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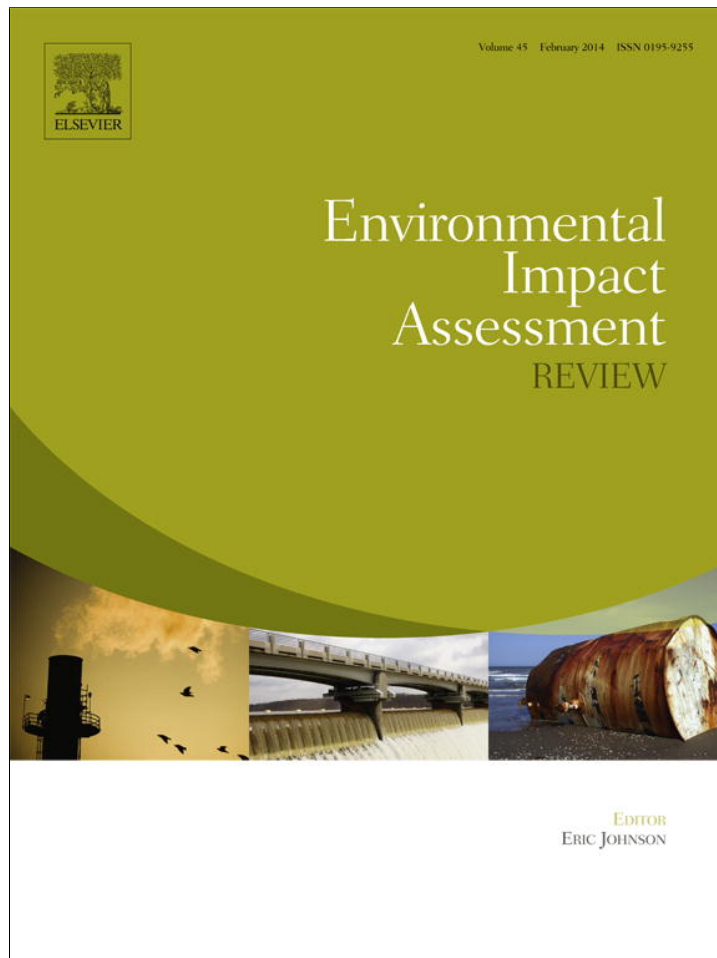

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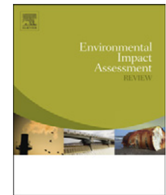

Impact assessment: Eroding benefits through streamlining?

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ABSTRACT

This paper argues that Governments have sought to streamline impact assessment in recent years (defined as the last five years) to counter concerns over the costs and potential for delays to economic development. We hypothesise that this has had some adverse consequences on the benefits that subsequently accrue from the assessments. This hypothesis is tested using a framework developed from arguments for the benefits brought by Environmental Impact Assessment made in 1982 in the face of the UK Government opposition to its implementation in a time of economic recession. The particular benefits investigated are 'consistency and fairness', 'early warning', 'environment and development', and 'public involvement'. Canada, South Africa, the United Kingdom and Western Australia are the jurisdictions tested using this framework. The conclusions indicate that significant streamlining has been undertaken which has had direct adverse effects on some of the benefits that impact assessment should deliver, particularly in Canada and the UK. The research has not examined whether streamlining has had implications for the effectiveness of impact assessment, but the causal link between streamlining and benefits does sound warning bells that merit further investigation.

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1. Introduction

Environmental Impact Assessment (EIA) is in different stages of development in different countries, and it is clear that it has continued to expand its influence across the world since its first legal implementation in the USA in 1969 (Morgan, 2012). In addition to spreading across the globe, discrete specialist forms have evolved that focus on all tiers of decision-making, and all the components of sustainability. This has produced a large number of related decision-support tools (Pope et al., 2013) which we collectively refer to as 'impact assessment' (IA); it is this wider portfolio of decision-support tools which are the focus of this paper. However, despite the widespread uptake of impact assessment, demonstrating the value of the benefits of IA to all stakeholders has been an elusive quest for practitioners and researchers. This potentially poses a threat to IA's current place as the decision-support tool of choice with respect to environmental and sustainable development concerns in many jurisdictions. We suggest that some Governments have sought to streamline impact assessment in order to reduce the time and/or cost involved (thereby improving the cost/benefit ratio), and hypothesise that this has had some adverse implications for some of the expected benefits (potentially cancelling, or even overriding, the intended cost/benefit savings). We seek to test this hypothesis through a structured analysis of practice in four different jurisdictions: Canada, South Africa, the United Kingdom (UK), and Western Australia. The choice of countries reflects the authors' expertise rather than using a particular sampling strategy, however, it does incorporate developed (Canada, the UK and Western Australia) and developing (South Africa) countries, three resource-rich regions (Canada, South Africa and Western Australia) which were less affected by the global recession, and one country (UK) which has struggled to bring its economy out of the current recession, which began in 2007–2008.

The research focuses on a specific time frame of the last five years (which is an arbitrary choice); it does not examine the effectiveness of impact assessment and we are not examining whether impact assessment has become less effective over this time frame. It should still be acknowledged that ongoing improvements to practise could more than counter the loss of benefits we have identified in this study. Different benchmarks would likely lead to different conclusions, as would the consideration of IA over different timescales or in different jurisdictions. We would anticipate, for example, that a similar review over the last 20 years, for example, would indicate a very beneficial trajectory. Likewise, a systematic review of the beneficial outcomes of IA over the last

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five years, not constrained by streamlining efforts of governments, might also lead to different conclusions. There is much evidence of improvements in practice over time (see, for example, Adelle and Weiland, 2012; Bond et al., 2012; Esteves et al., 2012; Fundingsland Tetlow and Hanusch, 2012; Harris-Roxas et al., 2012; Morgan, 2012) which could more than compensate for any reduction in benefits identified in this research. The point of this research is to determine whether there is a causal link between streamlining of impact assessment and reductions in subsequent benefits accrued and therefore examine whether reducing the cost/time spent in IA may be counterproductive.

Our analysis is structured around the musing of an academic at the beginning of the 1980s, a time when IA had been practised for just over a decade in the USA, but was not yet a requirement in many European countries, or the majority of countries in the rest of the world, and coinciding with a time when the world was experiencing a global recession. Professor Timothy O'Riordan, speaking at the Royal Geographical Society in 1982 (Garner and O'Riordan, 1982, p.347), commented on the reluctance of the British Government to embrace the EIA Directive being debated in Europe: "*Behind this defensive screen one suspects there is a desire to maintain the status quo, which, by and large, suits developmental interests, which keeps the environmental lobby reasonably well at bay and which permits actual decision-making to remain cryptic*". He goes on to present arguments as to why the then forthcoming European EIA Directive (Council of the European Communities, 1985) would be a positive move based on considerations of 'consistency and fairness', 'early warning', 'environment and development', and 'public involvement'. It would be possible to construct a systematic framework of the potential benefits of impact assessment drawn from the literature over more than 40 years of practice. However, such a framework would be large and therefore impractical to apply to any given area of practice because of the data needs. O'Riordan's four benefits were regarded as core arguments for EIA practice prior to adoption by the European Union and, as such, we argue that they provide a suitable basis for evaluating the effects of impact assessment streamlining in the present day. All four benefits are still regarded as core benefits: Glasson et al. (2012) highlight the value of EIA as a vehicle for stakeholder consultation and participation and as an instrument for sustainable development; fairness is one of the principles of impact assessment best practice espoused by the International Association for Impact Assessment (International Association for Impact Assessment and Institute of Environmental Assessment, 1999); and early warning is a widely understood goal for impact assessment that leads to better design (Glasson et al., 2012; Wathern, 1988). A key assumption is that these four benefits of EIA are equally valid to the broader portfolio of IA tools as they reflect key principles which have wider relevance than just the 'environment'.

The next section explores the four benefits of EIA highlighted by O'Riordan (Garner and O'Riordan, 1982) in more detail, also reflecting on some more recent academic literature relevant to these, in order to clarify the evaluation framework. This is followed by some examples from the selected countries of recent changes to IA legislation and processes, the implications of which we consider in the context of our revisiting and updating of O'Riordan's four benefits in order to evaluate whether they uphold or erode them. In this discussion we also highlight examples of policy rhetoric and public debates about the role and future of IA that characterise the political mood and may portend further changes in the future. Finally, we deliberate on the implications of our findings.

2. O'Riordan's benefits of EIA

2.1. Consistency and fairness

O'Riordan's arguments (Garner and O'Riordan, 1982) reflect the initial rationale for EIA as providing much-needed evidence for decision-makers operating in an objective and rational manner. However, Bartlett and Kurian (1999) have since questioned the validity of the 'information provision' (rational) model of policy making with respect to EIA, and suggested five other models which, if valid, call into question the consistency and fairness of decisions made subsequent to EIA. To provide some examples, Cashmore and Axelsson (2013) find that power is a strong mediating influence over the effect of impact assessment through analysis of World Bank Strategic Environmental Assessment (SEA) in Dhaka city. They conclude that such mediation can both enable and constrain the effect (i.e. influence) of IA, with the actual effect largely driven by the wishes of the agency with greatest power—the World Bank itself in the particular case they investigated.

O'Riordan (Garner and O'Riordan, 1982) also understood the political/power-based nature of decision-making, but made his arguments on the basis that the conceptualisation at the time was that technical EIA was different from political environmental assessment. It is also the case that these five alternative models of effectiveness for EIA have since gained far more credence, and that this feeds into the net benefit of 'early warning' because of the influence of what Bartlett and Kurian (1999, p.421) called the 'organisational learning model' whereby "*EIA may change the internal politics of an organisation required to undertake it*". This is evidenced by many proponents having embedded environmental expertise in their organisations, with the result that that they are less likely to put forward environmentally unacceptable proposals. This is discussed further in relation to early warning in Section 2.2.

In terms of fairness O'Riordan (Garner and O'Riordan, 1982) was originally concerned about justice to developers (for example, through different authorities setting different requirements for EIA in adjacent jurisdictions), but arguments are now made that justice should apply to all. Of relevance here is a distinction made by Morrison-Saunders and Early (2008) between public participation and natural justice. They report on a case in which natural justice in an Australian EIA was argued to have been violated because the Minister was found to have made his decision to reject a wind farm proposal largely on the basis of a report that was not made available to other parties during the EIA process.[1] The concept of natural justice, which is embedded in legislation in some parts of the world, as well as case law, highlights issues of fairness and justice for all stakeholders in an EIA process (Morrison-Saunders and Early, 2008).

The key 'consistency and fairness' points can thus be summarised as:

- Consistency of approach (across different jurisdictions and decisions)—delivering justice to all stakeholders; and
- Quality of information (IA being seen as a technical process and an input into a more political process of 'environmental assessment' in which the environment is taken into consideration along with other competing agendas).

2.2. Early warning

O'Riordan (Garner and O'Riordan, 1982) made the argument that EIA can save money through better design or location which can reduce operational costs, or avoid subsequent legal penalty through breaches of consent or fines for pollution incidences. Along these lines, Wathern (1988, p.6) also argued that "*The greatest contribution of EIA to environmental management may well be in reducing adverse impacts before proposals come through to the authorization phase*" and Ortolano and Shepherd (1995) have argued that just knowing that EIA exists means that proponents don't put forward environmentally damaging proposals.

However, costs are easier to measure relative to benefits and this has been reflected in various pieces of research. In Canada, although very few federal agencies, if any, track the costs of EIA (Sadler, 1996) and notably, the Canadian Environmental Assessment Agency does not (Chapman,

[1] The case was settled out of court so there was no legal ruling on natural justice (Morrison-Saunders and Early, 2008).

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2013), Zechner (2010) recently found that in Ontario, Canada's most populous province, that the "*cost of preparing the (EIA) study documents represented about 1% of the total project cost*" (p.27). Retief and Chabalala (2009) found that EIA in most countries incurred a cost between 0.01 and 5% of the cost of the project, with costs over 1% being rarer. In 2010 the UK Government indicated an average fig. of £90,000 per EIA in the UK (Glasson et al., 2012). An Australian study indicated that costs of EIAs ranged between AU$130,000 and AU$2,230,000 and that proponents believed significant environmental improvements occurred as a result of EIA in only 11% of cases (Macintosh, 2010). Some authors have attempted to develop frameworks for measuring costs and benefits (of Health Impact Assessment) to facilitate evaluation (see Atkinson and Cooke, 2005), although these have not been adopted by researchers or practitioners.

The key 'early warning' points are that:

- IA will lead to better designs earlier in the process, with associated cost savings; and
- IA will lead to better cooperation between environmental and planning authorities.

2.3. Environment and development

O'Riordan argued that "*development ideally should be designed so that it is environmentally sustainable*" (Garner and O'Riordan, 1982, p.351). There are frequent arguments that development and conservation are not mutually exclusive (for example, Bond et al., 2012; Rudi et al., 2012) and these provide the basis for definitions of sustainable development (see, for example, World Commission on Environment and Development, 1987). However, it is also acknowledged that sustainable development is just one of many environmental governance discourses (Bond and Morrison-Saunders, 2009), which can provide opportunities for powerful development interests to push forward their own agendas. Examples are easy to find, particularly in developing countries of development versus environment conflicts where EIA fails to deliver mutually beneficial outcomes. Wedin et al. (2013), for example, refer to a fuel versus food conflict in Sierra Leone where a powerful bioenergy company performed ESHIA (Environmental, Social and Health Impact Assessment) identifying mitigation measures, found by Wedin et al. to be inadequate in terms of providing food security and, therefore, prioritising the developer's agenda rather than the needs of local communities.

The key 'environment and development' points are thus:

- IA should help to ensure that environmental concerns are factored into development planning;
- the correlation between poverty and environmental degradation is recognised and avoided; and
- economic development should improve the quality of life of affected communities.

2.4. Public involvement

The arguments of O'Riordan suggested an increasing desire on behalf of affected citizens to become involved in decisions which affected their way-of-life in a time of recession (Garner and O'Riordan, 1982). No literature could be found which tested this specific hypothesis, although Robinson and Bond (2003) concluded that local residents had significantly different views to EIA consultants on the extent to which they should be involved in different elements of EIA, with the residents feeling they should have greater involvement when compared to the views of the consultants. Diduck and Sinclair (2002), on the other hand, did examine the role of the non-participant in EIA and concluded that their lack of involvement could be categorised into structural barriers (for example, not believing their involvement would make a difference) and individual barriers (for example, being unaware of the EIA). This finding appears to breach the natural justice principle (Morrison-Saunders and Early, 2008) that the people affected by a decision should have the opportunity to be involved in the decision-making process; i.e. 'expertise' or specialist knowledge does not trump direct interest.

Partidario and Sheate (2013, p.27) state that "*practice shows that public participation is required, and conducted, in SEA in very similar ways to environmental impact assessment (EIA), to ensure information provision rather than knowledge creation through learning processes*". They go on to argue that public consultation in impact assessment is conducted to meet legal obligations rather than to generate new and valuable knowledge to inform the process. This provides a hint that meaningful participation is difficult to ensure, given vested and powerful interests are likely to favour a minimalist approach. Further evidence that this is the case come from Hartz-Karp (2007) who argued that community consultation in Australia has fallen into disrepute because it is a 'DEAD' (Decide, Educate, Announce, and Defend) process, and from Hunsberger et al. (2005) who proposed a citizen-based approach to improve public participation in aspects of EIA in Canada.

The key 'public involvement' benefits are that:

- IA should facilitate public engagement with decision-making for sustainability; and
- people should be, and want to be, involved in decisions that affect their lives.

3. Government/governance responses to increasing influence of EIA.

The following four sections examine the evidence that Governments in Canada, South Africa, the United Kingdom and Western Australia have sought to streamline impact assessment. The implications of any streamlining on each of the benefits based on O'Riordan (Garner and O'Riordan, 1982) will then be considered in turn, with evidence drawing on practice and recent changes in each of the four jurisdictions in the last five years, coinciding with the period of the latest recession which affected many countries worldwide.

3.1. Consistency and fairness

In Canada, the consistency of application of the new *Canadian Environmental Assessment Act, 2012* (CEAA, 2012) is of concern, as the screening process introduces a significant amount of discretion on the part of a responsible authority about whether or not an EIA will be undertaken for a designated project (Canadian Environmental Assessment Agency (CEAA), 2013), as well as on the part of the federal environment Minister who has the power to determine the scope of the assessment requirements (Gibson, 2012) amongst other discretions. The former *Canadian Environmental Assessment Act, 1995* (CEAA, 1995) was based on 'triggers' meaning that virtually all federal projects were included in the requirement for screening and were then subject to some form of EIA subsequently. CEAA 2012 is different in that projects only undergo EIA screening where designated by regulation (greatly reducing the number of screening decisions), and only a fraction of those projects will eventually be subject to EIA at the discretion of a federal responsible authority.

With respect to fairness to stakeholders, the CEAA 2012 explicitly addresses the interests of Aboriginal peoples (Damman and Bruce, 2012) as a federal responsibility, but significantly reduces opportunity for participation in EIA both by Aboriginals and other interest groups and citizens, which could be perceived as contrary to fairness in IA. With respect to Aboriginal peoples, any changes to the environment caused by a proposed project that could affect the socio-economic conditions, health, physical and cultural heritage, use of lands for traditional purposes, or any site, structure, or thing said to be significant by Aboriginal peoples must be assessed according to Section 5(1) of CEAA 2012. However, the perceived implication of CEAA 2012 as potentially beneficial to Aboriginal peoples is contested. For example, Kirchhoff et al. (2013) note that reduced timelines for EIA will make it more difficult for citizens of isolated communities (often in the far north of Canadian

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provinces and territories) to participate effectively given associated logistical complications. Kirchhoff et al. (2013) also report that a number of other recent government initiatives, including regressive streamlining of other federal natural resource legislation, run counter to CEAA 2012 and weaken capacity for Aboriginal peoples to effectively participate in EIA.

In 2012, the Presidential Infrastructure Coordinating Commission in South Africa identified three main risks for bulk infrastructure development, namely: procurement, land acquisition and time delays related to EIA. As a result this push for major bulk infrastructure development has led to the recent promulgation of a specific piece of legislation called the Infrastructure Development Bill (2013) which seeks to 'streamline' regulatory decision making, including EIA, related to so-called 'special projects'. According to the Bill, an intergovernmental steering committee will deal with decision-making related to these 'special projects', the main concern being how a 'special project' would be defined which will determine the potential reach of the Bill and could well lead to inconsistent practice where a different EIA process applies to different projects (i.e. those that are defined as special projects and those that are not). It is also noted that the environmental impacts of mining proposals have always been assessed and managed under the mining legislation rather than the National Environmental Management Act 1998 (NEMA).

In the United Kingdom, the Government introduced the Planning Act in 2008 (United Kingdom Parliament, 2008a) to reform the decision-making process for major infrastructure projects (Marshall, 2013; Owen and Anwar, 2011). This effectively removed a tranche of primarily energy-related projects from a local decision making context, to a central decision-making body. Decisions are made based on National Policy Statements (NPS) for each project-type, which themselves were subject to Sustainability Appraisal, albeit with a restricted scope (for example, those conducting the Sustainability Appraisal for the NPS on coal-fired power station were not allowed to consider alternative ways of producing energy). This could be argued to have increased consistency of decision making as the opportunity for variation between local jurisdictions is removed. However, other observers are more critical of the lack of fairness engendered by the new system for considering development consent for these major infrastructure projects, with McKay et al. (2012, p.148) highlighting "*concerns relating to the legitimacy of a one-stop development consent for major infrastructure projects have become prevalent as a result of the increased cutting of red tape and reduced levels of stakeholder engagement*". The concern being raised is that the local communities that are most affected by major infrastructure developments now have less of a say in the assessment process associated with it than they previously did under EIA processes managed by the local authorities. More recently guidance produced by the Department for Communities and Local Government (2013) has set out what would be expected from pre-application consultation with potentially affected local communities which does involve considerable expectation of local community engagement, including their involvement in development of alternatives. As such, the concerns outlined above may simply reflect the period in between legislative change and production of guidance explaining how best to maintain the benefit.

In Western Australia environmental impact assessment is provided for by the Environmental Protection Act 1986 (hereafter EPAct), previous published accounts of which can be found in Morrison-Saunders and Bailey (2000). Western Australia has one dedicated and independent authority responsible for advising the Minister for the Environment on the environmental implications of development proposals: the Environmental Protection Authority (EPA). The 1996 amendments to the enabling *Environmental Protection Act* 1986 (EPAct) brought land use planning under the auspices of the EPA, addressing potential inconsistencies between the treatment of land use planning and project proposals with respect to environmental matters. More recently, however, responsibility for managing the environmental implications of certain industries, including new developments, has been delegated to other Western Australian Government agencies. For example, the 2009 Memorandum of Understanding (MoU) between the EPA and the Department of Mines and Petroleum (DMP) [available at: http://www.dmp.wa.gov.au/documents/MOU.pdf], developed in the interests of streamlining approval processes and offering a 'one-stop-shop' to developers, effectively delegates responsibility to the DMP for determining whether or not a mining or petroleum proposal potentially has significant environmental impacts and should therefore be referred to the EPA for EIA. Although guidelines are provided in the MoU regarding what is considered to be a significant environmental impact, considerable discretion remains which potentially allows for inconsistencies in the application of EIA in Western Australia.

Arguably, the strategic proposal provisions under s37B of the EPAct also potentially introduce inconsistencies in the approach to EIA and the quality of data upon which decisions are based. A proposal can be strategic based upon: "*if and to the extent to which it identifies (a) a future proposal that will be a significant proposal*; *or (b) future proposals likely*, *if implemented in combination with each other*, *to have a significant effect on the environment*" (s37B) where a 'significant proposal' is what triggers formal project level EIA under the EPAct. These provisions were introduced in amendments to the EPAct in 2003 but not utilised in practice until recently, after the EPA began to promote the assessment of strategic proposals and issue guidelines accordingly as an outcome of its review of EIA conducted in 2009. Under these provisions, a proponent may submit for assessment and approval a suite of projects (a strategic proposal), one or more of which may be implemented in the future. If approval of the strategic proposal is granted, the proponent can apply for individual projects within the suite to be designated as 'derived proposals', and if it is determined that the project proposal is consistent with the strategic proposal and can be managed under the conditions of the strategic approval, then the project proposal is exempt from further EIA. To date, only one derived proposal application has been made to the EPA so it is too early to tell what the effect of this mechanism on the quality of EIA and of the information upon which decisions are based might be. The concern is that in the absence of detailed project information at the strategic proposal stage, approvals may be made based on a lower quality of data than would normally be the case in a traditional project-level assessment.

Recent changes in the quality of information delivered to decision makers has also been identified in Western Australia where there has been explicit attention paid by the EPA to how EIA information is collected, managed and applied (for example, Sánchez and Morrison-Saunders, 2011), and the initiative known as the Shared Environmental Assessment Knowledge (SEAK) which commenced in 2009 and is currently in progress is intended to not only enhance storage and management of data-sets collected during EIA but also enable open access to all EIA stakeholders, potentially improving the quality of EIA information.

3.2. Early warning

In Canada, a primary reason for enacting CEAA 2012 was to alleviate perceived time and resource constraints on development approvals, primarily in the energy sector (House of Commons, 2012), though de Kerckhove et al. (2013) later showed that excessively lengthy federal EIAs were largely a myth and that "*environmental review times generally conformed to the government's preferred timelines prior to recent policy changes*" (p.3). That said, CEAA 2012 includes a new screening process requirement that has project sponsors complete and defend a project design prior to the start of EIA in an effort to convince the responsible authority that the EIA is not warranted (Doelle, 2012)—thereby eliminating 'time on the assessment clock'. This means the public is essentially excluded from early project planning and that any benefit of early warning via EIA is correspondingly diminished. According to

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Gibson (2012), EIA in Canada will now occur too late to actually qualify as EIA, according to long established good practice principles. Gibson (2012, p.6) explains: "*…CEAA 2012 is clearly not designed to encourage early integration of environmental considerations in project planning. Instead, it positions assessment as a post-planning regulatory hoop inevitably under pressure for speedy decisions that do not require substantial changes to the established plans*". This limits its influence as an early warning tool.

Within the South African context, the emphasis has been on the cost implications of 'red tape' (or regulatory compliance, including EIA), which have been at the forefront of high-level political debate for years. It has for example been estimated that regulatory compliance in general costs business R796 billion or 6.5% of total GDP in 2003 (Strategic Business Partnership—SBP, 2005). In terms of EIA specifically research has shown that although EIA costs on average less than in some other countries (such as the United States and within the EU) a large number of EIAs are being conducted for relatively small scale projects, which places the main cost burden on small- and medium-sized economic enterprise (Retief and Chabalala, 2009). This has led to questions being asked not only about the cost of EIA but also about the number of EIAs being conducted. The national government has stated in relation to EIA that, "*Government is concerned about any delay, costs and associated impacts on economic growth and development. This is why we need to improve efficiency and effectiveness without compromising basic environmental rights and quality*" (Department of Environmental Affairs and Tourism, 2005). The message here is that the value of EIA in terms of providing early warning should not frustrate economic growth and development. Since this statement was made, efficiency and effectiveness have been explicitly dealt with through changes incorporated into the new 2006 EIA Regulations and subsequent 2010 amendments, through which process timeframes became shorter and more explicitly defined.

In the UK, the Environmental Law Association was one of many organisations that published responses to the UK Government's plans to change the planning system for major infrastructure projects in 2008. Specifically, they wrote:

> "*1. It fails to implement the UK's commitment to the European Environmental Impact Assessment Directive. 2. It fails to integrate the requirements of the Aarhus Convention, European Convention on Human Rights, Strategic Environmental Assessment Directive and Habitats Directive*".
>
> [UK Environmental Law Association (UKELA), 2008]

However, as discussed in Section 3.1, recent guidance produced by the Government (DCLG, 2013) has resolved these issues; however, there was a five year period from 2008 until 2013 during which there was potential for poor practice given the lack of direction to practitioners. More recently, the Chancellor of the Exchequer, George Osborn, made clear his business agenda in a speech to Parliament in 2011 where he highlighted the threat to British business of environmental and social goals (Harvey, 2011). To further this agenda, in December 2012, the Chancellor delivered the 2012 Autumn Statement (HM Treasury, 2012) where he indicated that, later in 2013, Government would consult on raising the screening thresholds set out in the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (*SI 2011/1824*), which, if adopted, will have the effect of reducing the number of projects subject to EIA.

The Western Australian EIA system has been the subject of at least five reviews in as many years, initiated variously by the EPA itself, the Auditor General, the Minister of Mines and Petroleum, and Parliament. The focus of all of these has been improving the efficiency of the project approval system, including EIA, with the implicit assumption that the process takes too long, is not good value for money, and is a barrier to economic development. Only one amendment of the EPAct regarding EIA has occurred (discussed in Section 3.4), but the supporting EIA Administrative Procedures were significantly changed in 2010 and modified again in 2012 in order to:

- reduce the number of project assessment types to two formats, the simpler of which is based upon proponent referral (screening) documentation with no formal public review process provided;
- focus on timelines in assessment processes and EPA reporting on assessments; and
- more explicitly using other regulatory processes (such as the DMP example discussed previously) so that the number of environmental factors addressed by the EPA and in subsequent conditions of approval issued by the Environment Minister has dropped markedly.

The efficiency and 'value for money' rhetoric appears regularly in policy discourse around Australia; as just one example, the Premier of Western Australia, Colin Barnett, declared earlier in 2013 a 'war on environmental green tape' arguing for a 'more mature' approach to environmental protection. He said, "*No one is suggesting lower environmental standards – I think we do have high standards and generations will benefit from that – but we spend millions and millions of dollars trying to find out if some subterranean stygofauna actually exists or could be there. We're overplaying the environment for really a low return in terms of actually protecting or rehabilitating the environment*" (The Telegraph, 2013).

3.3. Environment and development

In Canada, under CEAA 2012, EIA has regressed from where it was under the 1995 Act in terms of connecting environment and development. Gibson (2012) describes 'Integrated attention to biophysical, social and economic considerations' as being a basic impact assessment design principle and considers that the requirement under the new Act to consider "*biophysical effects on fish, aquatic life and migratory birds, effects on federal lands and Aboriginal communities, transboundary effects and changes to the environment that are directly linked to or necessarily incidental to any federal decisions about a project*" (Gibson, 2012, p.182) falls short of meeting this basic principle. Kirchhoff et al. (2013) agree. The concern is that the Act now only requires information gathering in a limited set of areas, without the possibility of any wider consideration of the connections between environmental components and development planning, or any potential links to poverty.

The so-called environmental right contained in Section 24 of the South African Constitution, as well as a broad definition of the environment included in the National Environmental Management Act 1994 (NEMA) provides an extensive sustainability mandate (beyond mere environmental issues) for EIA decision-making in South Africa. This means that EIA makes explicit provision for sustainability thinking concerning the correlation between poverty and environmental degradation as well as quality of life issues, as opposed to mere economic gains. However, a recent paper published by Morrison-Saunders and Retief (2012) suggests that notwithstanding this strong and explicit sustainability mandate, the effectiveness of EIA practice in South Africa falls far short of what is potentially possible. Some of the reasons for this failure to optimize the potential of EIA lie with mechanistic straight jacketing of EIA into an overly structured legalistic process (Kidd and Retief, 2009). This excessively prescriptive tendency and continual tinkering with legislation have been an incremental process started in 2006 with new EIA regulations and refined further through 2010 revisions mainly with a view to improve efficiency towards quicker process and decision making. The suspicion is, however, that efficiency and integrated thinking is better attained through empowering officials to exercise sound judgement rather than through overly prescriptive legislation. Therefore South Africa is an example where, despite strong legislation, the value adding potential of EIA as a process which integrates issues of development and environment towards more sustainable outcomes has been eroded over time through a combination of overcomplicated legislative amendments and weak capacity.

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In the United Kingdom, the Killian Pretty review was commission by Government in 2008 to examine how the planning system could be streamlined for the better. The review was led by the Chief Executive Officer (CEO) of a County and District Council, and a retired CEO of a housing developer. The report of the review was published in November 2008 (Killian and Pretty, 2008) and recommended a streamlining of the National Planning Policy Framework, which was duly implemented by the Government, leading to a new, single Framework to replace the pre-existing policy guidance running into over a thousand pages with one single policy statement less than 100 pages long (Department for Communities and Local Government, 2012). However, not all observers have been happy with this change, given the new National Planning Policy Framework states in paragraph 13 "*At the heart of the planning system is a presumption in favour of sustainable development*". The concern here is that 'sustainable development' is used interchangeably with 'sustainable economic growth', 'growth', 'economic growth', and 'new development', none of which are defined (Levett, 2011). The concern is that, within the planning system in place in England, EIA is considered a material consideration, and would be subordinate to published policy seeking planning permission for, it seems, any new development.

The environment versus development debate is alive and well in Western Australia, as demonstrated by the Premier's 'war on environmental green tape' discussed previously. This is despite historic efforts to integrate the two agendas such as the 1996 amendments to the EPAct that applied EIA to land development as also previously discussed. Notwithstanding a discernable negativity amongst Governments and developers towards EIA and the concerns we have outlined in other sections of this paper about some recent changes to legislation and processes, we do believe that EIA has, over time, heavily influenced developers in their attitude and commitment to the environment. This is evidenced by large environmental departments within major proponent companies (particularly in the resource sector) and an apparent willingness to engage with regulators to ensure good environmental outcomes (e.g. Morrison-Saunders and Bailey, 2009). The fact that both Rio Tinto and BHP Billiton have voluntarily referred strategic proposals relating to long term expansion and development projects to the EPA for assessment is a good example of this (http://www.environment.gov.au/epbc/assessments/strategic.html). Thus, whilst there is little to suggest that the environment will ever win out over development, at least we can argue that environmental concerns are integrated into the development process to some degree.

3.4. Public involvement

In comparison with CEAA 1995, CEAA 2012 significantly reduces the opportunity for, and scope of, public participation. There are now few legislative requirements to actively engage the public in the EIA process. For example, there will be far fewer federal EIAs overall due to a highly restrictive screening process (Doelle, 2012), reduced from about 6000 annually (Commissioner of the Environment and Sustainable Development (CESD), 2009) to approximately 20 (Canadian Environmental Assessment Agency (CEAA), 2013). Strict timelines for federal EIAs (no more than 2 years even for the most controversial of proposed projects) (Canadian Environmental Assessment Agency (CEAA), 2013) mean that public participants will now have to mobilize and engage in EIA with far more speed and efficiency than ever before. This directly affects the potential for the public to effectively influence decision-making that affects the environment through the EIA process. Further, a new term 'interested party' introduced in CEAA 2012 (Sec. 2(1)) "*has the potential to create two classes of the public*" (Doelle, 2012, p.15): those who are deemed to have a direct interest in the project and those who don't. This determination is made through a formal application process adjudicated by one of three possible federal authorities responsible for the assessment, such as the National Energy Board, which may also be perceived as representing the interests of the project proponent. This is a significant change from the provisions for public participation under the former federal Act through which comprehensive public participation opportunities for any party with interest were assured and much greater influence could reasonably be assumed.

Both the Constitution of South Africa and the environmental assessment legislation (NEMA and regulations) provide for extensive opportunity for stakeholders to be heard through broad environmental *locus standi* that permits anybody who deems themselves to be affected by the proposed development to participate in EIA or approach the courts on environmental matters. However, although the fundamental rights underpinning public participation are in place, refinement of EIA legislation in 2006 and again in 2010 has incrementally eroded some of these rights in practice (Retief, 2010). The reasons seem to be the perceptions that public participation takes too long and presents increasing risk to development. In addition, there is no participation foreseen in the process of identifying 'special projects' under the Infrastructure Development Bill (see Section 3.1 above) which may include nuclear energy projects, major transportation infrastructure, industrial development zones, etc., with significant implications for transparency and public accountability. Although it is currently being challenged as unconstitutional, the mere drafting of the Bill should be a red light for public involvement provisions in EIA.

In the UK, we can see a specific example of system changes to curtail participation through a change of legislation that eliminates a stage of public involvement in Sustainability Appraisal. Changes to the regulation governing the English Sustainability Appraisal process (which is required for the preparation of new land use plans and incorporates the requirements of the EU SEA Directive) (United Kingdom Parliament, 2008b) were made to reduce the involvement of the public by removing the regulatory stage in the development of a Development Plan Document (DPD) that consulted on the Preferred Options Paper (effectively a draft plan) and the associated Sustainability Appraisal (incorporating the Environmental Report). This move was directed at reducing the time period for developing and approving land use plans as this early participation stage was seen as being time consuming and therefore delaying the process. The public can now only participate at a later stage when preferred options have been selected and appraised and the plan is, to all intents and purposes, finished.

In Western Australia, the current state government amended the EPAct in 2010 to remove two appeal mechanisms that have important implications for public involvement in EIA. The 'appeal' provisions within the EPAct provide an opportunity for any person who disagrees with either the screening decision of the EPA not to assess a proposal or the recommendations of the EPA to the Minister for Environment to lodge their objection in writing with the Minister. This process costs just $10 and results in the independent Appeal Convenor seeking inputs from affected stakeholders (e.g. proponent, EPA, other government agencies) and providing advice to the Minister accordingly. The 2010 amendments regarding appeals were changes that were made against the advice of the Parliamentary Standing Committee appointed to advise Parliament on the matter (Standing Committee on Uniform Legislation and Statutes Review, 2010). The EPA's modifications to the EIA Administrative Procedures in 2010 (and maintained in the subsequent 2012 revisions) have resulted in just two formal levels of assessment—Assessment on Proponent Information, which is a streamlined process for relatively minor proposals which has no formal public review phase (notwithstanding that the proponent is expected to consult with relevant stakeholders), and a Public Environmental Review, which does. Two other formal levels of assessment requiring public review have been removed. The appeal mechanism that existed prior to the 2010 amendments enabled a successful appellant to 'upgrade' the level of assessment to the Public Environmental Review level, but that no longer exists. What this means is that there is less opportunity for general members of the public to have input to proposals assessed at the Assessment on Proponent Information (a point made by Middle et al., 2013). Not surprisingly, this more informal level of assessment

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(or better still, of course, an EPA determination of 'not assessed') is the one most eagerly sought by proponents.

4. Discussion and conclusion

In this article we have focused on recent streamlining of IA and related changes to legislation and practice and commented on the prevailing political discourse to examine the current trajectory of IA in the four jurisdictions analysed. Here we provide a synthesis of the findings based on the evaluation framework we have used. However, we emphasise that the approach we have taken has precluded an objective look at the value IA adds in all these countries. We are not arguing that IA is no longer a useful tool as it currently stands in these four jurisdictions, rather the analysis points to the effects on some of the benefits analysed based on actions taken to streamline IA.

In terms of consistency and fairness, there is evidence that consistency as a principle of good practice is being eroded through discretionary powers to conduct IA in Canada; opaque changes to the requirement for IA of 'special projects' in South Africa; and the delegation of responsibility for environmental management in Western Australia. There was evidence of systematic approaches to improve the management of information in Western Australia, and recent guidance published in 2013 in the UK resolved some potential for the loss of benefits caused through the enactment of legislation five years previously.

With respect to the perceived value of IA as an early warning instrument, IA has recently been argued to be a major time and resource constraint in all jurisdictions. Indeed, the highest levels of Government seem to now view IA as a burden that threatens economic development and has sought to restrict its application through screening changes for EIA in Canada and the UK, through restrictions and increased focus on timelines in South Africa and Western Australia. There is evidence in Western Australia, however, of environmental considerations being factored into project planning much earlier by virtue of environmental teams within proponent organisations, which is arguably a result of solid and long-standing IA practice.

For environment and development, the relationship of IA to better outcomes for the environment (as a check and balance for development) appears to be weakening: Canada's new act constrains EIA to a process that has an insufficiently broad focus to make the links between environment and development; in South Africa, overly prescriptive legislation serves to reduce the opportunities for environmental and development imperatives to be evaluated in an integrated way; in the UK new presumptions in favour of 'sustainable development', which is not defined but used synonymously with economic development, has the potential to subordinate the findings of IA; in Western Australia efforts have been made to align the two agendas but development continues to dominate discourse.

For public involvement, changes to all four systems have curtailed public involvement in various ways from fewer numbers of IAs to participate in and the new requirement to qualify as an interested party (Canada), to loss of appeal mechanisms (Western Australia), to designation of 'special classes of projects' for which there will be restricted requirements for public participation (South Africa), to late-in-process public participation (the UK and Canada) in the interest of expediency in project and/or plan approvals.

Overall there appears to be clear and ample evidence from Canada, the UK and Western Australia to conclude that governments have generally been aiming to streamline impact assessment in the last five years, and this has been associated with some reduction of the potential benefits of EIA which this research has specifically examined. The situation in South Africa is more mixed, with some erosion of the benefits of impact assessment, although tempered by a strong sustainability mandate in the country's constitution which provides a point of access for those wishing to defend their environmental rights.

Such power games are not restricted to the jurisdictions examined; in the European Union for example, Franz and Kirkpatrick (2007) refer to the ongoing tension between the Sustainable Development Strategy and the Lisbon Agenda (which aims to make Europe one of the most competitive economies in the world). The different Directorate Generals in the European Commission are regarded as having different levels of power, usually reflected in their budgets, with Directorate General for Enterprise (DG ENTR) being far more powerful than Directorate General for the Environment (DG ENV), for example. Whilst DG ENV has responsibility for EIA and SEA and oversees the Directives that impose obligations on all 28 member states, it was DG ENTR which commissioned a study on the EIA Directive, seeing it as a barrier to development. The subsequent report recommended a reduction in the need for EIA through changes to screening in the Directive (GHK Technopolis, 2008) although at the time of writing, a proposed revision to the EIA Directive is still subject to negotiation before being adopted (European Commission, 2012).

It is difficult to predict the future changes that will be made to IA processes given the political forces at play. In the past five years, the evidence seems to suggest that opportunities have opened up for IA to be streamlined in the four jurisdictions evaluated. Such initiatives are understandable as they clearly lead to reduced cost and/or time involved in the IA practice, and in the absence of any credible approach for properly valuing the benefits of IA, counter arguments are weak. We have shown that streamlining does affect the benefits provided by IA, although we cannot comment on the relative change in costs and benefits and therefore no conclusion can be reached on whether such streamlining can be seen as cost effective or not. It will be informative to evaluate changes in the next five years when the economic situation may change, along with many other potentially influential factors, and also to undertake an analysis of IA over the full life cycle of legislative requirements in selected jurisdictions, as this may cast some light on the influences controlling changes both for the better and for worse.

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