated into EIA;
3. Learning and feedback – what have we learnt in 48 years of IA and how do we do better?
4. Cumulative impact assessment – doing it better in EIA and what do we need to do?
5. How do we better deal with scientific uncertainty?

Participants worked in groups on selected question to address the question/issue. Below are the key findings of the groups on each question/issue.

1. Doing a first cut of SIA Guidelines;

There was general support that having a set of SIA Guidelines would be useful and encourage better practice. A common set of Guidelines that apply to all Australian jurisdictions was preferred rather than separate ones. The document should provide more than general guidance and provide adequate detail on the specifics of SIA practice so as to provide consistency across Australia.

Industry, for example the mining sector, could contribute.

Practitioner based Guidelines rather regulation was preferred by many, although there was also a view that it was time to have regulations requiring SIA in certain circumstances.

The Guidelines should include expectation of profession skills for practitioner.

It would be useful to include best practice case studies as models for doing SIAs.

Rather than 're-invent the wheel' a starting point should be to review and build on any existing Guidelines – for example the draft NSW Guidelines, IAIA Guidelines and many local governments have developed their own Guidelines.

Once the Guidelines are produced, they should be promoted through the relevant professional groups – planners, engineers, architects, environmental consultants, financial groups etc.

Finally, who should coordinate the production of the Guidelines? It was recognised that there is no formal SIA profession or organisation. The EIANZ could take on this task, although there is the risk that do so it would produce a document that was too environmental focused.

One significant issue for SIA is defining the affected community or communities, including whether a community is actually affected or whether impacts are perceived.

2. The extent to which SIA can be integrated into EIA;

It was generally agreed that SIA will remain a separate process to EIA, largely because of the definitions of environment used in each jurisdiction. However, an SIA should be run in parallel with the EIA.

Consequently, a coordinated approach is needed between the agencies and officers carrying out the SIA and EIA.

Post assessment, the final decision making should integrate the finding of the SIA and EIA, look for conditions that have multiple benefits, and that economic, environmental and social issues given equal weight.

3. Learning and feedback – what have we learnt in 48 years of IA and how do we do better?

It's critical that information generated in EIAs is captured and shared in a publically available format and medium. In the cases where a SIA is carried out, the SIA document is not always made publically available. Public availability of information and documentation will ensure transfer of knowledge to all stakeholders occurs. This should include inter-agency and across jurisdictional sharing. The availability of data and transparency of the data holders should occur through the EIA process as well as post assessment.

In some cases, procedural fairness is not always delivered, especially in terms of availability to the community of all the relevant information in SIAs.

A key barrier to improvement is poor knowledge and data sharing, including where industry claim commercial in-confidence, and competition between rival players, whether they be industry or government. As well, there is not always a common platform or procedure for collecting and recording data.

There should be some central system of tracking, capturing and storing the data, both environmental and the social impacts, that latter is especially poorly done.

Unfortunately, not enough time is given to reflect on outcomes of assessments. It seems more important to move on to the next assessment rather than reflecting on evaluating an assessment. This is a significant barrier to learning and doing better next time. Reflection's on long term activities is also essential, especially in assessing cumulative impacts, errors and successes.

As professional we can help in facilitating learning and providing feedback by

- taking the time to record and report successes and failures – presenting at conferences and seminars etc;
- Develop a professional education process with proponents and industry where ‘anonymous case studies’ are reported and explained; and
- Continually re-inforce the language of continual improvement.

One area that has seemed to have made progress is that IA has led to the inclusion of environmental and social aspects alongside economic considerations as part of decision making. As well, there are now a range of useful guidelines that have been developed to aid decision making, and the processes of decision making involving IA is now largely well developed, accepted and understood.

We need to do better in learning from each IA and to use that knowledge to inform subsequent IAs. Time and effort is need for this. Learning in SIA has been particularly difficult, in part because there is no formal network of practitioners resulting in poor exchange of ideas, experiences and information.

Finally, the existence of strongly top down approaches in IA and a focus on efficiency has come at a price for effectiveness.

4. Cumulative impact assessment (CIA) – doing it better in EIA and what do we need to do?

The best stage of decision making to address CIA is through strategic planning and, therefore, strategic environmental assessment. This would allow thresholds of acceptable impacts to be set.

It was recognised that in most jurisdictions, SEA was either not covered by the relevant environmental legislation – i.e. only project EIA is allowed, or, where legislation allows for SEA, it is either not done often enough or where done, it is focused at the wrong types of issues. In short, we don’t do SEA very well in Australia.

Who should set these thresholds becomes a key question. The best way would be through agreement between the key stakeholders as part of the SEA.

Project EIA could be used to address CIs. It would mean that each project needs to be set within a regional context, and cumulative impacts should be a requirement in the preparation of proponent EIS documents. Post approval, projects should be required to monitor and report impacts compared to baseline conditions to show any environmental change at a regional, not just local, level. Conditions of approval need to ensure that cumulative impact threshold are not exceeded and the proponent should be required to address how it will respond in the event a cumulative impact threshold is exceeded.

This approach will require brave decision making as well, as proponents may argue that socio-economic impacts might occur if they are required to ensure cumulative impact thresholds are not exceeded – for example job losses.

Project specific monitoring and reporting on cumulative impacts should be made publically available and used to inform subsequent projects assessments.

Emission trading may need to be introduces within an air shed or catchment to keep impacts below a cumulative impact threshold. It is also likely that EIA by itself may struggle to enforce air shed or catchment cumulative impact thresholds and that special legislation may be required.

The use of offsetting could be used where a cumulative impact threshold is exceeded, but it would need to directly related to that particular impact.

5. How do we better deal with scientific uncertainty?

The first option in dealing with scientific uncertainty is to collect more data and to try and reduce that uncertainty. This is not always possible within the time constraints of an EIA.

Scenarios modelling is usually the best way to deal with uncertainty. Using worse case scenarios based on existing data provides increase level of confidence that impacts could be acceptable – provided worse case scenarios are themselves acceptable. The onus is always on the proponent to produce credible evidence and data to address the uncertainty issue and show risks are acceptable. The process of risk assessment needs to be transparent and accountable. This should include identifying any gaps and the level of uncertainty of the data as early as possible in the process.

Credibility is added to any risk assessment if it is carried out by an independent expert. This builds trust in the outcome.

A key point of contention will always be around what impacts are acceptable and what level of uncertainty is acceptable in decision making in EIA. There needs to be clear guidelines developed that address this issue – i.e. level of uncertainty which is acceptable.

It is important to do sensitivity testing on the scenarios to test the assumptions.

Proper project adaptive management, including robust monitoring, is usually the best way for implementation where uncertainty remains. The management regime should include contingency actions where worst case scenario is realised.

The Precautionary Principle is usually invoked in case where there is uncertainty, but little specific guidance is provided in its application during and EIA. Proper guidance would help to avoid situations where different stakeholders have different interpretations of how it should be applied and provide the basis for a proper debate as to how it should be applied in specific situations. A related problem here is that scientist and practitioner are very poor at explaining to the public/lay person what is risk and how uncertainty is dealt with. The public often has a zero tolerance to risk which is unrealistic in decision making.

Day 2 outcomes

1. Teaching in IA

There is some merit in developing a community of practice of teachers, trainers and mentors in IA. It was agreed that this should be organised as part of the next gathering of IA people in Melbourne next year. As preparation for this it agreed that a contact list of individuals relevant organisations be developed. Emma, Claire, Megan and Garry agreed to work on this. **Emma agreed to lead this.**

2. Researching in IA

The main issue that emerged was that there seemed to be a disconnect between research and practice – both ways. One strategy would be to have a process of translating significant and useful articles into lay language – this is possibly something that the EIANZ SIS could do.

The following questions and issues were identified:

- Why isn't research being used by practitioners?
- What are the important challenges for practitioners?
- What do practitioners want and need?

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- Are there people doing research relevant to IA and are not realising it?
 - Practitioners and academics could work together in scoping SIAs.
 - More research is needed into improving community engagement.

It was agreed that a useful piece of research that could be done would be to investigate the challenges facing practitioners and what are their key research needs.

The next steps in developing this research proposal were:

1. Use Garry's existing Survey Monkey account;
2. Refine the research question – **Garry to draft and circulate;**
3. Identify target audience – **all;**
4. Once we have agreed to research question draft survey questions to be identified – **all with Garry to coordinate;**
5. Finalise the survey and pilot it.
6. Establish a peer review group – **EIANZ SIS;**
7. Do the survey!
8. Analyse the results – present at next gathering of IA people in Melbourne next year?

Overview of presentations

Session 1 - State of IA in Australia

WA - Setting the scene for the day and IA in WA – Implications of the Roe Highway stage 8 decision – Garry Middle, VisionEnvironment Consulting and Curtin University;

NSW – EIA Improvement Project - Erica van den Honert, Brian Cullinane; NSW Department of Planning and Environment;

Victoria - Mandy Elliott, EnvironME;

South Australia - Lachlan Wilkinson, JBS&G Consulting.

Session 2 - Social and economic IA in uncertainty

Designing for good economic and social impact management - James **Kernaghan**
Managing Director, Circle;

State of Social Impact Assessment in NSW Government - draft SIA guidelines - Dr Richard Parsons, NSW Department of Planning & Environment;

Tools to Help Handle Complexity – Reception to UQ's Boomtown Toolkit - Will Rifkin, UQ Centre for Social Responsibility in Mining;

SIA in NSW - A broader view - Alison Ziller, Department of Geography and Planning, Macquarie University;

The importance of government (legislation/regulation) in determining an ESIA's level of uncertainty and the resultant risk to projects - Jan Parsons, Finance for Australian Exporters;

Session 3 - Lesson from research

What determines the influence of EA on development? - Claire Gronow, Griffith University;

How much can we expect from the Environmental Impact Assessment (EIA) process? - Megan Jones Murdoch University;

The Expansion of Reserve forests in the Chittagong Hill Tracts of Bangladesh: Exploring the Impact on Indigenous People Lives - Sabiha Yeasmin Rosy, MacQuarie University.

Session 4 - Lesson from case studies

Striking the balance - grappling with cumulative impacts - Carolyn Cameron, Cameron Strategies;

Risk tolerance and mining projects: What's at risk and who decides? - Sandy Worden, Sustainable Minerals Institute, University of Queensland;

The science and politics of uncertainty in IA: case study of Yeelirrie uranium mining project - Garry Middle, VisionEnvironment Consulting and Curtin University

Day 2 - Teaching and researching in IA

Teaching EIA: How well do we do it? – Emma Gyuris, James Cook University

The risks in teaching uncertainty in IA - no PowerPoint used - Garry Middle, VisionEnvironment Consulting and Curtin University.

Compiled by Garry Middle, who takes full responsibility for interpreting the notes taken by each group and presented to all participants on butcher's paper. April 17 2017