Main points of focus…

- considering the foundational objectives for EIA
- re-visioning EIA (challenging the status quo)
- demonstrating benefits of EIA

Context for this presentation…

EIA process in WA is my example
- (home advantage?)
but hopefully the main points are relevant to all EIA practitioners
- (so please extrapolate the ideas to your own EIA circumstances)

EIA in WA – EPAct 1986

- establishes Environmental Protection Authority (EPA)
- EIA is a key function of EPA
- legal aspects of EIA in Act
- process details in 2012 EIA Administrative Procedures

A thought experiment…

Long title of the EPAct 1986
...for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment ...

You have been asked to design an EIA process to deliver this goal (starting with a blank slate).
What would you propose?

What is the best way to do EIA?

Before attempting to answer this question, let’s consider current practice…

[WA specifics follow, but ultimately similar to nature of EIA worldwide]
44. Report by Authority

(1) If the Authority assesses a proposal, it is to prepare a report on the outcome of its assessment of the proposal and give that report (the "assessment report") to the Minister.

(2) The assessment report must set out –

(a) what the Authority considers to be the key environmental factors identified in the course of the assessment; ...

Note: environmental factors are mainly biophysical only

EIA in WA – Environmental factors and objectives (i)

Environmental Factor = part of the environment that may be impacted by an aspect of the proposal

• 15 environmental factors (five themes)
• 2 integrating factors

EIA in WA – the mitigation hierarchy

Mitigation in an environmental context, means a sequence of proposed actions designed to help manage adverse environmental impacts, and which includes (in order of preference) –

1. avoidance – avoiding the adverse environmental impact altogether;
2. minimisation – limiting the degree or magnitude of the adverse impact;
3. rectification – repairing, rehabilitating or restoring the impacted site as soon as possible;
4. reduction – gradually eliminating the adverse impact over time by preservation and maintenance operations during the life of the action; and

Environmental offset means an action or actions undertaken to counterbalance adverse environmental impacts from implementation of a proposal. The action(s) are taken after all reasonable mitigation measures have been applied and a significant environmental risk or impact remains.

EIA in WA – Environmental factors and objectives (ii)

EPA objectives for environmental factors ... means the desired goal for each environmental factor, which, if met, will indicate that the proposal is environmentally acceptable.

EIA in WA – the mitigation hierarchy

Mitigation in an environmental context, means a sequence of proposed actions designed to help manage adverse environmental impacts, and which includes (in order of preference) –

1. avoidance – avoiding the adverse environmental impact altogether;
2. minimisation – limiting the degree or magnitude of the adverse impact;
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4. reduction – gradually eliminating the adverse impact over time by preservation and maintenance operations during the life of the action; and

Environmental offset means an action or actions undertaken to counterbalance adverse environmental impacts from implementation of a proposal. The action(s) are taken after all reasonable mitigation measures have been applied and a significant environmental risk or impact remains.

So how does EIA look with this approach?

• EIA documents divided into topics for each env. factor
• Studies/discussion of individual impacts on each factor – mitigation to minimise impacts

[i.e. pretty typical EIA approach seen worldwide – reductionist, over time increasing types of impacts considered]
EIA in WA – It is one of the best!

I am on the public record stating that the EIA system in WA is the best of its kind that I have seen.

A Rolls Royce…

But is best current EIA practice enough?

State of the Environment Reporting indicates deteriorating environmental and social quality and wellbeing

- trends are "towards deeper unsustainability" (Gibson 2013, p3)


SOER WA – Overview…

<table>
<thead>
<tr>
<th>Theme</th>
<th>Status &amp; trend</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamental Pressures</td>
<td>🔴</td>
<td>Increasing pressures on the environment from WA's economic boom, consumption of natural resources, and climate change require new approaches to environmental management.</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>🔴</td>
<td>Atmospheric pollution issues across WA are generally within guideline limits and appear to be under control. Some issues appear to be worsening.</td>
</tr>
<tr>
<td>Land</td>
<td>🔴</td>
<td>Many land problems in the South West are getting worse. There are fewer problems in other parts of WA.</td>
</tr>
<tr>
<td>Inland Waters</td>
<td>🔴</td>
<td>Many waterways and wetlands in WA are degrading, especially in the South West. Better management and protection of inland waters is required.</td>
</tr>
<tr>
<td>Biodiversity</td>
<td>🔴</td>
<td>There is insufficient knowledge about biodiversity in WA. Most biodiversity issues are serious and appear to be getting worse.</td>
</tr>
<tr>
<td>Marine</td>
<td>🔴</td>
<td>A few marine areas in WA have recognised problems. Improved knowledge of the marine environment is required.</td>
</tr>
<tr>
<td>Human Settlements</td>
<td>🔴</td>
<td>Some WA settlements are growing at an unsustainable pace with increasing demands for increasing waste generation.</td>
</tr>
</tbody>
</table>

Many heritage places in need of management protection are required.


SOER no longer happens in WA – but EPA recently began reporting on key issues in annual reports

A Rolls Royce might be a great car, but perhaps something else is needed…?
13.1 INTRODUCTION

In recent years there have been increasing calls for impact assessment to better recognise the need for understanding feedback loops, adaptive responses and the interconnectedness of the various components of socio-ecological systems, and to adopt a systems approach to conducting impact assessments. This is particularly the case for forms of impact assessment process that focus upon sustainability, since sustainability itself is a holistic concept in which social and environmental concerns are inherently critical influences on that outcome. Figure 13.21 is a simple depiction of the influences on sustainability (Hacking and Guthrie, 2008), how can systems thinking in general and the potential of a systems approach to sustainability assessment should have been addressed.

13. A systems approach to sustainability assessment

Reinventing EIA – what might we do?

- holistic/sustainability oriented
- consider whole region/ecosystem (e.g. cumulative effects)
- systems based
- understand socio-ecological linkages, directions of change and how EIA could enhance socio-ecological system
- strategic in nature
- high level/proactive and focus on what matters most (divert resources to these)

+ usual best practice principles such as credible, rigorous, transparent, participative, adaptive etc.

Another thought experiment…

Could 'env. factor' be defined differently by the EPA (i.e. to achieve better EIA)? [ suggestions…?]

Should we change the EIA legislation?

Long title of the EPA 1986 ...for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment...

EIA in WA – Key environmental factors

4. Report by Authority
   (1) If the Authority assesses a proposal, it is to prepare a report on the outcome of its assessment of the proposal and give that report (the "assessment report") to the Minister.

(2) The assessment report must set out –
   (a) what the Authority considers to be the key environmental factors identified in the course of the assessment.

Could we improve our approach to EIA in WA without changing legislation?

Changing legislation is difficult (and dangerous)

Long title of the EPA 1986 ...for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment...

EIA in WA – Key environmental factors

4. Report by Authority
   (1) If the Authority assesses a proposal, it is to prepare a report on the outcome of its assessment of the proposal and give that report (the "assessment report") to the Minister.

(2) The assessment report must set out –
   (a) what the Authority considers to be the key environmental factors identified in the course of the assessment.

Consideration of cumulative effects is starting to happen

There is a growing need for increased focus on the cumulative impacts of human activities across the State. Whilst proponents referred to the EPA are assessed at an individual level, they are not seen in isolation.

Systems thinking in impact assessment is starting to happen…

William Grace and Jenny Pope

13.5  A SYSTEMS APPROACH TO SUSTAINABILITY

Gibson et al., 2005; Gibson, 2006a, 2006b), which is necessary-but-insufficient category. The arguments in favour of holistic/sustainability oriented...
EIA in WA – more strategic assessments?

Strategic consideration of the environment
Since its inception in 1971, the EPA has conducted environmental impact assessments of significant development proposals. In 1996, the EPA was also given responsibility to assess all planning schemes and scheme amendments.

What the EPA has learned over that time is that case by case assessments are usually not the best way to achieve broader strategic environmental outcomes, particularly in areas where there is a range of cumulative environmental impacts, complex biodiversity and many competing land uses.

[Page 5 of 5]

Meanwhile, are we under attack?

and internationally too…?

Why do EIA?

Is it because:

- EIA is a legal requirement (?)  ❌
- EIA enables sustainable development (?)  ✓

– i.e. benefits of EIA > costs of doing EIA

Can we demonstrate the benefits of EIA?

e.g. with the ‘managing adverse impacts’ approach that we use now?

Long title of the EPA: Act 1986
... for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment …

What might we do to challenge the status quo of EIA practice?

Thank you!

I invite questions and open discussion …

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