Realising sustainability through environmental impact assessment

Virginia Dahlitz, School of Environmental and Conservation Sciences, Murdoch University, Perth, WA.
Introduction

- EIA has a long standing objective of sustainability or sustainable development (O’Riordan and Sewell 1981; Sadler 1996; Sheate 2009)

- After 45 years of EIA practice this objective still appears to be difficult to clearly demonstrate (Audouin and de Wet 2012; Bond et al 2012; Morrison-Saunders and Retief 2012; Morrison-Saunders et al 2014)
Internationally increasing interest in the contribution of EIA to sustainability

Sustainability thinking in environmental assessment

Rethinking Sustainability in the Anthropocene

Sustainability-focused impact assessment: English experiences

Determining sustainability impact assessment indicators

Towards sustainability assessment follow-up
How might sustainability be demonstrated or realised through EIA?
What is the future of EIA?

Barnett declares war on environmental green tape

Reducing Green Tape or Rolling back IA in Australia:

- Strengthening impact assessment: a call for integration and focus
- Demonstrating the benefits of impact assessment for proponents

Sustainability oriented assessment has emerged as an approach to better consider sustainability in IA practices

Impact assessment: there can be strength in diversity!
Sustainability Oriented Assessments

- Sustainability...
  - no one single definition or version
  - viewed in different ways or paradigms
- Sustainability assessment has no universal consensus as to what it is or how it should be applied (Bond et al. 2012 p53)

Sustainability assessment:
‘any process that directs decision-making towards sustainability’

(Bond and Morrison-Saunders 2011 p1)
Sustainability Oriented Assessments

- equity
- systems integrity and resilience
- health and wellbeing
- longevity
- positive outcomes
- knowledge and learning
- future generation’s needs
- protection and enhancement

Different ways of viewing sustainability or different paradigms of sustainability

Can be approached from a single paradigm or multiple paradigms depending on the project and the desired outcomes

(e.g. building on the approaches of Pope et al 2004; Gibson et al 2005; Bond et al 2010; Morrison-Saunders and Retief 2012)
Five Paradigms of Sustainability

- Integration of development and environmental goals
- Placing limitations on human activities
- Process of directed change or transition
- Promotion of equity
- Promoting systems integrity and resilience

Research Aim and Questions

- Understand how sustainability might be realised through environmental impact assessment.

1. How might different sustainability paradigms be realised through EIA?
   ◦ What would be the implications of different sustainability paradigms on EIA processes and outcomes?
     ◦ How could these be measured and accounted for?

2. How would these sustainability-oriented approaches compare with currently established EIA processes?
**Methods**

(1) Theoretical modelling using literature analysis
(2) Personal interviews with EIA practitioners
(3) Case study analysis using audit style assessment
The Case Study

- Alkimos Wastewater Treatment Plant
  - Quinns Main Sewer
  - Wastewater Treatment Plant
  - Ocean Outfall

- Why:
  - Underwent traditional EIA
  - Two options for the project
  - Technical complexity
  - Environmentally and socially sensitive area
  - Political component
  - Ongoing management issues
Benefits of Research

- **Demonstrate:**
  - Substantive benefits of EIA
  - EIA can achieve or contribute to sustainability/sustainable development
  - Extent to which practice is becoming more sustainability oriented

- **Understand:**
  - how sustainability paradigms might be realised through EIA
  - the implications of sustainability paradigms on EIA processes and outcomes
  - how these can be measured and accounted for

Theoretical and practical contribution to the field of sustainability oriented assessment by demonstrating how sustainability might be realised through EIA

- Determine what approaches to sustainability might fit best with current practice, i.e. to do more with less
WHAT’S NEXT?
References