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# Effectiveness in social impact assessment: Aboriginal peoples and resource development in Australia

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Definitions of and judgments regarding effectiveness in social impact assessment (SIA) depend on how the purposes of SIA are understood. They are defined differently by various interests that participate in, or are affected by, impact assessment processes, and the concept of 'effectiveness' and the issue of what is required to achieve it are both contested and contextual. This article reviews a number of different approaches to SIA and outlines what effectiveness might mean for each. It then considers, at two levels, what 'effective SIA' involves in the context of large-scale resource development on Aboriginal land in Australia. The first level involves control of SIA. For indigenous peoples who have historically been excluded from and ignored by SIAs undertaken as part of government approval processes, Aboriginal control is an essential prerequisite for 'effective SIA'. However, control only creates the potential for effectiveness. The second level of analysis involves the practical activities that must be undertaken, and issues that must be addressed, to realize this potential. The author develops a matrix designed to help identify and manage these activities and issues in a systematic way.

Keywords: social impact assessment, effectiveness, Aboriginal peoples, exclusion, indigenous control

DURING RECENT YEARS, major oil and gas companies, including Shell, BP, Chevron, Total and BHPBilliton, have identified large reserves of natural gas in the Browse Basin, off the coast of the Kimberley region in the northwest comer of Western Australia. The region's Aboriginal peoples maintain strong connections to their ancestral lands and a vibrant cultural and ceremonial life, reflected in the fact that, with the assistance of their regional land organization, the Kimberley Land Council (KLC), they have won recognition within Australia's legal system that they continue to hold native title[1] to some 50% of the region (KLC, 2008a). At the same time, like many indigenous populations in industrialized countries, they face threats to the social and economic sustainability of their communities. Less than 20% of working-age Aboriginal people are in formal employment, and there is a heavy reliance on welfare payments; life expectancy is some 20 years less than for non-Aboriginal Australians; access to education and housing is poor; and communities face serious social issues, including substance abuse, family violence and child abuse (Taylor, 2006, 2008).

To date there has been no large-scale industrial development on the Kimberley coast. Extraction of natural gas and its processing into liquefied natural gas (LNG) for export has the potential to severely damage the social and cultural fabric of local Aboriginal societies. For example, construction of pipelines, the building and operation of LNG plants, and shipping of LNG could threaten the integrity of coastal environments that support the wildlife and fish populations on which many Aboriginal people depend; some species (for example turtles) are also

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of great cultural significance. Immigration of non-indigenous workers and large infusions of cash could exacerbate problems with substance abuse and family violence. Equally, the development of LNG has the potential to help address the severe economic and social disadvantage currently experienced by Aboriginal people, for instance by generating training and employment initiatives and providing revenue streams for Aboriginal communities that could create further economic opportunities and support education, health, housing and other services (KLC, 2008a, 2008b).

In this context the application of 'effective' SI A could greatly enhance the prospects for positive outcomes by identifying and minimizing negative social and cultural effects and identifying potential positive effects and assisting Aboriginal people to take advantage of them. In contrast, 'ineffective' SIA can not only result in a failure to manage risks and grasp opportunities, but can itself represent a negative impact (Finsterbusch, 1995: 23). This is especially so in an indigenous context where SIA that fails to address local interests can reinforce the mistrust and alienation generated by the historical marginalization of indigenous peoples from 'mainstream' governance institutions (see below).

What exactly is 'effective SIA', and what is required to achieve it? There is little consensus in the literature about how 'effectiveness' in SIA might be defined, or about how best to pursue it. This reflects the essentially contested and political character of SIA and of impact assessment (IA) generally. This point is explored in the next section, which also indicates different ways in which 'effectiveness' might be defined and pursued, given different understandings of the purpose of SIA. Subsequent sections explore the question of how effectiveness might be defined and pursued in the context of large-scale resource development on Aboriginal lands. Critical in this regard is the link between Aboriginal control over SIA processes and the potential for achieving 'effective SIA'. This consideration is absent from 'mainstream' models for pursuing effective SIA, for example that developed by the Interorganizational Committee on Principles and Guidelines for SIA (IGPGSIA).[2] Also vital is the need to address numerous practical issues and challenges if the potential created by Aboriginal control is to be realized.

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## Effectiveness in social impact assessment

In exploring alternative approaches to effectiveness in SIA, three preliminary points should be noted. First, writing that focuses specifically on effectiveness in SIA is limited, and so it is necessary to also draw on the wider literature on environmental impact assessment (EIA). Second, IA researchers and practitioners are not always explicit or consistent in their definition of 'effectiveness'. Their understanding of it must often be gleaned from the priority they attach to various aspects of or approaches to IA, and/or what they say about 'problems' or 'limitations' affecting it, on the basis that if those problems or limitations were removed, then the resultant IA would be 'effective' or 'more effective' (see, for example, Becker, 2001; Hickie and Wade, 1998; Kapoor, 2001; Lockie, 2001; McKillop and Brown, 1999; Paci *et al*., 2002; Tollefson and Wipond, 1998) . Third, although authors often claim to be dealing with the effectiveness of 'impact assessment', in reality they often deal only with one aspect of it (see, for example, Baker and McLelland, 2003: 582-84, who slip between discussing the effectiveness of EIA and that of 'EA participation policy').

Two distinct issues arise in relation to effectiveness in SIA. The first relates to what SIA is or consists of, i.e. what must occur if a set of activities are to be regarded as constituting SIA. If any such activities are missing or incomplete, then by definition SIA cannot be 'effective'. The second issue, discussed below, involves the purpose of SIA, or what SIA is for. The two issues are related, because the way in which the purpose of SIA is defined will affect views regarding the activities that should constitute it.

SIA is generally seen as a subset of EIA that specifically seeks to predict the effects on people - as opposed to the biophysical environment - of planned activities, and in particular of large industrial or infrastructure projects (Becker, 2001: 311-12; ICGPSIA, 2003: 31).[3] It also involves finding ways of intervening to avoid or mitigate the negative impacts and maximize the positive impacts that projects are expected to create (Becker, 2001: 313; ICGPSIA, 2003: 247-48; Lockie, 2001: 279). Where projects proceed, SIA may also encompass ongoing monitoring of social impacts and of intervention strategies; identification of any unanticipated impacts created by projects; and the development of alternative or additional intervention strategies where those initially adopted proved insufficient or ineffective (Becker, 2001: 34; ICGPSIA, 2003: 31-32).

'Effectiveness' in SIA also refers 'to whether something works as intended and meets the purposes for which it is designed' (Sandham and Pretorius,

2008: 229; see also Jay *et al*, 2007: 290; Kauppinen *et al*., 2006). From this perspective, how 'effective SIA' is defined and pursued depends on what assumptions are made regarding the purposes of SIA (Cashmore *et al*., 2004: 296-99; Finsterbusch, 1995; Lawrence, 1997a: 4). Those purposes can be understood in a number of ways. One focuses on the proponents of the projects involved, and in this regard it must be remembered that in many jurisdictions SIA is undertaken by the private companies seeking to construct or expand major projects, or by consultants retained by them. It is usually conducted as a component of EIA, and as part of regulatory requirements that project proponents must meet in order to obtain approval from government authorities (Jay *et al*., 2007: 288; Joyce and MacFarlane, 2001: 7,12, 18-19; Sandham and Pretorius, 2008: 238).

Given that, for proponents, the major purpose of SIA is to obtain project approval, then 'effective SIA' is SIA that facilitates timely and positive completion of regulatory processes, helps secure project approvals, and avoids the imposition of conditions by regulatory authorities that might undermine project economics. Thus, for instance, negative findings regarding the potential social effects of a project or activity are unlikely to be welcomed. Proponents attach a premium to an approval process that is speedy and avoids project delays; the main 'product' of the SIA is a report to the regulatory authority that supports the granting of project approvals; and the 'endpoint' of the SIA is the granting of such approvals. From this perspective, SIA processes should be tightly controlled by both proponent and regulator. Participation by the public (and especially by socially marginalized groups) should be minimized, as it is likely to extend timelines for approval and increase the chances that potentially negative impacts and demands for major project modifications, or project cancellation, will be raised (Buckley, 1997: 4; Doelle and Sinclair, 2006: 190; Lockie, 2001: 278-79; Joyce and MacFarlane, 2001; Rosenberg *et al*, 1995: 146; Suagee, 2002: 234).

In principle, governments might be expected to pursue a broader set of interests than those of proponents, and so to define the purpose of SIA as providing inputs to a rigorous and balanced assessment of social impacts, allowing rejection of projects that threaten net social costs (an approach considered below). However, especially in jurisdictions where the level of economic activity relies substantially on large-scale resource development, governments often driven by an 'ideology of development', are strongly supportive of corporate interests, and are similarly reluctant to consider SIA processes or findings that might constrain or delay development (Kapoor, 2001: 270; Mulvihill and Baker, 2001: 377- 82; Rosenberg *et al*., 1995: 146; Suagee, 2002; Tollefson and Wipond, 1998).

More recently, the priorities of project proponents may have been modified to some extent as a result of the growing emphasis on corporate social responsibility and 'stakeholder engagement' policies. Corporations are increasingly convinced that they cannot continue to operate profitably unless they seek to meet the needs of specific stakeholders, for instance employees, customers, and communities adjacent to their operations and, more broadly, achieve the support of the societies in which they operate (Ali and O'Faircheallaigh, 2007; Jones, 1999) . As a result, they may adopt policies that require more systematic engagement with stakeholders, especially when they are considering major new developments, and thus an additional purpose of SIA may be to facilitate this engagement (Jones, 1999). Yet the fundamental purpose remains to secure approval for proposed projects.

A different perspective assumes that the primary purpose of SIA is to provide regulators and politicians with the information to ensure that the net social impact of projects is positive in the longer term, in other words that development is socially sustainable. SIA allows informed public decisions regarding whether projects should be allowed to proceed and, if so, under what conditions (Becker, 2001; ICGPSIA, 2003; Jay *et al*, 2007: 290-291; Sand- ham and Pretorius, 2008: 229). From this perspective, 'effective SIA' would produce comprehensive and rigorous information of the sort required by public decision makers, in a form easily accessible by them. Effectiveness would be gauged in terms of the capacity of SIA to influence decision making and the shape of projects, and hence ultimately their social outcomes (Becker, 2001: 315; Cashmore *et al*, 2004: 296-98, 303-305; Nitz and Holland, 2000: 1-3).

Underlying an approach that contemplates the use of SIA to affect social outcomes is the assumption that social impacts are subject to modification though intervention by regulatory authorities, proponents and potentially affected populations. Such intervention can be designed to mitigate or avoid negative effects, or enhance positive effects, either by changing project configurations to alter predicted impacts, or by implementing initiatives in response to impacts that cannot be avoided. From this perspective the purpose of SIA is not just to predict impacts, but also to address them (Devlin and Yap, 2008: 17; Finsterbusch, 1995: 247^18; Lockie, 2001: 279-80).

This last point highlights the link between the purposes of SIA and the activities that constitute it. If its purpose is to shape impacts, the activities it encompasses must include the development of strategies to allow this to occur. In turn, strategies can only be effective if they are maintained over time and their effectiveness regularly evaluated. Recognition of this reality has lead to a growing focus on 'postapproval' elements of SIA. This focus has been sharpened by the realization that, historically, SIA findings and reports have often been ignored once project approval is secured. Among other factors, this reflects the absence of incentives for either

developers or governments to monitor or act on impacts once projects are under way; the lack of resources devoted to monitoring and managing social impacts; and the frequent absence of specific and binding commitments by proponents in EIA reports and in regulatory approvals (Brown and Jacobs, 1996: 4,10; Gagnon, 1995: 282-84; Joyce and MacFarlane, 2001: 16-17, 20; Lawe *et al*., 2005; MVEIRB, 2006; O'Faircheallaigh, 1999, 2007; Sandham and Pretorius, 2008: 230). In addition, it is clear that in many cases impacts were not fully or accurately predicted when the initial SIA was conducted, and that many projects are altered significantly after regulatory approval has been granted. The result is that original assumptions regarding project impacts often proved incorrect (Cashmore *et al*., 2004: 302; Gagnon, 1995) Growing awareness of these realities has led a number of scholars and organizations to posit models of SIA that explicitly require monitoring and evaluation of project impacts over time. It also involves reassessment of impact management strategies and project configuration in the light of information about *actual* impacts, as opposed to the impacts originally predicted (see, for example, Finsterbusch, 1995; ICGPSIA, 2003; MVEIRB, 2006).

From this perspective, effective SIA must include the development and ongoing implementation of strategies designed to minimize negative impacts and maximize positive ones; the allocation of sufficient resources to ensure post-approval impact monitoring and evaluation of mitigation strategies; and reappraisal of project impacts where project design has changed significantly post approval.

Other perspectives on the purpose of SIA are associated with the growing emphasis on using SIA to facilitate public participation in decision making. Indeed, the need to secure such participation and the conditions under which it can be secured represents one of the most dominant themes in recent literature on IA (for a sample see Del Furia and Wallace-Jones, 2000; Devlin and Jap, 2008; Doelle and Sinclair, 2006; Geurts and Joldersma, 2001; Hartley and Wood, 2005; Kapoor, 2001; Lockie, 2001; Morrison-Saunders and Early, 2008; Stewart and Sinclair, 2007; Wiles *et al*., 1999). However, the reasons for seeking public participation vary, indicating further differences in how the purposes of SIA and hence the requirements for effective SIA are understood.

In some cases the desire to achieve or enhance public participation reflects a belief that it is required so that decision makers in corporations and regulatory agencies have access to full and robust information on affected populations, on the nature of social impacts, and on the likely efficacy of mitigating strategies. The fears and hopes that accompany people's own predictions of the likely effects of projects are themselves an important component of social impact, and those who actually experience impacts have unique insights into their nature and significance. As Ross (1990: 192) notes, 'Impact analyses are likely to be wide of the mark if they discount the impacted people's values, social dynamics, and beliefs about events. The people concerned are in the best position to say how they actually experienced events'. Affected populations can also offer valuable information on the likely efficacy of mitigating strategies, and knowledge of their aspirations is critical in making judgements about the significance of predicted impacts (Lane *et al*., 2003; Lockie, 2001: 281; Mayoux and Chambers, 2005; Paci *et al*., 2002: 115).

Another perspective on public participation is that its purpose is not just to help meet the information needs of proponents, regulators or politicians, but to help achieve ethical, political or philosophical goals. Given that it is 'the public' or sections of it that experience social impacts, it can be seen as unethical or undemocratic not to take account of their views and assessments in decision making, which cannot be done in any rigorous manner unless they participate in the SIA process (Geurts and Joldersma, 2001: 301; Hartley and Wood, 2005: 327-35; Lane *et al*., 2003). In a similar vein, Howitt (1989) argues that public participation is essential if the public interest is to be protected against profit-maximizing companies, governments concerned with the pursuit of short-term political gain, or impact assessment professionals pursuing their personal ambitions. From this perspective, what is required is not just public consultation by decision makers, but active participation in decision making by affected people and groups (Doelle and Sinclair, 2006: 189; Lawrence, 1997b: 92; Lockie, 2001: 284; Stewart and Sinclair, 2007: 168).

Because the context and motivation for seeking participation vary greatly, so does the precise definition of 'effectiveness'. For instance, a concern with ensuring full access to information for decision makers will only seek public participation to the extent required to secure access to the relevant data (Lane *et al.*, 2003: 97). Thus 'effective SIA' secures precisely this degree of public participation and no more, so that the SIA process remains firmly under the control of the proponent and the regulatory authority. If the relevant information was available from other sources, for instance an earlier SIA of a similar project in the same area, 'effective SIA' would require no public participation. An approach based on the principle that citizens should be included in decisions that affect them would regard SIA as effective only if public participation is sufficient to sway the choices of decision makers.

Other perspectives stress that the purpose of SIA is not to inform value-free, 'rational' decision processes, but rather to contribute to political decisions and judgements. For instance, Cashmore *et al.* (2007: 528) have criticized the tendency in IA to 'neglect contextual factors' and to assume that IA operates 'within an institutional, sociocultural and political vacuum'. All decisions about proposed

projects create benefits for some individuals and groups in society and costs for others, and thus are inherently political. A key purpose of SIA is, therefore, to provide information on the potential costs and benefits of projects, on who will be winners and losers, thereby facilitating transparent, fair and democratic political decision making (Finsterbusch, 1995: 234-36).

A more radical position is that SIA is not limited to calculating potential costs and benefits and so contributing to political choices. SIA can also be used by socially marginalized groups as a platform from which to negotiate change to the social order, and so help alter in basic ways the distribution of costs and benefits of development. Thus while Finsterbusch (1995: 234) argues that SIA is not [4]an instrument for the revolution of social institutions to equalize power and results', Cowell *et al.* (2001: 273) see SIA as ensuring direct community participation in the processes that 'determine the distribution of costs and benefits of mining project(s)' (273). Gagnon (1995: 273, 286) sees SIA as one of the most important and useful tools in empowering 'local community members to exercise increased control over their own territory, social environment and future development' (see also Gagnon *et al*., 1993: 229; Gondolf and Wells, 1986; Howitt, 1989). Such an approach, which sees SIA as a means of pursuing social justice, would define 'effective SIA' as facilitating the political mobilization of affected communities and allowing the renegotiation of power relationships between affected groups, corporations and governments.

In summary, the definition of 'effective SIA' depends very much on how the purposes of SIA are defined. For instance, effective SIA means something very different to a proponent concerned to achieve prompt project approval with minimal impact on the commercial viability of a proposed project, and a community activist seeking to bring about a fundamental change in the distribution of political power and hence the allocation of social and other costs and benefits from development.

## Aboriginal exclusion from SIA

How might 'effective SIA' be understood by Aboriginal peoples experiencing the effects of large resource projects? A fundamental starting point in addressing this question is the recognition that historically in industrialized countries, including Australia, Aboriginal people have been almost entirely excluded from participation in IA processes, and their interests ignored by those conducting SIAs. In many cases, despite the fact that Aboriginal communities would be directly and obviously affected by development, their existence was ignored in the terms of reference provided by regulators to proponents conducting IAs, and IA reports often made no reference to Aboriginal people or dealt with them only cursorily. Even where their interest in development outcomes was recognized formally, Aboriginal groups faced many practical barriers to participation in IA processes. These included:

- The failure of governments and proponents to afford legitimacy or weight to indigenous ecological, cultural and social knowledge, or to consider indigenous challenges to dominant epistemologies;
- The culturally alien character of IA processes, including their adversarial nature, their insistence on use of written rather than oral submissions, and their failure to recognize the need to facilitate communication with indigenous participants, for instance through the provision of interpreters;
- Lack of financial resources required to attend regulatory hearings and gain access to the technical expertise needed to challenge proponents and regulators;
- The short periods of time allowed for submission to IA inquiries, which exacerbated the impact of resource constraints and were often inconsistent with the need for consultation with Aboriginal communities. (For an extensive discussion of these points and of other obstacles to Aboriginal participation in Australia, and also in North America, see Chase, 1990; Craig, 1990: 41^12; Geisler *et al*., 1982; Howitt, 1989; Jobes, 1986; Lajoie and Bouchard, 2006; Lawe *et al*., 2005; O'Reilly, 1996; Wismer, 1996).[4]

The exclusion of Aboriginal people from IA processes and the tendency to ignore their interests and concerns reflected their economic, social and political marginalization within dominant societies. In particular, it reflected the effects of dispossession from their ancestral lands; the fact that they were denied basic human rights, including political rights, until at least the mid-1960s; suffered from deep-seated racism in relation to every aspect of their lives; were forced into highly institutionalized settings (in particular government or mission reserves), leaving them little room for the exercise of individual freedoms and political expression; and suffered sustained (albeit ultimately unsuccessful) attempts by the dominant society to destroy indigenous culture and social forms (for a detailed analysis see O'Faircheallaigh, 2002).

Exceptions to this pattern of exclusion occurred both in Australia and in other industrialized countries, where projects or activities achieved a high political profile, created considerable political controversy, and had potential social consequences that were obvious and dramatic. In these cases governments might decide that a different approach was required to minimize the risk of negative political fallout. Examples from the mid-1970s include the Berger Inquiry into the proposed construction of the Mackenzie Valley gas pipeline in Canada's Northwest Territories, and the Ranger Inquiry into uranium mining in Australia's Northern Territory. Both

involved extensive participation by affected Aboriginal people and led, in large measure because of concerns regarding negative social impacts on indigenous groups, to government decisions not to allow a project to proceed (Mackenzie Valley pipeline), or to reduce the scale of development and attach numerous conditions to it (uranium in the Northern Territory) (Berger, 1988; Commonwealth of Australia, 1977). However, these *were* exceptions. For instance, when the proponent of the Century zinc mine, located in a region inhabited predominantly by Aboriginal people, submitted its three-volume Environmental Impact Statement in 1994, just half of one page addressed potential social and cultural impacts on the Aboriginal people (Dames and Moore, 1994).

Increased recognition of indigenous rights arising from recent legal and policy developments, some of which are discussed below, have removed some of the most blatant manifestations of exclusion. Yet obstacles to Aboriginal participation in mainstream SIA processes continue. These include the fact that a group treated so badly by state institutions is often reluctant to participate in government-run IA processes; the ongoing impact of racism, which means that if indigenous people do try to participate they are often met with suspicion or hostility by other participants in the political process; the continuing ambiguity of state actors regarding the desirability of Aboriginal participation, often fuelled by a conviction that Aboriginal groups are fundamentally 'antidevelopment'; and the continuing disjuncture between Aboriginal and mainstream cultural norms. Also significant is the fact that their formal exclusion from public life over a period of 200 years means that some (though by no means all) indigenous groups have limited experience in identifying strategies and establishing political structures designed to maximize their effective participation in regulatory and policy forums (O'Faircheallaigh, 2002).

## Aboriginal control of SIA

Against this background, for Aboriginal people a key purpose of SIA is to help end their marginalization from decision making about development on their ancestral lands. It can only serve this purpose, however, if Aboriginal people have a strong degree of control over IA processes, because all of their experience suggests that they have little to gain from processes controlled by proponents and/or state institutions. Thus at a fundamental level, for them, 'effective SIA' is SIA controlled by Aboriginal people (Craig, 1989; Geisler *et ah*, 1982; Gondolf and Wells, 1986; Howitt, 1989, 1993; O'Faircheallaigh, 1999; Ross, 1990). One approach, pioneered by Aboriginal organizations in the Cape York region of Queensland in the 1990s, is for Aboriginal groups to undertake their own community-based SIAs (Holden and O'Faircheallaigh, 1995; O'Faircheallaigh, 2000) . In some cases SIAs are conducted independently of government approval processes, and then used as a basis for negotiating legally binding agreements with developers and governments regarding the terms on which Aboriginal groups would support development on their traditional lands (O'Faircheallaigh, 1999). In other cases the Aboriginal groups involved negotiated an arrangement with regulators whereby the SIA Activity was 'extracted' from the formal El A, conducted by the community, and the community's SIA Report was then 'inserted' into the regulatory process as a part of the proponent's environmental impact statement (EIS). This approach was adopted, for instance, in relation to the EIS for Alcan's proposed new bauxite mine and port in 1996-1997. In all cases SIAs focus overwhelmingly on the potential impacts, both positive and negative, of proposed developments on affected Aboriginal communities, and use approaches to communication and consultation carefully designed to maximize the potential for Aboriginal participation (see, for example, Holden and O'Faircheallaigh, 1995, O'Faircheallaigh, 2000).

A similar approach has been adopted by the KLC in relation to LNG development in the Kimberley region. In 2007, Inpex, a Japanese oil and gas company, commenced regulatory approval procedures for the construction of an LNG processing plant on the Maret Islands, off the Kimberley coast. Construction would have a major physical impact on the islands themselves, which are rich in Aboriginal cultural heritage. The project would generate far-reaching economic and social effects in a region with little existing industrial development, involving construction costs of more than US 10 billion over three years; a construction workforce peaking at some 3,000 people; an operating workforce of about 800; and an operating life of at least 30 years. The company proposed a conventional EIA process, including an SIA, to be undertaken by consultants retained by Inpex (Inpex Browse Ltd, 2007). The KLC insisted on establishing an Aboriginal-controlled SIA process parallel to the government statutory approval process, and in July 2007 negotiated an agreement with Inpex for the company to fund an 'Aboriginal Social Impact Assessment' which would be undertaken with the maximum possible participation by Aboriginal traditional owners.

As mentioned earlier, Inpex is only one of a number of companies that have identified gas reserves off the Kimberley coast. Concerned at the prospect that a piecemeal, project-by-project site approval process would result in extensive development along the coast, and unacceptable environmental and social impacts, the government of Western Australia (WA) established a Northern Development Taskforce (NDT) to identify a single site or 'hub' for LNG processing, to which natural gas from the various fields could be piped. The WA government sought the involvement of the KLC and of Aboriginal traditional owners along the Kimberley coast in this

process, and the arrangements it negotiated with the KLC included allocation of funds to support an Aboriginal SIA of the proposed 'hub' (Western Australia, 2008).

The ability of the KLC and Aboriginal traditional owners to negotiate these arrangements reflects a number of factors. The High Court's 1992 recognition of inherent rights is central, as both the Maret Islands and a number of potential sites for a processing hub were subject to native title claims. Australia's native title legislation (the *Native Title Act, 1993)* does not confer a veto on native title claimants or holders, and so traditional owners could not use the threat of halting development as part of their negotiations with Inpex and Western Australia. However, the procedural rights available to traditional owners could potentially be used to cause significant project delays which, given the scale of the proposed developments, could impose large costs on developers and governments. Thus Inpex's agreement to fund an Aboriginal Social Impact Assessment followed on from legal action by the KLC to delay granting of permits for vegetation clearance on the Maret Islands which, if successful, could have substantially delayed the project (KLC, 2007).

As research on the outcomes of negotiations between Aboriginal people and developers clearly shows (O'Faircheallaigh, 2006), the existence of a strong regional political organization, in the form of the KLC, is also of critical importance. The KLC is a grassroots community organization founded 30 years ago, during one of a number of major confrontations between Kimberley Aboriginal people and resource developers in the late 1970s and early 1980s, and it has been instrumental in helping Kimberley Aboriginal people maintain their culture and win recognition of their economic and political rights. Because of its capacity to mobilize Aboriginal people on a regional basis, and also to draw on substantial financial and human resources, it has been able to engage in political, legal and technical arenas relevant to gas development in a way that would be difficult or impossible for individual groups of Aboriginal traditional owners to do. Finally, broader international developments in relation to recognition of indigenous rights (United Nations Economic and Social Council, 2006; United Nations General Assembly, 2007) are also significant, as indicated by the WA government's acceptance of the principle that development should not take place on Aboriginal lands without the informed consent and substantial economic participation of traditional owners (Carpenter, 2006).

It cannot be assumed that other indigenous groups will be able to replicate the approaches adopted in the Kimberley and in Cape York, and indeed Aboriginal groups in regions of Australia where dispossession has been more long-lasting and extensive and political organization is less robust have found it difficult or impossible to win similar recognition of their right to be involved in development decisions



(O'Faircheallaigh, 2006). The vulnerability of arrangements of the sort negotiated by the KLC to changes in corporate strategy and government policy must also be recognized, especially as, given the limited nature of their own resources, Aboriginal groups must rely on industry or government to fund SIA work. In September 2008 Inpex announced that for economic reasons it would seek to process its gas in the Northern Territory rather than Western Australia (Inpex Browse Ltd, 2008). Significant impacts have arisen from Inpex's pre-development activities, for instance its site investigation work on the Maret Islands and the social impact of the economic opportunities created by its preparatory work. However resources are no longer available to complete SIA work or implement relevant mitigative strategies. Also in September, 2008 Western Australia's Labour government lost the state election and has been replaced by a Liberal/National party government whose continued support for the NDT process and for high levels of Aboriginal participation is far from certain.

In addition, although Aboriginal control of SIA processes may be a prerequisite to achieve 'effective SIA' from an Aboriginal perspective, it is far from guaranteeing it. We explore this point in the next section.

## Realizing the potential for effective SIA

As noted at the beginning of this paper, large-scale resource development creates significant risks as well as opportunities for Aboriginal people. The stakes are very high. Given the serious economic and social disadvantages they face, any benefits that can be generated by these projects are greatly valued. On the other hand, large-scale development has the potential to seriously damage the land and sea on which they rely for sustenance and for maintenance of their cultural vitality. Damage to, or destruction of, these resources could be disastrous for people with limited participation in the mainstream economy, and whose social circumstances are in many respects perilous. In this situation it is essential that SIA should accurately predict social impacts; identify effective intervention strategies to minimize negative social impacts and maximize positive ones; help ensure that these interventions are actually implemented; and support the ongoing review of both project operations and intervention strategies to ensure that net social benefits continue to be maximized. There are substantial obstacles to ensuring that SIA can perform these roles, including the economic and social disadvantages currently faced by Aboriginal communities, and the paucity of human and financial resources associated with this.

A rigorous approach to SIA is required to address the complex array of issues and challenges involved in this situation. The following discussion attempts to make a contribution in this regard, drawing on the earlier general discussion of effectiveness in SIA;the

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literature on indigenous SIA; and the author's practical experience in organizing SIAs in indigenous communities (Holden and O'Faircheallaigh, 1995; O'Faircheallaigh, 1999). The approach adopted is summarized in the matrix outlined in Table 1. This has parallels with other models for effective SIA - for instance that developed by the ICGPSLA - but also departs from and/or adds to them in important ways. It assumes that the potentially affected group of Aboriginal people plays a central and indeed controlling role in the SIA. It includes components absent from other models, for instance the 'revisiting' of impact factors and 'spheres of impact' (Activity 6) and the negotiation of binding strategies to maximize net benefits (Activity 10). It identifies practical considerations that may not arise in other contexts, such as the need to communicate complex technical information across cultural frames, and to develop baseline data whose existence could be taken for

**Table 1. Activities of SIA that is effective for Aboriginal people**

| Activities of effective SIA | Key questions/ issues | Key participants | Key resources: time, information, money. | Sources of information | Key policy/ political issues |
|---|---|---|---|---|---|
| 1. Understand nature and extent of impact factors associated with proposed project/activity (e.g. demand for land and water, labour demand, immigration) | What is the 'project'? What are its impacts? | SIA team; Project proponents (i.e. developers, Government); specialist independent advice to verify proponent information | Information on project; time for SIA team to collect, verify and absorb; funding for SIA team and independent experts | Proponent's regulatory submissions e.g. initial Expression of Interest, Environmental Impact Statement, industry sources on comparable projects, experience of independent experts | How narrowly/widely is project and its impacts conceptualised? (e.g. are 'indirect effects' such as increased tourism due to project infrastructure considered?) Is project considered on a 'standalone' basis or in a cumulative context? |
| 2. Initial estimation of 'sphere of impact'. | Where (geographically) will impacts occur and what is the affected population? | SIA team | Time and funding for SIA team; information on impacts of comparable projects | Activity 1.; information on actual impacts of comparable projects elsewhere | Definition of sphere of impact: developers may want to minimize, government and community groups to maximize |
| 3. What are the existing social, cultural, economic and political conditions (baseline) within the 'sphere of impact'? | What are peoples lives like at the moment? | SIA team; specialist informants (e.g. demographers); community and government service delivery organizations. | Time and funding for SIA team and specialists. | Census data; household surveys; data held by government and service delivery organizations. | Access to confidential data; sensitivity about documentation of 'problems' in community from government and community members. |
| 4. What are the values and priorities of affected groups/ peoples? (Answer may be different for different components of population) | How do people define the 'good life'? What would make life worse or better for them? | Affected groups; SIA team | Time and funding for SIA team; community meetings; small group engagement; surveys (where appropriate) | Existing reports (e.g. community planning); SIAs for earlier projects; engagement with community members | Conflicting values and priorities may be expressed by different groups or community members |
| 5. Communicate nature and extent of impact factors and key baseline data to affected groups in forms they can most readily comprehend | How can potentially affected groups be made fully aware of what is likely to happen? | SIA team; communication specialists (graphic artists, interpreters); project proponents | Funds for SIA team and specialists; for information materials (e.g videos, models); to conduct community engagement. Time to develop and communicate information materials | Activities 1-4. | Omission of groups that believe they will be affected; overconcentration on specific affected groups that can exercise political leverage |

(*continued)*

**Table 1. (*continued*)**

| Activities of effective SI A | Key questions/ issues | Key participants | Key resources: time, information, money. | Sources of information | Key policy/ political issues |
|---|---|---|---|---|---|
| 6. Revisit issues of impact factors and of 'sphere of impact', e.g. some affected groups may indicate they will not feel impact; may draw attention to others who will feel effects; unanticipated impacts may be identified | Where (geographically) will impacts occur and what is the affected population? | SI A team | Funding for SIA team | Activities 1-5. | Definition of sphere of impact: developers may want to minimize, government and community groups to maximize |
| 7. Understand nature and extent of social impacts if no intervention, and identify interventions (strategies) that minimize costs and maximize benefits, given values/priorities of affected groups | What will effect of project be if no specific measures taken to affect it? What can be done to minimize or maximize impacts? | SI A team; affected groups; community and government organizations whose involvement required to make strategies effective | Funding for SIA team and for engagement with affected groups; input from relevant organisations | Activities 1-4; data on actual impacts of comparable projects; information on effectiveness of strategies attempted in other contexts; scenario building with affected groups; agencies responsible for service provision | Access to confidential data; sensitivity about documentation of 'problems' in community from government and community members. |
| 8. Communicate proposed strategies to affected groups and so enable them to make informed decisions in relation to the project | How can potentially affected groups be made fully aware of available strategies and their likely efficacy? | SIA team; communication specialists | Funds for SIA team and specialists; for information materials; to conduct community engagement. Time to develop and communicate information materials | Activities 1- 4, 7 | Conflicting values and priorities may be expressed by different groups or community members |
| 9. Negotiate agreed strategies with decision makers; devise and sign off mechanisms to ensure strategies are implemented | What is it politically feasible to negotiate? How can implementation be achieved? | Community leaders and negotiators, with support from SIA team; proponent and government negotiators | Funds to support ongoing flow of information from SIA team; for negotiations; for engagement with community re proposed agreement provisions and implementation strategies | Negotiated outcomes achieved in relation to comparable projects; negotiation positions and implementation mechanisms developed in other contexts. Activity 3. (e.g. baseline information re organizational capacity). | Conflict between affected groups and developers and governments re strategies. Failure to reach agreement, projects being 'pushed' through against opposition of affected groups |
| 10. Monitor impacts and effectiveness of strategies throughout project life (including closure), reconsider project parameters (to extent feasible), adjust strategies where required, e.g. in response to changing circumstances, unanticipated impacts | What mechanisms can be put in place to make sure that social impacts continue to receive the resources and attention they need? How to ensure that strategies are maintained, and adjusted over time as required? | Community and project operator monitoring teams; periodically, SIA specialists; where adjustment to conditions or strategies required, community leaders and negotiators | Funds to support monitoring efforts; development of new strategies; engagement between project operators and community leaders/negotiators | Information from monitoring activity on project impacts; on alternative or additional strategies attempted at other projects | Proponents or governments unwilling to fund continued monitoring and unwilling to consider changes to project to minimize impacts; government reluctant to expend political capital to insist on project changes |

granted in other contexts (see, for example, ICGPSIA, 2003: 236). Finally and critically, it recognizes (in the final column) that many of the specific activities involved in SIA (and not just the wider issue of SIA effectiveness) are inherently political, and that failure to accept this and to manage the political ramifications of each activity may derail the whole enterprise.

Table 1 identifies 10 key Activities of 'effective SIA'; the second column notes key questions

identified with each Activity, to highlight the critical matters each must address. Although the Activities are discussed in sequence here, in reality they are likely to overlap. So, for instance, the collection of baseline data (Activity 3) may be taking place while the analysis of impact factors (Activity 1) is still under way. The next three columns represent the need to ensure that, if these Activities are to be completed, the key participants in each are identified and the resources required for implementation (time, information, money) made available. The references in these columns to an 'SIA Team' assume that the Aboriginal community appoints its own team to conduct the SIA. This would typically involve a mix of professional staff with extensive experience in SIA, and community members whose local knowledge and cultural expertise are critical to the efficient conduct of an SIA in a cross-cultural context and within limited time frames (Holden and O'Faircheallaigh, 1995; Craig, 1989; Ross, 1990). The final column raises key policy or political issues associated with each Activity.

## Ten critical SIA Activities

### *Understanding impact factors*

The first Activity involves the need to understand the 'impact factors' associated with the proposed project, and the key questions involve defining what the project is and quantifying aspects of the project that will generate social impacts (e.g. demand for land, for immigrant labour). Much of this information will be generated by the proponent, and its accuracy will need to be verified for the SIA team by independent experts. Resources required include the funding for the SIA team and independent advisers, and the time for the SIA team to collect, analyse and understand project information. Time is a critical resource at every stage of the process. Typically, project proponents are operating under tight time constraints and will be pushing to have IA completed, and regulatory approvals granted, as quickly as possible.[5] Key policy or political issues raised by this Activity include the definition of 'the project' - for instance, whether it is defined as a 'standalone' activity or as just one of a number of developments affecting the area of impact; and whether only core project activities (in this case the production and transport of LNG) are considered, or whether 'ancillary' activities and indirect impacts (such as the use of project infrastructure by tourists) are also included.

### *initial estimate of sphere of impact*

The second Activity involves an initial estimation of the project's 'sphere of impact', both spatially (i.e. *where* will impacts happen) and socially *(who* will be affected), based on project characteristics and on knowledge regarding the actual impacts of similar projects elsewhere, where this information is available. This estimation will be revisited as the SIA process unfolds (see below), especially where information on comparable situations is limited. Even a preliminary identification of the sphere of impact is essential at this stage, however, because it defines the basis on which the following Activity (for example the collection of baseline data, communication of information on impact factors) is undertaken. Defining the sphere of impact can also be highly political. Proponents and their supporters in government may wish to define it narrowly and so limit the scope of SIA work, and in particular the number and range of potentially affected people who need to be consulted. The SIA team and Aboriginal organizations may wish to take a more expansive approach, however, believing that it is unacceptable to risk omitting areas and people that may be affected as a result of defining the sphere of impact too narrowly.

### *Compiling baseline data*

The third Activity focuses on compiling baseline data on people and communities within the 'sphere of impact', and focuses on the question: 'What are peoples' lives like at the moment'? Full and accurate baseline data regarding potentially affected people and communities are essential, for example to estimate the potential of community members to take up employment opportunities; to establish the adequacy or otherwise of physical and social infrastructure to deal with a population influx; and to assess the cultural and social resilience of communities and their capacity to absorb impacts and take advantage of opportunities. In the absence of such data it is impossible to assess likely impacts and opportunities, to devise effective strategies for dealing with them, and, later, to monitor and evaluate the actual impact of development.

The quality and coverage of existing baseline data for Aboriginal communities is often poor, creating a significant challenge for SIA work. This is certainly the case in the Kimberley region, where the Census data that provides much of the available baseline information on economic, social and cultural conditions is deficient in important respects (Taylor, 2006, 54, 67, 2008, 35-36, 40). First, some of it is seriously inaccurate or incomplete in relation to the demographic, social and economic variables it purports to describe. For example, Taylor (2008: 4) estimates that as many as one in four Aboriginal people may have been overlooked by the Census. This can result in a serious underestimate of the number of people requiring and using public services. Second, existing data may have been collected in such a way that it misrepresents social and economic reality. As Taylor notes, the process of Census data collection can be described as a 'collision of [cultural] systems' which can 'produce answers that can be nonsensical in terms of describing the reality of Indigenous social and economic life' (2006: 7). In

his view, the existing data 'selectively describe the relative condition of Indigenous people, but contain no Indigenous voice' (2006: 7). A third problem is that there are important social, cultural and economic indicators in relation to which the existing baseline information is entirely silent. For instance, there are no systematic indicators of cultural and social vitality, of Aboriginal people's access to their traditional lands, and of their subjective sense of wellbeing, all of which are extremely important for an accurate assessment of their capacity to absorb impact and take advantage of development opportunities.

Extensive research must often be undertaken to address gaps in existing baseline data. This demands the allocation of substantial resources, and the work involved takes time which, as indicated earlier, may be a significant issue given tight project schedules. In addition, proponents may be reluctant to fund what they regard as 'general' research that lacks a specific bearing on their project. Other policy or political issues that require careful management are sensitivities concerning access to information held by Aboriginal health, education, cultural and other organisations; and the possible opposition of Aboriginal leaders and mainstream politicians to the exposure of social pathologies for which they may be held responsible.

### *Understanding Aboriginal aspirations and concerns*

As indicated in the earlier discussion of participation and SIA, the collection of baseline data often requires engagement with Aboriginal people, who may be the only source of critical information. Such engagement will certainly be essential for Activity 4, which focuses on another key requirement: an understanding of the aspirations, concerns and values of Aboriginal people and communities. It is one thing to document the likely impacts of a project, but quite another to make judgements regarding the significance of those impacts. For example, a project's capacity to generate employment will be viewed quite differently depending on the relative values attached to the generation of cash incomes and the maintenance of traditional land use and associated cultural practices. Similarly, the sorts of strategies that will be appropriate in addressing potentially negative social impacts, and in taking advantage of positive opportunities, will depend on community goals and values. For instance, in a non-indigenous context it may be acceptable to allow market forces to determine the allocation of employment and business opportunities associated with large projects. In an Aboriginal community, there may be a strong belief that those whose traditional lands are most directly affected by a project should have first priority in relation to employment opportunities, and so education and training initiatives designed to prepare people for employment may need to be targeted to this group.

Productive engagement with Aboriginal people will require the application of appropriate field work and consultation methodologies by the SIA team. For instance, public meetings, often used as part of consultation processes in non-indigenous contexts, may not be appropriate because of people's reluctance to speak out in public, or the tendency of certain groups to defer to others (for instance younger people to elders). Small group meetings on people's traditional lands, informal engagement with family groups, story-telling and a range of other techniques may be employed (for a detailed discussion see Berger, 1988; Craig, 1989: 51-60; Gondorf and Wells, 1986; Holden and O'Faircheallaigh, 1995; Ross, 1990). These forms of engagement are resource intensive, both because of the considerable amounts of time they require, and because of the high cost of bringing together Aboriginal groups that can be widely scattered, often across very remote regions. At a political level, a key issue that must be addressed at this stage is the need to manage conflicting values and priorities that may emerge between individuals and groups within Aboriginal communities (Gondolf and Wells, 1986: 376-79). Indeed, this task must be undertaken on an ongoing basis as the SIA moves to form judgements regarding the net impacts of proposed projects and appropriate strategies for dealing with them (see below).

### *Communicating information on impacts and baseline*

Activity 5 involves communication of information on key impact factors and on baseline data to potentially affected groups, to ensure they are aware of the consequences of proposed projects. This is not a simple task. For instance, information on proposed projects is usually contained in written documents that employ complex or 'high' technical language and are impossible for many Aboriginal people - for whom English is often a second or third language - to understand. This is certainly the case in relation to LNG development on the Kimberley coast, where much such information is contained in engineering studies prepared by company consultants, some of which are hundreds of pages long (see, for example, Gaffney Cline, 2008).

Converting this information to a form that can be communicated to Aboriginal traditional owners is a major challenge. The task is not simply one of preparing summaries of key documents in 'plain English' or in Aboriginal languages, or of ensuring that interpreters are present when company or government engineers give oral presentations: there is also the fact that what is being discussed is beyond the experience of many traditional owners and is difficult to translate into terms that are meaningful for them. For instance, engineers estimate that 1,000 hectares will be required for an LNG processing hub in the Kimberley, but how can traditional owners understand what this might mean if the hub was located on their country? Environmental scientists

stress that major impacts on wildlife such as turtles could result from 'light pollution' from a hub, but how can the concept of light pollution be explained in a context where people have no experience of major industrial facilities? In this case, the first issue was addressed by preparing computer-generated images that imposed an area of 1,000 hectares on top of places with which traditional owners were familiar, such as local townships and regional centres. The second was addressed by taking a small number of traditional owners from each potentially affected group to see an existing LNG plant in the Pilbara region, south of the Kimberley. The second exercise in particular was expensive, and leaves those who visited the LNG plant with the task of trying to explain what they saw to other community members.

Another issue is that there is often a mismatch between the value frames within which project information was prepared and those of Aboriginal groups. For instance, Aboriginal people see themselves as intimately connected to past and future generations, and as having close relationships with the animals and birds that share their traditional lands (KLC, 2008a: 4-6). Thus the fundamental assumptions made by company staff or consultants in gathering, interpreting and presenting information about likely project impacts on cultural heritage or on animal behaviour, for example, may not be shared by the Aboriginal people receiving that information. Information may have to be 'reinterpreted' by them with the assistance of specialists familiar with both Aboriginal and non-Aboriginal cultural norms and world views.

This discussion again raises the critical issue of resources. Preparation of appropriate communication tools is expensive. More broadly, the range of tasks required to complete the Activities outlined in Table 1 do not just need substantial funding: they also require access to people with the cultural, demographic, engineering, economic, environmental, communication and other skills required to collect and understand relevant information and communicate it in a form that is comprehensible to Aboriginal people both linguistically and in terms of their world views.

### *Revisiting the 'sphere of impact*

Once information on a project, its likely impacts and relevant baseline data is communicated to potentially affected people, the issue of that project's 'sphere of impact' needs to be revisited (Activity 6). Additional information on the project and on local populations may now be available, and Aboriginal traditional owners may identify impacts not initially anticipated by an SIA team, for instance because the latter have limited information on Aboriginal interests in land (which can be complex and multifaceted), on land use patterns, or on the behaviour of fish and game taken by Aboriginal hunters. This process does not inevitably involve a widening of the 'sphere of impact'. Groups that initially felt they would be affected may decide they will not be once the nature of the project and related activities becomes clearer.

Thus a clearer picture of potential impacts is developed through an iterative process involving the provision of information by project proponents and regulators; interpretation and communication of this information by the SIA team; and augmentation of it and responses to it by the potentially affected population.

As noted in relation to Activity 2, defining the scope of project impacts can be a highly political exercise, not only between proponents and potentially affected communities, but also within communities. For instance, where project benefits are expected to 'follow' project impacts, traditional owners close to projects may wish to define impacts narrowly, whereas traditional owners whose land is some distance away may wish to define them broadly.

### *Design intervention strategies*

Once a clear picture of potential impacts is formed, it is necessary to consider what the consequences of a failure to intervene may be, and to design intervention strategies that can minimize potential project costs and maximize benefits (Activity 7). This process also requires input from Aboriginal people, who have a first-hand understanding of which intervention strategies are likely to be effective and which are not. Scenario building can be an important part of this interaction, with the insights of local people combining with the SIA team's experience of other projects and communities to identify and consider the likely efficacy of alternative strategies in allowing negative impacts to be addressed and opportunities grasped.

### *Communicate strategies assist informed decision making*

Communication of information on predicted impacts, as modified through viable intervention strategies, is essential for Aboriginal communities to make informed decisions regarding proposed projects (Activity 8). If a community believes that the balance of impacts is likely to be negative even with the best available interventions, it may decide that it will oppose the project as currently configured. This may involve outright opposition where the community's view is that there are no circumstances in which the project could be acceptable, as occurred with the Mirrar people's opposition to development of the Jabiluka uranium project (Katona, 2002). In this case any additional SIA work would be redundant. Alternatively, the community may take the view that fundamental reconfiguration of the project is required before approval can be reconsidered. This occurred with the Voisey's Bay nickel project in Labrador, Canada, where Innu and Inuit

traditional owners determined that a project on the scale proposed by the developer, Inco Ltd, was unacceptable, but that one on a much smaller scale and with a longer mine life might generate an acceptable balance of benefits and costs (Gibson, 2006). If a substantially revised configuration can be agreed (as was the case with Voisey's Bay, which eventually proceeded at less than half the scale initially proposed), further SIA work may be needed, focusing on the revised proposal. Given the key role of Activity 8 in determining community responses to a project, it is highly political. For instance, community leaders who favour development may wish to suppress or water down negative assessments, expecting them to mobilize community opposition to a project.

*Negotiation of agreed, binding intervention strategies*

If a project is fin principle' regarded as capable of generating net social benefits, there remains the issue of ensuring that recommendations for intervention and mitigation arising from SIA reports are actually put into practice and reviewed on a regular basis. As noted above, there is a widespread failure to act on the recommendations and findings of SIA reports once project approval is secured. One approach (Activity 9) is to negotiate with project proponents and, where appropriate, governments, agreed intervention strategies whose implementation over time is secured through legally binding contracts. Such an approach is not part of the SIA, as indicated by the fact that the primary participants are community leaders, with the SIA team playing only a supporting role (see Table 1). However, it can be regarded as integral to effective SIA, as in its absence all the work involved in the previous Activity may have little practical effect on project outcomes.

In Cape York, for example, Aboriginal communities have used their community-controlled SIAs as a basis for negotiating legally binding agreements with developers and governments regarding the terms on which they would support development on their traditional lands. These agreements encompass strategies to maximize positive impacts (for instance, the creation of education and employment opportunities for traditional owners, establishment of community development funds) and minimize negative ones (for example cultural heritage protection provisions, participation of traditional owners in environmental management). This approach clearly involves a basic change from the historical function and use of SIA, which in Cape York has become a tool for an affected community to use in negotiating responses to expected project impacts so as to maximize the net benefits (for a discussion of this 'negotiation-based approach' to SIA and of specific agreement provisions, see O'Faircheallaigh, 1999).

A key political issue in relation to this Activity is the possibility that all three sides will fail to reach agreement, possibly with the result that attempts will be made to push projects through against Aboriginal opposition. If this occurs, Aboriginal groups may have to resort to wider political strategies, for instance designed to delay project development, and use the additional leverage gained in this way to support further attempts to secure agreement (Gib- son, 2006). The SIA work undertaken earlier can be very useful in such situations. For instance, information on potential project impacts and on existing conditions in affected communities may play a key role in media campaigns and in gamering support from potential political allies.

*Ongoing monitoring and adjustment of strategies*

Finally, Activity 10 involves ongoing monitoring of impacts and the effectiveness of intervention strategies throughout the life of the project and, where necessary, the adjustment of existing strategies or the development of new ones to account for changing circumstances or new information. This is especially important given the tendency for projects to change after regulatory approval is granted; the potential for unanticipated impacts; and the likelihood that changes in the broader social environment within which projects operate will require changing responses if net social benefits are to be maximized. Specific attention must be focused on these matters, given that IA processes tend to be 'one off in nature, focusing on the grant of project approvals, and to lack an approach based on adaptive management in the context of changes in project configurations, in knowledge regarding impact processes, and in the wider social environment (Brown and Jacobs, 1996; Joyce and McFarlane, 2001: 3-17; O'Faircheallaigh, 2007: 322). Negotiated agreements can also be helpful in this area. For example, they can require proponents to provide resources for ongoing monitoring of social impacts, and establish joint management structures with representation from affected communities and project operators that evaluate and adjust intervention strategies to take account of changing circumstances (O'Faircheallaigh, 1999, 2007).

## Conclusion

There is no consensus on what SIA is or on what its purposes are, and so no single definition of 'effective SIA' is possible. SIA is understood differently, for instance, by those who see it as a tool to help make an initial decision about project approval and/or approval conditions, and those who see it as a tool for managing project impacts. Its purposes are defined differently by project proponents, for example, and by those who consider that SIAs are undertaken in political systems characterized by fundamental social and economic inequalities, and so should provide a platform for the pursuit of social justice.

The approach of Aboriginal people to SIA highlights this diversity and hence the definition of

effective SIA. Given their history of exclusion from SIA (and wider legal and political processes) and the fact that proponents and SIA consultants have in the past ignored their interests, a fundamental starting point for them is that a key purpose of SIA is to help end their marginalization regarding development on their traditional lands. Given this fact and their history of exclusion from mainstream SIA processes, to be 'effective' SIA must be controlled by Aboriginal people. However, this is only a starting point, one that creates a potential for effective SIA. To realize that potential a series of activities must be undertaken and challenges addressed. These include the need for accurate identification of project characteristics and impacts, and to communicate this information to potentially affected populations; to devise effective strategies to minimize negative impacts and maximize positive ones; to ensure that those strategies are put into effect by proponents, developers and affected communities; and to establish ongoing processes to monitor impacts, identify unanticipated effects, and revise intervention strategies to ensure their continued effectiveness. Each component of SIA creates demands for personnel, resources and information, and each has political ramifications that must be recognized and managed. The discussion in the final section above outlines an approach that can be used to identify the specific requirements for effective SIA in relation to resource development on the traditional lands of indigenous peoples.

Many of the issues and challenges addressed also arise in non-indigenous contexts, and so the approach adopted here, appropriately modified, should assist in pursuing effective SIA in other situations. Two specific examples highlight this point. The first is the fact that many of the activities involved in SIA are inherently and unavoidably political, and that SIA can only be 'effective' if this is recognized and appropriate strategies developed. The second is that SIA can only be effective if mechanisms are identified to translate its findings and recommendations into action, not just when a project is approved but on an ongoing basis. These mechanisms may not be developed or implemented as part of SIA, but they are as important to its effectiveness as anything that occurs within SIA itself.

## Notes

1. In Australia, 'native title[5] refers to the recognition, for the first time, of inherent indigenous rights in land by the High Court of Australia in its 1992 *Mabo* decision, subsequently given legislative expression in the Commonwealth *Native Title Act 1993.* In other words, the High Court recognized that Australia was owned by its indigenous inhabitants when Britain colonized it in 1788. The High Court also determined that indigenous people in Australia may still hold rights in land, if those rights have not been extinguished by valid grants of title by Australian governments and if the indigenous groups involved have maintained their connection to their land.
2. Only one of the six principles that underlie the ICPGSIA 'Principles and guidelines for social impact assessment in the USA[5] (ICGPSIA 2003) might address this issue, that calling for 'environmental justice issues to be fully described and analyzed[5]. But this principle calls for SIA specialists to ensure that they consider 'underrepresented and vulnerable stakeholders' and 'consider the distribution [of] all impacts ... to different social groups (including ethnic/racial and income groups)[5], not for control of SIA by indigenous or other vulnerable groups (ICGPSIA 2003, 233).
3. Some SIAs do focus on activities other than project development and on government policies (see, for example, Becker, 2001: 316-17; Kauppinen *et al,* 2006), but most are concerned with large projects (Smith, 1993: 15), and that is the focus here.
4. Some of these experiences are shared with non-indigenous groups (Hartley and Wood, 2005; Doelle and Sinclair, 2006; Stewart and Sinclair, 2007), but their combined impact over extended periods has been especially onerous for indigenous people, who often disproportionately bear the ill effects of large-scale development in remote regions.
5. Inpex's decision to move to the Northern Territory was due to a perceived inability of the WA government to accommodate its need to deliver natural gas to Japan by a specific date. However, if insufficient time is available for SIA work, it may be fatally compromised, a point we return to below.

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