

Australian EIA Practitioners views on addressing climate change

Introduction

Addressing climate change through EIA has become an important topic and discussion point in the EIA community. This paper presents the results of a survey of Australian EIA practitioners seeking their views on the how well EIA in Australia is addressing the issue and views on the potential for project EIA and SEA to address climate change. A case study of the performance of EIA in Australia addressing climate change was carried out.

Background and EIA practice in Australia

Australia is a Federation made up six States and two Territories (sub-national level of government) and a national or Commonwealth government. EIA is carried out at both the National and sub-national levels with some inevitable overlap of jurisdiction and coverage of environmental issues. Each jurisdiction has evolved its own EIA procedures and processes, and, in general, EIA at the sub-national level is more comprehensive in scope than at the Commonwealth level, primarily because the States and not the Commonwealth have explicit constitutional power to regulate the environment (Harvey and Clarke 2012:63).

The primary focus of EIA in all Australian jurisdictions is project level, in part because of the significant number of resource related projects proposed, mostly in the north of the country (mining and hydrocarbon extracting and processing). Consequently, SEA in Australia is not as well developed as in places like Europe: as Kelly et al (2012:78) note “compared with Scotland, SEA throughout Australia is scattered, inconsistent and often absent.”

Methodology

Part one of this study involved surveying Australian EIA practitioners to seek their views about the role of EIA in both mitigating and adapting to climate change. An on-line survey was set up using SurveyMonkey. EIA practitioners were identified firstly through the IAIA membership list. Each Australian member of IAIA was sent an email describing the purpose of the study, how to access the survey, and were encouraged to pass on this information to other EIA practitioners they knew. A total of 63 practitioners working in five of the six states, one of the two territories and the Commonwealth jurisdictions responded to the survey.

The case study was EIA in one of the States, Western Australia (WA), where assessments carried out between 2002 and 2010 were reviewed to evaluate how climate change was dealt with. Firstly, proposals where climate change was raised by the assessing agency (the Environmental Protection Authority or EPA) as a significant factor were identified and evaluated on the extent to which climate change was addressed. Second, those projects where climate change should have been raised as an issue, but was not, were identified.

Results – survey of practitioners

General

The 63 survey respondent were drawn from across the industry, with the majority either work for an EIA assessing agency or for a consultancy that work for proponents required to carryout EIAs. There are also several academics and students who responded.

Relevance of climate change as an issue in EIA

Respondents were asked two questions seeking views on the relevance of climate change as an issue in project EIA and SEA. The results are shown in Figs 1 and 2 below.

Figure 1: Relevance of climate change as an issue in project EIA

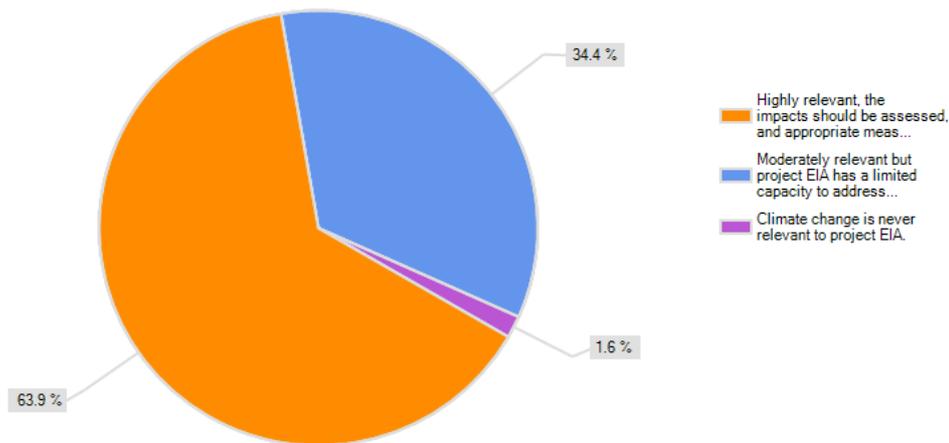
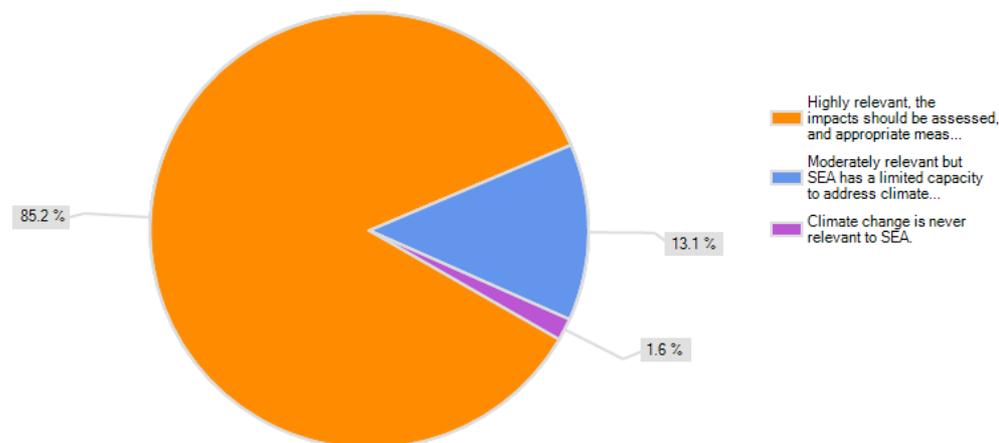


Figure 2: Relevance of climate change as an issue in project SEA



Overwhelming, practitioners believe that, where climate change is a relevant issue in EIA, it should be addressed as part of that EIA – 98% saw it as being at least moderately relevant. Further, climate change is more relevant to SEA rather than project EIA.

Performance of Australian EIA and SEA in addressing climate change

Respondents were then asked four questions about their experience in EIA and how well both project EIA and SEA deal with climate change. They were asked to provide a rating on scale of 1 to 5 with 1 being comprehensively addressing and 5 completely ignoring the issue. The results for the two questions on mitigation are shown in Figs 3 and 4. The results for the two adaptation questions were similar.

Figure 3: Degree to which project EIA has dealt with climate change mitigation

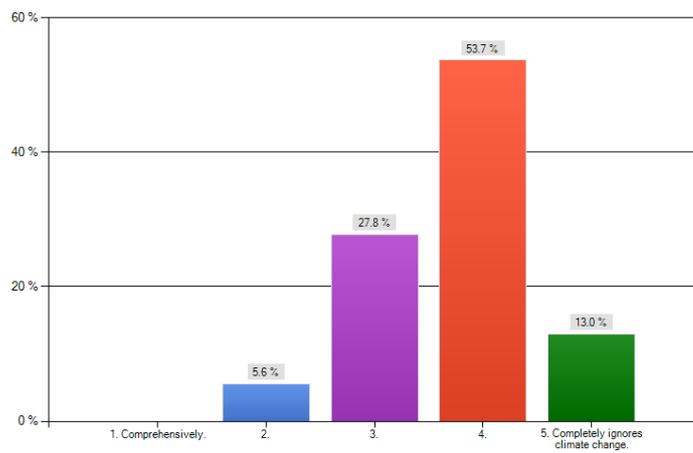
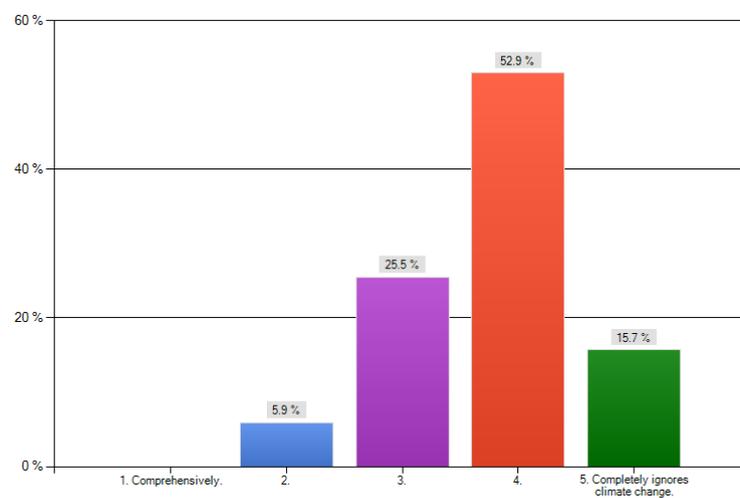


Figure 4: Degree to which SEA has dealt with climate change mitigation



Clearly, whilst practitioners are of the overwhelming view that climate change is highly relevant to both project EIA and SEA, in practice both project EIA and SEA had not adequately addressed these issues - nearly 70% agreement that both project EIA and SEA had either mostly or completely ignored climate change.

Capacity of project EIA and SEA to deal with climate change

Respondents were then asked four questions on the *capacity* of both project EIA and SEA to deal with climate change mitigation and adaptation. The results for the two adaptation questions are shown in Figs 5 and 6.

These results reflect the view expressed in the first question about relevance, with the overwhelming view being that both project EIA and SEA have the capacity to deal with climate change mitigation and adaptation, with SEA having the best capacity, particularly for climate change adaptation.

Clearly, there is a significant mismatch between the capacities for both project EIA and SEA to deal with climate change and practitioners assessment of the performance of both in actually addressing these issues.

Figure 5: Capacity of project EIA to deal with climate change adaptation

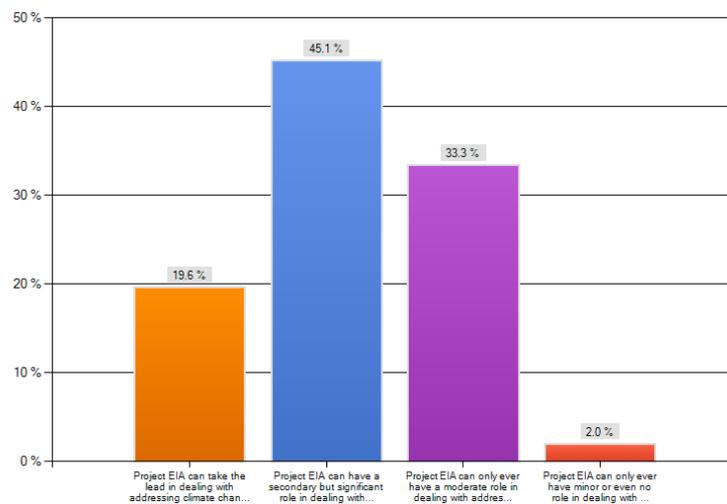
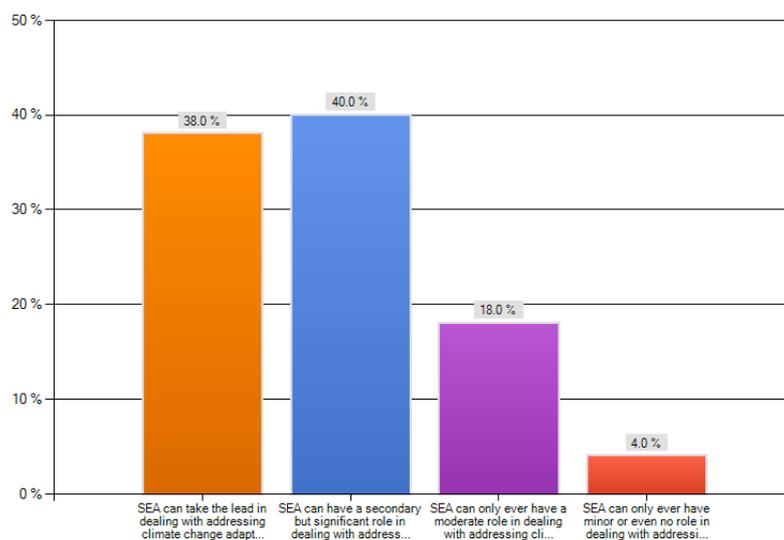


Figure 6: Capacity of SEA to deal with climate change adaptation



Barriers to project EIA and SEA better addressing climate change

Practitioners were then asked open questions on what they believed were the main barriers to both project EIA and SEA better addressing climate change – i.e. what is preventing both project EIA and SEA reaching its full capacity in relation to climate change. Tables 1 and 2 summarises the results: only those barriers that were identified by six or more practitioners are shown.

Table 1: Main barriers to project EIA being able to address climate change

Barrier	No of practitioners identify barrier
Lack of government policy and incentives to address climate change	16
Lack of political and agency will to address climate change and other consideration (economic) seen as more important	10
EIS scoping does not address climate change i.e. limited scope of EIAs	10
Lack of expertise and lack appropriate EIA tools to deal with issue	7

Table 2: Main barriers to SEA being able to address climate change

Barrier	No of practitioners identify barrier
Lack of government policy and incentives to address climate change	8
Lack of political and agency will and leadership to address climate change and other consideration (economic) seen as more important	6
Scoping does not include addressing climate change or limited scope of SEAs	12
Lack of expertise and lack appropriate EIA tools to deal with issue	8

The two most significant barriers identified in both cases were lack of government policy (State and Commonwealth) and lack of political will, both by the politicians and senior bureaucrats. These two barriers are linked, in that the absence of government policy is likely caused by a lack of political will. Whilst Australia has recently adopted national legislation that sets a price on carbon as a way of reducing emissions, this is stand-alone legislation and will not be applicable to EIA. More significantly, there is not a political census on Australia that climate change will be so significant that it needs to be addressed. The political opposition (a coalition of two conservation parties) has announced that it will repeal that legislation, and recent opinion poles suggest that support for the new legislation is only around 30%.

None of the State and Territory governments have climate change policies that would support action through EIA of SEA, and this is unlikely to change in the near future as most of these governments are of conservation political parties. Interestingly, local government has been the most active in addressing climate change, mostly adaptation, but local government does not do EIA in Australia. It is not surprising, therefore, that the scope of EIAs and SEA are seen as inadequately covering climate change in the absence of both a relevant policy framework and the lack of political will.

Results – Case study: Effectives of the WA EIA process in addressing EIA

Forty five (45) proposals were identified that had climate change raised as part of the assessment, as summarised in Table 3. Twenty four (24) EIAs of urban or tourist proposals were identified that were either on or near the coast (susceptible to coastal erosion) or were inland in low lying areas and likely subject to storm surge. In these cases climate change adaptation was not mentioned a factor in the EPA assessment. Table 4 summarises these proposals.

Table 3: Proposals assessed by the EPA where climate change as a factor

Mitigation/adaptation	Type of Industry	No
Mitigation	Coal fired power stations including expansions of existing stations	6
	Gas fired power stations (either stand-alone or part of another project)	15
	LNG proposals – reservoir CO ₂	4
	Other high energy using projects (e.g. desalination plants)	11
	Coal gasification	1
	High NO _x producing industries	1
	An SEA of future power sources	1
Adaptation	Future water supply (groundwater)	1
	Audit of existing groundwater supply	1
	SEA of forest management plans	2
	SEA for fire management plans	2

The EPA's assessments of proposals where mitigation was the key issue was quite varied with the strongest responses being to two desalination plants, where the proponent (a government agency) was required to offset some of the emissions by building wind power generators. One of the LNG plants was required to implement carbon capture and storage (CCS) measures for the reservoir CO₂ and another was required to provide some biological offsets for the reservoir CO₂. For the other proposals the EPA assessment was less stringent, with the main requirement was to prepare a greenhouse gas mitigation plan (i.e. implement efficiency measures), although 2 coal-fired power stations were also required to be CCS ready.

The EPA's assessments of the proposal where adaptation was the key issue involved primarily noting that the climate was changing and that this needed to be more prominent in future planning (reduced rainfall and recharge to groundwater, changing biodiversity in forest and likely changing fire regimes). The EPA recommended increased monitoring of the impacts of these changes and that adaptive management be implemented in response to changes.

Table 4: Proposals assessed by the EPA between 2002 and 2010 where adaption to climate change should have been a factor but was not mentioned in the assessments

Adaptation issue	Proposal type	No
Sea level rise and coastal erosion	Coastal urban developments	5
	Large lot subdivision	1
	Marinas	5
	Island tourism development	1
	Mainland coastal tourism developments	2
	Major coastal stabilisation works	1
Low lying areas subject to storm surge flooding	Residential areas (one for over 90,000 people)	7
	SEA for drainage for the whole of Perth	1
Both	SEA of Urban expansion of an existing urban area	1

Case study discussion

The above analysis suggest that whilst the WA EPA has taken a strong position on a few assessments involving climate change issues (e.g. the desalination plants) overall its response has been limited and, in the cases listed in table 4, absent. This is consistent with the practitioners views discussed above where there was a strong view that EIA has a strong capacity to deal with climate change, but that there are significant barriers to this happening in practice, and that the actual practice of EIA is disappointing. Reflecting on the key barriers listed above – lack of policy and lack of political will – it is not surprising that the EPA's performance on climate change is below what might be expected, but it is encouraging that in a few cases, it has taken a strong approach.

References

- Harvey, N. and B. Clarke (2012). *Environmental Impact Assessment: Procedures and Practice*. South Melbourne, Oxford University Press.
- Kelly, A. H., T. Jackson, et al. (2012). "Strategic Environmental Assessment: Lessons for New South Wales, Australia, from Scottish practice." *Impact Assessment and Project Appraisal* 30(2): 75-84.

Author

Dr Garry Middle

Associate Professor, Department of Urban and Regional Planning

Curtin University