The Environment Protection Authority's Final Advice on Improving Environmental Assessment in the Northern Territory

TABLE OF CONTENTS

LIST OF ACRONYMS

ANZECC	Australian and New Zealand Environment Conservation Council
CAT	Centre for Appropriate Technology
CBNRM	Community Based Natural Resource Management
CDU	Charles Darwin University
CEnvP	Certified Environmental Practitioner
CIA	Cultural Impact Assessment
COAG	Council of Australian Governments
DLGH	Department of Local Government and Housing
EA	Environmental Assessment
EFA	Ecological Footprint Analysis
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
ESD	Ecologically Sustainable Development
HIA	Health Impact Assessment
IAIA	International Association of Impact Assessment
IGAE	Intergovernmental Agreement on the Environment
MOU	Memorandums of Understanding
NLC	Northern Land Council
NRETAS	Department of Natural Resources, Environment, the Arts and Sports
PER	Public Environment Report
SEA	Strategic Environmental Assessment
SIA	Social Impact Assessment
SEIA	Socio-economic Impact Assessment

EXECUTIVE SUMMARY

The Environment Protection Authority (EPA) is an independent statutory body established by the *Environment Protection Authority Act* 2007 to advise on matters of ecologically sustainable development (ESD). It has the power to proactively review environmental legislation, regulations and procedures in the Northern Territory. It can accept referrals from the Minister, from the public or can decide to undertake an investigation itself.

In 2008 the Minister for Natural Resources, Environment and Heritage referred the following task to the Environment Protection Authority:

> "investigate the environmental assessment and approval processes outlined in the *Environmental Assessment Act* for major development proposals and recommend improvements for Government's consideration."

In responding to the Minister's Reference, the EPA has, in accordance with its powers under section 5(1)(c) and section 6 of the *Environment Protection Authority Act*, extended the terms of reference for its review to:

1. Evaluate the object of the *Environmental Assessment Act* 1982 (*Environmental Assessment Act*) with regard to the principles and objectives of ecologically sustainable development;
2. Examine and review what constitutes a 'proposed action' under the *Environmental Assessment Act*;
3. Determine how the assessment process established by the *Environmental Assessment Act* and Environmental Assessment Administrative Procedures can be improved to better meet the proposed objectives of the Environmental Assessment Act as identified in this Review;
4. Examine current processes and frameworks for approval of 'proposed actions' following the assessment processes; and
5. Consider any other matters relevant and necessary to complete this review.

In February 2010, the *Environment Protection Authority Amendment Act* was passed which introduced new provisions for the EPA to review the uptake and ongoing effectiveness of recommendations arising from the environmental assessment of a development project. Accordingly, the EPA has included these provisions as a consideration in its review.

The Northern Territory's *Environmental Assessment Act* has not been substantially reviewed since its commencement almost 28 years ago. The Act was modelled upon the Commonwealth *Environment Protection (Impacts of Proposals) Act* 1972 (EPIP Act) which was repealed over ten years ago, and replaced by the *Environment Protection and Biodiversity Conservation Act* 1999. The *Environment Protection and Biodiversity Conservation Act* is currently under review by the Commonwealth (the Hawke Review).

The *Environmental Assessment Act* therefore, can be viewed as a product of its time, reflecting the views and attitudes of the day. Since then, the concept and role of environmental assessment as a tool for environmental protection has evolved, community needs and expectations have changed and the nature, size and scope of development in the Territory have altered significantly.

The EPA commenced its review of the *Environmental Assessment Act* with the release of a discussion paper *Review of the environmental impact assessment procedures of the Northern Territory* in 2009. This was supported by public consultation throughout the Territory. The EPA received 21 submissions from government, business and community stakeholders, which have informed the EPA's advice and recommendations.

A NEW ENVIRONMENTAL ASSESSMENT ACT FOR THE TERRITORY

Underpinning the 29 recommendations of this review, Recommendations One, Two and Three provide the basis for environmental assessment reform and on-going sustainable development in the Territory. Firstly, the EPA recommends the current *Environmental Assessment Act* and supporting Environmental Assessment Administrative Procedures be replaced with a new Act which is formulated to operate within an integrated governance framework. Secondly, the EPA recommends that the principles of ESD be firmly established as guiding principles for decision-making in the drafting of a new *Environmental Assessment Act* for the Territory.

Within a revised *Environmental Assessment Act*, the EPA recommends the inclusion of a strategic assessment approach, establishing a process within the Act that can be used as a strategic planning tool to evaluate the social, economic and environmental impact of policies, plans and programs. Strategic assessment assists in assessing the cumulative impact of projects, in defining opportunities and threats, and requires both public participation and a whole of government approach to development (Recommendation 14).

STREAMLINING ENVIRONMENTAL ASSESSMENT

The EPA recognises environmental assessment (EA) as a critical tool for achieving sustainable development in the Territory. In aiming for an EA process that provides clarity and certainty, is relevant and contemporary, the EPA recommends a redefining of the goal and purpose of EA to clearly communicate expected roles and outcomes that are based on the principles of ESD (Recommendations Eight and Nine).

To streamline the assessment process, increase public accountability, provide clarity and structure for proponents, government and stakeholders, it is recommended activity, project and location schedules be developed, to act as 'triggers' for the EA process (Recommendations 10 and 11). The onus or responsibility for referral should lie with the Proponent, with the Minister for Natural Resources, Environment and Heritage retaining the power to 'call in' a proposal (Recommendations 12 and 13).

In accordance with the principles of ESD, the EPA has also recommended that the value of public participation should be clearly recognised as an object of the *Environmental Assessment Act* and not just a mandatory step in the process (Recommendation 20).

ASSESSMENT AND APPROVALS

The Northern Territory Government, in legislating that the EPA assess how recommendations arising from the environmental assessment of a development project inform a project's subsequent approval, has recognised the potential limitations in this area of the *Environmental Assessment Act*.

Transparency in decision making and accountability should require decision makers at both the assessment and approval ends of the process to issue public statements to support reasoning for approvals and conditions applied to projects (Recommendations 19, 25 and 26), to ensure the outcomes of an EA directly inform decision-making.

Additionally, the EPA recommends the Minister for Natural Resources, Environment and Heritage be empowered, in the first instance, to deem a proposal unacceptable on environmental grounds (Recommendation 27).

A review of the Northern Territory's environmental assessment process has been long-overdue and the EPA commends the Government for recognising the changing nature of social, economic and environmental concerns within the Territory. A strong, contemporary and robust environmental assessment process is a critical step towards ensuring the achievement of ESD in the Northern Territory.

RECOMMENDATIONS

Framework for improving environmental assessment in the Territory

1. The current *Environmental Assessment Act* and Environmental Assessment Administrative Procedures should be replaced with a new Environmental Assessment Act.

2. The updated *Environmental Assessment Act* should be designed to operate as part of an integrated policy, planning and legislative framework, which promotes the objective of ESD in the Northern Territory.

3. The drafting of a new *Environmental Assessment Act* should be informed by the principles of ESD, reflect the IGAE and COAG national reform principles for environmental assessment, and be guided by the outcomes of the Commonwealth *Environment Protection and Biodiversity Conservation Act* Review.

Investigate the environmental assessment and approval processes outlined in the Environmental Assessment Act for major development proposals and recommend improvements for government's consideration.

4. The Environmental Assessment Administrative Procedures of the *Environmental Assessment Act* should be repealed, and improvements to the environmental assessment process occur through redrafting of the *Environmental Assessment Act* and the use of enforceable regulation provisions. The process of environmental assessment should be set out through provisions within the *Environmental Assessment Act* itself or prescribed through regulations.

5. The *Environmental Assessment Act* should include a clause requiring it undergo periodic review.

6. A redrafted *Environmental Assessment Act* should be informed by the ESD principle of integration. Accordingly, it should be designed to operate within a governance framework that promotes integration between policy, planning, assessment, approval and monitoring regimes, to build whole-of-government coordination in environmental planning, assessment and approvals.

Evaluate the Object of the Environmental Assessment Act with Regard to the Principles and Objectives of ESD

7. In redrafting the *Environmental Assessment Act* the role of environmental assessment in the Northern Territory should be defined to ensure that it facilitates a development pathway informed by the principles of ESD. The definition should ensure the effective application of the principle of the "Conservation of Biological Diversity and Ecological Integrity".

8. A redrafted *Environmental Assessment Act* should establish clear expectations for the role of environmental assessment as:

- a pre-decision planning tool used by a proponent and government to improve project design and future environmental mitigation and management actions of a proposal
- a systematic approach for identifying, predicting and evaluating the potential environmental, social and economic impacts/benefits of a proposed action
- a robust process directly informing decision-making
- a mechanism that facilitates community engagement and participation
- a mechanism that promotes ESD.

9. The Object of the *Environmental Assessment Act* should be revised. Redrafting of the Object of the *Environmental Assessment Act* should be guided by the principles of ESD and national and international principles of environmental assessment, to clearly articulate the goal and purpose of environmental assessment in the Territory, to establish procedural outcomes, and communicate expected roles and responsibilities.

Examine and review what constitutes a 'proposed action' under the Environmental Assessment Act

10. The definition of a "proposed action" under the *Environmental Assessment Act* should be revised. A "proposed action" under the Act should refer to any action that has the potential to have a "significant impact" on the environment.

11. The determination of the need for referral of a "proposed action" for assessment under the *Environmental Assessment Act* should be supported by a series of triggers for assessment established in schedules under the Act. The schedules should serve the purpose of specifying classes of activities, or types of projects, that by their nature, scale, or location could have a significant impact on the environment; identifying localities of environmental or cultural value; identifying concerning cumulative environmental issues.

12. The *Environmental Assessment Act* should establish the responsibility for the referral of an action that has the potential for "significant impact" on the environment with the proponent.

13. The Minister for Natural Resources, Environment and Heritage should retain the power to 'call in' a proposal.

14. The *Environmental Assessment Act* should be revised to support strategic assessment, specifically in respect to:

- assessing broader scale development opportunities and environmental impacts (at the regional or catchment level);
- assessing cumulative impacts; and
- considering a range of potential alternatives (at project planning and design phase).

15. It is recommended such a provision under the *Environmental Assessment Act* for supporting strategic environmental assessment should also create a process that may be used as a whole of government planning tool. The process of strategic assessment established under the *Environmental Assessment Act* should have the

capacity to be drawn upon from across government as a recognised process for the strategic assessment of legislation, policy initiatives, plans and programs in accordance with the objectives of ESD.

Determine how the assessment process established by the Environmental Assessment Act and Environmental Assessment Administrative Procedures can be improved to better meet the proposed objectives of the Act as identified in this Review

16. The definition of "environment" should be re-drafted to reflect contemporary language and understanding, and reflect the concept and principles of ESD.

17. A government process should be established to facilitate an integrated, whole-of-government approach to the scoping and examination of proposed actions to ensure all elements of the environment are assessed.

18. Decision-makers under the *Environmental Assessment Act* should be subject to general principles and decision-making criteria based upon the principles of ESD.

19. Decision-makers under the *Environmental Assessment Act* should be required to issue a public statement of reasons to support each decision made during the environmental assessment process, including the decision on whether a proposed action requires environmental assessment, the level of assessment necessary for a proposed action as well as the final outcome of the environmental assessment process.

20. The value of public participation and engagement should be clearly established in the objects of the *Environmental Assessment Act* as intrinsic to the environmental assessment process.

21. Regulations should be developed under the *Environmental Assessment Act* to clearly communicate principles for public involvement in the environmental assessment process in the Northern Territory and to guide proponents on expectations when undertaking public consultation and engagement.

22. Public guidance material should be developed to specify expectations of the quality and type of information required to be provided by proponents in environmental assessment documents.

23. Any changes to the existing levels of assessment under the *Environmental Assessment Act* should be undertaken with consideration of the outcomes of the Commonwealth review of the *Environment Protection and Biodiversity Conservation Act*, and the IGAE and COAG national principles for reform of environmental assessment processes, and seek consistency with a national approach.

24. At a minimum, the provisions enabling the Minister for Natural Resources, Environment and Heritage to submit proposals for environmental assessment under the *Inquiries Act* should be maintained. Clear public guidelines and procedures should be developed to communicate how and when this form of assessment may apply.

Examine current processes and frameworks for approval of 'proposed actions' following the assessment processes

25. Provisions should be included in the *Environmental Assessment Act* to ensure that the outcomes of an environmental assessment process directly inform decision-making in regard to approvals and conditions for a proposed action.

26. At the minimum, the decision-making framework for approvals should reflect the recommended levels of transparency and accountability for the environmental assessment process under the *Environmental Assessment Act*. Decision-makers on approvals for a proposed action should be required to issue a public statement of reasons for decisions made in relation to approvals and conditions for a proposed action, with reference to the principles of ESD as defined under the *Environmental Assessment Act*, and full account in relation to the findings of the environmental assessment process.

27. At the minimum, the *Environmental Assessment Act* should be amended to empower the Minister for Natural Resources, Environment and Heritage to deem that a proposed action has unacceptable environmental impact and cannot proceed. Where the Minister determines that a proposal will have an unacceptable environmental impact, approval should not be granted by a responsible Minister.

28. Offence and appeal provisions should be incorporated into the *Environmental Assessment Act* to support enforcement of the environmental assessment provisions and to ensure that due process is followed when undertaking environmental assessment.

29. The issues of ongoing monitoring, compliance and enforcement relating to environmental assessments and approvals should be examined and addressed in revision of the *Environmental Assessment Act*.

1. Background

The *Environmental Assessment Act 1982* (*Environmental Assessment Act)* and the Environmental Assessment Administrative Procedures (Administrative Procedures) prescribe the requirement and process for environmental assessment (EA) in the Northern Territory. The Territory's *Environmental Assessment Act* was modelled on the Commonwealth *Environment Protection (Impacts of Proposals) Act 1972*.

The *Environmental Assessment Act* has not been substantially reviewed since it was introduced almost 28 years ago. It can be usefully viewed as a product of its time, especially in relation to societal and environmental attitudes of the day and the then capabilities of the Territory's administrative structures.

In the years since the *Environmental Assessment Act* came into effect, the concept and application of Environmental Assessment (EA) has evolved, public expectations of community participation and protection of the environment have changed, the Northern Territory has become a signatory to the Intergovernmental Agreement on the Environment (IGAE), and the scale and complexity of development in the Territory have increased.

The Commonwealth's *Environment Protection (Impacts of Proposals) Act* has since been repealed and was replaced by the *Environment Protection and Biodiversity Conservation Act* over 10 years ago. This Act is currently under review (the Hawke Review) by the Commonwealth.

In March 2008 the Northern Territory's Minister for Natural Resources, Environment and Heritage requested that the Environment Protection Authority (EPA):

> "investigate the environmental assessment and approval processes outlined in the Environmental Assessment Act for major development proposals and recommend improvements for government's consideration."

The EPA extended the terms of reference to also:

1. evaluate the object of the *Environmental Assessment Act* with regard to the principles and objectives of ecologically sustainable development
2. examine and review what constitutes a 'proposed action' under the Act
3. determine how the assessment process established by the Act and Environmental Assessment Administrative Procedures can be improved to better meet the proposed objectives of the *Environmental Assessment Act* as identified in this Review
4. examine current processes and frameworks for approval of 'proposed actions' following the assessment processes
5. consider any other matters relevant and necessary to complete this review.

The project began with the EPA hosting a public symposium on 27 October 2008 titled "EIA – What is it good for?" Dr Angus Morrison-Saunders, Senior Lecturer in Environmental Assessment at Murdoch University, was joined by a panel representing practitioners, participants and administrators of the Northern Territory process to discuss the role and effectiveness of EA. This event marked the launch of the EPA's draft terms of reference for public review and comment.

The terms of reference were finalised and released in early February 2009 (Attachment A). A public discussion paper *Review of the Environmental Impact*

Assessment Procedures of the Northern Territory was released in May 2009 for public comment (Attachment B). To facilitate comment and input, the EPA held a number of briefings with key stakeholders as well as public forums and regional Indigenous consultation sessions (Attachment C – Consultation Schedule). Summaries of EPA consultations and copies of the submissions received have been published on the EPA's web site (Attachment D - Key Issues and Comments on the EPA's Discussion Paper) and Attachment E (Indigenous Community Engagement).

Public input and comment throughout this process, combined with the findings contained in the discussion paper, form the basis of the EPA's recommendations to the Minister for Natural Resources, Environment and Heritage contained in this Final Report.

2. Framework for improving environmental assessment in the Territory

The key outcome being sought by government through referring this issue to the EPA is to receive advice and recommendations on how to improve the EA system in the Northern Territory.

However, a wholly effective EA process is dependent upon the policy and administrative system in which it sits. The EA system in the Northern Territory operates in a framework where there is little integration between policy, planning and approval regimes.

Accordingly, the EA system in the Territory is subject to greater public expectation to be the cure-all for all problems – to fill the policy gap; to resolve strategic planning issues; to provide public access to information and decision-making that otherwise can't occur; and to "prohibit" certain types of development.

Alternatively, it is viewed with suspicion – a process that does not value add but has the potential to obstruct or hinder development, a process that is costly and time consuming and therefore best avoided.

This causes the EA system to be subject to lobbying, political pressure or, worse, viewed cynically as a tool that endorses projects that are regarded as a "done deal".

These are complex issues and cannot be resolved through mere tinkering to the existing *Environmental Assessment Act* or Administrative Procedures. An obvious suggestion to resolve these issues is to introduce an integrated policy, planning and approvals regime for the Territory, of which EA becomes a component. For this review, however, the EPA has focused just on EA.

The EPA's advice is based upon the premise that real improvement to the process will only come with an overhaul of the current Act and associated Administrative Procedures, an overhaul informed by an integrated policy framework. This is its first recommendations. All other recommendations reflect this view.

Recommendations

1. The current *Environmental Assessment Act* and Environmental Assessment Administrative Procedures should be replaced with a new Environmental Assessment Act.

2. The updated *Environmental Assessment Act* should be designed to operate as part of an integrated policy, planning and legislative framework, which promotes the objective of ESD in the Northern Territory.

In providing its advice, the EPA is aiming to achieve an EA system that is:

- Contemporary – based upon contemporary understanding and values
- Credible – a system that is valued by all sectors of the Northern Territory
- Purposeful – a system that is firmly constituted in the principles of ecologically sustainable development, not just a tick-in-the-box process
- Affordable – for the administrators of the system and for proponents using it

- Focussed and simple – a system that doesn't get tangled or side-tracked by unnecessary complexity (with associated time and monetary costs).

Given the perception of EA as a "cure-all", it may be expected that the authority will recommend a step-by-step description of a new model EA system that can immediately be translated into legislation and policy. However, the EPA recognises government's role to develop law and policy and accordingly has focussed its recommendations on what the law could achieve and therefore the types of elements it might contain.

If the EPA's advice and recommendations are agreed to and a new Act is drafted, the EPA recommends that this process be informed by the following:

1) The principles of ecologically sustainable development
2) The outcomes of the Hawke Review
3) The Northern Territory's agreement to implement COAG's reform agenda to improve consistency and efficiency of environmental assessment and approvals
4) The Northern Territory's commitments under the Intergovernmental Agreement on the Environment.

This is the third recommendation of the EPA.

Recommendations

3. The drafting of a new *Environmental Assessment Act* should be informed by the principles of ESD, reflect the IGAE and COAG national reform principles for environmental assessment, and be guided by the outcomes of the Commonwealth *Environment Protection and Biodiversity Conservation Act* Review.

2.1 ESD Principles – Links to Environmental Assessment

Ecologically sustainable development is the EPA's overarching recommendation for the future development of the Territory. As such, ESD principles must be integrated into any review outcomes of the *Environmental Assessment Act.*

Using ESD principles as guiding principles for environmental assessment poses significant challenges. For example, it is difficult to operationalise the principles at the individual decision level, particularly when attempting to consider equity and other long term environmental, social, and economic considerations. The Hawke Review recognised these challenges but stated there is 'no other credible candidate for an integrative policy framework'. Accordingly, the Hawke Review found that 'the ESD principles should continue to be the guiding principles for administering the Act'.

For ESD to become a central component of changes made to the *Environmental Assessment Act* in the Northern Territory, linking outcomes of the EA process to ESD will need to be facilitated.

Assessment criteria can be used to help facilitate/identify areas where the EA process could be improved in order to more readily achieve ESD outcomes and assist decision-making. Examples of this are provide in Table 1.

Table 1: ESD criteria in an EA context

ESD PRINCIPLE	POSSIBLE CRITERIA IN EA CONTEXT
Integration: decision-making processes should effectively integrate both long-term and short-term economic, social, environmental and equitable considerations	• Are there requirements to effectively integrate social, economic and environmental considerations into the EA process? • Have priorities for achieving ESD been identified? • Does the EA process provide for strategic assessment to be undertaken and is there a timeframe for implementation? • Are community based/regional plans taken into consideration when developing government wide regional plans/strategic assessments? • Are provisions in place for assessing cumulative impacts? • Have appropriate/integrated monitoring databases been developed for the recording of baseline data? • Is baseline and monitoring data publicly available/reported publicly? • Does existing decision-making require consideration of local and Indigenous (or traditional) Environmental Knowledge? • Is this knowledge used as a source for development of baseline data and assessment of cumulative impacts? • When an approving Minister is making a decision, are there clear directives in place to consider ESD/triple bottom line considerations? • Are assessments of EA reports (EIS) undertaken in a way which considers triple bottom line considerations and is this a priority in recommendations to the approving Minster? • When considering a project approval, are economic and social/cultural benefits for the local community/communities considered? • Are the findings of the EA and any review processes required to be a central determinant of the decision to proceed or not proceed?
Precautionary Principle: Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.	• Is the precautionary principle one of the objects of the Act? • Does the Minister for Natural Resources, Environment and Heritage have the ability to veto proposed development etc based on environmental grounds? • See also those criteria listed for inter and intra-generational equity.
Intergenerational and intra-generational equity: The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the	• Is intergenerational and intra-generational equity an object of the Act? • Does the EA process apply to the cumulative effects of projects? • Is there a requirement for monitoring data to be collected and recorded? • Have databases been created and are they currently

ESD PRINCIPLE	POSSIBLE CRITERIA IN EA CONTEXT
benefit of future generations. Intra-generational equity involves consideration of equity within the present generation.	available to record all initial start up data and subsequent monitoring data? • Is there a requirement for the use of cumulative impacts data in strategic planning and system review processes? • Are thresholds prescribed for linking of monitoring data to sustainable development levels/objectives?
Conservation of biological diversity and ecological integrity: The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.	• Is the conservation of biological diversity and ecological integrity an object of the Act? • Is collaboration/data-sharing between various authorities/agencies required? • Does the system provide clear provisions for the inclusion of guidance to allow for increased consistency and effectiveness of the decision-making process? • Are there direct links between the project level EA and wider sustainability objectives?
Improved valuation, pricing and incentive mechanisms: This includes recognition of the principles that the costs of environmental externalities should be internalised and that the polluter should bear the costs associated with environmental pollution.	• Are improved valuation, pricing and incentive mechanisms an object of the Act? • Are requirements for post project rehabilitation a requirement for the proponents as part of their approval for a proposal to commence? • Is the proponent required under project conditions to collect monitoring data and to provide this monitoring data to relevant government body? • Are strategic assessment / regional planning taking place to consider overall costs and benefits of development and impacts over time?
Public participation: Decisions and actions relating to ESD should provide for broad community involvement on issues which affect them.	• Are extensive requirements for public participation an object of the Act? • When considering a potential environmentally significant proposal, do opportunities exist for acceptable levels of community/stakeholder engagement and is this done in an appropriate format? • Are there effective community engagement processes with stakeholders (Indigenous and non-Indigenous) who rely on the natural environment for cultural, commercial, economic gains? • Is the community involved in developing priorities for achieving ESD in the Territory? • Is feedback on consideration of public/stakeholder comments required? • Is the responsible Minister required to provide a publicly available account of reasons for a decision made on an environmentally significant proposal? • Are there any provisions for rights of appeal of decisions made?

(Source: Adapted in part from Young, 2007).

2.2 The outcomes of the Hawke Review

A range of findings from the Australian Government's Hawke Review of the *Environment Protection and Biodiversity Conservation Act* are significant for the proposed reform of environmental assessment processes in the Northern Territory.

The findings of the Hawke Review are particularly significant in three areas regarding the operating framework for the EA process established under the *Environmental Assessment Act*. Specifically these relate to:

- Regulatory Efficiency and Harmonisation;
- An Ecosystems Based Approach; and
- ESD and Decision-making.

An important issue considered by the Hawke Review is the promotion of greater regulatory efficiency in environmental impact assessment processes across Australia and harmonisation between national and States' and Territories' legislation.

The review identified a number of potential inefficiencies within the operation of the *Environment Protection and Biodiversity Conservation Act*, arising from overlaps with State and Territory legislation. These include:

- inconsistencies with and differences between State and Territory regulatory systems, creating gaps in regulation and confusion for cross jurisdictional stakeholders;
- a focus on individual project assessments rather than landscape based assessment; and
- duplication of processes.

These issues will need to guide any amendment to the process or change to legislation as a consequence of this review.

A further key issue identified by the Hawke Review is the requirement for a landscape response due to the nature and scale of current and emerging pressures facing the Australian environment. This is consistent with the 'ecosystems approach' adopted by parties to the *Convention on Biological Diversity.*

Many of the Hawke Review's recommendations promote an ecosystems approach to biodiversity, through regional approaches to environmental protection and management. This included the adoption of the principles of an 'ecosystems based approach' as established under the *Convention on Biological Diversity*.

The importance of an ecosystems based approach was also identified by the EPA in its advice on *Ecologically Sustainable Development in the Northern Territory*. An ecosystems based approach is a critical component of an integrated approach to planning and development in the Northern Territory, consistent with the goal of ESD. Accordingly, an ecosystems based approach should be promoted through reforms to the *Environmental Assessment Act* and associated policy and legislation.

The 1992 *Intergovernmental Agreement on the Environment* (IGAE) established a framework for intergovernmental action on environmental issues. Under the IGAE, the Australian Government and all State and Territory governments agreed to integrate environmental considerations into their decision-making and pursue the principles of ESD.

As a consequence, ESD principles began to be incorporated into Australian environmental legislation. State and Territory planning and environment protection legislation started to contain objects that sought to achieve ecological sustainability or promote the ESD principles. These reforms included ESD principles being introduced as a foundation of the environmental assessment process under the Commonwealth *Environment Protection and Biodiversity Conservation Act*.

As identified in the recent Hawke Review, the Explanatory Memorandum to the *Environment Protection and Biodiversity Conservation Bill 1998* (Cth) noted that the principles of ESD 'are now universally accepted as the basis upon which environmental, economic and social goals should be integrated in the development process.' The enactment of the *Environment Protection and Biodiversity Conservation Act* was intended to correct a 'failure to fully recognise and implement' these principles at a national level.

As identified in the EPA discussion paper, the objectives and operating framework for EA process in the Northern Territory predate these reforms, and, as such, are out of step with contemporary practice.

Sustainable development continues to be a key policy goal at an international level, and all levels of government in Australia including the Territory government, with general acknowledgement that incorporating environmental considerations into decisions related to social and economic development is the best way to improve environmental outcomes.

The objective and principles of ESD should provide a cornerstone for environmental assessment processes in the Northern Territory.

2.3 COAG's reform agenda

As part of its regulatory reform agenda, the Council of Australian Governments (COAG) has identified Environmental Assessment and Approval Processes as warranting national reform. COAG has established a work program with the aim of establishing a nationally consistent and efficient system of environmental assessment and approval.

COAG has expressed support for assessment bilateral agreements, approval bilateral agreements and strategic assessments.

Under the *National Partnership Agreement to Deliver a Seamless National Economy*, COAG (2008) seeks a consistent and efficient system of environmental assessment and approval. To this end, COAG seeks all jurisdictions to deliver implementation plans on opportunities for approvals bilateral agreements and strategic assessments to COAG.

In accordance with this agenda, COAG has:

"agreed to the identification of opportunities for strategic assessments under the *Environment Protection and Biodiversity Conservation Act* 1999 to avoid unnecessary delays in development approval processes. Strategic assessments are conducted over an entire region and provide a mechanism to approve classes of development which have been assessed under this process, rather than conducting

individual assessments and approvals. Strategic assessments provide certainty for development proponents and reduce duplication, while providing greater protection for the environment" (Commonwealth of Australia 2009: 13).

In view of these developments towards a national approach, a strong rationale exists for the reform of the Northern Territory assessment process to seek to promote consistency with national level processes under the *Environment Protection and Biodiversity Conservation Act*, and to anticipate developments through the COAG reform agenda towards the increasing harmonisation of the State's and Territories' and Commonwealth EA regimes.

2.4 IGAE Principles

In 1991, governments within Australia sought to streamline EA methods by adopting a series of principles through the Australian and New Zealand Environment Conservation Council (ANZECC).

The EPA's discussion paper outlines a range of principles relevant to the reform of EA in the Territory. Amendments to the *Environmental Assessment Act* should embody many of these principles. This includes those reflected in the Intergovernmental Agreement on the Environment (IGAE), the International Association of Impact Assessment (IAIA), and ANZECC. Additional principles have also been more recently agreed by COAG.

IGAE (1992) principles that are pertinent to this review, and presently unfulfilled by the Northern Territory process, include:

- provision of clear guidance on the types of proposals likely to attract environmental impact assessment and on the level of assessment required;
- provision of guidance on the criteria for environmental acceptability of potential impacts including the concept of ESD, maintenance of human health, relevant local and national standards and guidelines, protocols, codes of practice and regulations;
- full public disclosure of all information related to a proposal and its environmental impacts, except where there are legitimate reasons;
- appropriate and adequate public consultation on environmental aspects of proposals before the assessment process is complete; and
- mechanisms for resolving conflicts and disputes over issues which arise for consideration during the course of the assessment process providing a basis for setting environmental conditions, and establishing environmental monitoring and management programs (including review) and developing industry guidelines for application in specific cases.

3. Investigate the environmental assessment and approval processes outlined in the Environmental Assessment Act for major development proposals and recommend improvements for government's consideration.

The *Environmental Assessment Act* currently provides the legislative framework "to provide for the assessment of the environmental effects of development proposals and for the protection of the environment". It includes:

- definitions necessary for the administration of the Act
- describing the purpose of the Act through the Object
- stating the application of the Act
- the ability to create Administrative Procedures (which have the purpose of achieving the object of the Act)
- the process of making Administrative Procedures
- prescribing the extent and forcibility of Regulations made under the Act
- providing for a matter to be assessed in accordance with the Inquiries Act
- delegation of powers and functions under the Act
- the making of Regulations (including the purpose of Regulations).

The current structure of the *Environmental Assessment Act* does provide a reasonable framework for a more thorough and rigorous environmental assessment within the Northern Territory. However, elements of the Act were not called upon or used, such as the making of Regulations or the use of the *Inquiries Act 2007* and accordingly, the EA process in the Territory has been limited in its application and is not supported by offence provisions to provide the Act power. The use of Administrative Procedures (as opposed to Regulations) and the limited drafting of the Administrative Procedures have meant that the full potential of the object of the Act has not been realised.

The intent of using Administrative Procedures to set out the process for achieving the object of the *Environmental Assessment Act* is not clear. The EPA's discussion paper made reference to the fact that the Territory process was established, based upon the former Commonwealth EPIP Act. Administrative Procedures under the EPIP Act were devised as a means to discourage third-party litigation. It may be that this was also an intention in the establishment of the Northern Territory's Administrative Procedures.

Section 12 of the Act provides for the making of Regulations. This includes the making of a Regulation which prescribes penalties for a failure to comply with the requirements of the Administrative Procedures. In the absence of such a Regulation, the provisions of the Administrative Procedures cannot currently be enforced.

EPA Advice

Recommendations to improve the environmental assessment process within the Northern Territory need to examine the content and intent of both the *Environmental Assessment Act* and the Administrative Procedures. Unless the Administrative

Procedures have an ability to be enforced, they are unsuitable for delivering reform to the Act.

It is recommended that the Act be amended and the Administrative Procedures be repealed to allow for more comprehensive legislation and regulation. Such amendments should occur to unambiguously flag the introduction of greater certainty and consistency into the purpose and administration of the *Environment Assessment Act* (Recommendations 1 and 2).

In the years since the *Environmental Assessment Act* was introduced, the concept and application of EA have evolved; public expectations of community participation and protection of the environment have changed, the Northern Territory has become a signatory to the Intergovernmental Agreement on the Environment, and the scale and complexity of development in the Northern Territory have increased significantly.

More recently the Territory has also agreed to implement a COAG reform agenda to improve the consistency and efficiency of environmental assessment and approval processes (Recommendation Three).

As time continues the application of EA will continue to evolve; community perceptions and expectations will change and develop; and the policy environment in which the Territory operates will not remain static. Accordingly, the *Environmental Assessment Act* should be subject to periodic review, allowing it to remain in line with contemporary policy environment and thinking.

Recommendations

4. The Environmental Assessment Administrative Procedures of the *Environmental Assessment Act* should be repealed, and improvements to the environmental assessment process occur through redrafting of the *Environmental Assessment Act* and the use of enforceable regulation provisions. The process of environmental assessment should be set out through provisions within the *Environmental Assessment Act* itself or prescribed through regulations.

5. The *Environmental Assessment Act* should include a clause requiring it undergo periodic review.

As stated, the role and effectiveness of EA is dependent upon the policy and administrative system in which it sits.

Ideally, the EA process would sit within a framework of policy development and strategic planning as illustrated in Figure 1. Under this model the EIA process is able to assess a specific development, guided by the policy and planning environment of the Northern Territory. In the absence of this type of framework the EIA process for a specific development proposal takes on more than just an assessment of that project; it also becomes a tool to publicly resolve the policy and planning issues that ought to have been resolved before an application for an individual development is received.

How can this integration be achieved? In its submission to the EPA responding to the discussion paper, INPEX notes:

"…many jurisdictions strive to integrate policy, planning and approval processes at a whole of government level, achieving such integration can be difficult without major change to systems, processes and way of thinking. While the principle of ecologically sustainable development (ESD) appears to provide an appropriate framework for such integration, the lack of clarity on what ESD means in practice may continue to be a barrier for integration across government agencies and community sectors with inherently different priorities" (INPEX 2009: 2).

Similarly, The EDO recognised that:

"there are no existing holistic statutory strategic policy frameworks in the Northern Territory in which the EA process could be integrated. Either no strategic frameworks exist … or those frameworks which do exist … are too narrowly focused on a single environmental value, do not achieve ESD, or are not designed to address natural resource management and biodiversity conservation at all" (EDO 2009: 5).

EPA Advice

The EPA's final advice on "Ecologically Sustainable Development in the Northern Territory" states:

"To support the principle of integration, mechanisms and procedures are required that actively facilitate an integrated approach to decision-making".

"The principle of integration also has application for the operation of government. The principle requires a whole-of-government approach to decision-making…" (EPA 2010: 18).

In the absence of an integrated policy, planning and approvals regime, the *Environmental Assessment Act* could be reformed to provide an interim legislative framework supported by government processes to achieve an integrated and whole of government approach to strategic and project based environmental assessment. The Act was established as a cross-sectoral piece of legislation and accordingly opportunity is provided to achieve an integrated and whole of government approach to EA.

The *Environmental Assessment Act* can be implemented in a way that ensures that the EA process for the Northern Territory is based upon the ESD principle of integration. Mechanisms (through Regulations or government processes) can be put in place to:

- ensure a whole-of-government approach to environmental assessment;
- facilitate policies and strategies (where they exist) informing the EIA process for an individual project;
- provide a whole-of-government approach to strategic assessment guiding the development of plans and policies; and
- ensure public accountability to support the uptake of outcomes of the environmental assessment process in subsequent approvals provide for a whole-of-government approach to environmental monitoring.

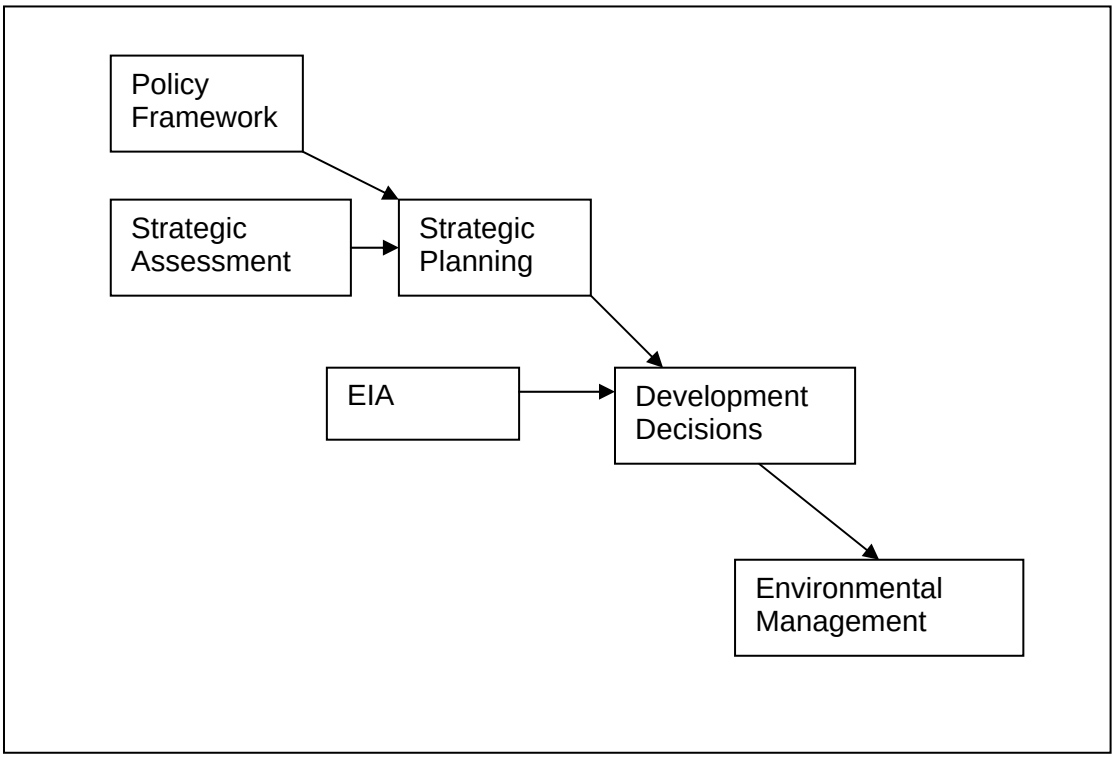

Figure 1: Environmental Assessment and Decision-making Model

Using the example provided in Figure 1, the environmental assessment undertaken for an individual proposal should be able to draw upon the planning and policy environment to provide the context and parameters on which to benchmark a project (which have been informed by a strategic assessment). The environmental assessment directly informs an approval which is then supported by an appropriate environmental management regime. Amendment to the *Environmental Assessment Act* should provide for this degree of integration as far as the Act can be used in this way, with a long term aim of introducing an integrated policy, planning, assessment, approval and monitoring regime for the Northern Territory.

Recommendations

6. A redrafted *Environmental Assessment Act* should be informed by the ESD principle of integration. Accordingly, it should be designed to operate within a governance framework that promotes integration between policy, planning, assessment, approval and monitoring regimes, to build whole-of-government coordination in environmental planning, assessment and approvals.

4. Evaluate the Object of the Environmental Assessment Act with Regard to the Principles and Objectives of ESD

4.1 Defining the purpose of EA in the Northern Territory

The current Object of the *Environmental Assessment Act* is in keeping with the policy intent of the Act when it was drafted, that is, providing ministerial discretion and flexibility. It relates simply to the need to fully examine and take into account each matter affecting the environment for a proposed action, which is, *in the opinion of the Minister*, a matter which could reasonably be considered to be capable of having a significant effect on the environment.

The Object of the *Environmental Assessment Act* is process-focused instead of being aspirational – it does not describe what is to be achieved by undertaking EA. Instead, it establishes EA as a process that informs decision-making.

The Object of the *Environmental Assessment Act* is further weakened by the lack of supporting procedure. While the Object articulates that matters affecting the environment are to be taken "into account" the supporting Administrative Procedures do not set out a process that ensures this occurs, instead the requirement to take these matters "into account" is reliant upon the approving legislation.

4.1.1 The goal of EA

As with the recommendations of the Hawke Review concerning the objects of the EPBC Act, the EPA advises that a clearly defined object or set of objectives contained in the *Environmental Assessment Act* would "sharpen its focus, contribute to increasing efficiency and improve administration" (Commonwealth of Australia 2009: 17).

The Object of the Act therefore needs to establish EA as more than just a procedure, it also needs to clearly express the outcomes that are being sought by EA.

In its discussion paper, the EPA promoted EA as the key for achieving objectives of ESD. The EPA viewed EA as a tool to drive sustainability outcomes.

In its advice on *Ecologically Sustainable Development in the Northern Territory* the EPA articulated that sustained economic growth and development as well as community well-being were dependent upon healthy ecosystems and the services they provide. Accordingly the primary objective of the *Environmental Assessment Act* could reflect this purpose, that is, to protect biological diversity and ecological integrity in order to preserve essential ecosystem services (on which livelihoods and wellbeing are dependent).

In establishing this as a goal, the objectives of the Act should also allow for the broader consideration of all relevant elements of a project.

As argued by the Hawke Review

"… establishing an object that promises strict environmental protection when it is clear that in certain circumstances social and economic considerations will legitimately be brought into decision-making, risks drawing the legislation into disrepute and should be avoided" (Commonwealth of Australia 2009: 17).

In this regard, the goal of ESD should provide a framework that allows for explicit, transparent and publicly accountable consideration of the competing principles of ESD, and the environmental, social or economic considerations involved in decision-making.

Recommendations

7. In redrafting the *Environmental Assessment Act* the role of environmental assessment in the Northern Territory should be defined to ensure that it facilitates a development pathway informed by the principles of ESD. The definition should ensure the effective application of the principle of the "Conservation of Biological Diversity and Ecological Integrity".

The following is provided for your consideration.

The Hawke Review recommends an object that reflects the aim of protecting the environment within the context of ESD. Specifically, it recommends

- *the primary object of this Act is to protect the environment, through the conservation of ecological integrity and nationally important biological diversity and heritage*
- *in particular, this Act protects matters of national environmental significance and, consistent with this, seeks to promote beneficial economic and social outcomes*
- *the primary object is to be achieved by applying the principles of ecologically sustainable development as enunciated in the Act* (Commonwealth of Australia 2009: 17).

4.1.2 The purpose of EA

In addition to articulating the aspiration of why the Territory undertakes EA the object of the *Environmental Assessment Act* should also account for procedural objectives to guide the purpose of EA.

The EPA's discussion paper identified EA as a tool that is capable of performing a variety of functions depending on the supporting administrative arrangements (and whether EA as a process is integrated with other policy and legislation). These include:

- to provide 'in-principle' decisions on development
- to inform government decision-making processes about the desirability of a proposal
- as a pre-decision planning tool to improve project design and future environmental mitigation and management actions of a proposal (EPA 2009: 6).

Public submissions responding to the EPA's discussion paper expressed different views of the purpose of EA; ranging from EA being a procedure principally designed

to assist government make a decision, to EA being more expansive in its application – being drawn upon by both the proponent and government to foster iterative planning (through the exploration of options and alternative sites) and community participation with the intent to optimise development.

The Minerals Council of Australia (NT Division) states:

"The purpose of the assessment is to ensure that the decision maker considers the ensuing environmental impacts to decide whether to approve the proposed action/project" (Minerals Council of Australia (NT Division) 2009: 5).

Environment Business Solutions notes:

"The EIA should be seen as part of the process of shaping the proposal, or what you want to do, rather than a task to do once you have all your plans prepared" (EBS 2001: 1).

EPA Advice

The objective of the *Environmental Assessment Act* must be more encompassing than in its current wording. It must actively facilitate a systematic approach to identifying, predicting and evaluating the potential environmental, social and economic impacts of a proposed action, and also enable the process to be used by a proponent and government as a pre-decision planning tool, to ensure community engagement and participation are key to the process, and to ensure decisions are informed by the principles of ESD.

Recommendations

8. A redrafted *Environmental Assessment Act* should establish clear expectations for the role of environmental assessment as:

- **a pre-decision planning tool used by a proponent and government to improve project design and future environmental mitigation and management actions of a proposal**
- **a systematic approach for identifying, predicting and evaluating the potential environmental, social and economic impacts/benefits of a proposed action**
- **a robust process directly informing decision-making**
- **a mechanism that facilitates community engagement and participation**
- **a mechanism that promotes ESD.**

4.2 Redefining the objectives of the Environmental Assessment Act

Object clauses of EA Acts commonly clarify the policy intent of that Act; decision-making principles; and the expected procedural outcomes and behaviours. The object clauses are especially important where a process is discretionary – providing the necessary guidance when exercising the discretion.

The Object clause of the *Environmental Assessment Act* is out of date, limited in its focus and provides no guidance to the largely discretionary process described in the

Administrative Procedures. It does not capture and provide for the expected elements of an EA process (such as community engagement and participation)

The EPA's discussion paper proposed the Act include clear objectives to express the intent (goal) and expectation (purpose) of the EA process and to articulate decision-making principles. The discussion paper proposed a number of objectives based upon national or international best practice principles.

The inclusion of new objectives was widely supported by respondents.

INPEX expressed support for the objectives to be based upon nationally and internationally agreed EA principles, specifically those relating to EA procedures being 'relevant', 'efficient' and 'focussed'.

"INPEX endorses the NT EPA's adoption of the ANZECC, Australian and the international EA principles… The international principles are particularly useful as they add some important elements largely lacking in the Australian principles, namely that the EIA should be relevant, cost-effective, efficient and focussed…" (INPEX 2009: 2).

4.2.1 ESD principles

Notably, no respondents opposed the inclusion of ESD as an objective of the Act, although several submissions highlighted a need for explicit guidance on the interpretation of ESD, particularly the precautionary principle (with concern that this principle could be misused).

Government agencies broadly supported the inclusion of ESD principles. The (now) Department of Lands and Planning noted:

"That the concept of ESD should be an underlying principle of the assessment process, but it also needs to be enshrined into policy and approving legislation" (Department of Planning and Infrastructure 2009: 2).

The Department of Natural Resources, Environment, the Arts and Sport (NRETAS 2009: 3) argued that:

"The NT environmental assessment legislation should embrace the principles of ESD, subject to those principles being well defined for the Northern Territory, and public participation. Embedding ESD principles within the process at the highest level would explicitly acknowledge the role EIA should play in supporting ESD and provide overarching guidance for decision makers that is currently lacking".

The (now) Department of Resources suggested that where the precautionary principle is applied (as a supporting principle of ESD) adaptive management be applied under a risk-based approach enabling developments to proceed where environmental impacts are demonstrated to be minor (RDPIFR 2009).

4.2.2 Community input and participation

A wide range of stakeholders strongly supported objectives relating to the recognition and integration of traditional cultural and ecological knowledge to the assessment process.

The Northern Land Council (NLC 2009: 6) stated that it:

"supports a greater application of traditional cultural and ecological knowledge to the assessment process and supports any principle that recognises the role of indigenous people in the conservation and ecologically sustainable use of natural and cultural resources".

"However, …recognition must go beyond a simple legislative statement and be translated into practical applications that provide long-term financial and cultural security and benefit to indigenous people as they also strive to create and maintain sustainable environments for their children".

The Centre for Appropriate Technology (CAT) also highlights the importance of public participation and Indigenous engagement.

"It (is) imperative that the processes employed in EA are rendered accessible to Indigenous people susceptible to isolation by language and/or distance. This necessitates a proactive approach to engagement of Indigenous communities…" (CAT 2009: 1).

"Effective Indigenous consultation will not only contribute to Cultural Impact Assessment (CIA) and address central elements of EIA; it will also help to empower Indigenous communities by fostering clear communication, raise awareness of local issues and strengthen partnerships between Indigenous and non-Indigenous interests" (CAT 2009: 2).

When undertaking Indigenous community engagement, a community member was quoted as saying:

"We want a greater opportunity to have community members able to be a part of the decisions . . to comment on cultural and social impacts and employment and economics. Where there are impacts of significance, there has to be:

1. representation of the land owners, and
2. a true assessment of the social, cultural and economic impacts" (BIITE 2009: 21).

NRETAS (2009: 3) also recognised the role of public participation:

"Establishing the principle of public participation in EIA legislation would promote greater stakeholder engagement in the EA process, not just through formal consultation stages in the process (for example, exhibition of a draft EIA), but throughout the entire process to project development. It would provide a formal mechanism for Government to consider the adequacy of consultation on a particular proposal, while placing greater accountability on Government for ensuring its own responsibilities are met".

EPA Advice

The Object of the *Environmental Assessment Act* needs to be amended to express the agreed goal and purpose of the environmental impact assessment process, to provide clear decision-making principles and objectives, and to articulate expected roles and responsibilities.

The suggested goal of the EA process is to facilitate a development pathway informed by the principles of ESD, specifically the principle "Conservation of Biological Diversity and Ecological Integrity".

The suggested purpose of the EA process is:

1) a pre-decision planning tool
2) a systematic approach for identifying impacts and benefits of a proposed action
3) a robust process directly informing decision-making
4) a mechanism to facilitate community engagement and participation.

While the EPA recommendations are designed to ensure that decision-making is informed by environmental, social and economic considerations, the intent of the goal of EA focusing on the principle of "Conservation of Biological Diversity and Ecological Integrity" is to ensure that (within an assessment) environmental considerations are given primacy over social and economic considerations. This is in keeping with the advice contained in the Hawke Review:

"… it is important that decision-makers under the Act give priority to environmental considerations" (Commonwealth of Australia 2009: 53).

Recommendations

9. The Object of the *Environmental Assessment Act* should be revised. Redrafting of the Object of the *Environmental Assessment Act* should be guided by the principles of ESD and national and international principles of environmental assessment, to clearly articulate the goal and purpose of environmental assessment in the Territory, to establish procedural outcomes, and communicate expected roles and responsibilities.

Critical elements to be included in the object clause include:

1) a statement of the primary object of the Act (an articulation of the goal of EA)
2) objectives to support the primary object of the Act (communicating the purpose of EA)
3) principles to guide the practice of EA, specifically guiding discretionary elements of the process
4) criteria to guide decision-making under the Act.

For your information, the following is provided to assist in your consideration of this recommendation.

The Hawke Review recommends that the objects of the *Environment Protection and Biodiversity Conservation Act* be revised as follows:

1) The primary object of this Act is to protect the environment, through the conservation of ecological integrity and nationally important biological diversity and heritage.

2) In particular, this Act protects matters of national environmental significance and, consistent with this, seeks to promote beneficial economic and social outcomes.
3) The primary object is to be achieved by applying the principles of ecologically sustainable development as enunciated in the Act.
4) The minister and all agencies and persons involved in the administration of the Act must have regard to, and seek to further, the primary object of this Act.
5) In pursuing the primary object, the Minister should:
    a. encourage public participation in the making of decisions that impact on the environment
    b. promote cooperation with State, Territory and Local government in environmental protection and management
    c. assist in the cooperative implementation of Australia's international environmental responsibilities
    d. recognise the role of Indigenous people in the conversation and ecologically sustainable use of Australia's biodiversity
    e. promote the use of Indigenous peoples' knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge
    f. promote fair and efficient decision-making (Commonwealth of Australia 2009: 57-58).

Other potential objectives (not captured by the example above) include:

1) promoting a coordinated, and efficient approach to environmental assessment
2) ensuring that proponents take primary responsibility for the protection of the environment
3) promoting EA as a basis of proponents' project planning and a tool to demonstrate that best practicable measures have been taken to avoid and or minimise impacts of the proposal
4) ensuring there are opportunities for timely and meaningful local community and public participation, as appropriate—before, during and after the formal environmental assessment of proposals
5) ensuring that any unavoidable impacts of the proposal are acceptable, taking into account cumulative impacts that have already occurred in the region
6) ensuring ongoing management and monitoring of actions are sustained and publicly accountable
7) recommending against proceeding with actions which are recognised to present unacceptable environmental detriment, risk or impact.

5. Examine and review what constitutes a 'proposed action' under the *Environmental Assessment Act*

5.1 Defining "Proposed Action"

The *Environmental Assessment Act* currently applies to a "proposed action" that may have a significant effect on the environment. A proposed action is described under section 4 of the Act as:

a. the formulation of proposals
b. the carrying out of works and other projects
c. the negotiation, operation and enforcement of agreements and arrangements (including agreements and arrangements with, and with authorities of, the Commonwealth, the States and other Territories)
d. the making of, or the participation in the making of, decisions and recommendations
e. the incurring of expenditure, by, or on behalf of, a person, either alone or in association with another person.

The open description of a "proposed action" indicates the potential and the intent for the *Environmental Assessment Act* to apply to actions beyond project level developments. However, the Act is not supported by the Administrative Procedures in this respect. The Administrative Procedures do not provide a supportive assessment process for all "proposed actions" defined in the *Environmental Assessment Act*, the established process supports the assessment of project-level developments only (item b).

The need for works/projects (described in item b above) to be assessed under the *Environmental Assessment Act* is dependent upon satisfying two conditions:

1) If the works/project require some form of authorisation (clause 6 of the Administrative Procedures). The Administrative Procedures do not define "authorisation"
2) If the Minister for Natural Resources, Environment and Heritage determines that the works/project appears to have environmental significance.

The need for an assessment is to be determined in consultation with the Responsible Minister (the Minister responsible for approving the works/project) and advisory bodies.

No definitive public guidance is available to explain the types of actions that would be captured by item b, or how "environmental significance" should be determined. The current process provides little certainty to proponents, or members of the public on when and how the *Environmental Assessment Act* is to be exercised.

The Administrative Procedures also assume that all proposed actions require a form of administrative approval.

The EPA's discussion paper recommended the inclusion of distinct "triggers" through a series of schedules supporting the legislation (EPA 2009).

There was broad support expressed in the submissions to the discussion paper for carefully considered, clear, objective and publicly accountable trigger criteria supported by comprehensive guidance. It was argued that guidelines would ensure an accountable, consistent and fair approach to the use of triggers. INPEX argued that clear guidance should negate the need for third party referrals.

NRETAS argued that triggers needed to be grounded by sound science or analysis and were best utilised for well understood and common development proposals and risks. They made reference to memorandums of understanding (MOU) held with referring agencies that currently act as "filters" or "triggers" on what is referred for assessment under the *Environmental Assessment Act*. The Department of Resources referenced the MOU held with NRETAS stating that it was a satisfactory approach (NRETAS 2009).

The Minerals Council NT argued that a series of triggers would overcome the referral gap, but an entire schedule of triggers would be impractical and constrain the *Environmental Assessment Act*. They suggested six or seven triggers, the approach used in the *Environment Protection and Biodiversity Conservation Act*. The Environmental Defenders Office suggested two levels of triggers – a performance based primary trigger (based upon the potential for significant impact to the environment) with a second level of triggers reflecting prescribed activities deemed to meet the performance trigger (that is, known to have the potential for significant impact) (Minerals Council of Australia NT Division 2009).

The Environment Centre of the Northern Territory argued that trigger criteria needed to capture high impact development and sensitive localities and be able to account for cumulative impact. INPEX, however, did not support cumulative impact triggers arguing it would capture activities that do not have significant impact (ECNT 2009).

Darwin City Council (2009) stated there was a need to ensure that small proposals with big impacts are captured in the EIA process.

The EPA's discussion paper suggested schedules of triggers – a schedule of development types known to have potential for significant impact; a schedule that attempts to capture an activity's contribution towards a growing or cumulative environmental issue; and a locality-based schedule (EPA 2009).

The Minerals Council NT argued that the second and third schedules are covered by other legislation and instead of being incorporated into "triggers" they should be drawn upon when issuing guidelines for a development proposal (Minerals Council of Australia NT Division 2009).

EPA Advice

There is general support to include specific triggers within the *Environmental Assessment Act* that would identify when an action is required to undergoes environmental assessment, removing the discretion from this part of the process. The introduction of specific triggers means that the EA process for an action is not dependent upon that action requiring approval under another piece of legislation.

The EPA recognises that the development of triggers will require an investment of time and resources; however it sees this element of the reform as important. While triggers based upon activity type is satisfactory in the short-term, to limit triggers in this way restricts the full potential of how the EA process can best operate for the

protection of the environment. Accordingly, the primary trigger for the application of the EA process should be an action's capacity to have "significant impact" on the environment, a trigger which is then supported by a series of schedules that have the purpose of guiding how "significant impact" is determined, including a schedule of industry type.

Following the development of such triggers, those proposals that are likely to have "significant impact" are easily identified by the public, the proponent and the government. This will increase time-efficiencies in the process and therefore increase the cost effectiveness of the process for all parties involved. Cost effectiveness is also increased by allowing for early involvement of proposals in the EA process.

The EPA advises that schedules should be developed that account for industry/development type, locality issues as well as contribution to a cumulative environmental issue. When cumulative impacts are addressed through strategic assessment processes, the burden on project level EA is substantially reduced.

Recommendations

10. The definition of a "proposed action" under the *Environmental Assessment Act* should be revised. A "proposed action" under the Act should refer to any action that has the potential to have a "significant impact" on the environment.

11. The determination of the need for referral of a "proposed action" for assessment under the *Environmental Assessment Act* should be supported by a series of triggers for assessment established in schedules under the Act. The schedules should serve the purpose of specifying classes of activities, or types of projects, that by their nature, scale, or location could have a significant impact on the environment; identifying localities of environmental or cultural value; identifying concerning cumulative environmental issues.

In the first instance, it is recommended that a schedule of activity type be developed.

This schedule should reflect current and future activities or projects occurring within the Territory that have the potential for significant environmental impact and should not just be restricted to heavy industry or traditional activities like mining. In the first instance this schedule could be based upon the Memorandums of Understanding that NRETAS already has in place with referral agencies. At the very minimum this has the advantage of placing these MOUs into the public arena. The schedule could also be informed by similar schedules developed in other jurisdictions.

This schedule should continue to be developed with time to ensure that it reflects activities (or components of activities) that are identified as having potential risk to the environment.

Within 12 months of receiving and accepting the EPA's advice and recommendations, a locality schedule should be commenced that identifies areas of significance (due to their environmental values and/or cultural values and significance).

The locality based schedule could initially reflect findings of government policy and legislation, such as the proposed Biodiversity Strategy, and the Eco-links Project. With time, this Schedule could be informed by regional assessments and planning.

Within 12 months of receiving and accepting the EPA's advice and recommendations, work should be initiated to establish mechanisms within the EA process so that it can be used to address a proposed action's contribution to a sensitive or growing environmental issue.

It is important for the EA process to be able to account for an action's contribution to a sensitive or growing environmental issue. It is anticipated that the knowledge gained through regional strategic assessment would allow EA to be more targeted in respect to a growing regional issue.

In addition, where applicable, government initiatives should be supported through the EA process – for example, using the EA process in such a way that encourages a reduction in emissions to promote and allow the Territory to meet reduced emission targets. Both the triggers and process of EA could be established in such a way that rewards innovation to reduce energy use or sourcing energy from a green energy supply in order to minimise emissions.

A similar example is in respect to water use and supply – the EA process could be set up to support and account for water allocation plans where they exist under the *Water Act*. The existence of a water allocation plan could itself be a trigger for activities to be referred for review under the *Environmental Assessment Act*, particularly if an activity's water usage is not in keeping with the policy intent of a water allocation plan. Again, the use of the EA process in this respect is to ensure an activity can be considered within the context of a regional or Territory wide issue and it should serve the purpose of encouraging innovation or changes to processes within an activity that result in the conservation and protection of a water resource.

The EPA commissioned the Environmental Research Group of Charles Darwin University (CDU) to examine using the concept of "ecological footprint analysis" (EFA) as a potential mechanism to guide the decision on "environmental significance" and develop triggers of activities requiring environmental assessment. This report is provided as Attachment F.

EFA is described as a method used to calculate indicators of sustainability, used mainly in the past to measure trend in consumption. In summary, the report highlighted that EFA could be used as a tool to assist the EA process in the following ways:

a. As a tool to be applied in regional planning "to guide decision-making in the SEA process" This would require the collection of additional data to that currently available; and
b. In relation to specific projects, "EFA could be used to evaluate 'significant projects' because the approach can quantify not only the localised impact . . . but also account for the extended impacts beyond the site". It is argued that this adds value to the EA process through the "identification of indirect impacts on the environment and the 'off-set' measures required to address them" (CDU 2009 15-16);

It is recommended that EA schedules of triggers are continually examined and assessed for their relevance.

5.1.1 Responsibility for referral

Submissions to the EPA's discussion paper suggested amendment to the current referral process in respect to the responsibility for referral (which currently lies with the responsible Minister).

Issues raised included the timeliness of the current referral process, responsibility for a referral when an action requires authorisation under several pieces of legislation, and the potential for ministerial discretion. The introduction of triggers also means that the referral of an action would no longer be dependent upon that action requiring a form of authorisation.

It was suggested that a proponent should take the responsibility for submitting their proposal directly with NRETAS (proponents have a similar responsibility under the *Environment Protection and Biodiversity Conservation Act*). It was also suggested that the Minister for Natural Resources, Environment and Heritage have a power to require a proposal be submitted for assessment.

Recommendations

12. The *Environmental Assessment Act* should establish the responsibility for the referral of an action that has the potential for "significant impact" on the environment with the proponent.

13. The Minister for Natural Resources, Environment and Heritage should retain the power to 'call in' a proposal.

If this recommendation is supported, the introduction of offence provisions to ensure a proponent makes a referral should be considered.

5.1.2 Strategic Assessment

The EPA considered in its discussion paper that the environmental assessment of a "proposed action" as described under section. 4(c) and (d) of the Act has not, to date, been undertaken in the Northern Territory. The EPA proposed that items (a), (c), (d), and (e), of s. 4, would best be assessed through strategic assessment. It was noted however, that the Administrative Procedures only allow for assessment as either an EIS or PER, which are designed for project-level developments (EPA 2009).

When referring to strategic assessment, the EPA uses the following definition:

"Strategic Environmental Assessment evaluates the impacts from policies plans and programs, with the objective of contributing to ecologically sustainable development (ESD) by integrating environmental factors into decision-making" (Marsden & Ashe 2006: 205).

The practice of environmental assessment can be applied to:

1) individual developments (projects)
2) project planning (such as infrastructure provision or staged development)
3) regional development planning/decisions
4) strategic land use planning
5) government policies
6) government economic decision-making.

The public submissions received in response to the EPA's discussion paper presented varied views on whether an assessment process could be applied more broadly than just to projects. The role of strategic assessment in this regard was recognised.

A general view was that the process of strategic assessment should apply to plans, policies and investment decisions.

Assessment in the form of a strategic assessment was also seen as a tool to better consider cumulative impacts.

It was agreed that a strategic assessment process applied at the stage of project planning or to inform regional planning and regional development decisions, provided opportunity to improve baseline information to better understand impacts and inform decision-making for specific projects.

NRETAS recognised a role for the assessment process to inform site selection for specified activities, and to enable the development of overarching principles, policy and regulatory guidance for the environmental management of those activities. It recognised that the effective use of strategic assessment could possibly remove the need to assess specific projects and could provide a better mechanism to assess cumulative impacts (NRETAS 2009).

In an Indigenous context, comments included

"SEA will ensure transparency [with government and developers] and will include the ESD principles" (BIITE 2009: 15).

Some viewed the opportunity for using the assessment process to inform and facilitate regional development opportunities as important for long-term certainty of regional prosperity and economies. This is relevant to the Territory's Growing the Territory Policy.

Assessment at a regional planning level was also viewed as a mechanism to better manage tensions around individual project proposals (and apparent piecemeal development) by supporting land use decisions.

In this respect, the Hawke Review references the Urban Development Institute of Australia stating

"The industry strongly supports strategic involvement, and definitely prior to rezoning, to ensure certainty into the development process. It is not in Australia's best interests to have capital tied up in projects that are at high risk of not achieving approval. In an ideal situation, the three tiers of government will have mapped out in advance where development can occur, general requirements for development in particular areas, the land that needs to be reserved for environmental sustainability and the infrastructure, including public transport, which will achieve overall sustainability for the development" (Commonwealth of Australia 2009: 79).

The (now) Department of Lands and Planning argued that the process already exists, and is being actively practised in relation to the strategic assessment of land use planning. This ensures that the planning process is underpinned by a triple bottom line approach. This is not presently integrated into, or informed by, the environmental assessment process set out in the *Environmental Assessment Act* (RDPIFR 2009).

Some submissions questioned the real benefit of strategic assessment and argued that further examination of where it has been used should be undertaken before it is adopted within the Territory. Issues relating to the timeliness and resource intensity of undertaking strategic assessments were noted.

Other issues in relation to introducing strategic assessment in the Territory were raised in the EPA's discussion paper, and included the following queries:

1) What triggers a strategic assessment?
2) Who is the proponent (responsible party) when undertaking a strategic assessment?
3) Who would be the ultimate assessment body/Minister for a strategic assessment?
4) Who bears the cost of a strategic assessment?

The EPA also questioned whether the *Environmental Assessment Act* was the correct tool to oversee all applications of strategic assessment. In this respect it referred to the Canadian Environment Assessment Act, which focuses on project-level EA only and does not include policies or plans.

Canada, however, operates under a Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals. This approach recognises the issue of role and responsibility when undertaking environmental assessment of government policies, plans and programs, specifically, that this will vary according to the Minister or agency responsible for delivering the policy/plan or program (EPA 2009).

EPA Advice

The EPA recognises the benefit of using strategic assessment as a tool to allow social, economic and environmental impact of policies, plans and programs to be evaluated and because it ensures public participation within these processes.

In its final advice to government through the document, *Ecologically Sustainable Development in the Northern Territory,* the EPA advised that a whole-of-government agreed process is required to drive and evaluate the application of sustainability principles in government policy development and decision-making. Accordingly, the EPA believes that the process of environment assessment (as a mechanism to promote sustainable development) should apply more broadly than just to projects. There is the potential for strategic assessment to provide the mechanism for undertaking a sustainability assessment of government policies and plans (EPA 2010).

The use of strategic assessment as a fundamental part of government planning and policy-making provides opportunity for achieving sustainable development outcomes through a process that is focused, rigorous, considers alternatives and streamlines decision-making. This can then result in time efficiencies and associated cost effectiveness at project level EIA, as it provides for more consistent decision-making and alleviates time necessary to resolve high level policy issues.

The use of strategic assessment is also recognised in the Hawke Review which draws from the COAG agreement that opportunities to use strategic assessments should be identified – providing a mechanism to approve classes of development rather than conducting individual assessments and approvals.

Putting in place the structures to support strategic assessment in the Territory will be dependent upon how the strategic assessment is to be used (why it is being undertaken), which then informs where the provisions for undertaking the assessment are best placed (for example, within legislation and/or policy directives). As the Territory does not operate within an integrated policy, planning and approval regime, the triggers and mechanisms for strategic assessment are likely to be spread across different pieces of legislation or policy development processes. However, this should not be seen as a barrier to driving the use of strategic assessment within the Territory.

Because strategic assessment is likely to be spread across different pieces of legislation or policy development processes, there needs to be transparency around the application of strategic assessment to ensure consistency in approach. This relates specifically to the types of activities/actions that would trigger a strategic assessment, the process to be followed during a strategic assessment, the roles and responsibilities of lead and assessing agencies, and the opportunities for public participation.

Government may choose to continue to support the *Environmental Assessment Act* containing such a broadly encompassing definition of "proposed action" and, accordingly, using this as the instrument to guide strategic assessment. If this is the case, the definition should be reviewed to be more definitive of what is meant by plan, program or policy and what is to be achieved by undertaking a strategic assessment.

At a minimum, the *Environmental Assessment Act* could facilitate strategic assessment being used to inform project planning and design, the assessment of cumulative impacts, the assessment of a specific natural resource within a region (for example, ground water) and development decisions/planning at the catchment and/or regional scale.

A Cabinet Directive could be used to ensure that a strategic assessment is undertaken to support government policy development processes (to ensure that policy is informed by the principles of ESD).

The EPA emphasises the importance of strategic land use planning being informed by appropriate studies and strategic assessment. The Environmental Defenders Office Fact sheets on the NSW environmental planning regime provides the following advice:

"Local Environmental Plans (that is, land use zoning instruments) are a blueprint for future development and conservation in a given area. They are strategic planning documents that outline acceptable and unacceptable uses for different parcels of land within a Local Government Area…".

"If a piece of land is inappropriately zoned under a LEP, unsuitable types of development may be approved in the zone with potentially dire consequences for the natural environment and the amenity of the area, as well as adverse social and economic impacts" (EDO 2010: Section 2.1)..

As referenced earlier, the Department of Lands and Planning states that strategic assessment is being undertaken to support land use planning. However, the *Environmental Assessment Act* is still called upon by the public to assess land use planning decisions. There needs to be transparency in the application of strategic

assessment to ensure consistency in approach, public participation and understanding of its use.

Recommendations

14. The *Environmental Assessment Act* should be revised to support strategic assessment, specifically in respect to:

- **assessing broader scale development opportunities and environmental impacts (at the regional or catchment level)**
- **assessing cumulative impacts**
- **considering a range of potential alternatives (at project planning and design phase).**

15. It is recommended such a provision under the *Environmental Assessment Act* for supporting strategic environmental assessment should also create a process that may be used as a whole of government planning tool. The process of strategic assessment established under the *Environmental Assessment Act* should have the capacity to be drawn upon from across government as a recognised process for the strategic assessment of legislation, policy initiatives, plans and programs in accordance with the objectives of ESD.

As legislative reform within the Northern Territory progresses, linkages should be established between those pieces of legislation with a strategic planning function (such as the Planning Act) and the *Environmental Assessment Act* to ensure process for strategic assessment described by the Act is followed.

6. Determine how the assessment process established by the *Environmental Assessment Act* and Environmental Assessment Administrative Procedures can be improved to better meet the proposed objectives of the Act as identified in this Review

6.1 Improving the definitions

An important way of providing clarity of meaning and intent in an Act is via the set of definitions contained in the Act. These work with the objectives of the Act and serve to provide certainty and consistency in the interpretation and application of the Act.

6.1.1 Defining "environment"

The definition of "environment", established under section 3 of the *Environmental Assessment Act,* is broad and unusually anthropocentric in its perspective. It reflects the prevailing 'utilitarian' ethos of its policy makers and such an emphasis may no longer be appropriate. The gender specific language is also outdated.

The definition is more inclusive than the biophysical environment, however many of the environmental assessment documents prepared by the Territory present information in respect to the natural environment with limited information on the social, economic and cultural environments.

The *Environmental Assessment Act* dates from the early 1980s but the Territory has yet to develop the mechanisms (either through legislation or policy or procedures), or identify the expertise; or provide a coordinated approach that allows EA to effectively move beyond a focussed assessment of the biophysical environmental impacts.

Public submissions to the EPA's discussion paper recognise that EA should consider factors beyond the biophysical environment. For example:

"The Department of Health and Families strongly recommends incorporating Health Impact Assessment (HIA) as part of the formal requirements of an EIA is necessary to ensure the sustainable development of the Northern Territory" (Department of Health and Families 2009: 1).

"INPEX supports the current definition of the 'environment' contained within the Environmental Assessment Act. Social and economic elements of a proposed activity are relevant and should be considered in the approval process. The global trend for EIA is to include assessment of economic, cultural, social and health aspects in conjunction with the biological environment" (INPEX 2009: 6).

"The Environment Centre NT agrees that EIA documents should incorporate triple bottom line analysis and effectively demonstrate how a proposal will support ESD" (ECNT 2009: 6).

EPA Advice

The purpose of an assessment is to ensure decision-making is informed by the principles of ESD. In order to meet this purpose, an assessment should consider all factors relevant to the decision – not just the impacts to the biophysical environment. To publicly assess only this element of decision-making reinforces the common perception that environment and development are mutually exclusive and opposing issues.

The EPA's advice to government, contained in *Ecologically Sustainable Development in the Northern Territory,* recommended that the principle of integration be recognised as a principle of ESD for the Territory. This principle recognises the dependence of sustained economic development and social wellbeing on ecosystem health and integrity; and the interconnection between economic development and the progress and well-being of the whole of society. In keeping with this principle the Territory's EA process should ensure that it can recognise and account for this interconnection.

This reflects the commitment made by the Northern Territory Government when it endorsed the Intergovernmental Agreement on the Environment (IGAE). Schedule 3 of the IGAE agrees to impact assessment including environmental, cultural, economic, social, and health factors.

Recommendations

16. The definition of "environment" should be re-drafted to reflect contemporary language and understanding, and reflect the concept and principles of ESD.

17. A government process should be established to facilitate an integrated, whole-of-government approach to the scoping and examination of proposed actions to ensure all elements of the environment are assessed.

The following definitions of environment are provided for your consideration.

Environment Protection and Biodiversity Conservation Act
environment includes:

(a) ecosystems and their constituent parts, including people and communities
(b) natural and physical resources
(c) the qualities and characteristics of locations, places and areas; and
(d) heritage values of places; and
(e) the social, economic and cultural aspects of a thing mentioned in paragraph (a), (b), (c) or (d).

Note: The places mentioned in paragraph (d) of the definition of environment include places included in the Register of the National Estate kept under the *Australian Heritage Council Act 2003*.

Environmental Protection Act, Western Australia
environment, subject to subsection (2), means living things, their physical, biological and social surroundings and interactions between all of these;

For the purposes of the definition of "environment" in subsection (1), the social surroundings of man are his aesthetic, cultural, economic and social surroundings to the extent that those surroundings directly affect or are affected by his physical or biological surroundings.

6.1.2 Defining environmental assessment

Other jurisdictions, such as Western Australia, have defined "environmental impact assessment" as part of the Act's definitions. The Western Australian EIA Administrative procedures states:

"Environmental Impact Assessment means an orderly and systematic process for evaluating a proposal including its alternatives and objectives and its effect on the environment including the mitigation and management of those effects. The process extends from the initial concept of the proposal through implementation to commissioning and operation and where appropriate decommissioning".

EPA Advice

Such an approach value-adds to the object of the Act by explicitly stating what EA is and, in doing so, articulating the purpose of EA.

6.1.3 Defining environmental assessment report

The environmental assessment process currently concludes with the Minister for Natural Resources, Environment and Heritage providing a copy of comments, suggestions or recommendations to the Minister responsible for authorising the proposed action.

The Environmental Assessment Administrative Procedures state:

"The Minister shall … make such comments, suggestions or recommendations concerning a proposed action … including suggestions or recommendations concerning condition to which the proposed action should be subject, that he thinks fit for the protection of the environment, and shall inform the responsible Minister accordingly".

In practice, this advice is provided in the form of an environmental assessment report – documents that contain the outcomes of the review and examination of the Environmental Impact Statement, the critical analysis of issues, the referencing of advice received and concerns raised during the public exhibition period and accordingly the concluding "comments, suggestions or recommendations". However "Environmental Assessment Report" has not been referenced by the Administrative Procedures or the *Environmental Assessment Act* and the clause of the Administrative Procedures copied above could just as easily be met with a single page letter from the Minister for Natural Resources, Environment and Heritage to the responsible Minister.

EPA Advice

The current practice of preparing environmental assessment reports is supported, particularly as it allows the critical analysis of a project to be placed in the public arena. It demonstrates the robustness of an assessment. Defining "environmental assessment report" within the *Environmental Assessment Act* is recommended. This would clearly explain the expected outcome of an environmental assessment process, the purpose of an environmental assessment report and the breadth of information it can contain.

In this respect, the *Environment Protection and Biodiversity Conservation Act* defines assessment report as:

"Assessment report means the report on the relevant impacts of a controlled Action".

The Western Australian Administrative Procedures (Environment Protection Act) give the following definition:

"Assessment report means the document prepared by the Authority for the Minister under Section 44 of the Act reporting on:

(a) the environmental factors of the relevant proposals
(b) the conditions and procedures, if any, to which any implementation of that proposal should be subject
(c) containing any recommendations made by the authority".

6.1.4 Defining ESD

If the *Environmental Assessment Act* is to be guided by the principles of ESD, as well as provide a process that ensures sustainable development, ESD and its component principles should be defined within the Act. The EPA's document *Ecologically Sustainable development in the Northern Territory* provides both a definition of ESD as well as its component principles that should be used when amending the Act.

6.2 Improving decision-making

6.2.1 The responsibility of the Minister

The *Environmental Assessment Act* and Administrative Procedures establish the Minister for Natural Resources, Environment and Heritage as the administrator of the EA process as well as its principle decision-maker.

All procedural responsibility specified in the Administrative Procedures is assigned to the Minister, although the *Environmental Assessment Act* enables the Minister to delegate power and functions under s11 of the Act. These delegation powers have recently been exercised (the procedural responsibility being placed upon NRETAS) and can be drawn upon by new legislation to identify the specific functions that best belong at an agency level.

The statutory decision-making powers described in the *Environmental Assessment Act* and Administrative Procedures are all exercised at the ministerial level, including decisions on whether to forward a proposed action for review, whether assessment is required, and the level at which assessment is undertaken and the provision of final advice relating to the proposal.

The key decisions for which the Minister is currently responsible under the Northern Territory EA process are:

- determining whether environmental assessment of a proposed action is required, based upon the environmental significance of a proposed action
- deciding upon the level of assessment to which a proposal will be subject, currently either a PER or EIS or PER
- making comments, suggestions or recommendations concerning the proposed action (including suggestions or recommendations concerning conditions to which the proposed action should be subject) for the protection of the environment.

A critical issue identified in the EPA discussion paper is the large discretionary element that applies within the current decision-making process under the *Environmental Assessment Act*. It was highlighted that this discretionary element of ministerial decision-making created uncertainty for a proponent, the potential for inconsistent decision-making, an environment where the process was exposed to lobbying and a public distrust of how decisions were being made.

However, the EPA did not provide any discussion on the appropriateness or otherwise of retaining the Minister as the key decision-maker in the process. This is relevant when drafting and implementing the new objectives of the *Environmental Assessment Act* – specifically, who is responsible for meeting the objectives of the Act and who is accountable for the decisions being made.

The recent Hawke Review identified clear reasons for maintaining the role of the Minister as the primary decision maker under the Act. The process of decision-making involves the challenging task of balancing competing environmental, social and economic considerations. The Review argued that retaining the Minister as the primary decision maker means that the Minister can be held publicly accountable for decisions. In this role, it is expected that the Minister will follow expert advice and the best available information.

EPA Advice

It is appropriate for the Minister to have the role of deciding (and communicating) on the final findings of an assessment of a proposed action. However, the process through which the Minister makes decisions can be improved and made more transparent and hence more accountable. To achieve this, ministerial decision-making under the Act should be linked to clear guidance for decision-making, based on the principles of ESD, defined in the Act and linked to a publicly accountable process of decision-making.

The EPA recently presented its final advice on principles of ESD to the Territory Government, which provided a definition and six guiding principles of ESD for the Northern Territory. These reflect the principles of ESD as established in Australia and internationally. The principles of ESD have a recognised basis for decision-making on environmental assessment under the Commonwealth *Environment Protection and Biodiversity Conservation Act*.

It is recommended that the principles of ESD be defined within the *Environmental Assessment Act* and should be established as overarching principles underpinning decision-making under the Act. The Act should establish the ESD principles as described in the document *Ecological Sustainable Development in the Northern Territory* as a substantive obligation, such that the Minister is required to act consistently with the principles of ESD when making decisions under the Act.

Recommendations

18. Decision-makers under the *Environmental Assessment Act* should be subject to general principles and decision-making criteria based upon the principles of ESD.

19. Decision-makers under the *Environmental Assessment Act* should be required to issue a public statement of reasons to support each decision made during the environmental assessment process, including the decision on

whether a proposed action requires environmental assessment, the level of assessment necessary for a proposed action as well as the final outcome of the environmental assessment process.

6.2.3 Ensuring the quality of assessment information

The EPA's discussion paper identified several issues relating to the quality of information provision within the environmental assessment process as well as the need to provide robust analysis and information on the economic, social and cultural elements of a proposed action (as well as the natural environment).

During the EPA's consultation sessions, public and community groups expressed an expectation that an EIS should be prepared by an independent consultant, be peer reviewed, be independent and of a high quality, with a government role in selecting the consultant.

The EPA made a number of suggestions in its discussion paper, including the accreditation of EA consultants, duty of care commitments and peer review.

In the submissions responding to the discussion paper, there was some support for certification of practitioners to set competence standards, but also concern that this could add administrative complexity.

INPEX argued that the quality of documents could be improved without any new regulatory requirements, but with improved comprehensive upfront scoping, availability of guidelines and policies, and clear project specific guidelines. The Minerals Council NT argued that duty of care provisions are not appropriate and that peer review is already standard practice.

The ECNT argued for strong provisions, saying consultants should be required to follow duty of care provisions and an introduction of offence provisions for false or misleading information.

NRETAS argued for a risk-based approach to EA, stating that "it provides a consistent framework for decision-making that could be utilised for determining whether proposals require formal assessment, and for identifying and prioritising risks within the formal assessment itself" (NRETAS 2009: 8). A risk based approach when scoping issues associated with a proposal will assist in ensuring environmental assessment documents focus on key issues.

EPA Advice

The Intergovernmental Agreement on the Environment principles upholds that proponents take responsibility for preparing environmental assessment documents. This is how it's done Australia-wide and from a proponent's perspective it is the most cost effective and efficient approach. To do otherwise, particularly in the Northern Territory, would create another technically and financially under resourced role for government. It is also unclear whether a government role in the tendering of consultants would necessarily yield a different outcome, given the small number of specialist consultants and the need for those consultants to work very closely with the proponent in iterative development of design details.

Certification of practitioners
The Environmental Institute of Australia and New Zealand has a Certified Environmental Practitioner (CEnvP) Program – an initiative aimed at boosting community and business confidence in environmental professionals. The Northern Territory could adopt a policy position requiring consultants preparing environmental assessment documentation be certified under this program.

The Australian Government considered the issue of certification of practitioners in the recent Hawke Review. The final recommendation of the review was that the Australian Government, in consultation with the environment and planning consulting industry, develop an industry Code of Conduct for consultants supplying information for the purposes of the environmental impact assessment and approval regime under the *Environment Protection and Biodiversity Conservation Act*. The development of such a code is supported in relation to environmental assessment and approval processes in the Northern Territory.

Information to be provided in an assessment document
The same level of research and analysis should be undertaken to present impacts and benefits of a proposed action to the natural environment, the economic environment (short, medium and long term and to the immediate locality, the region and the Northern Territory) as well as the social/cultural environments. The assessment of social, economic and environmental elements is no guarantee that decisions will always measure favourably for all three elements. However, an EA that presents a triple bottom line analysis, or incorporates clear and robust information on economic and social factors (including benefits, detriments and ,potential risks), as well as the natural environment, provides for greater public understanding of decision-making. The inclusion of robust information on the economic and social environments provides a basis on which to judge acceptability of impact to the natural environment.

Expectations about the quality of assessment documentation should be guided by the objectives of the *Environmental Assessment Act*, made explicit in guidelines advising on the content of an environmental impact statement and in policy documents established to support the EA process.

The following is provided for your consideration when looking at scoping methods to be used in the EA process.

Risk assessment (analysis) methodology has been used within, and external to, EIA processes and one that may provide a useful tool for inclusions in guidelines for undertaking EA in the Northern Territory to improve the quality of information provided for use in decision-making.

Risk assessment can be defined as a process “which attempts to identify the hazards involved in certain actions, estimate the associated risks and consider how acceptable the risk may be to the community” (Elliott and Thomas 2009: 43-44). The process also includes the identification of steps that can be put in place to reduce risks that are considered unacceptable.

Limitations with a risk based process have been identified and include the possible inability to obtain sufficient data to determine hazards and risks which may result in biases when compiling data and evaluating risk. A recent review of EA undertaken in Western Australia highlighted a number of advantages and challenges of using risk assessment methodologies in the EA process. These are summarised in Table 2.

Table 2: Risk assessment: advantages and challenges.

ADVANTAGES	CHALLENGES
• Greater transparency in decision-making processes • Support informed, consistent and defensible decision-making • Consistent with the precautionary principle • Systematic approach to evaluating the magnitude of environmental impacts • Prioritises the environmental impacts of concern, the application of management and controls and the focus of audit programmes • Improves environmental accountability of proponents • Provides an effective basis for the engagement of key stakeholders to influence environmental outcomes • Provides a sound basis for the development of targeted research and development programs.	• Ensuring there is sufficient data to inform the risk assessment and decision-making • Recognising complex ecosystems linkages and dependencies • Building a common understanding of the risk assessment approach and associated concepts and definitions • Ensuring the approach is responsive to different situations • Recognising the legitimate role of the EPA to be informed by the risk assessment and then make a judgement.

(Source: WA EPA 2009: 19-20)

Whole-of-government role in information provision and assessment
In order to achieve EA documents that provide information on social, economic and natural environment issues, it is important that a whole-of-government approach is undertaken when scoping and completing the critical analysis/assessment of EA documentation. The Victorian process calls upon a technical review panel to undertake scoping to inform an EA document and to provide a review of the EA documentation in terms of its adequacy. Of note is a recommendation contained in the Hawke Review for joint Commonwealth and State panel assessment, and the creation of an independent assessment agency. These recommendations should be considered in light of reform of the EA process in the Northern Territory, specifically when such an approach would be considered necessary.

Existing processes identified in the *Environmental Assessment Act* could be better used to review information contained in environmental assessment documents. For example, the Act currently makes reference to the Inquiries Act – while it is understood that this has not been drawn upon, it does provide opportunity for a proposed action to be escalated to investigate claims and information contained in environmental assessment documents. The Act also allows for experts to be used during the assessment process.

The *Environment Protection Authority Act* now makes provision for the EPA to review environmental assessment documents. EPA processes (currently being developed) may present the opportunity for information contained in environmental assessment documents to be independently reviewed, although this would depend on the resource and priorities of the EPA at the time.

6.2.4 Drawing on Indigenous knowledge

An important aspect of improving decision-making in the EA process is the ability to access relevant and appropriate information. The EPA has recommended that the Objectives of the Act recognise the role of Indigenous people in the conservation and ecologically sustainable use of natural and cultural resources. This formally recognises a role for Indigenous traditional environmental and cultural knowledge for inclusion in the environmental assessment process, providing a source of information for improving decision-making.

This view was supported in reports reviewed, submissions received and community engagement undertaken to support the EPA's discussion paper. In undertaking a review on "Community based natural resources management and Environmental Impact Assessment", Charles Darwin University identified a variety of ways in which community based natural resource management (CBNRM) could be used to enhance the provision of information in decision-making (Attachment G). These included, for example, Indigenous community groups, land and sea ranger groups and networks. Some roles identified for including traditional knowledge in decision-making in the EA process are:

- *establishing benchmarks for cumulative environmental impacts and the state of the NT environment*
- *advising on whether a particular development is likely to result in significant environmental impacts*
- *providing comment on draft PERs and EISs*
- *monitoring of impacts of developments that proceed*
- *monitoring and compliance with development conditions.*

The NLC identified in its submission that Indigenous environmental knowledge is:

"recognised (elsewhere) *as an alternative and important source of baseline information that adds to understanding of the environment, and how it works . . . and . against which environmental impacts can be monitored and assessed"* (NLC 2009: 37).

During stakeholder engagement across the NT, Indigenous communities and groups identified the need for the EA process to *"explicitly acknowledge traditional environmental knowledge and provide avenues for use of this knowledge within each part of the EIA process"* (BIITE 2009: 25).

CAT highlights the value of Indigenous knowledge in environmental decision-making, conceding that mechanisms for employing this knowledge are inadequately developed. To assist the application of Indigenous knowledge, CAT considers it imperative that the processes employed in EA are rendered accessible to Indigenous people susceptible to isolation by language and/or distance (CAT 2009).

6.3 Public participation processes

6.3.1 Public participation

The EPA's discussion paper argued that public participation is intrinsically valuable to the EA process, as an objective of EA as well as a means of providing information relevant to the assessment of a proposed action. This view is consistent with best practice principles of EA.

Public participation was also identified as a critical process needed to inform high quality decision making in the Hawke Review. It recognised that public participation provided opportunity for review of material put before the decision maker and providing further evidence on environmental, social and economic impacts of proposed developments.

In response to the EPA's discussion paper, respondents broadly supported early, full and meaningful public participation. Respondents generally supported the proposition that effective public participation in the assessment process was central to an effective environmental assessment system. However, respondents also cautioned about the need for flexibility and discretion in undertaking public consultation and argued for a "policy guidance approach" over a more prescriptive approach.

INPEX argued against a prescriptive approach, saying genuine public engagement will be different for every project and it will be difficult to enshrine this into legislation. Instead, it argued that a prescriptive approach should be in place to guide proponents in best practice techniques and benefits. The proponent's responsibility lies with developing a communications strategy that aligns with best practice and meets the requirements for the proposal and for stakeholders (INPEX 2009).

NRETAS stated that the inclusion of a principle for public participation in the *Environmental Assessment Act* would promote greater public engagement through the entire process and allow government to consider the adequacy of consultation on a particular proposal (NRETAS 2009).

A majority of respondents supported the empowerment of effected communities to respond to technically complex and lengthy documents. It was noted that EA documents are designed to provide a succinct interpretation of the technical data; it was therefore suggested that it could be better to have a policy requiring the proponent to provide simple summaries of the meaning of the technical data.

Respondents also stated that a lack of timely access to key information significantly reduces opportunity to provide a detailed technical analysis of the proposal and hold appropriate consultation with affected people. Some submissions highlighted a need to allow more time for public comment where additional information is released late. They argued that such a provision would provide impetus to the proponent to provide a better quality document in the first instance.

6.3.1.1 Indigenous engagement

The Northern Land Council (NLC) highlighted the benefits of direct engagement of Indigenous people, particularly during field work for the preparation of the environmental assessment documents (such as flora and fauna surveys). The NLC recognised that these approaches may require greater time and money, but argued the following advantages – a better understanding of assessment documents by indigenous people; a consultation phase that is potentially less troubled; and development of improved long-term environmental outcomes (NLC 2009).

It was argued that the involvement of Indigenous people at all stages of the EA process is essential in order to sustain trust between the proponent and the Indigenous community.

Respondents noted that consultation with Indigenous communities requires expertise, specific guidance and provisions. The Centre for Appropriate Technology (CAT 2009) argued that a proactive approach to Indigenous engagement is required, commencing during the initial stage of an environmental assessment.

CAT recommends that community engagement be inclusive. The EPA's discussion paper argued that information should be accessible to all parties, and accordingly should be presented to Indigenous people in language, where appropriate. Use of plain English, resource kits and educational materials should help to eliminate the alienation sometimes experienced by Indigenous people when presented with complex non-Indigenous technical information (CAT 2009).

Access to information was raised as a major concern, particularly as internet services were limited in many communities. This in conjunction with the distance of many remote communities from regional centres led to a request for information to be distributed in alternative forms. The provision of information in a way that was easily understood was also clearly identified as a high priority.

Consultation by the EPA found that the timing required for undertaking culturally appropriate consultation and the need for greater discretion in extending timeframes were warranted by circumstances. Translation of documents can place considerable burden on statutory bodies seeking to engage Indigenous people and secure a culturally appropriate response, particularly in remote regions.

The Department of Local Government and Housing also suggested that the requirement to submit only 'written comments' during an EA process is a barrier to indigenous participation as well as other economically disadvantaged groups. Other methods of obtaining input from marginalised population groups should be considered (DLGH 2009).

EPA Advice

It is clear that public involvement and participation is a necessary element of the EA process, not only from the perspective of the community, but also from the perspectives of the decision-makers and the proponent. The *Environmental Assessment Act* should facilitate and encourage the realisation of the opportunity that comes with public involvement. The Act needs to be amended to ensure that it no longer expresses consultation as just being part of a process.

Accordingly the *Environmental Assessment Act* should ensure that the EA process is constructed around opportunities for public involvement and engagement. This includes:

- the publication of information:
    1. referral and environmental assessment documentation
    2. statement of reasons around decision-making
    3. outcomes of decision-making
- mechanisms to provide for public consultation:
    4. the objectives of the *Environmental Assessment Act*
    5. specific public consultation opportunities associated with the process and associated timeframes
    6. public consultation timeframes that reflect the complexity of a proposal and the demographics of the impacted/interested community
    7. the ability for the Ministerial discretion on consultation timeframes associated with complex proposals and issues
    8. the use of public inquiries
    9. the use of technical panels to assist public and government understanding of technically complex issues
    10. the role of the EPA in the process

- guiding policy support:
    11. expectations on a proponent when undertaking community consultation and engagement
    12. undertaking Indigenous engagement.

Recommendations

20. The value of public participation and engagement should be clearly established in the objects of the *Environmental Assessment Act* as intrinsic to the environmental assessment process.

Amendments to the process to support the above include:

- public engagement at the point of a referral
- timeframes that reflect the complexity of a proposal and/or the demographics of the impacted/interested community; including Ministerial discretion where social context, or technical aspects of a proposal or potential impacts of the proposed action make a proposal highly complex
- provision for the engagement of independent technical experts to assist with the understanding of technically complex and controversial issues relating to proposed actions and of particular interest to affected communities.

Recommendations

21. Regulations should be developed under the *Environmental Assessment Act* to clearly communicate principles for public involvement in the environmental assessment process in the Northern Territory and to guide proponents on expectations when undertaking public consultation and engagement.

The following matters are suggested for inclusion in the proposed Regulation:

Principles of public participation:

1) Public involvement should be maximised to:
    - establish an increased level of trust in government strategy, policy and decision-making on environmental decisions that have the potential to significantly affect members of the public
    - allow members of the public to put forward information, which may not otherwise be available to proponents and relevant government bodies.
2) Early public display and subsequent involvement is preferable to making information available at a late stage when no significant contribution can be made. Early involvement also enables effective two-way lines of communication to be established.
3) Public involvement should be mandatory at each stage of the EA process. This may also reduce the incidence of inquiry and appeal.
4) Timing of the release of documents for public display should be at the discretion of the authoritative body involved, in consultation with proponents. This would avoid the limited periods of exhibition being further reduced due to public holidays and weekends. Holiday periods may also reduce potential for people to examine the documents.
5) The content of documents made available for public display should be sensitive to the language, culture and scientific and technical knowledge of people most likely to be affected by the proposed development.

6) The processes supporting public participation need to provide flexibility of approach to reflect different cultural requirements.

Recommendations

22. Public guidance material should be developed to specify expectations of the quality and type of information required to be provided by proponents in environmental assessment documents.

These could include:

- clearly articulated expectations when undertaking consultation with Indigenous communities
- the proponent's role in providing technical and interpretative information of sufficient quality and content to adequately inform affected communities about proposed actions
- detailed guidance for the proponent and the public on the timeframes for public consultation on assessment documentation
- comprehensive guidance on the role of public participation in the EA process and opportunities for public participation.

6.4 Levels of assessment

If it is determined that a proposed action is likely to have a significant impact on the environment and thereby requires formal assessment under the *Environmental Assessment Act,* the Minister is currently required to determine the level of assessment at which a proposal will be assessed.

Presently under the *Environmental Assessment Act* the assessment may be undertaken as either a PER or EIS. Additionally, if determined by the Minister, provision exists for a proposal to be assessed through a public inquiry under the *Inquiries Act*. To date, the public inquiries provision has not been used to undertake an environmental assessment in Northern Territory.

Under the current assessment process, there are differences between a PER and EIS, in terms of the timeframes in place for public consultation and the requirements upon the proponent to respond to comments received from the public on a proposal. As identified in the EPA discussion paper, concerns exist among some stakeholders, that as a result of perceptions of the PER process as being less rigorous, and the wide discretion available to the Minister to determine the level of assessment, the assessment level decision may become a point of lobbying.

In order to address these concerns, a key proposal presented in the EPA discussion paper was the possibility of replacing the PER and EIS streams with a single standardised process. The requirements of the process would be the same for all projects, with variations in the timeframes for assessment, according to the complexity of a proposal.

The issue of streamlining the levels of assessment available within the EA process was considered by the recent Hawke Review. The review found that while it is important to have a 'hierarchy' of assessment methods, there was a degree of duplication between the forms of assessment and a lack of legislative guidance on the role, form and requirements of each method.

Noting that two recent reviews of State legislation, including that in the Northern Territory, had discussed reducing the types of assessment methods, the Hawke Review found that the number of options available under the *Environment Protection and Biodiversity Conservation Act* could be reduced to the following assessment approaches:

(a) assessment by preliminary documentation
(b) assessment by EIS
(c) assessment by public inquiry/joint assessment panels.

Recommendations

23. Any changes to the existing levels of assessment under the *Environmental Assessment Act* should be undertaken with consideration of the outcomes of the Commonwealth review of the *Environment Protection and Biodiversity Conservation Act*, and the IGAE and COAG national principles for reform of environmental assessment processes, and seek consistency with a national approach.

6.4.1 Escalation of assessment

A further critical issue considered in the EPA discussion paper was the importance of establishing, within the environmental assessment process, the capacity to elevate those proposals of a highly complex or contentious nature to a more intensive and publicly accountable level of assessment.

The current Northern Territory process allows the Minister to escalate the assessment of a development proposal to a public inquiry under the *Inquiries Act*. In consideration of some of the more contentious development proposals assessed in the Northern Territory, it is unclear why this provision has never been invoked.

In regard to the *Environment Protection and Biodiversity Conservation Act*, the Hawke Review found that a public inquiry was a much underused method of assessment. As highlighted by the review, the benefits of public inquiries were identified in an August 2009 discussion paper of the Australian Law Reform Commission, *Royal Commissions and Official Inquiries.* They include:

- greater public confidence in processes, including reduction in potential for perceived bias
- provision of expertise to handle an investigation or assessment
- provision of administrative resources to deal with very complex matters
- investigation or assessment of issues involving governments (including, for example, assessment of State government projects)
- a means of providing independent input and dealing with controversial issues;
- greater capacity for public input and interaction with the commissioners of the inquiry – including face to face interaction
- a more transparent process of environmental scrutiny (Commonwealth of Australia 2009).

The Review recommended maintaining a higher level of assessment that would allow the ability for a proposal to be assessed through either a public inquiry or a joint

assessment panel. The review found that joint panels should be the preferred over option of a public inquiry, but that the public inquiry option should remain for circumstances where joint assessments cannot be agreed or are not warranted.

The Hawke Review found that the public interest would be well served by a joint panel process, as it would involve a high level of transparent decision-making and public consultation. It found that the use of experts would generate a greater confidence in the quality of information in the process. In matters involving assessment of proposals by the Australian, in conjunction with States' and Territories' Governments, the review recommended that the panel process provides a cooperative approach and allow for a single streamlined process for proponents.

In its discussion paper, the EPA supported the ability to escalate a proposal to a higher level of scrutiny, as is possible in other jurisdictions. In addition to the ability to assess a proposal through a public inquiry, the EPA recommended introducing the ability for a proposal to be assessed by an expert, or expert panel, where existing assessment levels are inadequate for resolving contentious technical or scientific matters.

Recommendations

24. At a minimum, the provisions enabling the Minister for Natural Resources, Environment and Heritage to submit proposals for environmental assessment under the *Inquiries Act* should be maintained. Clear public guidelines and procedures should be developed to communicate how and when this form of assessment may apply.

7. Examine current processes and frameworks for approval of 'proposed actions' following the assessment processes

7.1 Accountability of outcomes under the Environmental Assessment Act

The current EA process relies on approval processes provided by other pieces of Territory legislation to implement the findings of an assessment for a proposed action. The EPA's discussion paper raised a number of issues with this current process:

1) The findings of the assessment may raise issues that do not fall within the responsibility of the approving legislation.
2) The take up of the findings of the assessment is at the discretion of the approving Minister.
3) The Administrative Procedures do not require public account on how the outcomes of the assessment process have informed a subsequent approval.
4) Not all actions require approval.

The EPA recommended that the outcomes of an assessment process be directly accounted for in decision-making by requiring public account on how the advice received under the *Environmental Assessment Act* has informed the decision made.

Submissions to the discussion paper indicated wide-ranging support for improving accountability of how the recommendations contained in an assessment are translated into project approval conditions, and the justification of any inconsistencies.

The Environmental Defenders Office argued:

"It is illegitimate to have an assessment process which can simply be largely ignored. Not only does this make and environmental assessment ineffectual and unable to be integrated into a broader ecosystem-based strategic policy context, it also undermines the assessment process itself as there is a lack of understanding of what the assessment is actually supposed to achieve" (EDO 2009: 10).

NRETAS argued for greater accountability noting it would increase focus on practical, outcomes oriented recommendations and encourage industry to better use EA for identifying risks and improving project design. NRETAS also argued that the need for greater accountability on how outcomes of an environmental assessment have been addressed in decision-making was critical to maintaining the integrity of the EA process (NRETAS 2009).

The NLC also argued for accountability and enforcement of commitments made by the proponent in the EA process:

"One particular aspect that needs to be enforced is completion of the commitments that are used by the proponent to secure its social license to operate. Many EIS/PERs contain commitments that have been made with respect to cultural, environmental and social outcomes and benefits but never appear to be followed through by the proponent" (NLC 2009: 9).

The Department of Resources raised concern, however, arguing that it should be a matter for the approving Minister to determine the extent to which they wish to account for information contained in an assessment report in the approval process…

"…bearing in mind that such approvals often involve broader government considerations and commercial-in-confidence information"

The discussion paper argued for public account on how the outcomes of an assessment have informed an approval. The EPA's argument is that if the approving Minister has exercised discretion and not accounted for the findings of the assessment due to broader government considerations, this should be explained to the public. The EPA is arguing for transparency in decision-making and approvals.

Another issue of concern with the current system is the assumption that an approving instrument has the jurisdiction (under the approving legislation) to take on and account for all the recommendations resulting from an environmental assessment – such as issues relating to social or health impacts. Approving instruments may not have legal responsibility to apply conditions relating to community welfare or health – this potentially leaves these issues unaccounted for when approval is given to a project.

There is also the issue of where a project requires multiple approvals (such as planning consent, licensing under the *Waste Management Pollution Control Act*, and a discharge licence under the *Water Act*). There is currently no coordinating framework in place to facilitate how the outcomes of an environmental impact assessment process are to translate and inform multiple approvals.

EPA Advice

If the objectives of the *Environmental Assessment Act* are amended to uphold genuine public participation and to allow for facts and values to be contested so as to genuinely inform decision-making, the Act must be supported by approving legislation which provides public account on how the findings of the assessment process have been addressed by the approval (or not).

Since the release of the EPA's discussion paper Government introduced an amendment Bill providing additional functions to the EPA. It states:

… the Authority is to:

(a) review and assess:

i. the extent to which, and how, a recommendation made under the Administrative Procedures for a particular proposed action has been given effect; and

ii. the effectiveness of the environmental conditions of an environmental authority for the proposed action;

Noting that an "environmental authority" is defined in the amendment Bill as:

environmental authority, for a proposed action, means a licence, permit or other authority made, granted or issued under an Act for the action.

From the EPA's perspective, the introduction of this additional power indicates that government recognises the issue being raised by the EPA. It is addressing this issue

via the EPA's powers, i.e. placing responsibility on the EPA to call agencies/approving Ministers into account.

The EPA views this as an immediate solution to the situation but argues that systemic reform is ultimately required to bring about the governance required to support good decision-making in the Territory. As change is introduced, the EPA's role can be less of a stop gap measure (ensuring environmental assessment is accounted for) and have more of a focus of examining the quality of the decision-making.

Systemic change can be achieved in a number of ways, namely:

1) through the introduction of an environmental approval (as contained in the *Environment Protection and Biodiversity Conservation Act*)
2) by providing power to the Minister to deem a proposal as unacceptable on environmental grounds
3) by introducing a provision that the responsible Minister for an activity/project is to publish information about the decision for an activity/project, accounting for the outcomes of the environmental assessment
4) The introduction of a single, integrated approving instrument.

The EPA's discussion paper referred to models used in other jurisdictions that incorporate an "approval" into the EA system and cited NSW where the EA process sits within an integrated planning and approvals process. The Australian process also incorporates an "environmental approval" which provides approval in respect to matters of national significance in addition to other approvals required for the project (usually at state or territory level - although it should be noted that the Australian Government is seeking to develop bilateral approvals).

As previously discussed, the environmental assessment process now incorporates information beyond the biophysical environment and can examine and assess cultural and health impacts, social benefit and impact and economic implications for a proposal. These additional elements not only allow the decision-maker to understand the broad implication of a proposal for a locality, a region, the Territory or at the national level. They also provide a form of benchmark on which the Minister for Natural Resources, Environment and Heritage can determine acceptability of impact (acceptability being determined by understanding the full implication of a proposal including its benefits).

The introduction of an approval into the Territory's EA process needs consideration. Firstly, it places the Minister for Natural Resources, Environment and Heritage in a role where he/she is giving approval on matters that do not necessarily fall within his/her portfolio (such as an issue relating to regional economic development). To resolve this, the approval could be limited to just matters of the biophysical environment – with the Minister issuing an environmental approval with conditions that his/her departments then have responsibility for regulating. This is an acceptable option, but it would result in multiple approvals for a project and issues relating to health or social impacts are left potentially unaccounted and unchecked through any approval instrument. However, it provides for those (few) projects that do not require a statutory approval.

An alternative option (proposed in the EPA's discussion paper) is to introduce into the process a final step requiring responsible Ministers to issue a public account of how the outcomes (comments, suggestions or recommendations) from an environmental assessment process have informed the decision to approve (or not) a proposal, providing account for the issues raised (biophysical, social, health, cultural

etc). This approach necessitates the responsible Minister to consult with cabinet colleagues (as appropriate) on those matters beyond the scope of the approving legislation in order to publicly advise on the consideration/management of those matters. This process would need to be facilitated where there is more than one responsible Minister.

This option is also suitable, but it does not provide for the possibility that a proposed action could be unacceptable on the basis of environmental grounds alone. In order for the ESD principle "conservation of biological diversity and ecological integrity" to be met, there will be times where a proposal should not proceed on environmental grounds and the ability for the Minister for Natural Resources, Environment and Heritage to say "no" to a proposed action should be incorporated into the *Environmental Assessment Act*. Specifically, the Minister should have this ability either at the receipt of a referral or at the conclusion of an environmental assessment. The circumstances in which the Minister would need to exercise this function would diminish considerably when the EA process is supported by (and integrated into) an overarching policy and planning framework (where acceptability is already determined and communicated).

Finally, the Territory could consider an integrated environmental assessment model where, for projects of a particular size or complexity, an independent review panel coordinates a whole-of-government assessment and synthesises the advice. This would provide an overarching framework on which to issue subsequent approvals for the project. This provides account to those (few) projects that do not require a statutory approval.

Provisions should be included in the EA Act to ensure that the outcomes of an environmental assessment process directly inform decision-making in regard to approvals and conditions for a proposed action.

Options for achieving this include:

- introducing an environmental approval
- introducing mandatory requirements that the responsible Minister under the approving legislation for an activity or project is to publish information about the decisions on approvals for proposal, accounting for the outcomes of the environmental assessment
- introducing a single, integrated approving framework under which subsequent approvals for a project are issued.

Recommendations

25. Provisions should be included in the *Environmental Assessment Act* to ensure that the outcomes of an environmental assessment process directly inform decision-making in regard to approvals and conditions for a proposed action.

26. At the minimum, the decision-making framework for approvals should reflect the recommended levels of transparency and accountability for the environmental assessment process under the *Environmental Assessment Act*. Decision-makers on approvals for a proposed action should be required to issue a public statement of reasons for decisions made in relation to approvals and conditions for a proposed action, with reference to the principles of ESD as defined under the *Environmental Assessment Act*, and full account in relation to the findings of the environmental assessment process.

27. At the minimum, the *Environmental Assessment Act* should be amended to empower the Minister for Natural Resources, Environment and Heritage to deem that a proposed action has unacceptable environmental impact and cannot proceed. Where the Minister determines that a proposal will have an unacceptable environmental impact, approval should not be granted by a responsible Minister.

7.2 Achieving enforcement and compliance

The provisions describing the process of environmental assessment are based predominantly on the Administrative Procedures. Without a supporting Regulation that empowers the Administrative Procedures through the introduction of offence provisions the requirements under these procedures are not legally enforceable. This greatly reduces the accountability in the environmental assessment process.

The process for environmental assessment either needs to be placed in subordinate regulation or as a part of the *Environmental Assessment Act* itself. Either of these avenues would allow for the greater enforcement of environmental assessment provisions.

This provides opportunity for introducing compliance and appeal provisions into the Act. The introduction of offence provisions means that government is able to take action where a project is not referred for environmental assessment (if the recommendation in this paper is followed and responsibility of a referral is placed with a proponent) and appeal provisions allow members of the public or a proponent to appeal where due process has not been followed in the assessment of a project (upholding the principle of accountability and transparency).

This was a view supported by submissions received by various stakeholders (see NLC comments in Section 4.1)

Recommendations

28. Offence and appeal provisions should be incorporated into the *Environmental Assessment Act* to support enforcement of the environmental assessment provisions and to ensure that due process is followed when undertaking environmental assessment.

Submissions to the EPA's discussion paper also suggested that compliance provisions needed to extend beyond the environmental assessment process itself and provide for the monitoring and enforcement of requirements post approval. The Indigenous engagement process, for example, identified a need for the EA process to have formal requirements for environmental monitoring post approval and that sanctions are included and enforced when these conditions had not been met.

The Administrative Procedures currently provides for the Minister for Natural Resources, Environment and Heritage to review of a proposed action while it is being executed. That is, the Administrative Procedures allows a proposed action to be examined after it has been assessed to determine the effectiveness of the safeguards or adopted standards for environment protection (either adopted by the proponent or prescribed in an approving instrument) as well as the accuracy of the

forecast of the environmental effects contained in the environmental assessment document prepared by the proponent.

This section of the Administrative Procedures recognises the need for follow up and compliance action to be a part of the EA process. Currently, if this provision is exercised the Minister can provide advice and recommendations concerning the safeguards or standards for the protection of the environment, and in relation to the proposed action as well as future similar proposed actions. The intent of the provision is good – to provide follow up and to apply any "lessons learnt" to other projects (more logically, the information gathered could've been used to develop appropriate guidelines or standards). However, the provision lacks strength and transparency – providing the ability to provide advice only with a reliance on the responsible minister to respond to the advice and with no built in provisions for public involvement or consultation.

Recently, the *Environment Protection Authority Act* was amended to identify more specific functions of the EPA. These include:

(a) reviewing and assessment

(i) the extent to which, and how, a recommendation under the Administrative Procedures for a particular proposed action has been given effect

(ii) the effectiveness of the environmental conditions of an environmental authority for the proposed action

(b) reviewing and assessing the effectiveness of agency responses in dealing with environmental incidents and the coordination of the responses

(c) monitoring and assessing the cumulative impacts of development in the Territory

(d) publicly releasing reports on environmental quality.

The EPA is yet to determine the policy or methodology to be exercised when undertaking the above functions, but this will need to be done in light of the existing provision within the Administrative Procedures and any similarly worded provision resulting from the reform to the *Environmental Assessment Act.*

The fact that these functions have been given to the EPA demonstrates that there is concern about follow up and ongoing understanding of the operations and potential impacts of development within the Northern Territory. The sense of undertaking these functions separately and potentially independently of the *Environmental Assessment Act* has not been tested, but it should not come at the exclusion of monitoring and compliance provisions being included in the Act. How this can be exercised in the absence of a legislated approval under the Act would need to be examined, however, while the environment protection regime remains decentralised across various areas of government, it would require a facilitated and whole-of-government approach. This perhaps adds strength to the placement of these functions with the EPA.

Recommendations

29. The issues of ongoing monitoring, compliance and enforcement relating to environmental assessments and approvals should be examined and addressed in revision of the *Environmental Assessment Act*.

8. Consider any other matters relevant and necessary to complete this review.

8.1 Supporting EA with resources and expertise

A critical issue identified by the EPA's discussion paper was the importance of supporting the environmental assessment process with resources and expertise.

Adequate resources are vitally important to ensure the effectiveness of outcomes and the efficient operation of the environmental assessment process under the *Environmental Assessment Act.*

As identified in the EPA's discussion paper, relative to other jurisdictions, the environmental assessments unit of NRETAS has a small organisational structure, in terms of staff numbers, with a limited technical capacity.

The challenges of providing adequate levels of resources and expertise to support the environmental assessment process are recognised by government.

Concerns about resources available for completing environmental assessments were raised in a number of submissions to the discussion paper, identifying that appropriate resourcing should be considered as part of achieving best outcomes, and that accordingly additional resources are required.

Submissions argued that sufficient resources and expertise is critical for ensuring timely and effective environmental assessment process. Environmental NGOs argued that adequate resourcing is required so agencies can respond comprehensively and adequately to complex proposals.

Respondents highlighted that engagement of external expertise should be available to the assessing agency. However, concerns were raised that outsourcing could create conflict of interest and decrease consistency in decision-making.

EPA Advice

One option is to institute fees and cost recovery under the *Environmental Assessment Act* that allows government to fund the resource required to support the administration of environmental assessment.

Cost recovery actions are imposed to recover part or all of the total costs of a particular activity. The underlying principle is that entities should set charges to recover all the costs of providing a good or service. Cost recovery actions may be applied as a fee-for-service or, where efficient, as a levy. Fees imposed by legislation or regulations are a distinct form of cost recovery in that they are not required to be calculated by having reference to the total costs incurred in administering the activity. Rather, they can be imposed on the basis that the Parliament has decided, and at a level the Parliament believes appropriate.

This approach has been taken for resourcing elements of the environmental assessment process in other Australian jurisdictions, notably Queensland and New South Wales. Fees and cost recovery are presently also applied to a number of activities under the *Environment Protection and Biodiversity Conservation Act*.

Under the *Environment Protection and Biodiversity Conservation Act*, partial cost recovery mechanisms are currently in place for environmental impact assessments undertaken by the Great Barrier Reef Marine Park Authority. These help finance the administration of assessments and therefore can result in improved environmental outcomes.

The potential for expanded cost recovery was examined in detail by the Hawke Review. As identified by the review, evaluation of the potential for the introduction of fees and cost recovery to apply to the environmental assessment process requires the consideration of a number of critical issues, not least of which is the substantial cost already met by proponents in the preparation of environmental documentation. Another is the risk of perverse outcomes arising from application of cost recovery in circumstances where proponents could avoid the cost by active non-compliance.

In consideration of this issue, the following information is provided.

Costs of project level EA
The costs of project level EA are usually calculated at between 0.5% - 1% of the overall capital cost of a project. The European Commission found that when costs exceeded 1% these related to projects where good EA practice had not been followed and/or they related to projects that were controversial and in sensitive environments. Between 60 – 90% of the cost of project based EA is from undertaking environmental studies and producing an environmental impact statement, or other report which is a responsibility of the proponent (European Commission 1996).

Costs of strategic assessment
The main costs associated with undertaking a strategic assessment were described as arising from "use of internal staff time, payments for expert advice and consultancy time, and publicity and publications". Staff and consultancy costs are usually about 90% of these costs. There have been limited studies done on costs of staff time etc, however when they were recorded the evidence has suggested that costs may increase by about 5%-10% when strategic assessment was introduced to local and regional land use planning. If, however, staff are already required to work in relation to sustainable development outcomes then most of these officers would already be contributing to strategic assessment as part of normal duties.

"Overall costs are strongly influenced by:

- The extent to which the policy, plan or programme is itself pursuing sustainable environmental goals
- The existence of supporting research/baseline information, which can significantly reduce production costs" (European Commission 1996: 2-3).

In terms of the overall cost of undertaking an strategic assessment, the International Institute for Environment and Development states that "the cost of an SEA is difficult to estimate and will vary due to the length of the process and complexity of chosen design, from as little as $US20,000 to $US2 million. Comprehensive SEAs typically average around US$200,000-$300,000" (about $AUD220,000 - $AUD335,000) (IIED 2010).

8.2 Environmental offsets

'Environmental offsets' are broadly understood to mean actions taken by developers to compensate for the adverse impacts of their developments. The use of environmental offsets is an emerging issue in environmental assessment in Australia.

The Australian Government has initiated the development of a draft policy for the use of offsets in relation to the assessment and approval of proposed actions under the EPBC Act. A number of states have developed public policies on offsets (e.g. WA and Queensland) and others have begun to establish offset schemes in legislation (e.g. Victoria and NSW). It is understood that NRETAS has begun work on the development of an environmental offsets policy for the Northern Territory.

An environmental offset is an action taken to counterbalance unavoidable, negative environmental impacts that result from an activity or a development. An offset differs from mitigation, in that it addresses residual impacts, after the normal obligations to avoid, minimise and mitigate the impacts of a development have been met.

Environmental offsets may be applied to range of specific issue types including vegetation and biodiversity loss, the discharge of pollutants and greenhouse emissions. To date, the predominant applications of environmental offsets in environmental assessment have been in relation to vegetation, habitat and biodiversity loss.

The use of environmental offsets in environmental assessment presents a range of critical issues in relation to the goal of ESD. In policies developed at the national level, and other jurisdictions, these issues have been addressed though criteria and principles established for the application of environmental offsets.

An example is the draft policy for the use of environmental offsets under the *Environment Protection and Biodiversity Conservation Act* (DEWR 2007a). In accordance with this policy:

1. Environmental offsets should be targeted to the matter protected by the EPBC Act that is being impacted;
2. A flexible approach should be taken to the design and use of environmental offsets to achieve long-term and certain conservation outcomes which are cost effective for proponents;
3. Environmental offsets should deliver a real conservation outcome.
4. Environmental offsets should be developed as a package of actions - which may include both direct and indirect offsets;
5. Environmental offsets should, as a minimum, be commensurate with the magnitude of the impacts of the development and ideally deliver outcomes that are 'like for like';
6. Environmental offsets should be located within the same general area as the development activity;
7. Environmental offsets should be delivered in a timely manner and be long lasting; and
8. Environmental offsets should be enforceable, monitored and audited.

A further critical issue for the application of environmental offsets relates to the decision-making framework for environmental assessment and approval. The likely model for the application of environmental offsets under the environmental

assessment process would see environmental offsets applied as a condition for a proposal after it had undergone assessment.

The significant nature of the issues involved in decision-making on whether and how environmental offsets may be applied, in relation to a proposed development or activity, necessitates a decision-making framework for environmental assessment and approval that ensures transparency, public accountability and consistency with the principles of ESD.

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ATTACHMENT A:

EIA REVIEW TERMS OF REFERENCE

Environment Protection Authority

Review of the Northern Territory environmental impact assessment procedures

Terms of Reference

In accordance with Section 5(1)(a) of the *Environment Protection Authority Act 2007*, the Minister for Natural Resources, Environment and Heritage referred the following task to the Environment Protection Authority (EPA):

"to investigate the environmental assessment and approval processes outlined in the *Environmental Assessment Act* for major development proposals and recommend improvements for Government's consideration."

In responding to the Minister's Reference, the EPA has, in accordance with its powers under Section 5(1)(c) and Section 6 of the *Environment Protection Authority Act*, extended the terms of reference for its review to:

1) Evaluate the object of the *Environmental Assessment Act* with regard to the principles and objectives of ecologically sustainable development;
2) Examine and review what constitutes a 'proposed action' under the *Environmental Assessment Act*;
3) Determine how the assessment process established by the *Environmental Assessment Act* and Environmental Assessment Administrative Procedures can be improved to better meet the proposed objectives of the *Environmental Assessment Act* as identified in this Review;
4) Examine current processes and frameworks for approval of 'proposed actions' following the assessment processes; and
5) Consider any other matters relevant and necessary to comple this review.

The EPA will ensure consideration is given to the role of the *Environment Protection and Biodiversity Conservation Act 1999* within the Northern Territory and its interaction (through the Bilateral Agreement) with the *Environmental Assessment Act.*

The EPA will also consider the findings and information coming out of the reviews being undertaken in Western Australia and by the Australia Government.

Case studies from the Northern Territory will be used to examine the existing processes, and a comparative analysis will identify best practice in other countries and juristictions.

In undertaking this work the EPA will act in accordance with Section 7 of the *Environment Protection Authority Act.*

epa northern territory

Considerations

- What do businesses and community members expect the Northern Territory environmental impact assessment process to deliver?
- Do Northern Territory policy and legislative frameworks support effective and comprehensive environmental impact assessment of 'proposed actions'?
- What arrangements are in place to oversee the effective administration of the environmental impact assessment process within the Northern Territory, and what initiatives could be pursued to improve Government administration of the process?
- Do the Environmental Assessment Administrative Procedures ensure effective and comprehensive environmental impact assessment of proposed actions?
- What criteria are necessary to determine the decision making processes for a 'proposed action'?
- How effectively does the environmental impact assessment process integrate with approval processes described by other pieces of legislation for 'proposed actions'?
- What appeal mechanisms are appropriate to support open and transparent decision making processes?
- How might business and public involvement inform approval and decision making?
- What level of public participation in environmental impact assessment is considered appropriate for the community, business and the Territory Government?
- What consultation processes are needed to facilitate public participation with different stakeholder groups?
- How can the adequacy and quality of environmental assessment be ensured (e.g. by peer review, assessment panel, or the certification of practitioners)?
- Should the environmental impact assessment process consider the cumulative effects of development within the Northern Territory (including the receiving biophysical environment; human health; the economic development of a locality, region or the Northern Territory as a whole; the provision of social services; and supporting infrastructure)?

ATTACHMENT B:

EPA EIA DISCUSSION PAPER

Environment Protection Authority

Review of the environmental impact assessment procedures of the Northern Territory

Discussion Paper

May 2009

Table of Contents

Background

In March 2008 the Minister for Natural Resources, Environment and Heritage requested that the Environment Protection Authority (EPA):

> *investigate the environmental assessment and approval processes outlined in the* Environmental Assessment Act *for major development proposals and recommend improvements for government's consideration.*

The EPA extended the terms of reference to also provide information on:

- the NT *Environmental Assessment Act 1982;*
- principles, objectives and procedures of environmental assessment;
- best practice environmental assessment examples from other jurisdictions; and
- possibilities for a future NT environmental assessment model.

Purpose of this discussion paper

This paper details the current legislation and administration of the environmental impact assessment procedures in the Northern Territory. It also highlights key issues and poses questions about how environmental impact assessment could be more efficient, transparent and accountable.

In particular, the EPA acknowledges that principles of ecologically sustainable development are paramount in any discussion regarding a review of environmental impact assessment.

The paper has been prepared by the Environment Protection Authority with the aim of encouraging genuine debate with the public, business and peak environment groups on the issues raised.

In order to encourage active community participation in this review, EPA Board Members and staff will conduct consultation sessions over the next three months. Dates and venues of public sessions will be advertised through media outlets and posted on the EPA website. Interested parties are also encouraged to add their name to the mailing list on the EPA website to receive information directly.

The paper is available electronically at www.epa.nt.gov.au or by request to: epa@nt.gov.au.

Comments are invited on any of the issues raised in the paper. Submit comments before close of business Friday 21 August 2009 to:

Post
EIA Review Consultation
Environment Protection Authority
PO Box 496
Palmerston NT 0831

Email
epa@nt.gov.au

Online
www.epa.nt.gov.au

For more information contact Roger Bluett, Senior Policy Officer, on 08 8999 3702 or roger.bluett@nt.gov.au.

The Language of EIA

Environment		"environment" means all aspects of the surroundings of man including the physical, biological, economic, cultural and social aspects (section 3 of the Environmental Assessment Act)
EIA	Environmental Impact Assessment	Environmental Impact Assessment means an orderly and systematic process for evaluating a proposal including its alternatives and objectives and its effect on the environment including the mitigation and management of those effects. The process extends from the initial concept of the proposal through implementation to commissioning and operation and where appropriate decommissioning. (Western Australia Administrative Procedures (Environment Protection Act)
EIS	Environmental Impact Statement	Document prepared by the person responsible for the development (the proponent) to assess the potential impact on the environment, and to describe the proposed management measures and safeguards.
PER	Public Environment Report	
ESD	Ecologically Sustainable Development	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
	Precautionary Principle	Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
Guidelines		Guidelines prepared by the Government (issues by the Minister) that outline the information that either and EIS or a PER is to provide to allow the project to be assessed.
Assessment Report		Final document issued by the Minister reporting the findings of the assessment – usually contains a judgement of the environmental acceptability of a project and outlines recommendations for the approval body.
Supplement		After an EIS has been placed on public

		exhibition, the proponent is required to prepare a Supplement to the EIS to address the issues and concerns raised during the public review period.
Proponent		The person (company) responsible for the development
Proposed Action		a) the formulation of proposals; b) the carrying out of works and other projects; c) the negotiation, operation and enforcement of agreements and arrangements; d) the making of, or the participation in the making of, decision and recommendations; and e) the incurring of expenditure.
SEA	Strategic Environmental Assessment	Strategic environmental assessment is a systematic process for evaluating the environmental consequences of proposed policy, plan and program initiatives in order to ensure environmental factors are fully included and appropriately addressed at the earliest appropriate stage of decision-making on a par with economic and social considerations (Thomas and Elliot, 2005)
SIA	Social Impact Assessment	"Social Impact Assessment includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions, its primary purpose is to bring about a more sustainable and equitable biophysical and human environment." (International Principles of SIA – IAIA)
Sustainability assessment		Sustainability Assessment has the purpose of directing planning and decision-making towards achieving sustainability. Its foundations lie in environmental impact assessment.
HIA	Health Impact Assessment	Health Impact Assessment is a combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential

		effects on the health of a population, and the distribution of those effects within the population (European Centre for Health Policy, 1999)
SEIA	Socio-economic Impact Assessment	Socio-economic Impact Assessment is an integrated approach that can provide information on potential economic impacts as well as important social values attached to the activity which inform likely attitudes and responses to the proposed activity. A wide range of methods is used in SEIA, with their selection and application typically tailored to meet particular requirements (Department of the Environment and Heritage).
Approval Body		Agency or Minister with responsibility for authorising the proposed action.
Approving Minister		Minister with responsibility for authorising the proposed action (referred to as the 'responsible Minister' in the Act)

Executive Summary

The Northern Territory has a largely intact natural landscape that has significant social, cultural and economic value to our industries and our communities. We have a growing and developing economy, but are yet to experience the degree of cumulative environmental impacts found in other parts of Australia.

Large development projects can bring substantial economic opportunities for the Territory; however, they may also contribute to undesirable social, cultural and biophysical impacts if not managed appropriately.

Processes such as environmental impact assessment (EIA), which examines whether a proposal will be undertaken in an acceptable way that minimises risks to the environment, are essential for the sustainable development of the Northern Territory.

This review provides an important opportunity for all Territorians to reflect on the experiences of the past 26 years since the *Environmental Assessment Act* was introduced and to consider how we would like to manage environmental impact assessment in the future.

The aim of the review is to highlight specific areas of EIA that require further thinking, discussion and debate among all who have an interest in maintaining a healthy environment, society and economy.

For industry EIA is an important step in the early stages of a development. It can be a planning tool to improve a project's design and the future environmental management of a proposal. The EIA process can also be an important way for industry to consult with the community about environmental and social impacts.

From a government perspective EIA is used to better inform the decision-making processes about the desirability of a proposal and, if approved, what conditions are needed to protect the environment. It also allows government to hear the voice of the community and key stakeholders to inform its decision about a proposal.

For the public EIA can be an important process for learning about the potential impacts and benefits of proposals; interacting with a proponent to assist in the design and planning of a development; and ensuring that concerns are incorporated into government decision-making.

The discussion paper provides a detailed investigation into this multifaceted and often misunderstood practice and argues for an improved EIA model on a par with the stronger processes found in other jurisdictions.

Good EIA processes result in publicly accountable decisions about proposed actions which are based on a solid understanding of the benefits and likely impacts of a proposal with regard to social, economic and environmental outcomes.

They result in development decisions that are made in full public view, based on agreed consistent assessment criteria and on the best available information.

Contemporary EIA articulates that environmental protection is primarily the responsibility of the proponent. It also legitimises a role for the public in the decision-making process through meaningful, active public participation.

Transparent and accountable EIA supported by clear criteria for decision making can increase public confidence in the processes and provide the clarity and certainty desired by business and industry.

In undertaking this review, the EPA was guided by internationally recognised and agreed principles. These principles provided a point of reference to compare the Northern Territories environmental impact assessment process with similar systems in other countries and jurisdictions.

Introduction

In undertaking a review of the Northern Territory environmental impact assessment (EIA) procedures, it is important to understand the current process and its underlying policy intent. This includes an understanding of the Territory's present development context and administrative circumstances. This analysis will provide guidance on where processes might be strengthened so the Northern Territory can meet its current and future needs in relation to this key element of environmental regulation.

The Northern Territory context

The Northern Territory has a rich and diverse cultural heritage. The beauty of its unique and unspoilt landscapes attracts many visitors and has considerable direct social, cultural and economic value. The Territory has a growing and developing economy, with much of its industry dependent on the extraction and processing of natural resources. It is yet to experience the project based and cumulative environmental impacts experienced in other parts of Australia.

Large development projects bring substantial economic and development opportunities for the Territory and local communities. They also have potential for significant social, cultural and biophysical impacts.

The Territory faces considerable challenges in managing community and industry expectations of EIA that involve some of the largest natural resource project proposals in the world, operating in complex social and cultural settings and structurally intact landscapes. The Territory's most valuable industries benefit from the maintenance of unmodified landscapes (tourism) or require the alteration of large areas of land (beef) or the intensive modification of relatively small areas (mining).

Even though most Territory landscapes are structurally intact, there are clear signs of ecological degradation. For instance grassland birds are in decline over large areas and small mammals are less abundant, even in national parks.

While most aquatic systems are healthy, many are at risk from invasive plants and animals that can greatly change their character. Others are damaged by old mines that continue to produce acid waters, ultimately leading to release of heavy metals into the waters draining from disturbed areas.

Urban areas are growing rapidly along with demand for social infrastructure. Darwin Harbour is experiencing a change in character and is under development pressure from recreational, industrial and residential interests. There are competing values and visions about how to accommodate and manage the growth of Darwin.

The Northern Territory population is small and widely dispersed. Almost 30% of the Territory population is Indigenous. Outside the major centres of Darwin and Alice Springs, the population is mostly Indigenous with around 70% of the population living on lands held under Aboriginal communal title.

Rates of disadvantage, including morbidity and mortality, are unacceptably high among the Indigenous population. Many Indigenous people suffer from poor literacy and numeracy and experience difficulty in taking advantage of mainstream employment opportunities that may become available in the regions.

The formal scientific understanding of Northern Territory environments and natural resources is weaker than in many other jurisdictions. In contrast, some Indigenous people have very detailed knowledge of the landscapes and resources for which they

are responsible, but mechanisms for applying this and other local knowledge are poorly developed.

In the Northern Territory, livelihoods and lifestyles are more often and more directly connected to the health of environments and abundance of natural resources than is the case in many other more settled parts of Australia. The linking of livelihoods and lifestyle to abundant, accessible and healthy natural systems and their products means that circumstances that constrain access to these benefits, whether development related or not, can provoke strong local reactions.

The Territory's limited technical capabilities are called upon to deal with all the issues faced by more populous States, but in an arguably more complex biophysical and social context. If the Northern Territory is to overcome the constraints of small size and limited resources, it must build strong systems for pre-decision analysis and prediction. It must also develop capacity to detect and acknowledge problems and respond to them promptly and effectively in ways that are considered appropriate by a well-informed and involved public.

The Northern Territory EIA process

The *Environmental Assessment Act 1982* and Environmental Assessment Administrative Procedures prescribe the application of EIA in the Territory. The Territory's *Environmental Assessment Act 1982* is based on the Commonwealth Government's former *Environment Protection (Impacts of Proposals) Act 1982*.

The Minister for Natural Resources, Environment and Heritage and the Department of Natural Resources, Environment, the Arts and Sport (NRETAS) administer the Act and procedures.

The Act's sole object is 'to ensure, to the greatest extent practicable, that each matter affecting the environment which is, in the opinion of the Minister, a matter which could reasonably be considered to be capable of having a significant effect on the environment, is fully examined and taken into account.'

The Act sets out the types of activities and decision-making that can be considered to determine the potential for a 'proposed action' to significantly affect the environment. These activities are broad and go beyond just assessing specific developments or projects.

There is potential for the Act to be applied to a large component of government business (including decision-making, agreements and expenditure). However, the Environmental Assessment Administrative Procedures do not provide a supportive assessment process for all 'proposed actions' defined in the Act.

Environmental assessment processes only commence for projects, proposals or actions where there is a 'responsible Minister', which means the Minister primarily responsible for authorising the proposed action. If there is no Minister responsible, there is the risk that a project with the potential for significant effect on the environment will not be considered under the *Environmental Assessment Act*. However, the Environment Minister is empowered to 'call-in' a project for assessment where there is no 'responsible Minister'.

While the Act does have provision to undertake an inquiry under the *Inquiries Act*, this has never been used and there is no guidance on how or when this provision would be triggered.

Under the Environmental Assessment Administrative Procedures, the application of formal assessment is essentially discretionary rather than mandatory. Its functioning

is supported by departmental initiated processes that reduce the uncertainty inherent in this high level of discretion.

There is no approval process under the legislation. Assessment recommendations are forwarded to the 'responsible Minister' for their consideration. There is no accounting mechanism to demonstrate how recommendations have been used to form part of the approval instrument, e.g. development approval, licence etc. In this sense, the Environmental Assessment Administrative Procedures do not support the Object of the Act, that is, 'to ensure … a matter which could reasonably be considered to be capable of having a significant effect on the environment, is fully examined **and** taken into account.'

There is also no enforcement function within the legislation. Enforcement is undertaken by the agency with legislative responsibility for a particular area or activity.

The Minister has the ability to influence government decision-making on whether or not a proposal should be approved based on the strength of her advice to the approving Minister. The Minister's advice will, in turn, rely on the quality of the assessment process itself, including the extent to which the process is based on transparent and principled decision-making criteria.

The Act does provide some transparency of decision making, public accountability and public participation. However, problems arise where a different level of public scrutiny is offered by the actual approval procedures. The administrative procedures do not provide appeal rights.

In summary, EIA in the Northern Territory is a process for project-based environmental assessment and can be used to incorporate up-front environmental considerations into project objectives and design as well as inform decision making.

Notwithstanding, the Act is usefully viewed as a product of its time especially in relation to the capabilities of the Territory's administrative structures.

In 1982, Chief Minister Everingham, in recommending the Act to the Legislative Assembly, noted:

> *The Bill represents a distillation of effective processes specifically tailored to the Territory situation and seeks to use the existing technical and professional resources of departments rather than create separate and costly resources. It seeks to progress through an arrangement of consultation and agreement between those responsible for promoting developments and those responsible for guiding the assessment process.*
>
> *The Bill is not intended to impose unrealistic and unnecessary constraints on development nor is it intended to demand that environmental factors should transcend all the other factors determining the acceptability of projects.*
>
> *The requirement [for EIS] will apply to public works and private developments. It will only be sought for those proposals where the effect is likely to be significant. In other words the requirement will be discretionary rather than mandatory.*

While the *Environmental Assessment Act* and the Environmental Assessment Administrative Procedures were considered appropriate and adequate at the time, over 25 years has passed since their introduction. In this time the concept and application of environmental impact assessment has evolved, expectations of the community for increased protection of the environment have grown, the Northern Territory has become a signatory to the Inter-Government Agreement on the

Environment, and the scale and complexity of the development in the Northern Territory have increased.

It is time for the Northern Territory environmental assessment process to be re-shaped to reflect our current and future needs.

1 The practice of environmental impact assessment

History of EIA

The formal process of environmental impact assessment (EIA) was developed in the late 1960s and early 1970s. The primary aim is to incorporate environmental considerations into decision making alongside other advantages and disadvantages of a proposal. This information is used to decide whether to proceed and on what conditions.

In 1969 the United States passed the US *National Environmental Policy Act* (NEPA), which required that all agencies of the Federal Government:

> *Include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on -*
>
> *(i) The environmental impact of the proposed action;*
>
> *(ii) Any adverse environmental effects which cannot be avoided should the proposal be implemented;*
>
> *(iii) Alternatives to the proposed action;*
>
> *(iv) The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and*
>
> *(v) Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.*

During the 1970s many industrial and developing countries, including France (1976), the Philippines (1977) and the Netherlands (1978), followed the US NEPA example by introducing and legislating formal EIA requirements.

The influential European Union Directive on EIA came into force in 1988, and in 1989 EIA became a standard requirement for all World Bank financed investment projects.

The Rio Earth Summit in 1992 reinforced the importance of EIA in Principle 17:

> *EIA, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority*.

In Australia EIA was adopted nationally in 1974 within the Commonwealth Government's *Environment Protection (Impact of Proposals) Act.* Several states had already established a formal EIA process: Western Australia passed its *Environmental Protection Act* in 1971, Queensland established an Environmental Control Council and South Australia passed legislation in 1973. EIA legislation extended to NSW in 1979 and the ACT in 1991. The Northern Territory *Environmental Assessment Act* came into effect in 1982.

What is EIA?

At its best, EIA is an administrative process that aims to integrate social and economic outcomes, scientific facts, societal values and ecosystem considerations to provide a balanced analysis of the effects of a range of development or policy alternatives. This information is used to determine:

- the preferred development or policy option

- how a development can be designed, undertaken and managed to minimise impact (and maximise benefits)
- whether to proceed with the development, activity or policy.

A timely, efficient and robust environmental impact assessment process will therefore result in more informed decision-making that supports sustainable development outcomes.

Meaningful, active public participation is integral to a robust EIA process. It assists with identifying and evaluating potential impacts and consequences of a development or activity, and legitimises a role for the public in decision-making.

This discussion identifies EIA as a tool that is capable of performing a variety of functions and contributing to sustainable development. However, depending on administrative arrangements and how well EIA is integrated with other policy and legislation, the application and scale of effectiveness of EIA can be typified as to whether EIA is formally used:

- to inform development decisions 'in-principle';
- to inform government decision-making processes, that also involve discretionary and political considerations, about the desirability of a proposal;
- as a pre-decision planning tool to improve project design and future environmental mitigation and management actions of a proposal.

Northern Territory legislation conceives the purpose of EIA to be to inform a highly discretionary decision-making process – issues arising from the Northern Territory model will be further discussed in more detail in chapter 4.

In circumstances where proponents are aware of the benefits of EIA as an iterative pre-decision planning tool, EIA is used in the Northern Territory to improve project design, evaluate environmental mitigation strategies and foster public engagement prior to the formal government decision-making process. Nevertheless, such a proactive application of EIA is unusual in the Northern Territory, as it is neither envisaged or required by legislation.

How is EIA perceived?

There are diverse and often conflicting perceptions and expectations of the EIA process. The Canadian EPA has noted some conflicting expectations of EIA:

- Decision makers see a process that sometimes takes too long, costs too much, appears unnecessarily complicated and in the end does not always give them the kind of information they need to make sound decisions.
- Managers and practitioners see a process where the results of their work are not always taken into account in the final decisions and where they do not always have the time and resources to do an adequate job.
- Members of the public see a process that may exclude them from participating in decisions that affect their lives and communities or that may provide massive volumes of complex scientific data but few straightforward explanations or answers. Members of the public may also look to EIA as one of the few processes available to stop proposals that are considered to be damaging.

These expectations are reflected in the Northern Territory. There is often an unmet expectation by industry that there will be consistency and certainty and that the process will 'add value' to their proposal, be well-articulated and easily understood.

A wide range of stakeholders view the EIA process in the Northern Territory more cynically, seeing it as having little consequence for a proposal, and being merely an administrative requirement to be undertaken in order to attain an approval.

Components of the contemporary EIA process

Since the early 1970s, EIA has existed as a process for undertaking project-by-project and site-by-site assessments. The strength of EIA has been its focus on site-bound biophysical environmental impacts of a proposal, such as those on fauna, flora, soil, air and water.

More recently there has been recognition of the need for additional assessment tools that can identify other significant impacts of a proposed action and provide information about what may be needed to reduce adverse impacts.

A range of additional methodologies has been developed in response to the inability of traditional EIA practices to adequately consider significant impacts beyond the biophysical.

For instance, there has been increased use of strategic environmental assessment (SEA), in Australia and internationally. This takes the environment into account earlier in the strategic planning process, compared to the traditionally narrow application of EIA to project-level developments.

The European Union has taken this a step further by introducing sustainability impact assessments to evaluate the potential economic, social and environmental impact ('triple bottom line') of policies, plans and programs.

Another limitation of EIA as a stand-alone decision-making tool is its inability to consider cumulative environmental impacts of unrelated developments. In response, cumulative impact assessment has emerged. This recognises that, although individual actions may have an insignificant environmental effect by themselves, the aggregate may be significant and synergistic.

Other new approaches include social impact assessment (SIA), which identifies effects on social and public services and social infrastructure, and health impact assessment (HIA), which considers the direct effects of a proposal on human health such as increased sickness and death.

Ecologically sustainable development

In 1992 the National Strategy for Ecologically Sustainable Development sought to provide a definition of ecologically sustainable development (ESD) and provide for the integration of ESD principles into Australian policy and legislation.

The strategy defines ESD as:

> *using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased. Put more simply, ESD is development that aims to meet the needs of Australians today, while conserving our ecosystems to the benefit of future generations.*

In December 1992 the Northern Territory Government endorsed the national strategy and agreed, along with all other States and Territories, to the Intergovernmental Agreement on the Environment (IGAE). Schedule 3 of the IGAE agrees to impact assessment of environmental, cultural, economic, social and health factors and defines 12 principles on which Australian environmental impact assessment processes are to be based (see Chapter 3).

In February 2009 the EPA released a public document proposing key principles to underpin an approach to how the objectives of ecologically sustainable development could be achieved within the Northern Territory. This paper draws on the internationally recognised principles of ESD (namely, precautionary principle, polluter pays, inter- and intra-generational equity and the protection of biodiversity) and adds to them by proposing the following principles:

- ecologically sustainable development is necessary to support a strong, diversified and healthy Northern Territory society;
- the nature dependent Northern Territory identity is to be protected and promoted;
- equity and social cohesion are intrinsic to how the Northern Territory operates;
- the public sector must lead the advocacy and enactment of ecologically sustainable development in the Northern Territory;
- the Northern Territory community and business are key partners in ecologically sustainable development;
- acknowledging and addressing regional circumstances is required to achieve ecologically sustainable development in the Northern Territory.

Environmental impact assessment is recognised as a key tool for achieving objectives of ecologically sustainable development.

All Australian jurisdictions, except the Northern Territory, reference ESD principles in their EIA processes. The Commonwealth Government and Western Australia require ESD principles be taken into account when decisions are made.

Other jurisdictions are less stringent and require the formulation of environmental impact statements, planning objectives or principles of the EIA process to consider principles of ESD. In the ACT an EIA must specifically address the proposal's compatibility against each principle for environmental sustainability.

However, EIA will be most effective in driving sustainability outcomes where environmental values and sustainability principles are integrated into culture, law and policy – that is within an integrated environmental framework. Of particular importance to the Territory is the fundamental acknowledgement that Indigenous people and their land, knowledge and aspirations for the future are central to sustainable development.

An all-encompassing environmental assessment framework should provide a systematic approach for identifying, predicting and evaluating the potential environmental, social and economic impacts of proposed policies, programs, plans and projects before decisions are made. A framework that contains planning and decision-aiding tools at the strategic and project-based levels can inform integrated decision-making.

Strategic environmental assessment

EIA supports the analysis of measures to reduce or avoid negative environmental and associated socioeconomic impacts and it is considered a vital step in implementing sustainable development. However, there is growing recognition that assessing environmental implications of proposals requires consideration of aspects beyond the project level. This has seen the emergence of other tools such as strategic environmental assessment (SEA).

SEA is a systematic way to evaluate the environmental effects of proposed policies, plans or programs and alternatives. It is based on the recognition that strategic planning and policy decision-making should be shaped with environmental, economic and social considerations in mind.

SEA allows for:

- integrating criteria for ecologically sustainable development into decision-making;
- assessing broader scale environmental impacts;
- assessing cumulative impacts; and
- considering a range of potential alternatives.

Together, project-level EIA and SEA increase the likelihood that developments, policies, plans and programs will be sustainable.

SEA has been increasingly applied by Australian jurisdictions, notably Western Australia and the Commonwealth Government, and internationally, notably Canada and the European Union, to improve the efficiency and effectiveness of environmental assessment processes.

Public participation

Transparency of process and decision-making is crucial to EIA, as is the assurance that decision-makers are held accountable for the consequences of their decisions.

Effective public participation increases transparency and accountability, thereby safeguarding the adherence to due process. The role and importance of public participation in environmental decision making is emphasised in the UN Aarhus Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters, which reiterates the need to allow public participation to function perceptibly, freely and fully. Article 6, which covers public participation in decisions on activities with 'potential significant environmental effects' requires Parties to ensure public participation is early, effective, adequate and formal, and that it includes access to information, notification, dialogue, consideration and response.

The Convention stipulates that Parties must encourage proponents to identify the public concerned, enter into discussions and provide the objectives of their application before applying for a permit.

Public participation in EIA decision making increases public awareness of environmental issues, generates support for the decisions taken and mitigates the erosion of public trust. For truly effective public participation, communication must flow both ways between the proponent and affected parties.

In 1992 the Australian and New Zealand Environment and Conservation Council (ANZECC) agreed on principles for public participation in EIA. These principles define the necessary and legitimate role of the public to:

- participate in the evaluation of proposals through offering advice, expressing opinions, providing local knowledge, proposing alternatives and commenting on how a proposal might be changed to better protect the environment;
- become involved in the early stages of the process as that is the most effective and efficient time to raise concerns;
- participate in associated and earlier policy, planning and program activities as appropriate, since these influence the development and evaluation of proposals;

- become informed and involved in the administration and outcomes of the environmental impact assessment process, including:
    - assessment reports of the assessing authority;
    - policies determined, approvals given and conditions set;
    - monitoring and compliance audit activities; and
    - environmental advice and reasons for acceptance or rejection by decision-makers.
- take a responsible approach to opportunities for public participation in the EIA process, including seeking out objective information about issues of concern.

Indigenous people are frequently alienated by the processes employed in EIA and in conventional environmental regulation. In the Northern Territory major projects can affect several Indigenous communities, covering several different cultural groups and languages. Australia has recently formally supported the United Nations Declaration on the Rights of Indigenous Peoples, which espouses the principle of 'free, prior and informed consent'.

Social impact assessment

While public participation provides for public input during all planning phases, social impact assessment (SIA) provides qualitative and quantitative evidence of changes in the human community as the result of a proposed action. The former leads to effective public involvement and the other provides evidence as to how the proposed action will change the lives of individuals and the affected community. Conceptually, social impact assessment is often integrated with economic impact assessment (socio-economic impact assessment - SEIA). However, in practice, the two assessments are usually conducted separately.

The aim of SIA is to 'analyse, monitor and manage the social consequences of development'. The United States NEPA Guidelines and Principles for SIA describe it as:

> *a decision tool [that] provides information to agencies and communities about social and cultural factors that need to be considered in any decision. It provides a mechanism for incorporating local knowledge and values into the decision, and can help a decision-maker identify the most socially beneficial course of action for local, regional, and national interests (NEPA 2003).*

It is not just the biophysical impacts of development projects on the environment that should be assessed. The principles of ESD require that social and economic dimensions must also be considered. In practice social and health aspects are often not included in the environmental assessment process. Social impact assessment, health impact assessment and, more recently, cultural impact assessment were developed to be integrated with EIA. Their purpose is to ensure that social, cultural and health assessments are not eclipsed by biophysical issues.

Health impact assessment

The World Health Organisation defines health impact assessment (HIA) as:

> *A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.*

The International Association of Impact Assessment (IAIA) describes HIA as:

> *aiming to identify how development induces unintended changes in health determinants and resulting changes in health outcomes. HIA provides a basis to proactively address any risks associated with health hazards. HIA also addresses health improvement opportunities in development. Health hazards, risks and opportunities also may be addressed explicitly in environmental assessment.*

Currently there are no formal requirements to include HIA in EIA in Australia. In the States and Territories where HIA is being applied in EIA, the process is driven through health departments. For example, Tasmanian health authorities provide advice and recommendations on HIA to whatever statutory body is ultimately responsible. Victoria's *Environment Protection Act* requires the Department of Human Services to assess the likely impacts on public health of applications for industrial works approvals and new or amended licensing of certain industrial premises.

In Western Australia the Department of Health has a close working relationship with the Department for Environment and is able to provide input to proposals during the planning stages and provide information to proponents on the scope of proposals as well as conduct HIA on issues such as climate change.

Cultural impact assessment

The International Federation of Arts Councils and Culture Agencies defines cultural impact assessment (CIA) as:

> *A process of identifying, predicting, evaluating and communicating the probable effects of a current or proposed development policy or action on the cultural life, institutions and resources of communities, then integrating the findings and conclusions into the planning and decision making process, with a view to mitigating adverse impacts and enhancing positive outcomes.*

CIA is a way to analyse the impact a policy or action may have on the cultural aspects of the environment, such as:

- the ways people cope with life through their economy, rural systems and values;
- the ways people use the natural environment for shelter, making livelihood, industry, worship, recreation, gathering together, etc;
- the ways communities are organised, and held together by their social and cultural institutions and beliefs;
- ways of life that communities value as expressions of their identity;
- art, music, dance, language, crafts, drama festivals and other expressive aspects of culture;

- a group's values and beliefs about appropriate ways to live, family and extra-family relationships, status relationships, means of expression and other expressions of the community; and
- the aesthetic and cultural character of a community or neighbourhood—its ambience.

Cultural impact assessment involves characterising the existing state of such aspects of the environment, forecasting how they may change if a given action or alternative is implemented and developing ways to mitigate changes that are likely to impact negatively on a population.

In the Territory, CIA is more than identifying and protecting sacred sites. Key issues include how information is sought from Indigenous groups, how cultural information is integrated with other information and how its significance is determined.

Other issues include identifying development types of key significance to cultural groups and how best to engage with cultural groups on these issues.

Conclusion

EIA is a formal process that incorporates environmental considerations into decision making. The integration of social, economic and bio-physical assessments in the EIA process enables well informed and fair decisions.

For over 30 years the principles and objectives of EIA have been reviewed and refined under national and international conventions and legislation. Crucial elements in the EIA process have been identified and developed as assessment tools that augment the EIA. These other tools work with EIA to ensure the legitimate inclusion of social, health and cultural issues, as well as widening the scope of EIA to include policies and plans.

We now have the benefit of over 30 years EIA experience in the Northern Territory. Few would argue that the EIS process would not be strengthened by the inclusion of these elements.

2 Principles of environmental impact assessment

This section highlights best-practice principles of environmental impact assessment (EIA) to inform the discussion of the Northern Territory's EIA process, and culminate in proposed recommended changes to the Territory system.

It is appropriate to draw upon these principles during the review because they reflect agreements and decisions to which the Northern Territory is a signatory. Accordingly, reference to, and guidance from, the principles is an obligation on the Northern Territory Government.

The EPA has also sought guidance from internationally recognised and agreed principles. These principles provide the EPA with a benchmark and reference point on which to base its review and develop recommendations for the Minister for Natural Resources, Environment and Heritage.

ANZECC national principles to guide amendments to EIA process

In 1991 all Australian jurisdictions, via the Australian and New Zealand Environment and Conservation Council (ANZECC), adopted an agreed national approach to EIA. This approach is presented as a series of principles to guide any amendments to the EIA processes that operate in Australia and New Zealand.

The objectives of the approach broadly follow historic EIA aims but, in some instances, are more nuanced. The ANZECC principles require any EIA amendment to:

- ensure that decisions are taken following timely and sound environmental advice;
- encourage and provide opportunities for public participation in environmental aspects of proposals before decisions are taken;
- ensure that proponents of proposals take primary responsibility for protection of the environment relating to their proposals;
- facilitate environmentally sound proposals by minimising adverse impacts and maximising benefits to the environment;
- provide a basis for ongoing environmental management such as through the results of monitoring; and
- promote awareness and education in environmental values.

Accordingly, these are adopted by the EPA in undertaking this review.

Australian principles for EIA

The 1992 Australian jurisdictions again agreed on EIA-related principles, this time via the Intergovernmental Agreement on the Environment (IGAE), which contended that the EIA processes be based on 12 principles:

- the EIA process will be applied to proposals from both the public and private sectors;
- assessing authorities will provide information to give clear guidance on the types of proposals likely to attract environmental impact assessment and on the level of assessment required;

- assessing authorities will provide all participants in the process with guidance on the criteria for environmental acceptability of potential impacts including the concept of ecologically sustainable development, maintenance of human health, relevant local and national standards and guidelines, protocols, codes of practice and regulations;
- assessing authorities will provide proposal specific guidelines or a procedure for their generation focused on key issues and incorporating public concern together with a clear outline of the process;
- following the establishment of specific assessment guidelines, any amendments to those guidelines will be based only on significant issues that have arisen following the adoption of those guidelines;
- time schedules for all stages of the assessment process will be set early on a proposal specific basis, in consultations between the assessing authorities and the proponent;
- levels of assessment will be appropriate to the degree of environmental significance and potential public interest;
- proponents will take responsibility for preparing the case required for assessment of a proposal and for elaborating environmental issues which must be taken into account in decisions, and for protection of the environment;
- there will be full public disclosure of all information related to a proposal and its environmental impacts, except where there are legitimate reasons for confidentiality including national security interests;
- opportunities will be provided for appropriate and adequate public consultation on environmental aspects of proposals before the assessment process is complete;
- mechanisms will be developed to seek to resolve conflicts and disputes over issues which arise for consideration during the course of the assessment process; and
- the environmental impact assessment process will provide a basis for setting environmental conditions, and establishing environmental monitoring and management programs (including arrangements for review) and developing industry guidelines for application in specific cases.

Any future process developed for the Northern Territory resulting from this review will reflect the intent of these principles.

International principles for EIA

The International Association of Impact Assessment (IAIA) has more recently agreed to a set of best practice EIA principles. These principles are broad, generic and non-prescriptive. They are intended to apply to all levels and types of proposals. The IAIA has proposed a set of basic as well as operational principles.

They apply to all stages of environmental impact assessment and also to strategic environmental assessment (SEA) of plans, policies and programs. They advocate EIA should be:

1. Purposive. The process should inform decision making and result in appropriate levels of environmental protection and community wellbeing.

2. Rigorous. The process should apply ‘best practicable’ science, employing methodologies and techniques appropriate to address the problems being investigated.
3. Practical. The process should result in information and outputs which assist with problem solving and are acceptable to and able to be implemented by proponents.
4. Relevant. The process should provide sufficient, reliable and usable information for development planning and decision making.
5. Cost-effective. The process should achieve the objectives of EIA within the limits of available information, time, resources and methodology.
6. Efficient. The process should impose the minimum cost burdens in terms of time and finance on proponents and participants consistent with meeting accepted requirements and objectives of EIA.
7. Focused. The process should concentrate on significant environmental effects and key issues, i.e. the matters that need to be taken into account in making decisions.
8. Adaptive. The process should be adjusted to the realities, issues and circumstances of the proposals under review without compromising the integrity of the process, and be iterative, incorporating lessons learned throughout the proposal's life cycle.
9. Participative. The process should provide appropriate opportunities to inform and involve the interested and affected publics, and their inputs and concerns should be addressed explicitly in the documentation and decision making.
10. Interdisciplinary. The process should ensure that the appropriate techniques and experts in the relevant biophysical and socioeconomic disciplines are employed, including use of traditional knowledge as relevant.
11. Credible. The process should be carried out with professionalism, rigor, fairness, objectivity, impartiality and balance, and be subject to independent checks and verification.
12. Integrated. The process should address the interrelationships of social, economic and biophysical aspects.
13. Transparent. The process should have clear, easily understood requirements for EIA content; ensure public access to information; identify the factors that are to be taken into account in decision making; and acknowledge limitations and difficulties.
14. Systematic. The process should result in full consideration of all relevant information on the affected environment, of proposed alternatives and their impacts, and of the measures necessary to monitor and investigate residual effects.

Any new process developed for the Northern Territory resulting from this review needs to be examined against these key criteria to ensure all elements of identified and recognised best practice have been incorporated.

3 Detailed critique of EIA process for the NT

The EPA examined the Northern Territory environmental impact assessment (EIA) process as outlined in the *Environmental Assessment Act* and the *Environmental Assessment Administrative Procedures* and as described by assessment officers in the Department of Natural Resources, Environment, the Arts and Sport. The EPA was guided by its terms of reference, comments from stakeholders, the principles outlined in the previous chapter and studies of EIA in Western Australia, the Commonwealth and Canada.

Of primary importance to the EPA is achieving ecologically sustainable development. The current process was therefore examined to determine how it could be improved to facilitate this for the Northern Territory—not only in terms of the decisions on major projects, but also in ensuring mechanisms for the principles of sustainability to be integral to policy development.

In summary, the EPA found that:

The Act could be strengthened to match EIA processes provided in other jurisdictions.

The purpose of the Northern Territory EIA process is to better inform decision making, the process does not provide insurance against decision making that may have unsatisfactory outcomes for the environment. This can be strengthened by providing authority to require public account from decision makers on how the outcomes of an environmental assessment process have informed a decision about a proposed action. This is of particular importance where the proposal poses significant risk to the environment.

The discretionary nature of the current process brings into question the consistency of decision making and the lack of certainty on when a project is likely to require environmental assessment. The discretionary approach also places the onus of proof on the Minister to demonstrate why a project requires environmental assessment.

While the *Environmental Assessment Act* defines ‘proposed action’ to extend beyond just ‘major projects’ or development, the Environmental Assessment Administrative Procedures have been drafted for project-level assessment. The Administrative Procedures do not serve the full purpose of the Act.

The *Environmental Assessment Administrative Procedures* allow for public participation; however, this element of environmental assessment is not reflected in the object of the Act. It is a part of the process, but not a purpose for the process.

Similarly, the definition of ‘environment’ in the *Environmental Assessment Act* provides for a triple bottom line assessment; however, implementing the process in line with the principles of ecologically sustainable development is not a stated purpose of the Act.

This chapter provides the results of the EPA's detailed critique of the Northern Territory's process and presents its preliminary findings and recommendations for improvement as boxed text, for public consideration and feedback.

What can be done?

It needs to be recognised that the role and effectiveness of EIA is dependent upon the policy and administrative system in which it sits. An EIA process that has a defined role within an integrated environment protection and approvals framework allows EIA to inform policy development, regional planning, project design, project approvals and subsequent environmental management.

An EIA system that both operates in accordance with the principles of sustainability and has as its purpose the outcome of ecologically sustainable development will automatically facilitate and ensure the community's right to know and comment (through public participation) at all levels within an integrated policy and planning framework.

When EIA operates in a framework where there is little integration between policy, planning and approval regimes, greater expectation is placed on the EIA system to be the cure-all for all problems – to fill the policy gap, to resolve strategic planning issues; to provide public access to information and decision making that otherwise can't occur; and to "prohibit" certain types of development. This often causes the EIA system to be subject to lobbying, political pressure, or worse, viewed cynically as a tool that endorses projects that are regarded as a "done deal".

We have witnessed this happen in the Northern Territory where policy, planning and approval processes do not occur in an integrated manner. Many of the issues raised in this chapter stem from this lack of integration.

Accordingly, the lack of an integrated framework in which EIA sits needs to be recognised as a limiting factor in the success of this review.

This paper has focussed on how to improve the current system to increase certainty, move towards greater integration and to strengthen the role of EIA within the Northern Territory. However, ultimately consideration will need to be given to a more encompassing regulatory reform within the Northern Territory to put in place the governance framework required to support an integrated policy, planning, approval and regulatory regime.

The EPA regards EIA (in some form) as being an important tool with a direct role of informing policy development, land use/ regional planning, project design, approvals and ongoing environmental management and compliance.

The recommendations contained within this chapter are aimed at strengthening the role of EIA in regard to the above and working towards achieving a higher degree of integration than currently exists.

It is recommended that the role of EIA in the Northern Territory be strengthened to ensure its effectiveness as an instrument to protect the environment and drive ecologically sustainable development.

1. Creating greater certainty and consistency of process through legislation.

The *Environmental Assessment Act* and *Environmental Assessment Administrative Procedures* prescribe the application of EIA in the Territory. The Northern Territory *Environmental Assessment Act 1982* is based on the Commonwealth Government's former impact assessment legislation, the *Environment Protection (Impacts of Proposals) Act 1974.*

The purpose of the Administrative Procedures is to set out the process for achieving the object of the *Environmental Assessment Act*. Section 7 of the Act establishes the procedures and specifies what they may provide for. The administrator of the Act has responsibility for determining and varying the procedures.

The Administrative Procedures in the Commonwealth Act were devised as a means to discourage third-party litigation, and it may be that this was also an intention of the NT procedures. In practice, however, the administrative procedures do not protect the government from legal action due to their status as subordinate legislation.

The process for amending the administrative procedures is exactly the same as for regulations, however, as the Act is written and, in the absence of other subordinate legislation provided for in section 12 of the Act, the provisions of the administrative procedures cannot be enforced.

It is recommended that the Act be amended or repealed to allow for more comprehensive subordinate regulation.

Such amendments should unambiguously flag the introduction of greater certainty and consistency into the administration of the *Environment Assessment Act.*

Unless the Procedures can be enforced, the Environmental Assessment Administrative Procedures are an unsuitable vehicle for delivering reform to the *Environmental Assessment Act*.

2. Improving public accountability of the outcomes of the environmental assessment process

Relying on the current approval processes provided by other pieces of Northern Territory legislation to implement the findings of environmental assessment has not been ideal. This is because the outcomes of the environmental assessment process may deal with issues that do not fall within the responsibility of the approving Minister. For example, the environmental assessment undertaken for the Alcan Gove Expansion recommended that a social impact assessment and management plan be developed. The authorising legislation was the *Mine Management Act*, however this did not include provision for social impact – leaving this element of the environmental assessment potentially unregulated by government.

Another issue relates to the discretion held by the approving Minister. While other pieces of legislation provide for the findings of the environmental assessment process this does not necessarily result in an approval reflecting the outcome of an environmental process (currently the Minister for Natural Resources, Environment and Heritage can only make 'comments, suggestions or recommendations concerning the proposal action').

The current system does not demand public accountability or transparency in how the outcomes of environmental assessment process inform a subsequent approval. This was a criticism of the authorisation of the McArthur River Mine Open Cut project where the Mine Management Plan was not required to be placed in the public arena.

The then Minister for Natural Resources, Environment and Heritage, Marion Scrymgour, provided a public statement through the media when providing advice that the McArthur River Mine Open Cut project could proceed, while acknowledging the environmental risk of the operation. Her statement provided clear expectations of the conditions needed to minimise risk and account for community concern.

The Department of Natural Resources, Environment, the Arts and Sport has confirmed that formal advice was provided to the then Minister for Mines that reflected the information contained in her media statement. Accordingly, it would be expected that this would be accounted for by the then Minister for Mines when authorising the open cut mine through the mine's management plan.

While Ms Scrymgour's advice was announced publicly, the Mine Management Plan did not become a public document. Accordingly, there is limited public accountability on how the provisions outlined by Ms Scrymgour (reflecting the outcomes of the environmental assessment process) have been accounted for in the Mine's authorisation.

If the objectives of the Act are to be aligned with a whole of government sustainability agenda that promotes: the protection of the environment; upholds genuine public participation; and allows for facts and values to be contested so as to genuinely inform decision-making, the Act must be supported by approving legislation. This would allow for the possibility that a proposed action could be unacceptable on the basis of environmental grounds alone; and ensures an approving Minister is publicly accountable on how the outcomes of the environmental assessment have been used to inform their decision.

Other models incorporate an "approval" into the EIA system (such as the NSW process) however this occurs as an integrated approvals system. The Northern Territory does not currently operate under an integrated system. Accordingly, introducing an approval would place the Minister for Natural Resources, Environment and Heritage in a role where she giving approval on matters that do not necessarily fall within her portfolio (such as an issue relating to regional economic development). Without the support of an integrated assessment and approvals system an approval would have to be supported by a "call in" power for Cabinet.

The EPA recommends that outcomes of an environmental assessment process be directly accounted for in decision making.

This could be achieved by amending approving legislation to:

- strengthen the role of EIA in the approval processes by requiring public account on how the advice received under the *Environmental Assessment Act* has informed the decision made.
- ensure supporting offence provisions require a proponent to carry out its operations in a way that is not inconsistent with the approval conditions reflecting the outcomes of the environmental assessment process.
- require specific enforcement provisions to support compliance with conditions of approval or licences, as well as powers to require formal audits, where irregularities are suspected.

3. Strengthening the object of the Act

Objectives of an Act (i.e. object clauses) are used to provide guidance on the meaning and intention of an Act by setting out its overarching aims. They help achieve the goals of the regulation by reducing the potential for decisions that conflict with the initial intentions of the Act's policymakers.

The need for object clauses reflects the fact that most Acts are to some degree open-ended and provide discretionary powers to the regulator.

One way of placing bounds on those discretionary powers is by articulating a general standard or set of principles, in the form of overriding objectives, to guide the exercise of that discretion.

Where Acts prescribe EIA processes, object clauses are commonly used to provide principles to ensure consistency of decision-making and in clarifying the policy aims of the Act, For instance, as it may relate to public participation, Indigenous engagement, and the expected outcomes or operating behaviour of development proponents.

The Commonwealth's *Environment Protection and Biodiversity Conservation Act* and Western Australia's *Environment Protection Authority Act* embrace clear objectives that express intent and expectation of the environmental impact assessment process they support.

By comparison, the object clause of the *Environmental Assessment Act* is more limited but arguably in keeping with the policy intent of the Act. It was drafted with the intention of providing ministerial discretion and flexibility. However the object of the Act provides no guidance on the Act's provisions for discretion, nor does it outline expectations of EIA process or outcomes. The object clause simply relates to the need to examine significant environmental effects of proposed actions, as the overarching aim of the Act.

It is recommended that objectives of the *Environmental Assessment Act* be redrafted to provide clear decision-making principles and objectives that express the intent and expectation of the environmental impact assessment process.

Suggested principles that could be incorporated in the Objectives of the Act include:

1. to promote ecologically sustainable development and encourage responsible authorities to take actions that are in keeping with the objectives of ESD to achieve or maintain a healthy environment and a healthy economy;
2. to achieve a coordinated approach to the environmental assessment process;
3. to ensure that proponents take primary responsibility for the protection of the environment, promoting EIA as a basis of proponents' project planning and a tool to demonstrate that best practicable measures have been taken to avoid and or minimise impacts of the proposal;
4. to recognise the role of Indigenous people in the conservation and ecologically sustainable use of natural and cultural resources;
5. to ensure there are opportunities for timely and meaningful local community and public participation, as appropriate—before, during and after the formal environmental assessment of proposals;
6. to ensure that any unavoidable impacts of the proposal are acceptable, taking into account cumulative impacts that have already occurred in the region, and principles of sustainability;
7. to ensure that independent, reliable advice is provided to the government before decisions are made on whether to approve a proposal on the basis of environmental impact; and
8. to ensure ongoing management and monitoring of actions that is sustained and publicly accountable.

4. Supporting the EIA process with a robust policy environment

Of equal importance to the EIA process is the statutory and policy environment that supports project-level EIA, particularly where a process provides for the generous level of discretion allowed by the current Northern Territory system.

Ideally a robust policy development process should identify and resolve gaps in policy before proposals are considered under EIA. However, there have been repeated occasions when a lack of supporting environmental policy has resulted in the need for EIA to address and resolve policy issues.

The assessment of the McArthur River Mine Open Cut proposal was undertaken in the absence of an overarching policy on the acceptability of re-engineering rivers in the Northern Territory. Accordingly, this larger policy question had to be resolved during a time-constrained EIA process in among a suite of other environmental issues being considered.

The decision to allow the open cut mine to proceed and therefore to re-engineer the McArthur River provided the precedent for future proposals that rely on the re-engineering of a river. While it may not have been the intention of government, in the

absence of overarching policy, its decision to approve the mine communicated a policy position that it is acceptable to re-engineer Northern Territory rivers.

The role of the *Environmental Assessment Act 1982* in determining the 'significance' of a proposal to the environment is undermined by the absence of sound environmental policy and guidelines that clarify what is 'acceptable'. The absence of supporting policy and guidance demands that each proposal is examined on a case-by-case basis, further adding to the risk of inconsistency in decision-making. Such circumstances place unrealistic stresses and expectations on the EIA process.

The Western Australian EIA system contains a degree of discretion, however its process is made robust through a comprehensive suite of environmental policies and guidelines.

Section 11 refers to the use of Public Inquiries in the environmental assessment process. While this current provision in the Act allows a matter to be referred to a Public Inquiry to date it has not been used, however, it does provide opportunity to address and resolve significant policy issues encountered during an environmental process.

It is recommended that the Northern Territory continue to expeditiously develop a comprehensive suite of environmental policies and guidelines to inform decision-making under the EIA process.

The introduction of strategic environmental assessment provisions (see point 7) provides supporting mechanisms for the development of environmental policy.

It is also recommended that consideration be given to including a provision that allows for the assessment of a project-level development to be placed on hold while a significant policy issue is resolved (this could be achieved through the Inquiries provision in the Act)

5. The proponent is primarily responsible for protecting the environment.

The ANZECC guidelines discussed in Chapter 3 specify principles to be used in amendments to EIA processes in Australia and New Zealand. This includes the principle that the proponent is primarily responsible for protecting the environment.

In the current Northern Territory process, primary responsibility for the protection of the environment rests with the Minister. The Act is clear that its object is to ensure that 'each matter affecting the environment that is, *in the opinion of the Minister*, a matter that could reasonably be considered to be capable of having a significant effect on the environment, is fully examined and taken into account.' The onus of proof is therefore with the Minister *not* with the proponent.

The discretionary element of the current EIA process demands justification from the Minister on the decisions and advice made under the *Environmental Assessment Act* and represents an unfair allocation of the burden of proof.

An EIA system that operates according to the principles of sustainability would shift the burden of proof from the Minister to the proponent.

In this circumstance the Minister would have responsibility of appropriately scoping a proposal (in accordance with the objective of ecologically sustainable development) to communicate to the proponent the key issues needing to be addressed. The onus of proof is placed with the proponent to demonstrate their proposal will not present a threat of serious or irreversible environmental damage.

Where the proponent does not provide certainty that a proposal will not be a threat of serious or irreversible damage the precautionary principle is applied (directly commensurate with the risk).

This shifting of responsibility to the proponent reflects a trend that has occurred within other jurisdictions towards incorporating strict environmental liability in environmental legislation. This has included creating civil penalties such as fines and clean-up requirements for environmental damage and pollution as well as criminal penalties. In these situations due diligence has emerged as the only real defence to breaches of environmental laws.

The defence of due diligence is aimed at encouraging the adoption of the 'precautionary principle' requiring the identification and assessment of specific environmental risks that could be faced as a result of a corporation's activities. It is no longer considered sufficient for a corporation to adopt a generic system of environmental management. It must be adapted to specifically address the particular activities of the corporation that have an environmental impact. Similar logic is now being applied to environmental impact assessment processes.

The administrators of the EIA system are also responsible for ensuring that the burden of providing information is not onerous for a proponent. The EIS document needs to focus on those areas of identified key risk. Accordingly, a proposal that triggers the environmental assessment process needs to be appropriately scoped to allow the subsequent assessment documents to focus on key risks, rather than requesting the suite of generic environmental information.

It is recommended that the objectives of the Act clearly articulate that environmental protection is the primary responsibility of the proponent to ensure that the onus of proof is with the proponent, not the Minister.

6. Improving the quality of environmental assessment documents

An environmental assessment document (a Public Environmental Report (PER) or Environmental Impact Statement (EIS)) should provide information to describe how an impact is to be managed in order to demonstrate that a proposal will have minimal impact. It is not appropriate for an environmental assessment document to include a commitment simply stating that an impact will be managed to have minimal consequences. Information provision is integral to public participation.

The inclusion of the precautionary principle as a principle or objective of EIA ensures the proponent is responsible for providing adequate information to demonstrate that a proposal does not present a threat of serious or irreversible environmental damage.

It is recommended that expectations about the quality of the assessment process and its documentation be made explicit in the Environmental Assessment Act and associated guidelines.

Additional options to improve the quality of EIA documentation include:

- requiring accreditation of EIA consultants who participate in the preparation of EIA documentation for public consultation or assessment;
- requiring consultants to commit to Duty of Care provisions relating to the quality and comprehensiveness of EIA documentation submitted for public consultation or assessment; and
- requiring peer review of EIA documents prior to their submission for public consultation or assessment.

7. Broadening the process beyond project-level environmental impact assessment.

The Environmental Assessment Act applies to 'proposed actions' that may have a significant effect on the environment. The open description of a 'proposed action' indicates an intention for the Act to apply to actions beyond only 'major development'. However, this intention is constrained by the process for environmental impact assessment in the Environmental Assessment Administrative Procedures that is designed to support the assessment of project-level developments, and this is how it has always been applied in practice.

An environmental assessment of a 'proposed action' described in section 4(c) to (d) of the Act has not occurred in the Northern Territory. The environmental assessment of proposed actions as described by these points would best be undertaken as a strategic environmental assessment (SEA).

A succinct working definition of SEA in the Australian context is provided by Marsden and Ashe (2006):

> *Strategic Environmental Assessment (SEA) evaluates the impacts from policies plans and programs, with the objective of contributing to ecologically sustainable development (ESD) by integrating environmental factors into decision making.*

A recognised benefit of SEA is that it can allow for environmental assessment at higher levels and at earlier stages in the decision-making process (as demanded by points (c) to (d)).

The current review of the EIA process in Western Australia found the advantages of conducting strategic environmental assessments include:

- a more regional approach to resource management and land use planning;
- better consideration of alternatives and options early in the planning process;
- more thorough understanding of cumulative impacts;
- better understood pre-requisites for development by industry and the public;
- improved development design;

- more certainty for subsequent projects or development through the upfront resolution of potential impacts; and
- more efficient assessment processes for project level development proposals in accordance with the plan, policy or programme under which the proposal is developed.

Western Australia's *Environmental Protection Act* enables the EPA, serving as the relevant competent authority, to undertake assessment of strategic proposals. A strategic proposal is defined as a proposal that may become a significant proposal or future proposals that may have a significant effect on the environment. If a subsequent project is consistent with the assessed strategic proposal it may be declared a derived proposal by the EPA under certain circumstances, not requiring further assessment. The referral of strategic proposals is voluntary.

At the federal level in Australia provisions for SEA are established under the *Environmental Protection and Biodiversity Conservation Act* (EPBC Act). These include a discretionary provision for the assessment of actions carried out under proposed policies, programs or plans that may adversely affect matters protected under the Act, and a mandatory provision for the assessment of fisheries management plans.

An attempt to use the Northern Territory's *Environmental Assessment Act* beyond a project-level assessment failed, due to the lack of supporting process, when a strategic environmental assessment was sought to support the future development of gas based industry at Middle Arm. Excerpts of the legal advice received by the Department of Planning and Infrastructure include

- *Nothing in the Planning Act requires the Planning Minister to notify the Minister for Natural Resources, Environment and Heritage ("the Environment Minister") of any proposal to amend the NT Planning Act.*
- *It is only after receiving notification that the Environment Minister may decide whether a report (defined to be a "public environment report") or statement (defined to be an "environmental impact statement") is required.*
- *… the scheme of the Environment Assessment Act and the Procedures does not contemplate that an amendment to the NT Planning Scheme by the Planning Minister will be a trigger for either a report or a statement (as defined).*
- *It would be a very strained reading of the environmental legislation which would contemplate that the Planning Minister would be both the "responsible Minister" and the "proponent" and would be required to notify the Environment Minister of a "proposed action" which constitutes an amendment the NT Planning Scheme, particularly where section 12(1) of the Planning Act provides that the "Minister may decide to amend a planning scheme on his or her own initiative as the Minister sees fit".*
- *… the amendment of the planning scheme does not fall within section 4(d) of the Environmental Assessment Act so as to be a proposed action in respect of which the Environment Minister can require a report or statement to be prepared.*
- *… the Northern Territory legislation does not appear presently to contemplate a SEA in respect of any proposed action … For an example of legislation which uses a form of SEA see Part 10 of the Commonwealth Environment Protection and Biodiversity Act 1999 in regard to fisheries.*

- *… there was no legal basis for the Environment Minister to require an SEA in relation to the proposed amendments.*

The EPA recognises the benefit of using a tool such as SEA, specifically as it allows social, economic and environmental impact of policies, plans and projects to be evaluated; and, because it ensures public participation within these processes. However, whether the *Environmental Assessment Act* is the correct tool to oversee all levels of SEA is debatable.

For example, a whole of government agreed process will be required to drive and evaluate the application of sustainability principles in government policy-making. The process must receive Cabinet level support, whereby decisions considered by Cabinet will need to be supported by documentation that addresses the consistency of the policy decision with sustainability principles. While the EIA procedures could give guidance on how to undertake this process, it would not be appropriate to lead the evaluation and assessment of internal government policy, plans and programs through the EIA process.

SEA can be used as a land use planning tool. Within NSW, where environment and planning are integrated under a single Act, a land use plan is developed and based upon a series of environmental studies. These studies inform proposed zonings as well as future development controls (including development types that require an EIS to support decision making). While the EPA would strongly support provisions be made in the *Planning Act* to integrate SEA as a tool to inform land use planning and approval mechanisms in the NT, it would not expect that this would be led by NRETAS or the Minister for Natural Resources, Environment and Heritage under the *Environmental Assessment Act*.

The approach taken by Canada recognises the issue of role and responsibility when undertaking environmental assessment of government policies, plans and programs. The EIA process prescribed by the Canadian Environment Assessment Act focuses on project-level EIA only, that is, it is not inclusive of policies or plans. However, Canada operates under a Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals, which states:

> *Consistent with the government's strong commitment to sustainable development, ministers expect that policy, plan and program proposals of departments and agencies will consider, when appropriate, potential environmental effects …*
>
> *Departments and agencies are also encouraged to conduct strategic environmental assessments for other policy, plan or program proposals when circumstances warrant …*
>
> *Ministers expect the strategic environmental assessment to consider the scope and nature of the likely environmental effects, the need for mitigation to reduce or eliminate adverse effects, and the likely importance of any adverse environmental effects, taking mitigation into account. The strategic environmental assessment should contribute to the development of policies, plans and programs on an equal basis with economic or social analysis … Departments and agencies should use, to the fullest extent possible, existing mechanisms to involve the public, as appropriate ... This will assure stakeholders and the public that environmental factors have been appropriately considered when decisions are made.*

However, there is a role for strategic environmental assessment within the framework of the *Environmental Assessment Act* in supporting the application of the project-

level EIA process. SEA can be used to contextualise development proposals by providing baseline information and by quantifying the environmental risk of industry practices, in the context of specific regional circumstances.

For example:

- environmental studies of a locality or region to understand potential cumulative impacts, thereby informing the formulation of environmental policy or regulation;
- issue-specific studies relating to the development of a region as a whole, where there could be significant implications to the receiving environment, such as the current series of studies being done to support Middle Arm's development for gas-based industry;
- preliminary studies to support a major policy initiative where there could be significant implications to the environment;
- study of a locality identified for its biophysical, social and cultural significance with the aim of developing a strategy on how the locality could be developed and managed into the future and identifying potential triggers for project-level environmental assessment;
- study of specific environmental or resource issues in a locality to identify potential triggers for project-level environmental assessment, for example, a study of the geochemistry of a region to understand associated risk with certain types of mining activity;
- studies required to support a staged development, that is an environmental assessment to support decision making on the concept of the development, recognising that more detailed, project-level assessment may be required with each stage of the development. This was the approach being taken with the environmental assessment of the then proposed industrial development of Glyde Point. This approach could be used to support large linear developments as well; and
- study of a new industry type or new technology or little known or tested pollution control measure or unknown environmental management approach to identify potential triggers for project-level environmental assessment.

It is recommended that the *Environmental Assessment Act* allow for strategic environmental assessments to be undertaken, with the specific aim of supporting and continually improving the application of the EIA process to achieve the objectives of ecologically sustainable development.

Triggers for strategic assessment envisaged include:

- cumulative impact assessment, triggered by the Minister, with the purpose of developing environmental triggers or standards to ensure the overall development of a locality or region has a managed cumulative impact;
- strategic assessment, triggered by the Minister or industry, to streamline the screening and approval process by providing baseline information and creating triggers for project-level environmental assessment that are industry and/ or location specific; and
- strategic assessment, triggered by the Minister or third party, to evaluate the impacts of technology, or novel or high risk proposals.

In putting forward this recommendation, the EPA is mindful of the resource and funding implication associated with undertaking an SEA. The purpose of SEA is to contribute towards governance systems for environment protection and accordingly they will mostly be lead and funded by government. If the concept of SEA is supported within the Northern Territory, the issue of resourcing needs careful management.

Clear administrative procedures would be needed to clarify the:

- role of strategic assessment under the Act;
- triggers for undertaking strategic assessment;
- parties who can trigger strategic assessment:
    - industry
    - Minister
    - third party
- procedures for undertaking strategic assessment:
    - public participation in strategic assessment
    - approval of strategic assessment
- third party appeals; and
- standing of completed strategic assessments.

The inclusion of SEA provisions supports the ability for an environmental assessment to focus on specific issues not related to the biophysical environment, for example a Health Impact Assessment associated with a particular industry type or proposed development within a region. In these instances provision within the Act would need to account for this process to be led by the appropriate agency/ Minister.

8. Providing certainty in the EIA system

The *Environmental Assessment Act 1982* and Environmental Assessment Administrative Procedures establish the Minister for Natural Resources, Environment and Heritage as the key decision-maker. The majority of statutory powers are exercised by the Minister, including decisions on whether assessment is required, the

level at which assessment is undertaken and the provision of final recommendations relating to the proposal.

The decision-making framework established by the Administrative Procedures is heavily reliant on ministerial discretion. This is considered a weakness in the current process because: it can result in a variety of outcomes due to different interpretations of key provisions of the Act; and because ultimately the Minister for Natural Resources, Environment and Heritage can only make comment and recommendations, accordingly there is no certainty on how this information is used by the decision-maker (the 'approving Minister').

It is recommended that the Act include a more robust decision-making framework to ensure decisions are based on clear, objective criteria, not subject to the broad discretion of the decision-maker. This ensures greater levels of accountability and transparency.

Specific parts of the process where decision-making is subject to ministerial discretion are as follows:

a) Referral procedure

The trigger for assessment is the requirement for an authorisation or approval for the proposed action elsewhere under Northern Territory legislation.

This presents problems for proponents, authorising bodies and the community, and creates ambiguity in relation to what requires referral under the Act.

The Environmental Assessment Administrative Procedures do not clearly define responsibility for the referral of all matters that are defined as a 'proposed action' and places responsibility for the referral on the approving Minister. The lack of clearly established responsibility for referral presents a risk that projects that should have been referred for assessment may not be. It also assumes that all proposed actions require a form of administrative approval.

The Dick Ward Drive Dirt Pile

A notable example of an instance where approval and public consultation has not been required under Northern Territory legislation is the case of the stock pile of construction fill, adjacent to Dick Ward Drive, Darwin. In this instance public concern has been expressed at the pile which is being stored by a local community, on their land, on a fee for service basis. At the time the activity commenced it did not require approval under Northern Territory law and therefore there was no "trigger" to refer the matter for assessment under the *Environmental Assessment Act 1982*. This failing in the current process has meant that there was no opportunity to determine the potential significance of the stockpile to the receiving environment or for public consultation.

The Act does not provide for third party referral of projects. This limits the accountability of the referral process and public participation. Some State EIA processes allow for referrals by the community, such as those provided for by WA under the *Environment Protection Act 1982,* whereby any member of the public can refer an action to the Minister if they believe that the action would have a significant impact on the environment.

Difficulties also arise because the notification of intent process is implemented differently from that prescribed by the legislation. The administrative procedures require that the responsible Minister notify the Minister for Natural Resources, Environment and Heritage of the action. While this occurs with the most significant projects, most projects are normally referred at the departmental level. The procedures require that the Minister decide whether a PER or EIS is needed. In practice the department only notifies the Minister of a proposal where it has been decided that a formal assessment is warranted. The legislation and administrative practices are therefore out of step.

It is recommended that 'proposed action' under the *Environmental Assessment Act 1982* be amended to include specific triggers of activities that require formal environmental assessment, removing the discretionary element.

There are international and Australian examples of environmental assessment processes that include triggers for assessment or list the types of project for which environmental assessment is automatically required. The European Economic Community Directive 85/337 lists two classes of projects: those that must undergo an EIA in any country of the EEC (mandatory projects); and those that are listed at the discretion of the member State (discretionary projects). For the discretionary projects a proposal goes through the application of criteria or thresholds of the relevant member state to determine if it should be subject to environmental impact assessment.

The Australian Capital Territory and New South Wales procedures specify types of proposals, or the size of proposals required to be reviewed through an EIS. In NSW, designation is based on industry type and size, locality (identified through Regional Environmental Plans and State Environmental Planning Policies) and economic significance.

It is recommended that a schedule be developed to list activity types that are required to undergo environmental assessment. The schedule needs to reflect the current and expected industry and development type locating in the Northern Territory as well as the risk to the receiving environment.

The significance of a proposal will depend not only on the development type, but also on the locality and its contribution towards a recognised or growing environmental concern.

Environmental issues of growing concern include global warming, water access and usage, and waste production. There are examples from other jurisdictions where an 'input' to an activity (as opposed to its 'output', that is, the pollutants discharged) is the trigger for regulation. The Victorian EPA amended the *Environment Protection Act* to include Environment and Resource Efficiency Plans. This program focuses attention on opportunities to economise on energy, water and waste in production and operations.

It is proposed that this type of approach be adapted for the Northern Territory.

It is recommended that a second schedule be developed that captures an activity's contribution towards a growing or cumulative environmental issue.

For example, a schedule that specifies the level of energy consumption (and sourcing), water requirements (and sourcing), and waste products/ types (and quantities) that trigger the need for environmental assessment.

Another suggestion is the examination of using an activity's environmental "footprint" as a trigger for environmental assessment.

Northern Territory environments are relatively intact structurally and many areas are recognised for their important biodiversity values. The Northern Territory landscape can hold significant cultural significance for Indigenous communities and elements of the environment are of significant social importance to components of the Northern Territory population (as Darwin Harbour is proving to be).

It is recommended that a third schedule be developed over time, through the SEA process, which identifies areas of environmental, social and cultural significance and the associated development or disturbance that would require environmental assessment and approval, ensuring that provisions in other relevant pieces of legislation are not duplicated but supported by EIA.

Over time, the second and third schedules may override the need for the first schedule.

For example, should mining activity of a specific threshold require environmental assessment and approval; or could the trigger for mining activities depend on the geochemistry of the locality, the inputs and outputs of the associated processing and their water usage (including interception, pump and discharge)?

In making these recommendations the EPA also acknowledges the advantages of flexibility that exists with a discretionary process. A prescribed trigger system may result in a proposed development (with potential for significant environmental impact) possibly not triggering assessment.

It is recommended that the Minister for Natural Resources, Environment and Heritage retain the ability to 'call in' a proposal (in keeping with the current clause 7 of the Environmental Assessment Administrative Procedures). This would require supporting process (with onus on the proponent to demonstrate why a project does not require formal environmental assessment) and would need to be supported by guidance on when this power could be exercised.

b) Level of assessment decision procedure

If it is determined that a proposal requires formal assessment, the Minister is required to make a subsequent decision on the level at which further assessment will be undertaken. Under the Act this is either a public environment report (PER) or environmental impact statement (EIS).

This decision presents particular concern because of the different processes reflected within the PER and the EIS levels and how these are perceived by stakeholders.

Anecdotal evidence suggests a perception among proponents that assessment via a PER is preferred because assessment is less rigorous than under an EIS and that the proponent is not responsible for addressing issues identified through the public exhibition of the PER.

The PER stream limits the duration of public exhibition to 28 days and this is attractive, given proponents generally prefer assessments to be completed as quickly as possible.

Under the Act the Minister has the discretion to determine whether a proposal is assessed as a PER or EIS. As a consequence, the decision on whether an activity is assessed via a PER or EIS can become a point of lobbying and negotiation.

While the EPA acknowledges that not all proposals are equal and therefore warrant different levels of scrutiny, it is suggested that the levels of assessment should reflect the same steps in the process and, the same requirement on a proponent. The difference in the levels of assessment should be reflected in the timeframes available to scrutinise a proposal.

It is recommended that the environmental assessment process be the same for all projects, by replacing PERs and EISs with a single process. Variation would be reflected in the timeframes available to scrutinise a proposal.

For example only:

EIS Level	Exhibition period	Final assessment
Level I	20 business days	20 business days (from receipt)
Level II	30 business days	30 business days (from receipt)
Level III	40 business days	40 business days (from receipt)

9. Enshrining genuine and early public engagement in the EIA process

Neither the *Environmental Assessment Act 1982* nor the Environmental Assessment Administrative Procedures acknowledges public participation as a central tenet of EIA and its role in ensuring a transparent process. Public participation provisions are included in the Environmental Assessment Administrative Procedures; however, they are part of the process rather than being an explicit purpose.

There are two formal opportunities for the public to participate under the Act:

- when a project is determined to require formal assessment. Draft guidelines, which prescribe the scope of issues that the PER or EIS must address, are publicly exhibited for 14 days. The draft guidelines are advertised in newspapers and the NRETAS website; and
- when the proponent's PER or EIS is publicly exhibited.

While the proponent is largely responsible for addressing public and stakeholder concerns in a supplement to an EIS, the supplement is not made public until the assessment process is complete.

At the conclusion of the environmental assessment process, the Environmental Assessment Administrative Procedures requires the Minister to publicly announce the completion of her examination of a proposal and make the findings of the assessment publicly available. NRETAS currently meets this requirement by placing all environmental assessment reports in a register on its website.

The Northern Territory EIA process does not provide a process for the public to comment on development proposals before the Minister decides on the appropriate course of action. This means that the proposals that do not undergo formal assessment (i.e. PER or EIS) are not made public. If the 'proposed action' is a project that does not require public consultation under the approving legislation, the public has no opportunity to comment.

The scoping stage of the assessment process (when assessment guidelines are developed) presents a very important opportunity for public involvement in identifying concerns and issues that require consideration and ensuring the EIS preparation process is efficient and focuses only on those issues of importance. Evidence suggests that when scoping is undertaken consultatively and comprehensively acceptable terms of reference for formal assessments can be developed, reducing the likelihood of major controversy about resulting EIS. This in-turn relies upon the genuine exchange of information and concerns between the interested parties through an appropriate organisation.

The level of public consultation required by the current process creates a risk that public concern may not be adequately acknowledged and accounted for by the proponent, and that affected parties will be marginalised from decision making.

The appeals that have resulted from the decision-making on the McArthur River Mine Open Cut Project could arguably illustrate a proposal where the community had not been meaningfully engaged in a way where their value preferences were sought, acknowledged and accounted for in the way the project was undertaken. The Environmental Assessment Report 54 stated:

> *… MRM has attempted to take on board the concerns raised in Assessment Report 51 by establishing the CRG (*community reference group*), however it seems apparent from the correspondence and submissions received that it is currently not successful in facilitating effective and consultative engagement with the community.*
>
> *The proponent has failed to capitalise on the opportunity that exists when working within a community where a cooperative relationship based on trust is established. MRM have operated at Borroloola for over 10 years and there appears to be little trust within some parts of the local community. An opportunity was presented to start working with a component of the community through respecting and using the communication channel presented by the Borroloola Traditional Owners Group. However the proponent put in place its own CRG of which the key operative element is information provision, rather than true consultation.*

It is recommended that public participation be acknowledged by the *Environmental Assessment Act 1982* as having intrinsic value to the EIA process as well as being central to the objectives of EIA.

It recommended that greater emphasis be placed on the role of public participation and the exchange of information and concerns in the scoping phase of the assessment process as a means to making the EIA process more efficient and less likely to result in controversial assessment outcomes.

Another issue is the accessibility of information to the public. Often the larger proposals will generate a multi-volume EIS document with a large amount of technical information and analysis. It is assumed that the community has the expertise, or the ability to 'buy' the expertise, to interpret and challenge assumptions made by a proponent.

Similarly, the current process makes it difficult for meaningful consultation with Indigenous groups, where English can be a second language and timeframes are not flexible enough to accommodate cultural differences or requirements.

Currently timeframes for public consultation are provided as calendar days. An exhibition period that includes public holidays reduces the time available for public review.

It is recommended that the *Environmental Assessment Act 1982* accommodates the following principles for public involvement:

1. public involvement should be maximised to:
    - establish an increased level of trust in government strategy, policy and decision-making on environmental decisions that have the potential to significantly affect members of the public;
    - allow members of the public to put forward information, which may not otherwise be available to proponents and relevant government bodies;
2. early public display and subsequent involvement is preferable to making information available at a late stage when no significant contribution can be made. Early involvement also enables the establishment of effective two-way lines of communication;
3. public involvement should be mandatory at each stage of the EIA process. This may also reduce the incidence of inquiry and appeal;
4. timing of the release of documents for public display should be at the discretion of the authoritative body involved. This would avoid the limited periods of exhibition being further reduced due to public holidays and weekends. Holiday periods may also reduce potential for people to examine the documents;
5. the content of documents made available for public display should be sensitive to the language, culture and scientific and technical knowledge of people most likely to be affected by the proposed development; and
6. the processes supporting public participation need to provide flexibility of approach to reflect different cultural requirements.

It is also recommended that the process include ways for the community to seek assistance in assessing and interpreting EIA documentation. This may include a proponent funded scheme that allows affected communities to 'buy' expertise to assist with the interpretation of technical information.

10. Providing support and certainty through definitions contained in the Act

An important way of providing clarity of meaning and intent in the Act is via the set of definitions. Including definitions of key terms that are frequently used in the Act serves to provide certainty and consistency of interpretation. Important terms that are routinely used in the Environmental Assessment Act are in need of definition or redefinition.

Within the *Environmental Assessment Act 1982* 'environment' is defined as 'all aspects of the surrounding of man including the physical, biological, economic cultural and social aspects'. The definition of environment in the Act is broad and unusually anthropocentric in its perspective. Its current application is focussed on the biophysical, social, cultural and economic aspects of the environment. The Act reflects the prevailing 'utilitarian' ethos of its policy makers and such an emphasis may no longer be appropriate.

It is recommended that the definition of environment be examined to more broadly acknowledge intrinsic values of the environment and to emphasise the interconnectedness of the environment.

Other key definitions that would provide further clarity to the Environmental Assessment Act include *Assessment Report* and *Environmental Impact Assessment.*

Both the Commonwealth and Western Australia include a definition of *Assessment Report* in their respective pieces of legislation as follows:

- *EPBC Act:*

  Assessment report means the report on the relevant impacts of a controlled Action.

- *WA Administrative Procedures (Environment Protection Act):*

  Assessment report means the document prepared by the Authority for the Minister under Section 44 of the Act reporting on:

  (a) the environmental factors of the relevant proposals;

  (b) the conditions and the procedures, if any to which any implementation of that proposals should be subject; and

  (c) containing any recommendations made by the Authority.

Western Australia also defines Environmental Impact Assessment as follows:

> *Environmental Impact Assessment means an orderly and systematic process for evaluating a proposal including its alternatives and objectives and its effect on the environment including the mitigation and management of those effects. The process extends from the initial concept of the proposal through implementation to commissioning and operation and where appropriate decommissioning.*

All Australian jurisdictions, except the Northern Territory reference ESD principles in their EIA processes. If it is deemed appropriate for ESD to be introduced as a guiding principle or objective of the Act it would be necessity for that term to also be defined.

11. Ensuring EIA documents provide all information necessary for decision making in keeping with the definition of environment

According to the *Environmental Assessment Act 1982* "environment" means '*all aspects of the surroundings of man including the physical, biological, economic, cultural and social aspect*s'. Where applicable, assessment documents should present information on all these elements of a proposed action.

Traditionally, expectations of EIA have focussed on ensuring that the voice of the natural environment is heard and considered in decision making. This is the case for the Northern Territory where PER and EIS documents will largely present information in respect to the natural environment. Information on social, economic and cultural environments is more limited. Often social and economic considerations will be presented together as the "socio-economic" environment – accordingly this information will focus on social or economic benefits to the immediate community, such as jobs or an economic contribution by the proponent for community benefit (like paying for a community swimming pool etc).

The current definition of environment loosely supports the concept of ESD and the need for integrated decision making based upon the triple-bottom line, that is, the natural environment, the economic environment and the socio-cultural environment. EIA documents should therefore be providing this information in a balanced way and with equal weighting.

The same level of research and analysis needs to be undertaken to present impacts and benefits of a proposed action to the natural environment, the economic environment (short, medium and long term and to the immediate locality, the region and the Northern Territory) as well as the social/ cultural environments. Based upon this information the proponent can undertake a triple bottom line analysis of their proposal for presentation to the community and to government.

The assessment of social, economic and environmental elements is no guarantee that decisions will always measure favourably for all three elements; however an EIA that presents a triple bottom line analysis, or incorporates clear and robust information on economic and social factors (including benefits, detriments and potential risks) as well as the natural environment, provides for greater public understanding of decision-making.

It is recommended that EIA documents provide information to support the concept of ESD and triple bottom line analysis.

12. Including provisions to escalate an environmental assessment

The current Northern Territory process allows for the Minister for Natural Resources, Environment and Heritage to escalate the assessment of a development to become an inquiry, under the *Inquiries Act*. Section 10 of the *Environmental Assessment Act 1982* states:

> *Where, in the opinion of the Minister, a matter to which this Act relates cannot be determined except by an inquiry, the* Inquiries Act *shall be used to inquire into that matter and, for that purpose, the Minister shall, if he is not the Minister responsible for the administration of that Act, be deemed to be the Minister so responsible.*

In consideration of some of the more contentious development proposals assessed in the NT, it is unclear why this provision has never been invoked. However, the Act provides no guidance on judging when and how a matter should be referred for Inquiry.

The EPA supports the ability to escalate a matter to a higher degree of scrutiny, as is possible in other jurisdictions. For example, the NSW *Environmental Assessment and Planning Act* allows for the Planning Minister to refer a matter to a Planning Assessment Commission. The commission may be required to assess the project as a whole, or the specifics of a particular element of a proposal. In some instances the commission may have a determination role (approval role) delegated from the Minister for Planning. The commission also has the ability to examine and provide recommendations on strategic planning matters—for example, it has been used to examine sites within the Sydney metropolitan area for the purpose of their future urban development.

The Canadian *Environment Assessment Act* provides for a range of assessment processes, two processes of note include:

- assessment by a review panel appointed by the Minister of the Environment to oversee an assessment when the environmental effects of a proposed project are uncertain or likely to be significant or when warranted by public concerns. The review panel process is held as offering individuals and groups, with different points of view, a chance to present information and express concerns; and
- assessment via an impartial mediator, appointed by the Minister to assess a project and help interested parties resolve issues. This is undertaken when interested parties agree, when they are few in number and where consensus appears possible.

In the assessment of proposals, there would a number of circumstances where it would be advantages to elevate the level of formal assessment, over and above the prescribed EIS procedures. Elevating the level of assessment would aim to better tailor the assessment process to deal with the specific circumstances of the proposal.

For example:

- in instances where the assessment of a proposal encounters very significant issues of unresolved public policy and a high level of public concern it would be desirable for the Minister to have discretion to invoke a formal Inquiry to resolve the assessment issues. It is considered that such instances would be exceptional;
- in instances where the assessment of a proposal creates significant disputes in relation to the impact of technology, or dispute about specific technical or scientific matters of a project it would be desirable for the Minister to have discretion to invoke either an independent expert of an expert panel to resolve the issues. In the case of a panel, participating experts could include nominees from interested parties and an elected chair; and
- in instances where the assessment of a proposal encounters significant issues relating to personal differences it would be desirable for the Minister to have discretion to invoke a mediated process to assist interested parties resolve issues. It is considered that a mediated outcome could operate in instances where 3rd parties or Traditional Owners have significant differences of opinion with a proponent about the merits of a proposed activity and in the negotiation of mitigation or compensatory measures, but where consensus appears possible.

An outstanding and to be considered issue is how an elevated assessment process would be funded.

It is recommended that the EIA process allow for the escalation of assessments, where circumstances warrant, and that provisions be considered that allow for:

- assessment via a formal Inquiry where existing processes are inadequate for resolving issues at hand due to circumstances of weak or nonexistent public policy or where significant levels of public concern exist.
- assessment via an expert or expert panel where existing processes are inadequate for resolving contentious technical or scientific matters.
- assessment via an impartial mediator when interested parties agree and where consensus appears possible.

13. Providing appeal mechanisms.

The EIA process should be enshrined in legislation or regulation that is enforceable and therefore appeal-able. Provision needs to be made for judicial appeal on procedural matters.

Merit based matters should be managed through effective public participation procedures as well as the proposed escalation mechanisms described in the previous section.

It is recommended that a judicial appeal, based on due process, needs to be allowed for through the EIA legislation.

14. Supporting the EIA process with resources and expertise.

An issue needing consideration is the resource intensity of administering the assessment process. Relative to other jurisdictions, NRETAS's environmental assessments unit has a small organisational structure and limited technical capacity. Nonetheless, the unit is responsible for handling the assessment of all major project proposals and often multiple proposals requiring complex scientific and specialised assessment.

While NRETAS is supported by the technical expertise held across government there is the issue of responsibility for, and capacity to, assess the social impacts associated with a development, this has the potential to limit the Northern Territory's ability to ensure that social implications of its decision making are appropriately understood.

Administration of the EIA process places considerable demands on NRETAS. Key demands relate to evaluating Notices of Intent, responding to proponent enquiries, seeking supplementary information from proponents (which is often not forthcoming), addressing community concerns and writing assessment reports on major and complex proposals.

A key challenge for NRETAS is the administration of these tasks within the mandated timeframes regardless of the complexity and size of proposals. The period 2003 to 2007 saw an unprecedented number of technically complex resource projects requiring assessment.

The administrative procedures allow for the 'buying' of expertise to assist with an assessment.

It is recommended that any new process that is developed as a consequence of the EPA's review be cognisant of current technical capacity and resource constraints.

15. Supporting the Act with provisions for enforcement.

The Act does not provide penalties for failing to refer a project that may have significant environmental impacts. It also places responsibility for the referral on another government agency, rather than the proponent.

The penalties for failing to comply with operating conditions vary across government and depend on the approving instrument and how strongly prosecution is pursued. In principle, there is a need for a consistent approach for addressing failures to comply with operational conditions as set out in approvals which reflect outcomes of the environmental assessment process.

There is no assurance that commitments made by a proponent in EIA documentation will be considered as legally binding by the responsible agency (especially if its primary role is non-environmental or advocacy). This takes a considerable amount of force away from EIA documents prepared by the proponent.

There is a risk that compliance may either not be measured or may be inadequately evaluated if the responsible agency lacks expertise to assess this. It may also take a low priority if it does not fall within the principal goals of the agency. Additionally, there may not be any formal mechanism to achieve compliance audits.

It is recommended that the Act include offence provisions to support the proposed triggers of activities that require environmental assessment (refer point 8), that is, it would be an offence to conduct an activity identified by the *Environmental Assessment Act 1982* as requiring environmental assessment before the completion of an environmental assessment of the activity.

4 Key Findings

The intention of this final section is to consider the key findings of the Discussion Paper, as outlined in the preceding discussion, against the Terms of Reference for the review. The aim of this discussion is to recapitulate both the Terms of Reference and key findings and to assist with responding to the paper.

It is suggested that, in commenting on this paper, respondents may wish to provide detailed remarks relating to the paper's findings, issues arising from any proposed recommendations or issues relating to the Terms of Reference that may not have been specifically addressed. The key findings as they relate to the Terms of Reference will be considered sequentially.

In relation to the **first Term of Reference** to:

> ***Evaluate the objectives of the Environmental Assessment Act with regard to the principles and objectives of ecologically sustainable development;***

The Discussion Paper has found:

The object of the Act provides no guidance in relation to the Act's provisions for Ministerial or administrative discretion, nor does it outline expectations of the Northern Territory EIA process or outcomes.

As the overarching aim of the Act, the Object clause is weak and narrow. It relates only to the need to examine significant environmental effects of proposed actions. Accordingly, the objectives of the Act are peripheral to the principles and objectives of ESD.

It is suggested that the Object clause of the Northern Territory Act be amended to embrace clear decision making principles and objectives that express intent and expectation of the environmental impact assessment process including the principles and objectives of ESD and public participation. The paper proposes a suite of objectives that could guide future amendments to the Northern Territory *Environmental Assessment Act 1982*.

In relation to the **second Term of Reference** to:

> ***Examine and review what constitutes a 'proposed action' under the Environmental Assessment Act;***

The Discussion Paper has found:

The Environmental Assessment Act anticipates that a form of environmental assessment will be applied to elements of Government decision making beyond that for major projects. This currently includes decisions on expenditure, negotiations on agreements etc.

The Environmental Assessment Administrative Procedures however have a singular focus on project-level assessment. The Administrative Procedures do not provide clear guidance on how all elements defined under 'proposed action' would trigger the environmental assessment process and legal advice has in the past been provided to

the Department of Planning and Infrastructure that the Procedures do not provide for a strategic environmental assessment.

While the EPA strongly supports government policy, plans and programs being assessed for their potential impact on the natural, social and cultural environment of the Northern Territory it questions whether the *Environmental Assessment Act* is the appropriate vehicle to deliver this broader scope of impact assessment.

However, there is a role for strategic environmental assessment within the framework of the *Environmental Assessment Act* focusing on improving the decision making frameworks for development and the implementation of EIA.

The EPA found that the current definition of 'proposed action' also caused too much uncertainty. Currently the Act and supporting Administrative Procedures requires development proposals to be considered for their potential for significant effect on the environment without supporting guidance or policy on which to make this judgement. Accordingly the EPA suggests that the concept of 'proposed action' be replaced by a definitive expression of what requires environmental assessment (that is, the introduction of "triggers").

In relation to the **third Term of Reference** to:

> ***Determine how the assessment process established by the Environmental Assessment Act and Environmental Assessment Administrative Procedures can be improved to better meet the current or proposed objectives of the Environmental Assessment Act as identified in this Review;***

The Discussion Paper has found that:

- amendments to the Northern Territory process should occur through legislative reform; not simply by amending the Environmental Assessment Administrative Procedures. EIA should be outlined in legislation with supporting regulations;

- the Act requires increased recognition and accountability by approving legislation to ensure meaningful contribution of EIA in decision making;

- the Procedures need to enforce greater certainty and consistency of process though a more robust decision making framework. In particular, the Act should be amended to:
    - include specific triggers of activities that require formal environmental assessment, removing the discretionary element;
    - ensure the environmental assessment process is the same for all projects, by replacing PERs and EISs with a single process;
    - introduce accountability by an 'approving Minister' on how the outcomes of an environmental assessment have been addressed in decision-making;

- public participation needs to be acknowledged by the Act as having intrinsic value to the EIA process as well as being central to the objectives of EIA and that best practice principles for public involvement be adopted by the Act;

- there is a need to elevate levels of formal assessment to safeguard credibility of decision-making;

- the NT government should continue to expeditiously develop a comprehensive suite of environmental policies and guidelines to inform decision making under the EIA process;

- the Act should uphold that the proponent has primary responsibility for protecting the environment;

- consideration should be given to a suite of tools designed to improve the quality of assessment documents;

- there is a need for the Act to provide for appeal mechanisms; and

- there is a need for the Act to provide for enforcement mechanisms.

In relation to the **fourth Term of Reference** to:

> ***Examine current processes and frameworks for approval of 'proposed actions' following the assessment processes;***

The Discussion Paper has found that:

Approving legislation should be amended to provide increased recognition and accountability to the *Environmental Assessment Act 1982* with the purpose of ensuring the meaningful contribution of EIA in decision making, ongoing environmental compliance and providing public accountability on how the outcomes of the environmental assessment process have been accounted for in decision making.

In relation to the **fifth Term of Reference** to:

> ***Consider any other matters relevant and necessary to complete this review;***

The Discussion Paper has found that:

Relevant natural resources and environment legislation that have a bearing on, or intersects with the *Environmental Assessment Act 1982* should be screened to consider how these Acts could be improved to better meet the objectives of the *Environmental Assessment Act* and ensure efficiency of administrative arrangements. Given there are over 30 pieces of environmental legislation in the NT, this task was beyond the immediate reach of this review.

Any new process that is developed as a consequence of the EPA's review be:

- cognisant of current resource constraints;
- able to improve the administrative efficiency of the EIA process; and
- avoid duplication of process.

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ATTACHMENT C:

CONSULTATION SCHEDULE

EIA CONSULTATION SCHEDULE, 2009

NAME	DATE
EC NT	23 June
RDPIFR	8 July
AFANT	3 July
NRETAS	17 July
NT Resource Council (NTRC)	20 July
Dept Health & Families	28 July
LAGANT Executive	31 July
Mining Board	4 August
Mining Exploration Community Meeting, Batchelor	6 August
Mining Exploration Community Meeting Berry Springs	7 August
Dept. Planning and Infrastructure	12 August
PowerWater	17 August
Public Panel Session	20 August
Environmental Consultants	21 August
Tiwi Community	24 August
NTRC Members	25 August
Jabiru Community	26 August
Katherine Community	27 August
Dept Health & Families	28 August
Larrakia Nation	31 August
Tiwi LC	1 September
Northern Land Council	1 September
NRETAS assessment team	3 September
Strider	3 September
DHAC	17 September
Larrakia Rangers	18 September
Public Forum – Alice Springs	1 September
Stakeholder consultations	2 September
Public Forums – Darwin	20 September

ATTACHMENT D:

KEY ISSUES, COMMENTS ON THE EPA'S DISCUSSION PAPER

Key Issues and Comments on the EPA's Discussion Paper

Short commentary on the public response to key issues identified in the Discussion Paper.

1. Certainty and consistency of process through legislation

Issue identified in Discussion Paper
The present EA Act is a discretionary system without supporting public policies or guidance to give direction to decision making. This creates uncertainty and unrealistic expectations. This poses issues for industry, the public and government.

Discussion Paper Recommendation
The Act requires greater certainty and consistency of decision making. It should include a more robust decision-making framework so that decisions are not subject to the broad discretion of the decision-maker but based on clear, objective criteria.

Consultation feedback
This issue is cross cutting and many if not all aspects of the assessment procedures have bearing on the achievement of a more certain and consistent outcome.

No submitter explicitly argued against the need for certainty and consistency of process, however, one submission (RDPIFR) implies the present level of discretionary decision making is adequate.

In the context of this issue being cross cutting, the Environment Defenders Office (EDO) argues that the NT EA Act should, at a minimum, be aligned with key provisions of the Commonwealth EPBC Act and that elements of the EPBC Act that should, at a minimum, be incorporated into the EA Act include:

- Objectives Requiring ESD principles to be applied in making key decisions in the EA process
- Accountability of decision making Including public reasons for all assessment decisions
- Triggers Transparent triggers and rules for what must be assessed and the level of assessment
- Rules against piecemeal development proposals and assessment
- Credentials of proponent Consideration of the environmental credential of a proponent and operator
- Appeals Giving standing to community groups to seek judicial review of Government decisions
- Environmental Approval Tying EA to an environmental approval issued by the Environment Minister
- Offences and penalties Penalty provisions for misleading information, and failures in the EA process
- Statutory powers to audit approval conditions and recommend changes to update conditions
- Community standing Providing rights to the community to enforce the EAA & assessment outcomes

NRETAS notes most recent development proposals are deemed to be controlled actions under EPBC Act.

2. Public Accountability

Issue

Approving legislation (such as the *Planning Act* or the *Mine Management Act*) may not have jurisdiction to address all of the issues raised through the environmental assessment process, and may have considerable discretion on the extent to which the outcomes of the EIA need to be considered by the approving Minister.

Discussion Paper Recommendation

The outcomes of the environmental assessment process should be directly accounted for in decision making, by: amending approving legislation to require public account of how the assessment report has informed the approval; supporting offence provisions to ensure operations are not inconsistent with approval conditions; compliance and audit provisions.

Consultation feedback

Wide support for full accountability of how an environmental approval or assessment report has been translated into project approval conditions, justifying any changes. This will likely require changes to Approving Acts.

Submissions argued for differing levels of accountability. EDO argued for full disclosure of all socio-economic data that underpins proponent arguments. Minerals argued for full accountability of all assessment decisions for proponents but that public accountability should be consistent with FOI Act provisions. RDPIFR argued for Ministerial discretion on disclosure of information.

NRETAS argued for greater accountability noting it would increase focus on practical outcomes oriented recommendations, and encourage industry to better use EIA for identifying risks and improving project design, allowing for more straight forward government approvals.

NLC argued for enforcement of commitments made by the proponent in the EIA process used to secure social license to operate. These may be overridden by an approving Minister.

3. Objectives of the Act

Issue

The EA Act has a very limited object clause. It provides no guidance on discretionary aspects of the Act, or expectations or outcomes of the EIA process.

Discussion Paper Recommendation

The discussion paper proposed eight principles to be incorporated as Objectives of the Act. These objectives provide decision making principles and include objectives that express the intent and expectation of the EIA process. These included; ESD; that the proponent be primarily responsibility for the protection of the environment; and recognising the role of Indigenous people in the conservation and use of resources.

Consultation feedback

There was broad support for inclusion of ESD principles, including the precautionary principle and proponent responsibility for protection of the environment, although this view was not held by some stakeholders. There was some concern, however, about the potential misuse of the precautionary principle. Accordingly, comprehensive guidance about its application is required.

There was general support for the proposed Objectives (or slightly revised Objectives), although this was not supported by all stakeholders. Support for additional nationally agreed principles relating to EIA procedures being ‘relevant’, ‘efficient’ and ‘focussed’ (INPEX).

Support for pubic participation and ESD principles (NRETAS). Strong support for recognition and application of traditional cultural and ecological knowledge to the assessment process (NLC).

4. Environmental policy that supports the EIA process

Issue

There is a lack of supporting environmental policy and guidance that has resulted in the EIA process having to address and resolve policy issues in order to assess a proposal, resulting in delays and increased work for proponents and assessors and a poor 'environment' for developing policy and assessing proposals.

Discussion Paper Recommendation

Development or adoption of environmental policies and guidelines should be expedited. SEA could be used to develop policy. Where there is a policy void, assessments could be placed on hold whilst policy is developed.

Consultation feedback

Wide spread support for development of comprehensive environmental policies and guidelines. This will provide greater certainty of outcome, it will serve to improve the timeliness and allow streamlining of assessments where appropriate.

Two policy themes emerged, they include:

- the lack of environmental policy and guidance that directly informs project level environmental impacts; and
- the lack of integrated strategic land use planning and NRM policy.

NRETAS noted that strategic land use planning should underpin the EIA process. EIA should not be used as a replacement to such planning.

It was argued that resources used to establish a comprehensive policy and guidance environment for EIA will pay dividends in providing greater certainty and transparency to proponents and public, consistency of decision making, efficiency of assessment procedures, will be required to underpin assessment on referral documentation.

It was suggest that a key impediment to assessment on referral documentation is the lack of robust environmental policy and guidelines. With comprehensive policy and guidance the NOI process could be more streamlined, efficient and consistent.

There were several strong opponents to the suspension of assessments where policy is under development, and also some support (NRETAS).

It was proposed, however, that in the absence of policy it could be justifiable to use another jurisdictions policy or the application of 'a best practice' approach agreed by expert panel. This would be similar to the elevation of assessment where a policy void makes current EIA procedures difficult to apply.

A range of submitters also argued for strategic land use policies. Suggesting the development of an agreed whole of government approach to land use planning which explicitly incorporates principles of sustainability and application of strategic environmental assessment. This is considered outside the immediate scops of the review.

5. Quality of EIA documents

Issue
The expectations about the quality of the assessment process needs to be made explicit. Inclusion of precautionary principle will require the proponent to prove the proposal will not present a threat of serious or irreversible environmental damage. The public and assessors require confidence that the proponent's documentation is truthful.

Discussion Paper Recommendation
Expectation about quality of documentation must be made explicit. Options include accreditation of EIA consultants; duty of care commitments; and peer review.

Consultation feedback
There is a wide expectation from public and community groups that the EIS should be prepared by an independent actor, peer reviewed, independent & high quality, with a Govt role in selecting the consultant.

Some support for certification of practitioners to set competence standards, but this could add administrative complexity (PowerWater, LGANT)

INPEX argued that the quality of documents could be improved without any new regulatory requirements, but with improved comprehensive upfront scoping, availability of guidelines and policies; and clear project specific guidelines. Another stakeholder argued that duty of care provisions are not appropriate and that peer review is already standard practice.

Consultants should be requited to follow duty of care provisions with offence provisions for false or misleading information (ECNT)

Needs to be guaranteed and timely access to all technical information (NLC)

6. Strategic Environmental Assessment

Issue
SEA allows social, economic and environmental impact of policies, plans and projects to be evaluated, and allows for public participation. There are no provisions to support strategic environmental assessment.

Discussion Paper Recommendation
That the *Environmental Assessment Act* allows for strategic environmental assessments to be undertaken, with the specific aim of strengthening EIA to better serve the objectives of ecologically sustainable development. Triggers and procedures for SEA need to be established.

Consultation feedback
Widespread public and community group view that improved baseline information is required to understand impacts and better inform decision making, beyond just the project level. SEA is seen as a tool to better consider cumulative impacts and should be applied to plans, policies and investment decisions.

DPI less supportive, and considers that the Planning Act already allows for strategic land use plans and that the advantages of SEA over present situation are not immediately apparent, and SEA needs time & resources (as reason not to pursue)

INPEX views SEA (as it relates to project based development) as untested. Minerals considers SEA should be used to aid the EIA process, and should be part of policy not legislation. NRETAS sees best

use of SEA as informing site selection for specified activities to enable development of overarching principles and policy and regulatory guidance for environmental management of those activities, and possibly remove the need for EIA specific proposals, and could provide a better mechanism to assess cumulative impacts.

Funding models to undertake SEA is a critical issue.

EDO envisages the EA Act could be used to create own Strategic Policy Instrument, to establish ecosystem limits, establish sustainability objectives, indicators and reporting framework (EDO)

SEA of regional development opportunities is important for long term certainty of regional prosperity & economies. SEA could also serve to better manage tensions around individual project proposals (and apparent piecemeal development).

7. Certainty of EIA procedure in referral and level of assessment decisions

Issue

The decision making framework of the Administrative Procedures is heavily reliant on ministerial discretion. The procedures do not clearly define responsibility for the referral of all matters defined as a proposed action. Responsibility for referral is placed on the approving Minister. There is a risk that a matter that should be referred is not. There is a perception that PER assessments are less rigorous than EIS assessments and this can become a point of lobbying.

Discussion Paper Recommendation

The Act should ensure decisions are based on clear, objective criteria, not subject to broad (unfettered) discretion of decision maker, and ensure greater levels of accountability and transparency. Specific triggers for referral be established, removing the discretionary element. Minister to maintain powers to 'call in' a proposal. That the environmental assessment process be the same for all projects, with variation in timeframes to scrutinise the proposal.

That the EIA process allows for escalation of assessment where circumstances warrant, for instance

- A formal inquiry where policies are inadequate for resolving issues at hand
- In circumstances of contentious technical or scientific matters
- Impartial mediator to assist resolution of personal differences of opinion of parties

Consultation feedback

Tiered assessment

Tiered assessment is broadly supported. However, concern was expressed by some stakeholders about a single process that has no mechanism to streamline low risk assessment. There is a need to allow for cost effective assessment of limited risk activities with public interest. There was a perception that PERs represented streamlined assessment.

No explicit opposition to escalation of assessment. Support for escalation of assessment (ECNT, Tutty). But once assessment streams and timeframes are determined, escalation should not occur (INPEX).

Discretionary powers are required for EIA exhibition periods.

There is a need to consider cumulative effects of development as well as the biophysical, human health, economic development and social service infrastructure (LGANT).

Indigenous representation required on project scoping panel (Batchelor Institute).

Tiers of assessment will also still be subject to lobbying. Statutory timeframes warrant review and some proponents have unrealistic expectations. Upholding the principle of public participation provides a basis to extend consultation, where warranted (NRETAS).

Support extension of timeframes for consultation, especially documents relating to social and cultural impacts. Also needs to be guaranteed & timely access to technical information, or extension of consultation period (NLC).

Referral Criteria Triggers

Suggest change responsibility for referral from approving Minister to Minister responsible for EIA process (INPEX). RDPIFR is supportive of present approach with memorandum of understanding.

Allow for voluntary submission of an EIA by a proponent to avoid the initial notification process and timelines for government review. Could expedite process and Ministerial determination not required (NRETAS).

There is broad support for carefully considered, clear, objective and publicly accountable trigger criteria that are supported by comprehensive guidance which includes consideration of the role of SEA. Guidelines should ensure accountable, consistent and fair approach. Clear guidance should negate 3rd party referrals (INPEX). There is a need to ensure that small proposal with big impacts are captured in the EIA process (DCC).

Triggers can create greater certainty need to be grounded by sound science or analysis. Best utilized for well understood and common development proposals and risks.

A series of triggers would overcome the referral gap, but an entire schedule of triggers would be impractical and constrain the Act. Suggest 6 or 7 trigger like EPBC (Minerals). Two types of triggers – a performance based primary trigger with prescribed activities deemed to meet the performance trigger (EDO).

Trigger criteria to consider high impact development, sensitive locality, likely to affect environment incl. cumulative impact, high polluting development (ECNT). Not support cumulative impact triggers as too blunt and will capture activities that do not have significant impact (INPEX).

Triggers for proposed 2nd and 3rd schedules are covered by other legislation. Areas of environmental, cultural and social significant are reported under Heritage Conservation Act, if not then protective measure should be included in the guidelines.

8. Risk Assessment

Issue

It is argued that the application of well recognised and well understood processes of risk assessment and risk management provide opportunities to improve clarity in presenting environmental assessment. The use of quantitative risk assessment techniques in EIA represents best practice.

The Discussion Paper did not explicitly address Risk Assessment. However, the Recent WA EIA review strongly supported the use of risk assessment in EIA, noting that a risk-based approach has the potential for a number of advantages including:

- greater transparency in decision-making processes;
- support informed, consistent and defensible decision-making
- consistent with the precautionary principle
- more systematic approach to evaluating the magnitude of environmental impacts
- prioritises the environmental impacts of concern, the application of management and controls and the focus of audit programmes

- improves environmental accountability of proponents
- provides an effective basis for the engagement of key stakeholders to influence environmental outcomes
- provides a sound basis for the development of targeted research and development programmes.

The WA EIA review noted a risk-based approach also has potential challenges including:

- ensuring there is sufficient data to inform the risk assessment and decision-making
- recognising complex ecosystem linkages and dependencies
- building a common understanding of the risk assessment approach and associated concepts and definitions
- ensuring the approach is responsive to different situations
- recognising the legitimate role of the EPA to be informed by the risk assessment and then make a judgement

The WA Review recommended that:

- Risk terminology and definitions should be standardised to provide a common basis for understanding risk assessment presented in EIA documentation.

- Risk-based approaches should be used to inform key stages of the environmental impact assessment process:
    - scoping of the proposal at or following referral
    - evaluation of impacts and design of mitigation measures by the proponent
    - assessment of impacts arising from the proposal by the EPA
    - assessment of proposed mitigation measures by the EPA

- Within each of these phases, risk analyses and evaluations of environmental risks should be conducted to an increasing level of detail as a proposal proceeds through the process.

- A risk-based approach should be used to inform priority areas for compliance monitoring and auditing subsequent to the setting of conditions and issue of an Implementation Statement by the Minister for Environment.

<u>Consultation feedback</u>

PowerWater is highly supportive of a risk based framework that provides a consistent and transparent approach. Noting the potential use of risk assessment to focus on most significant issues and where meaningful risk is apparent.

NRETAS is supportive and has been developing a risk based approach to EIA that could be used. Providing a consistent framework for decision making, and for determining whether forma assessment is required and prioritising risk. Can ensure greater consistency and be implemented in a manner providing transparency around decision making.

Would need to allow for incorporation of indigenous cultural and ecological knowledge.

9. Public participation and engagement

Issue
The Northern Territory's EIA system provides for public participation during the process, however it does not identify public participation as a key purpose of EIA.

Discussion Paper Recommendation
That public participation is acknowledged by the Act as having intrinsic vale to EIA process and central to objectives of EIA. Greater emphasis to be place on public participation in the scoping phase of an assessment, to make it more efficient and less likely to result in controversial outcomes. Six principles of public involvement were proposed. Proposes a proponent funded scheme for community groups to seek funding to assist participate in the assessment process.

Consultation feedback
Broad range of individuals and groups support early full and meaningful pubic participation and that consultation is central to EIA. A proactive approach to Indigenous engagement is required which should commence during initial stage of EIA (CAT).

The same information should be accessible to all parties (CAT) and that the Act should set benchmarks and guidance for consultation with well defined purpose.

The requirement to submit only 'written comments', is a barrier to indigenous participation (DLGH).

Community should be given an equal right of participation in strategic assessment as well as project based assessment; there should be public participation in consideration about project alternatives; there should be access to all relevant information; duty of care for effective engagement; documentation of all community engagement and of any inducements (ECNT)

INPEX argued it is the responsibility of the proponent to develop a strategy that aligns with best practice and meets requirements for proposal and stakeholders. A prescriptive approach is inappropriate there should be guidance for proponents in best practice techniques and benefits.

Some stakeholders supported a community fund and some didn't.

Necessary to guaranteed timely access to all technical information (NLC), extend public participation to minimum of 35 business days up to 60 business days.

A principle for public participation (in the Act) would promote greater public engagement through entire process and allow Govt to consider adequacy of consultation on a particular proposal (NRETAS)

10. Definitions

Issue
Act should define important terms and revise or update existing definitions.

Discussion Paper Recommendation
Definition of 'environment' requires updating. Inclusion of definitions for 'Assessment Report', 'Environmental Impact Assessment', and 'ESD' and related principles.

Consultation feedback

Support for updating of 'environment' (DCC, ECNT)

Trend is for EIA to include economic, cultural, social and health aspects in conjunction with biophysical (INPEX)

Concern about broadening definition of 'environment' result in proponent being required to address anything and everything.

11. EIA document to provide all necessary information

Issue
Proposed new objectives support ESD and a need for integrated decision making. EIA document should provide relevant triple bottom line information in a balanced way with equal weighting.

Discussion Paper Recommendation
EIA document should provide information to support the concept of ESD and triple bottom line analysis.

Consultation feedback
EIA to support analysis of how proposal will support ESD or being met (ECNT, NRETAS)

Allow for extension of consultation when late material is circulated to public domain (NLC).

There needs to be a more formal role for social impact assessment in the EIA process (NRETAS). Also HIA.

12. Appeal mechanisms

Issue
Provisions are required to ensure government is held accountable to adhere to due process.

Discussion Paper Recommendation
The Act to include provisions for judicial appeal of decisions. Merit based issues should be managed through effective public participation, escalation of matters and adherence to robust policy and guidelines.

Consultation feedback
A range of stakeholders support a rigorous process that is not subject to appeals, although one comment suggested that appeal rights should be limited to proponents. Concerns include: possibility of vexatious appeals that delay projects; additional burden on courts; postponement of projects; inhibit decision makers from making a weighted assessment; and deter proponents form undertaking projects in the NT.

Community generally think otherwise, that merit and judicial appeals are required to ensure government is held accountable to correct process (ECNT, Tutty) and that community given standing to seek judicial review of Government decisions (EDO). And that community groups are given legal functions such as rights to seek injunction where Govt. is not well resourced to enforce environmental obligations (EDO).

EDO argues the importance that a fair, impartial, expert and equal hearing occurs in first instance. Rather than seeking to fix problem after the fact.

13. Supporting EIA with resources and expertise

Issue
NRETAS is not well resourced to administer the EIA process. Social and cultural impact analysis is often not well understood. Health and economic impacts analysis not well integrated. There are technical constraints to undertake analysis within government.

EPA Recommendation
Recommendation to be cognisant of resource and technical constraints.

Consultation feedback
Darwin City argued that appropriate resourcing should be considered as part of the process in achieving best outcomes. Accordingly additional resources are required (DCC).

Engagement of external expertise should be available to assessing agency (INPEX). However, outsourcing could create conflict of interest and decrease consistency in decision making (Minerals).

Sufficient resources and expertise is critical for ensuring timely and effective environmental assessment process (INPEX). Adequate resourcing is required so agencies can respond comprehensively and adequately to complex proposals (ECNT).

14. Enforcement

Issue
No enforcement of the Act. Responsibility for referral is placed on a government's agency and not proponent.

EPA Recommendation
The Act include offence provisions to support triggers of activities that require environmental assessment such that it would be an offence to undertake an activity, that required referral and approval, prior to undertaking that activity.

Consultation feedback
As it presently stands compliance issues are generally related to approving conditions of other Acts (Minerals). Noting that its concern about creating duplication of offences as referral is instigated by the responsible Minister and failure to obtain approval form responsible Minster will generally result in an offence. This is failure of a Govt. Dept. not proponent. Should be dealt with via policies not legislation.

Minerals also argued that policy should make it a condition of approval that a proponent must comply with commitment made in the EIA documents.

Enforcement should be aligned with significant environmental harm and not triggers (INPEX).

Offence provision supported. Monitoring must occur. Environment management plans must be publicly available (ECNT)

ATTACHMENT E:

INDIGENOUS COMMUNITY ENGAGEMENT REPORT

PROJECT REPORT

INDIGENOUS COMMUNITY ENGAGEMENT

REVIEW OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCEDURES OF THE NORTHERN TERRITORY

FOR

NORTHERN TERRITORY
ENVIRONMENT PROTECTION AUTHORITY

October 2009

BATCHELOR INSTITUTE
OF INDIGENOUS TERTIARY EDUCATION
Research Division

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TABLE OF CONTENTS

LIST OF ACRONYMS

BIITE	Batchelor Institute of Indigenous Tertiary Education
CLC	Central Land Council
EAA	Environmental Assessment Act
EIA	Environmental Impact Assessment
EPA	Environment Protection Authority
ESD	Ecologically sustainable development
IAIA	International Association of Impact Assessment
NLC	Northern Land Council
TLC	Tiwi Land Council
TO	Traditional Owner

1 INTRODUCTION

The following report provides an overview of the outcomes from the Indigenous community engagement process that has been undertaken on the Environment Protection Authority (EPA) discussion paper on the *Review of the environmental impact assessment procedures of the Northern Territory* (discussion paper). The community engagement process was contracted out by the EPA and undertaken by the Batchelor Institute of Indigenous Tertiary Education (BIITE) between the months of August to October, 2009.

The outcome of this community engagement process is intended to inform the Environment Protection Authority's final recommendations on Environmental Impact Assessment (EIA).

1.1 Project Aims and Objectives

The primary aim of this consultancy was to engage Indigenous groups and communities on the EPA's discussion paper.

This report includes, but is not limited to, the following features:

- A brief outline of relevant EIA documentation linked to the review process;
- Detailed description of the outcomes of the community engagement process;
- A set of recommendations for components to be included in the Northern Territory (NT) EIA process in the future; and
- A set of recommendations for undertaking Indigenous community consultation for future EPA needs.

The objective of the consultancy team in undertaking the community engagement was to: document community views on the existing processes for EIA; identify where improvements could be made to the EIA process; and to gather feedback on those procedures recommended in the discussion paper for inclusion in the future NT EIA processes.

1.2 Scope of Work

The scope of work of this consultancy was to

- Facilitate public forum sessions on the EIA discussion paper in both Darwin and Alice Springs;
- Develop an NT Indigenous community engagement schedule;
- Record community engagement contacts in spreadsheet;
- Undertake Indigenous community engagement in agreed locations across the Northern Territory;
- Provide recommendations for changes to future NT EIA processes; and
- Provide recommendations on undertaking future community engagement process in Indigenous communities.

2 BACKGROUND

In order to situate the findings of the Indigenous community engagement associated with the EIA review process background contextual information is required and is discussed in the following sections.

2.1 Environmental Impact Assessment in the Northern Territory

In the Northern Territory (NT), EIA legislation was first introduced as the *Environmental Assessment Act* (the Act or EAA) in 1982. Under the EAA, assessment processes are limited to those matters which are considered by the Minister of Natural Resources, Environment and Heritage to have significant effects on the environment (Environmental Assessment Act 1994). The Act is supported by administrative procedures which detail the procedures to be followed. The Act was updated in 1994 to bring it into line with requirements of the *Intergovernmental Agreement on the Environment* (IGAE) introduced in 1992 (Elliott and Thomas 2009). Other major components of the Act include:

- its application to public works (e.g. water or road infrastructure) and private projects (e.g. mining projects);
- procedures are primarily related to land-use and development decisions;
- the levels of assessment are either as a Public Environment Report (PER) or an Environmental Impact Statement (EIS); and
- EIA process plays an advisory role as opposed to providing for an approval as an outcome (Elliot and Thomas 2009).

2.2 Sustainable Development in the Northern Territory

The EPA's discussion paper on EIA in the NT clearly highlights the need for EIA to be a central instrument for achieving ecologically sustainable development (ESD) outcomes in the NT and to achieve this, to be a clear object of the *Environmental Assessment Act* (EPA 2009a). A brief background to recent developments in ESD in the Northern Territory is therefore provided.

The National Strategy for Ecologically Sustainable Development (NSESD) introduced in 1992 defines ESD as:

> *Using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased.*
>
> *Put more simply, ESD is development that aims to meet the needs of Australians today, while conserving our ecosystems to the benefit of future generations To do this, we need to develop ways of using those environmental resources which form the basis of our economy in a way which maintains and, where possible, improves their range, variety and quality. At the same time we need to utilise those resources to develop industry and generate employment* (NSESD 1992: Part 1).

In 2008, the EPA initiated a project to define the meaning of ESD in the NT, and a discussion paper was released in February 2009. Following public consultation, and included in the ESD discussion paper, were six ESD principles:

1. *Ecologically sustainable development is necessary to support a strong, diversified and health Northern Territory society;*
2. *The nature dependent Northern Territory identity is to be protected and promoted;*
3. *Equity and social cohesion are intrinsic to how the Northern Territory operates;*
4. *The public sector must lead in the advocacy and enactment of ecologically sustainable development in the Northern Territory;*
5. *The Northern Territory community and business are key partners in ecologically sustainable development; and*
6. *Acknowledging and addressing regional circumstances is required to achieve ecologically sustainable development in the Northern Territory* (EPA 2009b: 4).

Each of the above criteria has direct links to future EIA processes, as described in the EPAs discussion paper on EIA.

2.3 Environmental Impact Assessment Review

In March, 2008, the EPA was requested to undertake a review of EIA in the NT by the Minister for Natural Resources, Environment and Heritage. The Terms of Reference for the review were subsequently extended by the EPA to:

1. Evaluate the object of the Environmental Assessment Act with regard to the principles and objectives of ecologically sustainable development;
2. Examine and review what constitutes a 'proposed action' under the Environmental Assessment Act;
3. Determine how the assessment process established by the Environmental Assessment Act and Environmental Assessment Administrative Procedures can be improved to better meet the proposed objectives of the Environmental Assessment Act as identified in this Review;
4. Examine current processes and frameworks for approval of 'proposed actions' following the assessment processes; and
5. Consider any other matters relevant and necessary to complete this review.

The review was undertaken by the EPA on the basis that any future changes to the EIA process in the Northern Territory are to reflect the International Association of Impact Assessment (IAIA) best practice EIA principles (EPA 2009a). There are fourteen best practice principles (Table 1). These are described in full in Appendix A, and elaborated on in the analysis undertaken in Section 4.

The community engagement process (discussed in this paper) with Indigenous organisations and communities relating to the outcomes of the review was undertaken with a view to including community feedback on possible alternatives for EIA processes in the future. This process is aligned with many of the IAIA best practice principles, and provides the basis for the analysis of themes in Section 4.

Table 1: IAIA Best Practice EIA Principles

▪ Purposive;	▪ Adaptive;
▪ Rigorous;	▪ Participative;
▪ Practical;	▪ Interdisciplinary;
▪ Relevant;	▪ Credible;
▪ Cost-effective;	▪ Integrated;
▪ Efficient;	▪ Transparent; and
▪ Focused;	▪ Systematic.

(Source: IAIA 1999: Section 2.4)

Table 2 provides a summary of the key issues and recommendations identified within the review.

Table 2: Key issues and recommendations of the EIA Discussion Paper

Issues	**Recommendations**
Certainty and Consistency	
A discretionary system without supporting public policies or guidance to give direction to decision-making creates uncertainty and unrealistic expectations. This poses issues for both industry and the public.	The Act should include a more robust decision-making framework so that decisions are not subject to the broad discretion of the decision-maker but based on clear, objective criteria.
Public Accountability	
Approving legislation (such as the *Planning Act* or the *Mine Management Act*) may not have jurisdiction to address all of the issues raised through the environmental assessment process.	The outcomes of the environmental assessment process are directly accounted for in decision making.
Genuine and early public engagement	
The Northern Territory's EIA system provides for public participation during the process, however it does not identify public participation as a key purpose of EIA.	Incorporate public involvement throughout the process and ensure that the voices of disadvantaged groups are heard.
Proponents responsibility to protect the environment	
Primary responsibility for the protection of the environment rests with the Minister.' Therefore the burden of proof is with the Minister not the proponent.	That the objectives of the Act clearly articulate that environmental protection is primarily the responsibility of the proponent.
Strategic Environmental Assessment	
There is no current provision to support strategic environmental assessment.	That the *Environmental Assessment Act* allows for strategic environmental

Issues	Recommendations
	assessments to be undertaken, with the specific aim of strengthening EIA to better serve the objectives of ecologically sustainable development.
Integrated policy, planning and approvals framework	
EIA operates in a framework where there is little integration between policy, planning and approval regimes.	The EPA's paper focuses on how to improve the current system to increase certainty, move towards greater integration and to strengthen the role of EIA within the Northern Territory.

(Source: EPA 2009c) http://www.epa.nt.gov.au/current/eia_review.html

2.4 UN Declaration on the Rights of Indigenous Peoples

The *United Nations Declaration on the Rights of Indigenous Peoples* (the Declaration) was adopted in 2007. At the time of its adoption Australia did not give its support. In 2009, however, endorsement was forthcoming (Commonwealth of Australia 2009).

Particular *Articles* in the Declaration concern government (state) consultation and decision making with indigenous peoples in relation to development and land-use of community land. Table 3 summarises the relevant *Articles* of the Declaration.

Table 3: UN Declaration on the Rights of Indigenous Peoples

Article Number	Description
Article 19	States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them
Article 23	Indigenous peoples have the right to determine and develop priorities and strategies for exercising their right to development. In particular, indigenous peoples have the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them and, as far as possible, to administer such programs through their own institutions.
Article 27	States shall establish and implement, in conjunction with indigenous peoples concerned, a fair, independent, impartial, open and transparent process, giving due recognition to indigenous peoples' laws, traditions, customs and land tenure systems, to recognize and adjudicate the rights of indigenous peoples pertaining to their lands, territories and resources, including those which were traditionally owned or otherwise occupied or used. Indigenous peoples shall have the right to participate in this process.
Article 29	1. Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States shall establish and implement assistance programmes for indigenous peoples

Article Number	Description
	for such conservation and protection, without discrimination. 2. States shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of indigenous peoples without their free, prior and informed consent. 3. States shall also take effective measures to ensure, as needed, that programmes for monitoring, maintaining and restoring the health of indigenous peoples, as developed and implemented by the peoples affected by such materials, are duly implemented.
Article 32	1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources. 2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources. 3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.

(Source: UN 2008: 4-12)

3 METHODOLOGY

The following outlines our methods for completing the outputs described in Section 1.1. There were four distinct phases to the project:

1. Document review and identification of key themes;
2. Scheduling of community visits;
3. Indigenous engagement; and
4. Preparation of consultancy report.

3.1 Data Gathering

Three complementary methods were applied to the collection of data. They were:

1. Document review and identification of key themes and approaches for discussing EIA themes with Indigenous organisations and communities;
2. Scheduling of community visits; and
3. Indigenous engagement.

Each of these methods is described in more detail below.

3.1.1 Document review and identification of key themes

As an initial task, the project team became acquainted with the EPA's discussion paper in order to determine the most appropriate approaches to community engagement, depending on the stakeholder group. Out of this review, two key approaches were identified for engagement with:

1. Indigenous organisations; and
2. community members on the ground.

3.1.2 Scheduling of Community Visits

The scope for Indigenous community engagement was defined by the available budget. The schedule for community visits was determined by two main factors, these being:

1. Geographical location; and
2. Issues based.

In an attempt to obtain a NT wide geographical representation, communities selected for engagement in the process were located in the three major NT regions: the Top End; the Barkly Region; and Central Australia, and included both regional centres and remote communities. In conjunction with selecting communities based on their geographical location, some communities were selected due to their present or prior experience with EIA and major developments.

Appendix B provides a copy of the community engagement schedule undertaken.

3.1.3 Indigenous engagement

There were two approaches to the Indigenous community engagement. These approaches varied depending on whether the engagement was with Indigenous organisations or with community members.

Community members and organisations were advised that no individuals or organisation would be identified in the report to the EPA (unless requested to do so) and that only a list of the communities/organisations visited during the project would be provided. This approach aimed to facilitate open discussions and enabling the project team to gather a diverse set of views.

Indigenous Organisations

Scheduled meetings were made with community organisations in Darwin and Alice Springs. These meetings were held in a formal setting and addressed the following topics:

- an introduction to the EPA and its current role;
- an outline of the EPA background paper;
- a discussion on current experience with the existing EIA process; and
- identification of areas of change needed in the EIA process, including the preferred mode of consultation/engagement over development proposals.

Meetings were held with the following organisations:

- Northern Land Council;
- Tiwi Land Council;
- Larrakia Nation Aboriginal Corporation;
- Central Land Council;
- Lhere Artepe Aboriginal Corporation; and the
- Barkly Shire Council.

The land councils represented Indigenous communities from across the Northern Territory and the Aboriginal Corporations represented the traditional owners from the Darwin (Larrakia Nation) and Alice Springs (Lhere Artepe) regions. (Multiple attempts were made to engage the Northern Australian Indigenous Land and Sea Management Authority (NAILSMA), however a meeting within the specified timeframes was unable to be secured).

Indigenous Communities

Eight communities in regional and remote areas of the NT participated in the process.

Early engagement processes identified that the intricate details and complexities of the proposed legislative changes were confusing and presented a barrier to meaningful participation and dialogue over EIA processes. As such, the engagement approach applied was iterative and developmental, informed by, and responsive to, the on-the-ground interactive experiences.

Discussions with communities were held in informal settings and typically had an

initial focus on what happens on country and to families/communities when large developments are proposed and/or approved. The relationship of community member's own development experiences was then linked back to EIA processes wherever possible. In this way, community members were able to gain a more appreciable understanding of the EIA legislation and proposed changes and the implications of these to future generations. The concerns and/or suggestions for inclusion in the EIA process articulated by community members were therefore contextualised from within their own worldview and experience of development and the EIA processes.

A summary of the topics explored through community engagements included:

- an exploration of community experience with development;
- identification of current issues within an EIA context;
- the mapping of appropriate methods of community engagement surrounding development (proposals) and EIA; and the
- identification of ways to move forward with changes to the EIA system in the NT.

Community engagement sessions were undertaken at the following communities:

- Tiwi Island (Nguiu community);
- Jabiru;
- Katherine;
- Yuendumu;
- Atitjere (Harts Ranges);
- Borroloola;
- Elliott; and
- Tennant Creek.

3.2 Data analysis and preparation of a Draft and Final Report.

Written notes were taken to record the community engagement sessions in each community, and included the recording of a series of verbatim quotes. Data was then analysed for dominant themes. The emergent themes were then examined in relation to existing EIA discourse and ways to move forward in an Indigenous context. In particular, the themes were considered against the IAIA's best practice EIA principles and the *United Nations Declaration on the Rights of Indigenous Peoples*, to which Australia is a signatory. The IAIA best practice principles are a key area identified by the NT EPA in their discussion paper as a central element needed for any future changes to Northern Territory EIA processes (EPA 2009a).

Amongst other areas, the following aspects are developed within this report:

- the key issues identified by Indigenous communities/organisations with the existing NT EIA process;
- a description of core elements identified by Indigenous communities/organisations as essential for moving forward with EIA; and

- a detailed assessment of the needs for future public engagement processes in an Indigenous context in the NT.

3.3 Methodological Limitations

Two main limitations to the methodology were identified by the project:

1. The limited budget and time available for undertaking the community engagement process reduced the effectiveness of the process. Despite this, a reasonable representation of views from across the NT was able to be gathered; and
2. When visiting communities in the Barkly region of the NT, unforeseen circumstances reduced the number of people who could attend meetings. These were the result of both 'sorry' business and an emergency community meeting which took priority on the day that community engagement was scheduled to occur. Discussions with representatives from each area, however, still took place.

4 COMMUNITY ENGAGEMENT OUTCOMES

The findings of the Indigenous community engagement that occurred from the 23rd August to the 25th September, 2009, are presented in this section and include nine key themes. These are:

1. Purposive EIA process;
2. Rigorous and interdisciplinary EIA process;
3. Cost-effective and efficient EIA process;
4. Focused EIA process;
5. Adaptive EIA process;
6. Participative EIA process;
7. Credible EIA process;
8. Integrated EIA process; and
9. Transparent EIA process.

The findings of this engagement process are directly linked to the most relevant of the IAIA best practice principles for EIA. This is consistent with the EPA's position that future EIA processes in the NT should "reflect the intent of these principles" (EPA 2009a: 14). Quotes from individuals have been included where appropriate. As noted in Section 3, anonymity was guaranteed. As such, quotes have not been referenced. This aspect of confidentiality was an important part of the process for achieving desired outcomes.

As highlighted earlier, with Australia a signatory of the UN Declaration on the rights of Indigenous Peoples, the Declaration was highlighted by some community members as necessary to take into consideration when making amendments to the EIA process in the NT. It is therefore, included as a reference point to the discussion that follows. In the words of one community member:

> *The Declaration of Indigenous Rights has been signed by the Federal Government, therefore all States and Territories . . . you have to get it right or there will be massive compensation claims or major blocks [with development].*

4.1 Purposive EIA Process

If EIA is to be purposive then the IAIA (1999: Section 2.4) argue that "the process should inform decision making and result in appropriate levels of environmental protection and community wellbeing". This is supported in Article 23 of the UN Declaration (UN 2008). Those consulted in the EIA community engagement process (participants) identified a variety of ways in which ease of decision making could be facilitated in order to increase community wellbeing and achieve aspirations.

Many of the communities visited had developed detailed community plans for their regions, which included discussions of development, jobs and future needs. It was regarded positive for this information to be included in and facilitated by the EIA process. Participants reasoned that government, proponents and the community would not need to waste time and resources on a proposed development when long term

planning by the community had already identified that a particular type of development may or may not be supported. The right to determine priorities such as this is a key element to Articles 23 and 32 of the Un Declaration (UN 2008).

Support from government to develop strategic assessments or regional planning was considered necessary, particularly to support small business enterprises. Planning was especially viewed as important for those community members who wanted to be developers themselves. The requirement for community members to prepare an EIA was regarded as a (potential) barrier to improving community wellbeing. To reduce these types of barriers, a need was identified for information to be provided in a simple, easy-to-use format that went through the process step by step.

Community members supported the idea of strategic planning/assessments and being fully involved in the process. Typical comments which capture this view included:

> *SEA will ensure transparency [with government and developers] and will include the EIA principles.*
>
> *I would like to see a better system where operators and developers can be here for 3 or 4 years then gone. The way I see it now, it is not working. We need a better system for us. The operators come and go and they say, 'it will benefit our people'. There needs to be guidelines so we can see what we agree on. We have to benefit our people. We want to see a better economy.*

The identification of the need for longer term planning and assessments of this kind supports the EPA's recommendation that the Environment Assessment Act allow for strategic environmental assessments to be undertaken, with the aim of supporting the application of EIA process to achieve the objectives of ESD.

Concern was expressed over the way in which money from development was distributed. There was a strong desire to have local Indigenous employment linked to development. The experience of many community members was that the few Aboriginals employed were from somewhere else and not the local community impacted by the development. Some wanted this addressed in law.

Each of these concerns was considered essential for achieving community aspirations, environmental protection and community wellbeing.

4.2 Rigorous and Interdisciplinary EIA Process

A rigorous EIA process as defined by the IAIA (1999) is one that "applies 'best practicable' science, employing methodologies and techniques appropriate to address the problems being investigated" (IAIA 1999: Section 2.4). Linked to this is the need for an interdisciplinary process to "ensure that the appropriate techniques and experts in the relevant biophysical and socioeconomic disciplines are employed including the use of traditional knowledge as relevant" (IAIA 1999: Section 2.4).

The community engagement process found widespread support among participants for the EPA's proposal to "recognise the role of Indigenous People in the conservation and ecologically sustainable use of natural and cultural resources" (Environment Protection Authority 2009a: 21) as one of the objectives of the Act.

Participants had the strong view that Indigenous peoples extensive knowledge of their own land is an invaluable and largely untapped resource that should be acknowledged and formally recognised within the EIA system. This view has particular relevance to

discussions around the use of 'science' and appropriate methodologies and techniques. TOs clearly voiced the Western 'science' system didn't provide for the incorporation of their expert traditional knowledge within the process. A desire was expressed by TOs for government to support community members to undertake base-line assessments for development that occurs on country. The undertaking of such baseline studies was also identified as an important tool for enabling the assessment of cumulative impacts over time and longer term strategic planning. This view is aligned with the EPA's recommendation relating to the need to address cumulative impacts as an objective of the Act (EPA 2009a).

There was a strong sentiment expressed by participants that their knowledge of social and cultural considerations was not seriously taken into consideration under existing EIA processes. In some cases, traditional knowledge was considered as an afterthought or not interpreted in the appropriate manner. The following quotes, relating to mining operations, provide examples of this view:

> *Aboriginal people should be on the board or management [of mining operations], because there is burial ground, bush tukka, sacred sites… but they didn't care… they don't listen to Aboriginal people that live here. There are a lot of people buried there… now there is a mine. It is no good.*

> *We need a better system in place to talk to the developer. We just don't trust them no more – the developer or the government.*

Community members expressed the desire for the EIA process to include formal provisions for consulting with traditional owners and community members from affected country. This was highlighted as needing to be provided in a forum in which experts from across each affected group/party could be involved and their expert opinions fully taken into consideration in the decision making process.

4.3 Cost-effective and Efficient EIA Processes

The IAIA (1999) has defined parameters for considering cost effectiveness and efficiency of the EIA process. To achieve cost-effectiveness, they state that "the processes should achieve the objectives of EIA within the limits of available information, time resources and methodology" (IAIA 1999: Section 2.4). Furthermore, an efficient EIA process "should impose the minimum cost burdens in terms of time and finance on proponents and participants consistent with meeting accepted requirements and objectives of EIA" (IAIA 1999: Section 2.4).

There was widespread acknowledgement among participants in both communities and organisations that cost effectiveness and limited timeframes appeared to be the primary factors controlling the EIA process. Participants consistently highlighted these aspects of EIA as major issues, particularly when considering the extensive timeframes necessary for effective community engagement in an Indigenous context. This is summarised with the following quote from one community member.

> *There is pressure to make fast decisions on things that may impact on us for the next 20 generations.*

This dimension is expanded on in Section 4.6 due to its relevance to participative processes.

4.4 Focused EIA Processes

The IAIA (1999) define a focused EIA process as one that "concentrates on significant environmental effects and key issues, i.e. the matters that need to be taken into account in making decisions" (IAIA 1999: Section 2.4).

In this context, participants requested practical examples of what a significant development would include. This view is consistent with the EPA's recommendation for there to be triggers for the types for activities that would need to undergo the EIA process. Further, Land Councils contended that there needed to be a formula to follow in developing EIAs. Clarity around what constitutes significant development and the triggering of an EIA, along with practical guidelines on how to undertake an EIA, were considered pivotal to ensuring that the processes were more easily understood for both proponents and interested parties in order to participate more fully in the assessment process. Common quotes which reflect these views included:

> *We need a process that is more flexible for us – so we can develop a picture of where we are heading… we need a process that is more appropriate for us to understand decisions.*

> *You have got to know the size of the development and then take environmental policy in.*

Some community members expressed concern that the EIA process could be an impediment to development, which was contrary to other government messages around creating business and employment. An example of this includes:

> *Aquaculture at . . . The EIA could impact on what you want to do! On economic development!*

Allowing for clear triggers for the assessment processes was identified as an approach that may help alleviate these fears. This supports the EPAs argument that specific triggers need to be included in the NT EIA process to remove discretionary elements and to provide for a more robust and transparent decision making process (EPA 2009a).

4.5 Adaptive EIA Processes

A further area identified by the IAIA (1999) as necessary for best practice EIA was for the process to be adaptive. They state, "the processes should be adjusted to the realities, issues and circumstances of the proposals under review without compromising the integrity of the process, and be iterative, incorporating lessons learned throughout the proposal's life cycle" (IAIA 1999: Section 2.4).

In the context of a proposals "life-cycle" from beginning to decommissioning, community members consistently raised the issue about developers and their responsibility to remediate or rehabilitate sites, along with the need to properly address pollution incidents or other unexpected outcomes resulting from development. There was a desire expressed for environmental monitoring (in which community members saw they had an important role), policing, invoking sanctions and environmental protection measures to be built into laws and development approvals. Many viewed that the NT EPA should have a role in regulation and compliance with

development conditions. The ability to assess and mitigate adverse impacts is one of the central components of article 32 of the UN Declaration (UN 2008).

There were many occurrences of pollution incidents stemming from development cited by participants. This highlighted the need for independence and transparency in the process. A community member commented:

> *some pollute at night time – no monitoring. If it [monitoring] is done internally, it is unreliable.*

Community members routinely described incidents of environmental, cultural and social destruction associated with development and detailed the evidence they had collected to confirm the events. There was no occasion where a community had their claims investigated, addressed or dealt with to the satisfaction of the complainant. Nor had any participant received assurances that these incidents would be prevented from happening again. Selected examples provided included cyanide dumping and dead animals, fish kills down stream of mine discharge points, destruction of sacred sites, disappearance of kangaroos and other bush tucker and aquatic life. The following quotes reflect these observations, experiences and concerns:

> *The cyanide went into the dam – where the kids swim, the cattle drink. They [developers] did nothing. No testing. We need law to prevent incidents. If local people clean up the mess then they should be paid by the developer… don't just pull up and wash down your truck and leave puddles of diesel or worse… there should be no dumping of diesel or waste on all land, traditional or other… birds think it is water, then it is too late.*
>
> *Developers should be required to rehabilitate and comply with agreements made with communities.*
>
> *Worksafe involvement has made it more difficult when there is a pollution incident.*
>
> *Biggest mob of dead fish floating down the river. They say fish died because of fresh water in the river and lack of oxygen. We say it is because of the mine.*

Participants regarded effective monitoring as important in preventing, and/or determining the causes of, pollution incidents. In addition, monitoring of proponents and their actioning of management plans was also regarded an essential part of the EIA process through active involvement. Comments which illustrate this view are:

> *There needs to be a body that has monitoring powers while the mines are still running or when they leave – to monitor and check. It has to be put in there [the law]. TO's perspective must be there on management of mines. They must help monitor during and after.*
>
> *…in the mines there needs to be jobs for Indigenous people. The law should be changed for this and they [the developer] be forced to stick to the agreement.*
>
> *Aboriginal people should be on the board or management [of mining operations], because there is burial ground, bush tucker, sacred sites . . . but*

> *they didn't care . . . they don't listen to Aboriginal people that live here. There are a lot of people buried there . . . now there is a mine. It is no good.*

The recommendation by the EPA that appeal mechanisms be included in the NT EIA process could help alleviate these issues.

Many examples were provided in which developers had promised jobs for local Indigenous community members in securing support for development (or appeasing community concerns) and these promises had not eventuated. Examples of quotes included:

> *Aboriginal people need to benefit more [from development]. Aboriginal people stay down.*

> *White man go high. Aboriginal people should have management jobs too.*

There was a strong sense among participants that all aspects of development be monitored through regulatory provisions included in EIA legislation. This supports the EPA's recommendation to provide enforcement mechanisms with the EAA (EPA 2009a).

4.6 Participative EIA Process

Participative EIA processes are defined by the IAIA (1999) as those that "provide appropriate opportunities to inform and involve the interested and affected publics, and their inputs and concerns should be addressed explicitly in the documentation and decision making" (IAIA 1999: Section 2.4). In addition to the IAIA process Articles 19 and 32 of the UN Declaration requires government to consult with Indigenous people on any matters that may impact on communities (UN 2008).

Being able to participate in the EIA process in an appropriate manner was of major concern and frequently brought up by community members. Two main areas were identified as critical to improving the process, being:

1. Early engagement with traditional owners (TOs) of the land on which a development is proposed; and
2. Effective Indigenous engagement processes for future EIAs.

When considering the potential impacts of a development proposal, Indigenous groups and communities from across the NT consistently and unambiguously stated the need for adequate time for consultation on any matter of concern[1]. There was also resentment that consultation appeared to be selective. As discussed in Section 3.3, this was primarily the result of a limited timeframe available for the engagement process.

Most communities expressed the need for a minimum of three face-to-face visits in any community engagement process, as follows:

1. The first visit was considered to be about making a request for a meeting to occur and drumming up interest and inviting community members to that meeting;

[1] The consultation process that was used in undertaking this EPA EIA engagement was flagged repeatedly as an example of an inadequate and unsatisfactory approach to consultation due to time and budget restrictions.

2. The second visit was to provide all the information about the topic so that people understood the purpose, aims and context for holding a meeting; and
3. A third visit to gather any views and concerns.

According to participants, following an initial meeting groups/individuals needed time to consider/digest the issues, talk with family/community and form a position to later convey. Participants indicated they needed to be able to do this without pressure and without the presence of the developer. Providing a fluid three phase process was considered to respond to addressing time issues influenced by community cultural protocols, needs and other issues that may arise.

The importance of ensuring that the purpose/aim of any consultation be clearly stated must not be underestimated as a key element in reducing conflict associated with consultative processes linked to development. Examples were provided in which developers travelled to communities to provide information on proposed developments, spoke only very briefly and used terminology that could not be understood by any of the individuals participating in the process. An example of this is provided from the following quote from a community member:

> *Mining company come and do it [consultation] in big talk and then go. We don't get a chance to think about what we want to say.*

Participants indicated that EIA information needed to be concise and developers/consultants should focus on the key EIA issues. Overwhelming, community members with volumes of information only served to engender distrust and exclusion from the process, as important issues were lost in the mire. This supports the identification by the EPA of the need for information to be provided to Indigenous people in a way that is "sensitive to the language, culture and scientific and technical knowledge of people most likely to be affected by the proposed development" (EPA 2009a: 35).

Participants requested that information about developments and EIA presented during discussions/consultation with Indigenous communities be expressed in a way that was easily understood and digested. For this to take place effectively, it was highlighted that there was a need for interpreters to be available and for sufficient time to be provided for the explanation of key issues/concepts to be adequately explained.

It was also identified that when undertaking community consultation processes that particular protocols may need to be followed in terms of the way information was presented, who to contact to facilitate engagement and which community members to talk with initially. For instance, this may mean talking to men and women separately or talking to the community as a whole, depending on which community is involved and the potential EIA concerns to emerge. Examples of quotes which capture the need for a flexible approach to engagement, which better reflect community protocols, included:

> *Cultural respect must be in law. There are significant things we have to talk about. Sometimes men separate from women.*

> *Talk to TOs first. Get people together. Men and women. Before talking to the land council. Talk about it, think about it. Maybe for a few months, maybe a year.*

While the above views were commonplace across many communities in the NT, community members frequently stated that the land councils should be the first point of contact to arrange meetings with the appropriate people. This was despite a general undercurrent of dissatisfaction with the practices of the land councils. Possible explanations for this apparent contradiction may relate to individuals faith in the potential of the existing mechanisms and functions of the land councils or the cultural obligation/imperative to publicly support the process.

There was a view across many communities that women were generally excluded from decisions around development. They believed their concerns for intergenerational equity were ignored or buried for the purpose of monetary gain. Examples of comments relating to gender equity included:

> *Let us talk to one another - we are strong women - we talk to each other.*
>
> *Come and talk to all the women*
>
> *[The environment] is the future for our kids. We have to think about future generations. They [the kids] got to take responsibility when we all pass away. We got to pass it [the land] onto them.*
>
> *They [land council] don't explain and don't tell us what's going on – the ones who have the meeting with government.*
>
> *They don't come back and bring information to us. Even the land council don't tell us what is happening…they don't give us the answers… they should talk to us and tell us what is happening.*

In addition to gender issues, the concerns raised which link to ESD principles are consistent with the EPA's premise that ESD should be a central component of any revised NT EIA legislation.

Without exception, all participants involved in the engagement process wanted the community to be consulted first. The opinion was repeatedly voiced that developers should talk to the community prior to any discussions/lobbying with shire councils or the government, as illustrated through the following sentiment:

> *The government should not make decisions. They [the developers] must talk to the people. Then they [the government] should support us…when we want to go ahead, the government doesn't give us a helping hand. They always make decisions and don't listen to the voice of the land.*

Several community members articulated their desire to be a greater part of the decision making process, as reflected in the following quotes:

> *We want a greater opportunity to have community members able to be a part of the decisions… to comment on cultural and social impacts and employment and economics. Where there are impacts of significance, there must be (i) representation of the land owners and (ii) a true assessment of the social, cultural and economic impacts.*
>
> *The process could be strengthened by having good representation – it must include community – otherwise it will be blinkered.*

Indigenous people stated their desire to be a part of the early decisions so that they were able to negotiate better outcomes for their people and country. The requirement to talk with community was linked directly with strengthening their position to negotiate better social and cultural outcomes.

There was considerable feedback provided which indicated community desire for checks and balances to ensure that effective community engagement to be enshrined in EIA legislation. Of overall importance, however, was the need for there to be early and frequent consultation at each major stage of the process. This supports the EPA's proposal that a new objective to the EAA should be incorporated that states that "to ensure there are opportunities for timely and meaningful local community and public participation, as appropriate – before, during and after the formal environmental assessment or proposals" (EPA 2009a: 21).

4.7 Credible EIA Process

Community organisations and members identified the need for the EIA process to be credible. The IAIA (1999) define a credible EIA process as one that is "carried out with professionalism, rigor, fairness, objectivity, impartiality and balance, and be subject to independent checks and verification" (IAIA 1999: Section 2.4).

Within this context, participants involved in EIA community engagement identified four main areas requiring consideration in the development of new EIA legislative processes:

1. Role of the EPA and future directions of the EPA;
2. Regulatory body for EIA processes and outcomes;
3. Use of experts throughout the assessment process; and
4. Preparation of EIA reports in a credible and appropriate manner.

The preparation of an EIS and associated reports was highlighted as an area of interest, particularly as the current system requires the proponent to prepare the EIA report. This raised questions over its credibility; a sentiment captured in the following statement:

> *The process of the developer/proponent preparing an EIS and EIA is a flawed one… [for example] you never see an EIA which concludes with a recommendation of no development – it seems everything can be managed… it is all so conceptual anyway.*

To improve the credibility of the process, participants considered that an approved list of practitioners capable of undertaking a robust EIA was a good idea. They generally agreed that for practitioners to be considered appropriate, they should be assessed to determine their experience, qualifications and credibility. (As noted earlier, there was also a view that a formula for the preparation of an EIA be developed). This supports the EPA's recommendation that EIA consultants should be accredited (EPA 2009a).

In the context of adding credibility to the EIA process, many considered that the EPA should be the regulator of development, for example:

> *The EPA must be the check and balance in the system.*

> *If there is a way of putting the EPA as the full-stop, then that is a good way – like the WA process. The best way is to table it [development] in parliament… there needs to be a full-stop.*

It was also highlighted that changes in government can impact the flow of a development and affect agreements. Community members questioned whether it would be possible within the EIA process for the EPA to provide regulatory back-up/support to address these issues of continuity in changed political environments.

In terms of the development of EIA reports, every community visited highlighted the need for information to be presented in a way in which information could be easily understood.

4.8 Integrated EIA process

In line with the EPA's discussion paper, a further area of focus that was agreed upon throughout the NT engagement sessions was the need for the EIA process to be integrated. The IAIA (1999) defines 'integrated' as a process that "should address the interrelationships of social, economic and biophysical aspects" (IAIA 1999: Section 2.4). This has been discussed to some extent in the previous sections, however, it was identified that a major concern with the integration of the EIA process was the need for cultural and social aspects to be considered as equally important as the economic and biophysical aspects. Adequate community engagement was considered important to achieve these outcomes. The equal consideration of these aspects supports the EPA's recommendation that "EIA documents provide information to support the concept of ESD and triple bottom line analysis" (EPA 2009a: 37).

A number of examples were provided where cultural and social impact assessments had taken place, but had not taken place early enough in the process to influence the outcome in any meaningful way. In addition, there was a strong view held that developers should build infrastructure and contribute to community services for the purpose of social and cultural advancement and expression, rather than provide money to a smaller section of the community. Examples of this sentiment included:

> *Questions need to be asked of developers about what they will do to contribute in a good way to the community. They have social responsibilities but create social problems… they should be thinking about schools, hospitals and other community needs and things that improve the community.*

> *What are the social impacts of money in a community? . . . not always so good for us… the culture of mining does not reflect our community values. (Talking about increased $, alcohol consumption and violence).*

Concern was expressed over the rapid changes that development has on the landscape. These changes lead to rapid cultural shifts. Community members explained that contemporary stories no longer reflect older stories as the illustrations in the landscape have been destroyed, i.e. there is a reduced ability to explain stories because of landscape changes.

> *My country is a big hole now.*

In order for each of these areas to be adequately addressed, transparency and

accountability of processes were considered extremely important.

4.9 Transparent EIA Process

Transparency in the EIA process was a further area that was identified as essential for achieving effective decision making in EIA. A transparent process is defined by the IAIA (1999) as one that "should have clear, easily understood requirements for EIA content; ensure public access to information; identify the factors that are to be taken into account in decision making; and acknowledge limitations and difficulties" (IAIA 1999: Section 2.4).

The words of one of the individuals who participated in the engagement process highlight the general view for the need for transparency.

> *There will always be Ministerial over-arching power [with development]. But we can force the Minister to be more transparent . . . force them to table it [significant development] in parliament – their reasons and justifications.*

Across the NT, Indigenous peoples stated that there was need for the Minister to fully justify any decision made following the EIA process. This included, for example, the public availability of the advice given to the responsible Minister (e.g. mines), but also the rationale surrounding the decision/s made by the responsible Minister to go ahead/not go ahead with a proposed development and the conditions under which any approval was made. This supports the EPA's argument that an 'approving Minister' must account for decisions made (EPA 2009a).

Access to information was of major concern given that many Indigenous communities did not have access to internet services. This situation was exacerbated in remote areas, compounded by the distance from major centres. This highlighted the need for alternative means of communication.

The need for such transparency in conjunction with ease of participation of Indigenous people in the process is also a central requirement of Article 27 of the UN Declaration (UN 2008).

5 RECOMMENDATIONS

In conclusion, the community engagement process that was undertaken in relation to the proposed changes to EIA legislative requirements in the NT provided important and detailed information for the EPA to take into consideration when providing final recommendations to the Minster. Many of the views held by the Indigenous organisations and communities who participated in the engagement process support a range of recommendations that have been made by the EPA in their discussion paper. The following recommendations are made.

5.1 Changes to Environmental Impact Assessment Processes

The following recommendations are summarised from the community engagement processes that have been discussed in Section 4 of this report. These include:

1. The EIA legislative processes need to include a provision for the government to provide support to communities to develop strategic environmental assessments for their regional planning processes.
2. There is a need for the EIA procedures to include easy to understand guidelines on each step of the EIA process. This is essential for the effectiveness of the process.
3. The EIA process needs to explicitly acknowledge traditional environmental knowledge and provide avenues for use of this knowledge within each part of the EIA process.
4. The EIA process should include a provision for the government to provide funds to community groups to undertake baseline assessments to enable the assessment of cumulative impacts and for use in strategic environmental assessment processes.
5. EIA must allow sufficient timeframes for undertaking the process to reduce the reliance on cost-effectiveness as the major focus for establishing the overall time limits of the process. This would allow for a balancing of community engagement outcomes and the streamlining of the approval process.
6. A clear definition of what constitutes a ‘significant’ development under the EAA must be provided.
7. There is a need for the EIA process to provide clarity on, and provide practical examples of, what triggers a significant development for assessment.
8. Formal requirements for environmental monitoring of developments from start up to decommissioning are included in the EIA process are needed. This also needs to include a provision for the enforcement of sanctions when requirements are not met.
9. Formal processes for the monitoring of the proponent’s compliance with approval conditions are considered necessary to enable transparency and accountability of the process.
10. The EIA process could allow for the EPA to hold regulatory powers to enable enforcement of the EIA provisions.

11. An opportunity must be provided through community engagement within the EIA process for Indigenous people to be a part of the decision making process and to provide comment on the range of potential impacts.
12. There is a need for those developing EIA reports to have been through an accreditation process. The EPA as an independent body needs to maintain an approved list of practitioners.
13. Community engagement needs to take place from the beginning of the process, while proposals are still concepts not final preferred proposals.
14. The EIA process needs to consider cultural and social impacts on an equal footing to economic and environmental impacts.
15. Formal justification of all decisions made in relation to significant development is essential and needs to be publicly available.
16. A forum of experts to determine impacts, including Indigenous representation needs to be provided for.
17. The EIA process needs to result in a formal approval decision being made.

5.2 Recommendations for enhancing Indigenous community engagement

Lessons learned from the engagement processes leads to the development of the following recommendations. These recommendations have been made as a basis for undertaking Indigenous community engagement by the EPA in the future.

18. The EIA process needs to include formal provisions for consulting with traditional owners and community members from affected country. Legislation should incorporate checks and balances to ensure that effective community engagement takes place.
19. There is a need for the EIA process to allow enough flexibility for timeframes for Indigenous community consultation to be undertaken effectively.
20. The EIA process needs a requirement for communities to be consulted first by proponents prior to any discussions with government and/or any other groups.
21. For Indigenous community engagement processes to be effective a minimum of a three stage process is needed as follows:
    - Visit one to make a face to face request for community members to come to an engagement meeting and determine interest and best time for holding a meeting;
    - Visit two to provide information in an appropriate language so that people understand the purpose for holding the meeting; and
    - Visit 3 – following a time period for communities to discuss the proposal, return to the community to gather any further views and concerns.

22. Sufficient timeframes must be provided following briefing sessions by the proponent so that community members can discuss the proposal without the developer being present.
23. The engagement process must have as a central component the requirement to clearly explain the purpose/aim of the consultation. This is a key requirement for reducing conflict in the engagement process.
24. There is a need for there to be a formal requirement for an interpreter to be a part of EIA community engagement processes.
25. Community engagement processes should commence with contacting the relevant land council as a first step.
26. Consultative processes based on gender must be taken into consideration, where advised by the community as necessary in the first visit of the three stage engagement process.

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APPENDIX A: IAIA BEST PRACTICE EIA PRINCIPLES

Source: IAIA (International Association of Impact Assessment) (1999) *Principles of Environmental Impact Assessment Best Practice*, IAIA: Fargo: Section 2.4.

2.4 Basic Principles

Environmental Impact Assessment should be:

Purposive - the process should inform decision making and result in appropriate levels of environmental protection and community well-being.

Rigorous - the process should apply "best practicable" science, employing methodologies and techniques appropriate to address the problems being investigated.

Practical - the process should result in information and outputs which assist with problem solving and are acceptable to and able to be implemented by proponents.

Relevant - the process should provide sufficient, reliable and usable information for development planning and decision making.

Cost-effective - the process should achieve the objectives of EIA within the limits of available information, time, resources and methodology.

Efficient - the process should impose the minimum cost burdens in terms of time and finance on proponents and participants consistent with meeting accepted requirements and objectives of EIA.

Focused - the process should concentrate on significant environmental effects and key issues; i.e., the matters that need to be taken into account in making decisions.

Adaptive - the process should be adjusted to the realities, issues and circumstances of the proposals under review without compromising the integrity of the process, and be iterative, incorporating lessons learned throughout the proposal's life cycle.

Participative - the process should provide appropriate opportunities to inform and involve the interested and affected publics, and their inputs and concerns should be addressed explicitly in the documentation and decision making.

Interdisciplinary - the process should ensure that the appropriate techniques and experts in the relevant bio-physical and socio-economic disciplines are employed, including use of traditional knowledge as relevant.

Credible - the process should be carried out with professionalism, rigor, fairness, objectivity, impartiality and balance, and be subject to independent checks and verification.

Integrated - the process should address the interrelationships of social, economic and biophysical aspects.

Transparent - the process should have clear, easily understood requirements for EIA content; ensure public access to information; identify the factors that are to be taken into account in decision making; and acknowledge limitations and difficulties.

Systematic - the process should result in full consideration of all relevant information on the affected environment, of proposed alternatives and their impacts, and of the
measures necessary to monitor and investigate residual effects.

APPENDIX B: COMMUNITY ENGAGEMENT SCHEDULE

August 2009						
Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
						1
2	**3**	**4**	**5**	**6**	**7**	**8**
9	**10**	**11**	**12**	**13**	**14**	**15**
16	**17**	**18**		**20** Darwin Panel Session Daytime and evening	**21**	**22**
23 TIWI VISIT	**24** TIWI VISIT TIWI Community Engagement BBQ Lunch	**25** TRAVEL TO JABIRU	**26** JABIRU Jabiru Community Engagement (AM Start) BBQ Lunch	**27** KATHERINE Katherine Community Engagement (AM Start) BBQ Lunch	**28**	**29**
30	**31** Short information sessions begin Larrakia Nation NAILSMA Land Councils	Notes:				

September 2009						
Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
		1 Short information sessions Cont'd	**2** Short information sessions Cont'd	**3** Short information sessions Cont'd PUBLIC MEETINGS	**4** Short information sessions cont'd	**5**
6	**7** ALICE SPRINGS	**8** ALICE SPRINGS Meeting with Lhere Artepe	**9** ALICE SPRINGS Yuendumu Community Engagement BBQ lunch	**10** ALICE SPRINGS H.R Community Engagement BBQ lunch	**11** Meeting with CLC	**12**
13	**14** BORROLOOLA	**15** BORROLOOLA Borroloola Community Engagement BBQ lunch Stay Overnight	**16** BORROLOOLA	**17**	**18**	**19**
20	**21**	**22** BARKLEY REGION	**23** BARKLEY REGION Elliott Community Engagement BBQ lunch	**24** BARKLEY REGION Tennant Community Engagement Lunch	**25** BARKLEY REGION	**26**
27	**28**			Notes:		

ATTACHMENT F:

CDU ECOLOGICAL FOOTPRINTS REPORT

ECOLOGICAL FOOTPRINTS: THE SCIENCE, CURRENT PRACTICES, AND THEIR APPLICATION IN THE NORTHERN TERRITORY

FINAL REPORT
4 DECEMBER 2009

REPORT TO THE ENVIRONMENT PROTECTION AUTHORITY, NORTHERN TERRITORY GOVERNMENT

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School for Environmental Research, Institute of Advanced Studies, Charles Darwin University, Darwin 0909, Northern Territory

Collier, N. & Garnett, S.T. 2009.

Ecological footprints: the science, current practices, and their application in the Northern Territory. Report to the Environment Protection Authority, Northern Territory Government. School for Environmental Research, Charles Darwin University, Darwin.

TABLE OF CONTENTS

SUMMARY

Ecological footprint analysis (EFA) has developed over the past two decades as a means to assess national sustainability and attempts to quantify sustainable consumption within environmental capacity. EFA uses Input-Output analysis to calculate ecological footprints with data coming primarily from government sources, particularly household expenditure data. However, to use EFA for assessing enterprise sustainability requires more detailed information. This can be obtained using Life Cycle Analysis which can be time intensive and costly to implement and often relies on proprietary data, although some information is available in the public domain. Most applications of EFA are therefore currently beyond the scope of Environmental Impact Assessment

As a generic tool it could provide a mechanism by which to measure performance of a strategy or policy, or for policy development. For instance Ecological Footprint Analysis could be used to assess progress with initiatives such as the Northern Territory 2030 plan.

Regionally the use of Ecological Footprint Analysis will require collection of additional data on household consumption patterns but could be used to inform regional planning decisions and associated design. For instance it could be used to provide a mechanism to measure performance of new suburbs.

Ecological Footprint Analysis is also a valuable educative tool for the community, government and the business sector. In particular it could be used as a tool to promote energy efficiency and innovation in NT business, especially the Government sector (Wood and Garnett 2009), rather than be a burden to the development process.

For specific projects, Life Cycle Analysis could be used to estimate the ecological footprint of project components and their local flow-on effects could help inform advice from the Environment Protection Authority on project sustainability. However, although Ecological Footprint Analysis does provide a measure of the full environmental impacts of development, including those that are off site, the tools for its regular application on a project basis are still being refined and will need substantial work on validation before they can be employed as a intregral tool in environmental impact assessment.

INTRODUCTION

This report has been commissioned by the Northern Territory Environment Protection Authority (EPA) to provide with a resource document that outlines the utility of carbon footprint analysis in the Environmental Impact Assessment process.

The Environment Protection Authority (EPA) operates under the Northern Territory's Environment Protection Authority Act 2007. This Act delivers a unique EPA designed to be a leader in driving sustainable development thinking and practice in the Northern Territory. The EPA provides independent strategic advice to Government, businesses and the community, and has significant independent powers to publicly recommend contemporary legislative and policy frameworks.

Section 7(2)(b) states:
(2) In addition, the Authority must have regard to the following:
(b) the need to adopt objectives, targets and standards for environmental management that are:
(i) soundly and scientifically based; and
(ii) consistent with best practice.

The EPA believes that it should examine whether best practice in Environmental Impact Assessment should extend to analysis of greenhouse gas emissions generated off-site as a result of development approval.

Terms of reference for this report

The EPA has requested that the following be undertaken:

i. Review the use of Carbon (or other) Footprint Analysis in Environmental Impact Assessment
ii. Assess the relevance of carbon (or other) footprint analysis for Environmental Impact Assessment in the Northern Territory
iii. Assess the availability and robustness of NT carbon (or other) footprint analysis on an industry by industry basis
iv. Outputs of the consultancy to include a high quality written report, with scope including discussion of:
    - conceptual basis of environmental/ecological 'footprint analysis' and different types of footprint analysis ie carbon, ecological, water;
    - application of footprint analysis, nationally and internationally, in regulatory policy environments;
    - potential for the application of footprint analysis in the NT, including in the NT EIA procedures and other policy processes recommendations relating to options for use of footprint analysis in the context of the NT EIA process, and/or in other policy processes.

BACKGROUND

WHAT IS ECOLOGICAL FOOTPRINT ANALYSIS?

Ecological footprint analysis (EFA) emerged in the 1990's as a method to assess the sustainability of nations (Wackernagel et al. 1996). It is one of a range of metrics used to calculate indicators of sustainability and has primarily been used to measure trends in consumption of nations over time (Fig. 1; Hanley et al. 1999; Haberl et al. 2001). In doing so EFA attempts to quantify the outcomes of ecologically sustainable development principles that emerged during the 1980's and culminated in the Rio Earth Summit of 1992, where more than 100 countries agreed to principles of sustainable development and a national system of environmental impact assessment and reporting (UN 1992).

An ecological footprint quantifies the level of per capita consumption in terms of the area of productive land and water area required to support that consumption for an indefinite period of time: i.e. sustainable consumption within environmental capacity (Fischer et al. 2008). It also estimates the area required for absorbing the waste produced and consumption. A critical feature of the ecological footprint methodology is that it includes a country's or region's imports in the calculation of consumption. The ecological footprint of a citizen in a particular country is expressed as an area per person: the standard unit is hectares/person.

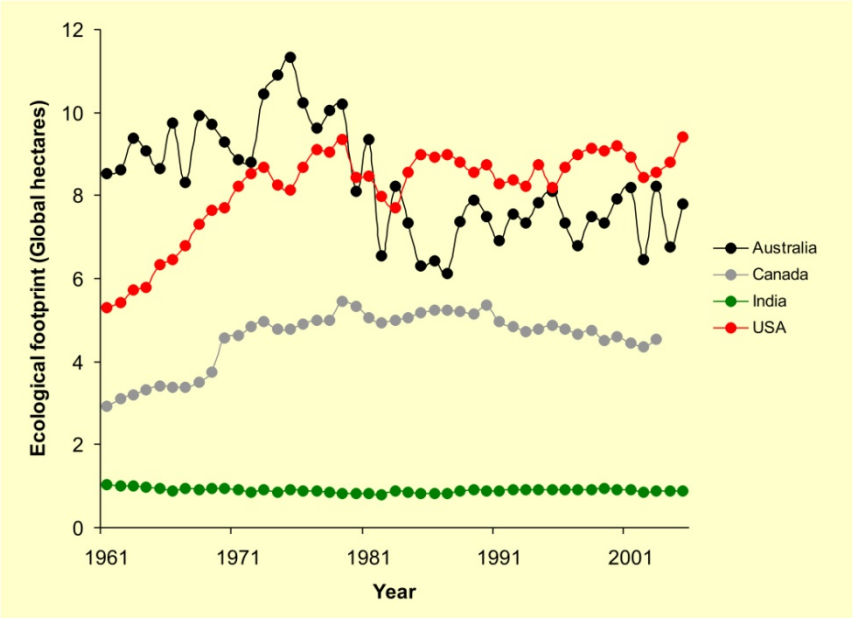

Figure 1. Trends of ecological footprints (gha per captia) for five countries (Australia, Canada, India, New Zealand, U.S.A) * from 1961-2005.
http://spreadsheets.google.com/pub?key=phVsuNZR0DUhvRzwSTdW5HQ

While intuitively appealing, the ecological footprint assessment has been criticised for several reasons, some of which are being addressed by advances in methodological approaches and greater resolution of consumption data. Among the criticisms of the ecological footprint approach is that the scale of national and regional application is too

blunt and that it has limited capacity to demonstrate where impacts occur and what drives a particular EF. For instance, while the area of land consumed to satisfy an economy can be estimated, the impacts of pollutants (except CO2: included in the energy land category) on ecosystems cannot be measured using the footprint technique. As such, the major criticism of the approach has been its limited ability to inform policy and decision-making, particularly at the scale where change can be implemented rapidly (i.e. local and regional levels). Despite these early, and to some degree sustained, criticisms the ecological footprint continues to be used as an indicator of sustainability. An indication of its growing acceptance is the addition of the ecological footprint to the list of European Common Indicators Programme (Scotti et al. 2009).

SUSTAINABILITY AND THE ECOLOGICAL FOOTPRINT

Economies rely on the input of natural capital to create other types of capital, such as goods and services which are bought and sold. Essentially all economies rely on an indefinite source of natural capital to sustain them, as do the societies that rely on those economies to supply them with goods and services. If natural capital inputs decline then so too will the capacity of an economy to produce other types of capital. Therefore, for economies to remain sustainable, they must ensure that the supply of natural capital to them is also sustainable. If natural capital extraction occurs at a rate greater than replenishment then an economy is running an ecological deficit (Bicknell et al. 1998). Ecological footprints are an attempt to quantify the extent to which economies (people) are operating an ecological deficit or surplus and hence allow governments and decision-makers to assess the extent to which they are adhering to the principles of ecologically sustainable development. McManus and Haughton (2006) describe the ecological footprint as 'a way of both measuring and vividly demonstrating how ecological impacts extend far beyond the built area of cities'.

Over-exploitation of natural resources reduces the ability of Earth's natural system to support economies, and the human societies that rely on these economies, to generate transformed capital from natural capital. Recent estimates of the global ecological footprint suggest that current rates of consumption are unsustainable – the global ecological footprint has been estimated at approximately 1.5 Earth's biocapacity.

However Ecological Footprint Analysis is only one form of Sustainability Reporting. Sustainability reporting refers to a broad set of reporting methodologies and purposes, with a focus on assessing the performance of a particular activity with regards to its sustainability. Sustainability reporting often incorporates indices.

Table 1 provides an overview of some of the various sustainability indices currently employed in and across various sectors. In addition to the Ecological Footprint, the list spans the Business Climate Indicator, the Technology Achievement Index and the Wellbeing Index. This diversity is a requisite component of sustainability reporting as the task being attempted is to measure and monitor progress towards sustainable development. As defined by the Brundtland Report in 1987, sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987).

Table 1. Sustainability Assessment Methodologies (adapted from Singh *et al* 2009)

Eco-system-based Indices - Sustainability Performance Index - Eco-Index Methodology - Living Planet Index - Ecological Footprint (EF)	**Energy-based Indices** - Sustainability Assessment Tool for Energy Systems - Energy Indicators for tracking Sustainability in Developed Countries
Environmental Indices for Policies, Nations and Regions - Environment Sustainability Index - Environment Quality Index - Concern about environmental problems - Index of Environmental Friendliness - Environmental Policy Performance Indicator - Environmental Performance Index - Environmental Vulnerability Index - Two "synthetic environmental indices"	**Innovation, Knowledge and Technology Indices** - Summary Innovation Index - Investment in the knowledge-based economy - Performance in the knowledge-based economy - Innovation Index - National innovation capacity - Information and communication technologies - Technology Achievement Index - General Indicator of Science Technology - Success of software process improvement
Composite Sustainability Performance Indices for Industries - Composite sustainable development index - Composite Sustainable Performance Index - ITT Flygt Sustainability Index - G Score Method	**Development Indices** - Human Development Index - Index of sustainable and economic welfare (ISEW) Relative intensity of regional problems in the Community (by the EC)
Market- and Economy-based Indices - Internal Market Index - Business Climate Indicator - European Labour Market Performance - Composite Leading Indicators - Genuine Savings (GSs) - Economic Sentiment Indicator - Green Net National Product (EDP) and SEEA	**Sustainability Indices for Cities** - Urban Sustainability Index - Sustainability Index for Taipei - City Development Index - Compass Index of Sustainability - The Sustainable Cities Index - Ecosistema Urbano Performance Index - Sustainable Seattle: Developing Indicators of Sustainable Community
Investment, Ratings and Asset Management Indices - Sustainable Asset Management (SAM) - Dow Jones sustainability group indices (DJSGI) - Bovespa Corporate Sustainability Index - Benchmarking US petroleum refineries - ECCO-CHECK Index - Investor Responsibility Research Centre (IRRC) - Council on Economic Priorities (CEP) - Oeko Sar Fund - Storebrand Scudder Environmental Value Fund - Innovest strategic value advisors - OEKOM Environment Rating - Jupiter Income Trust Funds - FTSE Good Index	**Environment Indices for Industries** - Eco-Points - Eco-Compass - Eco-Indicator 99 - Environment Assessment for Cleaner Production Technologies - COMPLIMENT – Environment Performance Index for Industries
	Social and quality of Life-based Indices - Gender Empowerment Measure - Physical Quality of Life Index - Well-being Index (WI) - National Health Care systems performance - Overall Health System Attainment - Index for sustainable society
	Product-based Sustainability Index - Life Cycle Index - Ford of Europe's Product Sustainabiltiy Index

To assess progress towards sustainable development (both as a means and as an end) there can be many mechanisms capable of capturing data (social, economic and environmental), interpreting this data, and formulating meaningful, accurate and timely snapshots of our reality. Sustainability reporting is gaining in popularity globally due in part to the demands of issues such as climate change, peak oil and the recent global financial crisis, along with the human desire to achieve progress. It is also being incorporated into legislation: for example the Commonwealth *National Greenhouse and Energy Reporting Act* 2007.

However, while sustainability reporting of some form is inevitable, the form of that reporting is yet to be identified. To identify, with any certainty, a trend towards any particular form of sustainability reporting is made difficult due to the diversity of approaches available and the relative immaturity of frameworks and methodologies. This field is particularly dynamic and is currently receiving a great deal of attention both domestically and internationally.

THE SCIENCE OF FOOTPRINT ANALYSIS

Initial ecological footprint calculations used national accounts and aggregated datasets with generalised economic characteristics. This was quickly seen as too broad an analysis to give meaningful and policy relevant findings (governance and policy formulation acts at much smaller scales, particularly in Australia). In response to this EFA now uses Input-Output analysis to calculate ecological footprints. IO analysis for ecological footprints is an approach adapted from modern economic analysis which describes the interrelatedness of production among different sectors of an economy (e.g. agriculture or manufacturing). Essentially, Input-Output tables characterise and quantify the impact of change in one sector of the economy on other sectors - as one sector of the economy changes, there will be altered demand on goods and services in response to those changes. For example expansion of the agricultural sector will need more equipment and machinery to prepare fields, sow and harvest crops, and transport products. So, the manufacturing industry will expand to meet these demands by producing more tractors and trucks etc. Thus, the Input-Output tables use a matrix of coefficients that describe the economic relationship between disaggregated sectors of the economy. Using mathematical relationships that describe the inter-relationships among sectoral demand, and the resulting output of increased production, it is possible to predict the effect of a $1 increase in production of one sector on other sectors of the economy. Input-Output tables traditionally operate on a monetary basis but they have recently been adapted for EFA and thus use the unit of land area as a basis for calculation.

Early criticisms of the analysis technique focussed on its inability to indicate where the major contributors to footprints originated (e.g. energy use, provision of government services; Wood and Garnett 2009). This meant ecological footprint was of little use for policy-makers wishing to change legislation to reduce the size of an EF. The addition of IO analysis to ecological footprint calculations allows calculation of both direct (resources required to produce a product for consumption) and indirect (resources required to service the manufacturing industry that produces the products) consumption

or use of resources required to satisfy the demand of an economy or person. The Input-Output methodology has been widely adopted for quantifying ecological footprints because of this increased resolution of analysis.

Western economies tend to be energy intensive on a per capita basis so much of the footprint is composed of 'Energy Land' – the productive land area required to support 'sustainable' energy use for a country. Calculations of this land area requirement can be based on the equivalent land area required to produce renewable energy such as alcohol-based fuels (ethanol) or the area required to construct wind energy turbines that generate electricity (including the area needed to create wind turbine components). Alternatives to this approach propose the estimation of the forest area required to absorb the resulting greenhouse gas emissions from the burning of fossil fuels. For instance about half the ecological footprint of Victoria is the land needed to absorb the energy it uses (EPA 2009).

To date EFA has focussed on country and regional level quantification of consumption to provide indicators of sustainability, or the measure of progress towards a sustainability target. Data for analysing ecological footprints are collected mostly from government sources. For instance, Wood and Garnett (2009) sourced data from the Australian Bureau of Agricultural and Resource Economics (ABARE), the Australian Bureau of Statistics (ABS), and the Australian Greenhouse Office (AGO – now the Department of Climate Change), particularly the household expenditure data that is collected by the ABS every 3-4 years..

Weidmann et al. (2006) used detailed information on household consumption and national accounts to estimate footprints 'at all sub-national levels and for different socio-economic groups'. The method has strong policy and planning relevance because consumption across specific categories can be estimated and its results can be compared across scales. They conclude 'the integration of footprint accounting into standard economic models allows systematic evaluation of policy options as extensive scenario analysis becomes available'. This attribute is especially appealing for government as it allows for systematic and objective assessment of future development pathways for society and the sustainability of those different pathways to growth.

While there are numerous private companies that offer to determine an enterprise's consumption, the application of EFA at the enterprise scale may be problematic because of the difficulty of obtaining reasonably accurate estimates of ecological impact in terms of global hectares consumed as a result of enterprise operations. At this scale life-cycle analysis (LCA; Tukker 2000) can be useful to determine EF.

Process-based LCA is specific to a product or service that is delivered to the economy. It is calculated at a high level of detail, enables comparisons between products, and can identify potential efficiency gains in particular phases of production processes. However, at the specific rather than the generic level, LCA is time intensive and costly to implement; relies on proprietary data (or, in the case of new developments, must rely on an existing industry model) and cannot be replicated if confidential information is used in the analysis (Hendrickson et al. 2006). However there is also a substantial amount of information available in the public domain. For instance Huijbregts et al. (2008) have published LCA data on the ecological footprint of 2630 products and services consumed in the western economy.

GLOBAL EXAMPLES

The development of the ecological footprint methodology has centred on comparing consumption across nations to provide an indicator of sustainability. While ecological footprint analyses have been applied to numerous contexts around the world, much of the literature on their application comes from European examples. Studies using ecological footprint methodologies have occurred at the national, regional, and city scales (Wackernagel and Rees, 1996; Wackernagel 1998; Wackernagel et al. 2004). For instance, Wackernagel and Rees (1996) and Wackernagel et al. (1996) performed one of the first global analyses of ecological footprints, looking at 152 nations around the world. Scotti et al. (2009) applied EFA at the municipal level and developed 'territorial footprints' and 'citizen footprints' with the aim of informing local level policy formulation and decision-making. Recently, McGregor et al. (2008) implemented a modified input-output and ecological footprint study to estimate the CO2 footprint generated by trade between Scotland and the rest of the United Kingdom.

Since these first assessments, much literature investigating single countries has emerged and particular attention has been paid to analysing the trends of ecological footprints across time (Haberl et al. 2008) to track progress and impacts of policy interventions. However, there remain some difficulties in developing time series analyses of ecological footprints at all levels (van Vuuren and Bouwman 2005). The main problem is that the ecological footprint calculations use standard values for the yield of land types (i.e. biocapacity) but the productivity of land types can change at the local level, and be drastically different across regions and nations as well as through time. Thus, while effective at communicating information about relative consumption and sustainability, ecological footprint cannot readily be applied as an empirical measure.

AUSTRALIA

Australia has an ecological footprint of 7.8 gha/person (WWF 2008), which is nearly three times the global average of 2.7 gha/person. Despite Australia's relatively large ecological footprint, current estimates of our national biocapcity indicate that the Australian continent is 0-50% larger than our current ecological footprint (Ewing et al. 2008). However, our large footprint, and thus consumption, has impacts that extend beyond our own nation and biocapacity.

Of the states Victoria has been particularly proactive in developing EFA, which it has done at a variety of scales. The Victorian Environment Protection Authority provides access to several calculators of ecological footprints: personal, home, school, office, event, and retail levels. With the exception of the retail level calculator, they all use life-cycle analysis to estimate ecological footprints (EPA 2009). The State Government of Victoria has also commissioned ecological footprint reports at a State and regional scale (Wiedmann et al. 2008). This was achieved using a combination of standard national input-output tables for Australia and regionally derived household expenditure data for Victoria. Victoria has a slightly higher ecological footprint than the national average, probably because of reliance on brown coal-fired power stations to produce electricity.

ECOLOGICAL FOOTPRINT OF THE NORTHERN TERRITORY

The Northern Territory has several characteristics that influence the size of its ecological footprint. Isolation from other cities of Australia, an extreme climate, and a dispersed low-density population all contribute to relatively large overall ecological footprints. Wood and Garnett (2009) provide the first detailed account of ecological footprints for the Non-Indigenous and Indigenous populations of the Northern Territory. Their findings show that the overall ecological footprint for the Northern Territory is driven by transport (personal and commercial transport of goods), the consumption of meat, and the use of electricity. In summary the findings are that:

- The population of the Northern Territory has a 25% larger average ecological footprint than the average Australian

- People of the Northern Territory have an ecological footprint that is four times greater than the global average.

- Non-Indigenous residents have larger footprints than indigenous residents

- Urban populations have larger footprints than remote populations

Wood and Garnett (2009) conclude that 'Northern Territory urban populations are not necessarily requiring less land, but are just offsetting their land impacts to other regions'. Furthermore, it appears that the provision of government services to remote communities constitutes a large portion of the Indigenous footprint.

POTENTIAL FOR USE OF ECOLOGICAL FOOTPRINTS BY THE ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL PLANNING

Globally, the human population increasingly is being concentrated in cities for a number of reasons including access to services and employment. As regions and cities grow, so does the need for electricity to heat and cool homes, service business and provide street lighting. Cities have the capacity to run efficiently and support huge numbers of people but need to be planned to maximise efficiencies of energy generation and supply, transport, and housing. EFA can be applied to the decision-making process for higher level strategic planning for infrastructure investments and energy policy. The NT is an energy intensive society largely because of our isolation and the extreme climate. Our population is expected to grow considerably during the next three decades while our electricity generation capacity may have trouble keeping pace. It is highly likely that new sources of energy generation will be required. Studies have shown that housing design and type (e.g. apartment, house, detached, attached), housing density, and the configuration of suburbs can significantly influence the ecological footprint of a city and thus its sustainability (e.g. Holden 2004). EFA could be incorporated into policy and planning through the use of realistic development scenarios of the future that explore the ecological footprints of different planning options. Such integrated assessments of future ecological footprints have been used at a global and regional level using a combination of land use, agricultural, and energy models (van Vuuren and Bouwman 2005).

REGIONAL PLANNING

The current draft review of the Environmental Assessment Act for the Northern Territory suggests adopting Strategic Environmental Assessment (SEA) principles to provide higher-level assessments for decision-making before specific proposals are assessed individually. SEA is the process adopted by the European Union to ensure that environmental considerations are incorporated into policies, plans and programmes. Stoeglehner and Narodoslawsky (2009) provide a comprehensive review of the application of ecological footprint in decision-making processes, particularly as it applies in Europe to SEA. They note that Ecological footprint analysis has particular relevance if applied at the regional level to guide decision-making in the SEA process. The NT EPA Review goes on to suggest some potential benefits including 'a more regional approach to resource management and planning' and 'more thorough understanding of cumulative impacts' of developments, plans, and policies.

EFA would lend itself to quantification of environmental impacts at a regional scale where appropriate data exist. Wood and Garnett (2009) perform such analyses at a crude level by examining the ecological footprints of regional populations (Indigenous and non-Indigenous) of the Northern Territory. Ecological footprint (or input-output) analyses at a regional level could also be valuable for informing government policy that is

designed to address big issues e.g. climate change and energy use, that will result in significant changes to the economy and thus are likely to impact on the environment. However, while this may theoretically be possible, it would rely on regional level I-O data, particularly household surveys, that are not usually collected from enough households in the Northern Territory to be able to assess the ecological footprint with sufficient rigour regional level assessment. Collection of additional data would therefore be a pre-requisite for EFA to be used in SEA in the NT for any sites beyond Darwin. While a crude assessment may be possible, this may add little to other assessment processes.

SPECIFIC PROJECTS

Within an environmental impact assessment framework, the information or specific details within a development proposal may enact a 'trigger' within relevant state and/or legislation. Such triggers can lead to formalised Environmental Impact Assessments. The three triggers listed under the Commonwealth Environmental and Biodiversity Protection Act 1999 that may require a proponent to carry-out an environmental impact assessment are:

- Where an action has, will or is likely to have a significant impact on a matter of national environmental significance;

- Where an action has, will or is likely to have a significant impact on the environment on Commonwealth land;

- Where an action by the Commonwealth or its agencies has, will or is likely to have a significant impact on the environment inside or outside Australia.

EFA could be used to evaluate 'significant projects' because the approach can quantify not only the localised impact (already described in EIA) but also account for the extended impacts beyond the site. Knaus et al. (2006) argue that such assessments could add value to the formal EIA process through the identification of indirect impacts on the environment and the 'off-set' measures required to address them. In essence this is consistent with the principles of 'polluter pays' and 'extended polluter responsibility' (OECD, 2009) whereby the proponent, not society is required to take responsibility for impacts on the environment. The analysis could use LCA to estimate the ecological footprint, drawing on existing analyses. An example relevant to the NT could be the consideration of a new large mine and smelter proposal. Analysis of the component elements of the EFA could enable the EPA to advise on actions that the proponent must take to reduce the footprint within an acceptable footprint area. This could also include new infrastructure required to support the new project (e.g. housing, roads, energy production etc.).

CONCLUSIONS

The ecological footprint approach has many applications beyond the scope of Environmental Impact Assessment

As a generic tool it could provide a mechanism by which to measure performance of a strategy or policy, or for policy development. For instance Ecological Footprint Analysis could be used to assess progress with initiatives such as the Northern Territory 2030 plan.

Regionally the use of Ecological Footprint Analysis will require collection of additional data on household consumption patterns but could be used to inform regional planning decisions and associated design. For instance it could be used to provide a mechanism to measure performance of new suburbs.

Ecological Footprint Analysis is also a valuable educative tool for the community, government and the business sector. In particular it could be used as a tool to promote energy efficiency and innovation in NT business, especially the Government sector (Wood and Garnett 2009), rather than be a burden to the development process.

For specific projects Life Cycle Analysis could be used to estimate the ecological footprint of project components and their local flow-on effects could help inform advice from the Environment Protection Authority on project sustainability. However, although Ecological Footprint Analysis does provide a measure of the full environmental impacts of development, including those that are off site, the tools for its regular application on a project basis are still being refined and will need substantial work on validation before they can be employed as a intregral tool in environmental impact assessment.

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GLOSSARY

Sustainable development: The United Nations Division for Sustainable Development advocates that sustainable development is '*Development that meets the needs of the present without compromising the ability of future generations to meet their own needs*'. This is a very broad definition with several components and differing perceptions of what is sustainable. For example, one perception is that sustainable development somehow implies extracting the maximum sustainable benefit from a social-ecological system. However, another perception of the same term stresses 'resilience' in the system: reduced benefit derived from the system, but likelihood of sustainability in the long-term is increased.

Biocapacity: the biological productivity of land.

Ecological footprint: the area of productive land and water required to sustain the current levels of consumption of one person. The ecological footprint is therefore measured as area per Capita (global hectares/person).

Global hectares (gha): the ecological footprint relative to the global average biocapacity.

Input-Output analysis: a macroeconomic analysis methodology that uses describes the interdependencies of different sectors of the economy and how demand in one part of the economy stimulates production in others.

$$X=(I-A_a)^{-1}\times Y \qquad \text{Eqn. 1}$$

Strategic Environmental Assessment: A process that attempts to achieve a high level of environmental protection through the integrated assessment of many aspects of 'environmental impact' of developments, plans, and polices i.e. social impact, cultural impact, natural resource impact.

ATTACHMENT G:

COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT AND ENVIRONMENTAL IMPACT ASSESSMENT

ECOLOGICAL FOOTPRINTS: THE SCIENCE, CURRENT PRACTICES, AND THEIR APPLICATION IN THE NORTHERN TERRITORY

FINAL REPORT
4 DECEMBER 2009

REPORT TO THE ENVIRONMENT PROTECTION AUTHORITY, NORTHERN TERRITORY GOVERNMENT

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Collier, N. & Garnett, S.T. 2009.

Ecological footprints: the science, current practices, and their application in the Northern Territory. Report to the Environment Protection Authority, Northern Territory Government. School for Environmental Research, Charles Darwin University, Darwin.

TABLE OF CONTENTS

SUMMARY

Ecological footprint analysis (EFA) has developed over the past two decades as a means to assess national sustainability and attempts to quantify sustainable consumption within environmental capacity. EFA uses Input-Output analysis to calculate ecological footprints with data coming primarily from government sources, particularly household expenditure data. However, to use EFA for assessing enterprise sustainability requires more detailed information. This can be obtained using Life Cycle Analysis which can be time intensive and costly to implement and often relies on proprietary data, although some information is available in the public domain. Most applications of EFA are therefore currently beyond the scope of Environmental Impact Assessment

As a generic tool it could provide a mechanism by which to measure performance of a strategy or policy, or for policy development. For instance Ecological Footprint Analysis could be used to assess progress with initiatives such as the Northern Territory 2030 plan.

Regionally the use of Ecological Footprint Analysis will require collection of additional data on household consumption patterns but could be used to inform regional planning decisions and associated design. For instance it could be used to provide a mechanism to measure performance of new suburbs.

Ecological Footprint Analysis is also a valuable educative tool for the community, government and the business sector. In particular it could be used as a tool to promote energy efficiency and innovation in NT business, especially the Government sector (Wood and Garnett 2009), rather than be a burden to the development process.

For specific projects, Life Cycle Analysis could be used to estimate the ecological footprint of project components and their local flow-on effects could help inform advice from the Environment Protection Authority on project sustainability. However, although Ecological Footprint Analysis does provide a measure of the full environmental impacts of development, including those that are off site, the tools for its regular application on a project basis are still being refined and will need substantial work on validation before they can be employed as a intregral tool in environmental impact assessment.

INTRODUCTION

This report has been commissioned by the Northern Territory Environment Protection Authority (EPA) to provide with a resource document that outlines the utility of carbon footprint analysis in the Environmental Impact Assessment process.

The Environment Protection Authority (EPA) operates under the Northern Territory's Environment Protection Authority Act 2007. This Act delivers a unique EPA designed to be a leader in driving sustainable development thinking and practice in the Northern Territory. The EPA provides independent strategic advice to Government, businesses and the community, and has significant independent powers to publicly recommend contemporary legislative and policy frameworks.

Section 7(2)(b) states:
(2) In addition, the Authority must have regard to the following:
(b) the need to adopt objectives, targets and standards for environmental management that are:
(i) soundly and scientifically based; and
(ii) consistent with best practice.

The EPA believes that it should examine whether best practice in Environmental Impact Assessment should extend to analysis of greenhouse gas emissions generated off-site as a result of development approval.

Terms of reference for this report

The EPA has requested that the following be undertaken:

i. Review the use of Carbon (or other) Footprint Analysis in Environmental Impact Assessment
ii. Assess the relevance of carbon (or other) footprint analysis for Environmental Impact Assessment in the Northern Territory
iii. Assess the availability and robustness of NT carbon (or other) footprint analysis on an industry by industry basis
iv. Outputs of the consultancy to include a high quality written report, with scope including discussion of:
    - conceptual basis of environmental/ecological 'footprint analysis' and different types of footprint analysis ie carbon, ecological, water;
    - application of footprint analysis, nationally and internationally, in regulatory policy environments;
    - potential for the application of footprint analysis in the NT, including in the NT EIA procedures and other policy processes recommendations relating to options for use of footprint analysis in the context of the NT EIA process, and/or in other policy processes.

BACKGROUND

WHAT IS ECOLOGICAL FOOTPRINT ANALYSIS?

Ecological footprint analysis (EFA) emerged in the 1990's as a method to assess the sustainability of nations (Wackernagel et al. 1996). It is one of a range of metrics used to calculate indicators of sustainability and has primarily been used to measure trends in consumption of nations over time (Fig. 1; Hanley et al. 1999; Haberl et al. 2001). In doing so EFA attempts to quantify the outcomes of ecologically sustainable development principles that emerged during the 1980's and culminated in the Rio Earth Summit of 1992, where more than 100 countries agreed to principles of sustainable development and a national system of environmental impact assessment and reporting (UN 1992).

An ecological footprint quantifies the level of per capita consumption in terms of the area of productive land and water area required to support that consumption for an indefinite period of time: i.e. sustainable consumption within environmental capacity (Fischer et al. 2008). It also estimates the area required for absorbing the waste produced and consumption. A critical feature of the ecological footprint methodology is that it includes a country's or region's imports in the calculation of consumption. The ecological footprint of a citizen in a particular country is expressed as an area per person: the standard unit is hectares/person.

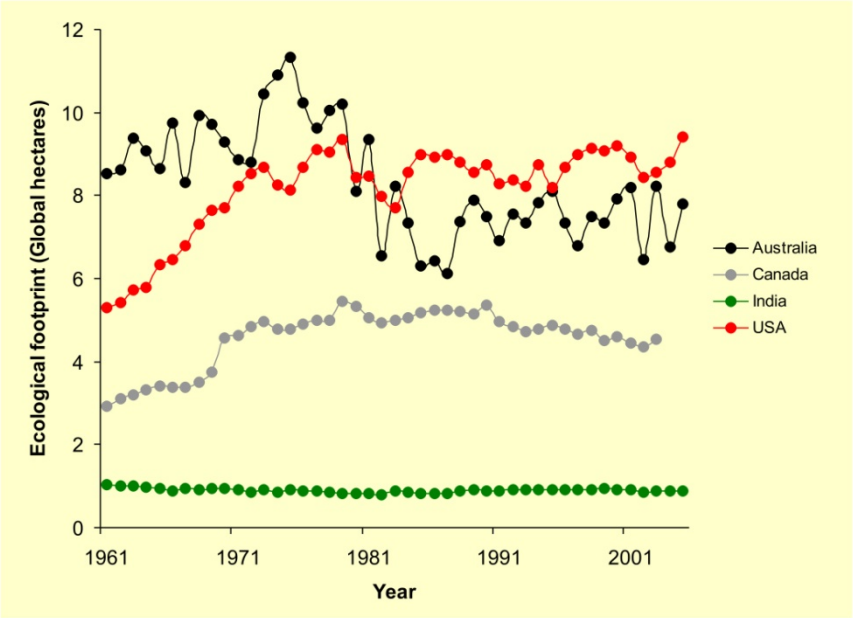

Figure 1. Trends of ecological footprints (gha per captia) for five countries (Australia, Canada, India, New Zealand, U.S.A) * from 1961-2005.
http://spreadsheets.google.com/pub?key=phVsuNZR0DUhvRzwSTdW5HQ

While intuitively appealing, the ecological footprint assessment has been criticised for several reasons, some of which are being addressed by advances in methodological approaches and greater resolution of consumption data. Among the criticisms of the ecological footprint approach is that the scale of national and regional application is too

blunt and that it has limited capacity to demonstrate where impacts occur and what drives a particular EF. For instance, while the area of land consumed to satisfy an economy can be estimated, the impacts of pollutants (except CO2: included in the energy land category) on ecosystems cannot be measured using the footprint technique. As such, the major criticism of the approach has been its limited ability to inform policy and decision-making, particularly at the scale where change can be implemented rapidly (i.e. local and regional levels). Despite these early, and to some degree sustained, criticisms the ecological footprint continues to be used as an indicator of sustainability. An indication of its growing acceptance is the addition of the ecological footprint to the list of European Common Indicators Programme (Scotti et al. 2009).

SUSTAINABILITY AND THE ECOLOGICAL FOOTPRINT

Economies rely on the input of natural capital to create other types of capital, such as goods and services which are bought and sold. Essentially all economies rely on an indefinite source of natural capital to sustain them, as do the societies that rely on those economies to supply them with goods and services. If natural capital inputs decline then so too will the capacity of an economy to produce other types of capital. Therefore, for economies to remain sustainable, they must ensure that the supply of natural capital to them is also sustainable. If natural capital extraction occurs at a rate greater than replenishment then an economy is running an ecological deficit (Bicknell et al. 1998). Ecological footprints are an attempt to quantify the extent to which economies (people) are operating an ecological deficit or surplus and hence allow governments and decision-makers to assess the extent to which they are adhering to the principles of ecologically sustainable development. McManus and Haughton (2006) describe the ecological footprint as 'a way of both measuring and vividly demonstrating how ecological impacts extend far beyond the built area of cities'.

Over-exploitation of natural resources reduces the ability of Earth's natural system to support economies, and the human societies that rely on these economies, to generate transformed capital from natural capital. Recent estimates of the global ecological footprint suggest that current rates of consumption are unsustainable – the global ecological footprint has been estimated at approximately 1.5 Earth's biocapacity.

However Ecological Footprint Analysis is only one form of Sustainability Reporting. Sustainability reporting refers to a broad set of reporting methodologies and purposes, with a focus on assessing the performance of a particular activity with regards to its sustainability. Sustainability reporting often incorporates indices.

Table 1 provides an overview of some of the various sustainability indices currently employed in and across various sectors. In addition to the Ecological Footprint, the list spans the Business Climate Indicator, the Technology Achievement Index and the Wellbeing Index. This diversity is a requisite component of sustainability reporting as the task being attempted is to measure and monitor progress towards sustainable development. As defined by the Brundtland Report in 1987, sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987).

Table 1. Sustainability Assessment Methodologies (adapted from Singh *et al* 2009)

Eco-system-based Indices - Sustainability Performance Index - Eco-Index Methodology - Living Planet Index - Ecological Footprint (EF)	**Energy-based Indices** - Sustainability Assessment Tool for Energy Systems - Energy Indicators for tracking Sustainability in Developed Countries
Environmental Indices for Policies, Nations and Regions - Environment Sustainability Index - Environment Quality Index - Concern about environmental problems - Index of Environmental Friendliness - Environmental Policy Performance Indicator - Environmental Performance Index - Environmental Vulnerability Index - Two "synthetic environmental indices"	**Innovation, Knowledge and Technology Indices** - Summary Innovation Index - Investment in the knowledge-based economy - Performance in the knowledge-based economy - Innovation Index - National innovation capacity - Information and communication technologies - Technology Achievement Index - General Indicator of Science Technology - Success of software process improvement
Composite Sustainability Performance Indices for Industries - Composite sustainable development index - Composite Sustainable Performance Index - ITT Flygt Sustainability Index - G Score Method	**Development Indices** - Human Development Index - Index of sustainable and economic welfare (ISEW) Relative intensity of regional problems in the Community (by the EC)
Market- and Economy-based Indices - Internal Market Index - Business Climate Indicator - European Labour Market Performance - Composite Leading Indicators - Genuine Savings (GSs) - Economic Sentiment Indicator - Green Net National Product (EDP) and SEEA	**Sustainability Indices for Cities** - Urban Sustainability Index - Sustainability Index for Taipei - City Development Index - Compass Index of Sustainability - The Sustainable Cities Index - Ecosistema Urbano Performance Index - Sustainable Seattle: Developing Indicators of Sustainable Community
Investment, Ratings and Asset Management Indices - Sustainable Asset Management (SAM) - Dow Jones sustainability group indices (DJSGI) - Bovespa Corporate Sustainability Index - Benchmarking US petroleum refineries - ECCO-CHECK Index - Investor Responsibility Research Centre (IRRC) - Council on Economic Priorities (CEP) - Oeko Sar Fund - Storebrand Scudder Environmental Value Fund - Innovest strategic value advisors - OEKOM Environment Rating - Jupiter Income Trust Funds - FTSE Good Index	**Environment Indices for Industries** - Eco-Points - Eco-Compass - Eco-Indicator 99 - Environment Assessment for Cleaner Production Technologies - COMPLIMENT – Environment Performance Index for Industries
	Social and quality of Life-based Indices - Gender Empowerment Measure - Physical Quality of Life Index - Well-being Index (WI) - National Health Care systems performance - Overall Health System Attainment - Index for sustainable society
	Product-based Sustainability Index - Life Cycle Index - Ford of Europe's Product Sustainabiltiy Index

To assess progress towards sustainable development (both as a means and as an end) there can be many mechanisms capable of capturing data (social, economic and environmental), interpreting this data, and formulating meaningful, accurate and timely snapshots of our reality. Sustainability reporting is gaining in popularity globally due in part to the demands of issues such as climate change, peak oil and the recent global financial crisis, along with the human desire to achieve progress. It is also being incorporated into legislation: for example the Commonwealth *National Greenhouse and Energy Reporting Act* 2007.

However, while sustainability reporting of some form is inevitable, the form of that reporting is yet to be identified. To identify, with any certainty, a trend towards any particular form of sustainability reporting is made difficult due to the diversity of approaches available and the relative immaturity of frameworks and methodologies. This field is particularly dynamic and is currently receiving a great deal of attention both domestically and internationally.

THE SCIENCE OF FOOTPRINT ANALYSIS

Initial ecological footprint calculations used national accounts and aggregated datasets with generalised economic characteristics. This was quickly seen as too broad an analysis to give meaningful and policy relevant findings (governance and policy formulation acts at much smaller scales, particularly in Australia). In response to this EFA now uses Input-Output analysis to calculate ecological footprints. IO analysis for ecological footprints is an approach adapted from modern economic analysis which describes the interrelatedness of production among different sectors of an economy (e.g. agriculture or manufacturing). Essentially, Input-Output tables characterise and quantify the impact of change in one sector of the economy on other sectors - as one sector of the economy changes, there will be altered demand on goods and services in response to those changes. For example expansion of the agricultural sector will need more equipment and machinery to prepare fields, sow and harvest crops, and transport products. So, the manufacturing industry will expand to meet these demands by producing more tractors and trucks etc. Thus, the Input-Output tables use a matrix of coefficients that describe the economic relationship between disaggregated sectors of the economy. Using mathematical relationships that describe the inter-relationships among sectoral demand, and the resulting output of increased production, it is possible to predict the effect of a $1 increase in production of one sector on other sectors of the economy. Input-Output tables traditionally operate on a monetary basis but they have recently been adapted for EFA and thus use the unit of land area as a basis for calculation.

Early criticisms of the analysis technique focussed on its inability to indicate where the major contributors to footprints originated (e.g. energy use, provision of government services; Wood and Garnett 2009). This meant ecological footprint was of little use for policy-makers wishing to change legislation to reduce the size of an EF. The addition of IO analysis to ecological footprint calculations allows calculation of both direct (resources required to produce a product for consumption) and indirect (resources required to service the manufacturing industry that produces the products) consumption

or use of resources required to satisfy the demand of an economy or person. The Input-Output methodology has been widely adopted for quantifying ecological footprints because of this increased resolution of analysis.

Western economies tend to be energy intensive on a per capita basis so much of the footprint is composed of 'Energy Land' – the productive land area required to support 'sustainable' energy use for a country. Calculations of this land area requirement can be based on the equivalent land area required to produce renewable energy such as alcohol-based fuels (ethanol) or the area required to construct wind energy turbines that generate electricity (including the area needed to create wind turbine components). Alternatives to this approach propose the estimation of the forest area required to absorb the resulting greenhouse gas emissions from the burning of fossil fuels. For instance about half the ecological footprint of Victoria is the land needed to absorb the energy it uses (EPA 2009).

To date EFA has focussed on country and regional level quantification of consumption to provide indicators of sustainability, or the measure of progress towards a sustainability target. Data for analysing ecological footprints are collected mostly from government sources. For instance, Wood and Garnett (2009) sourced data from the Australian Bureau of Agricultural and Resource Economics (ABARE), the Australian Bureau of Statistics (ABS), and the Australian Greenhouse Office (AGO – now the Department of Climate Change), particularly the household expenditure data that is collected by the ABS every 3-4 years..

Weidmann et al. (2006) used detailed information on household consumption and national accounts to estimate footprints 'at all sub-national levels and for different socio-economic groups'. The method has strong policy and planning relevance because consumption across specific categories can be estimated and its results can be compared across scales. They conclude 'the integration of footprint accounting into standard economic models allows systematic evaluation of policy options as extensive scenario analysis becomes available'. This attribute is especially appealing for government as it allows for systematic and objective assessment of future development pathways for society and the sustainability of those different pathways to growth.

While there are numerous private companies that offer to determine an enterprise's consumption, the application of EFA at the enterprise scale may be problematic because of the difficulty of obtaining reasonably accurate estimates of ecological impact in terms of global hectares consumed as a result of enterprise operations. At this scale life-cycle analysis (LCA; Tukker 2000) can be useful to determine EF.

Process-based LCA is specific to a product or service that is delivered to the economy. It is calculated at a high level of detail, enables comparisons between products, and can identify potential efficiency gains in particular phases of production processes. However, at the specific rather than the generic level, LCA is time intensive and costly to implement; relies on proprietary data (or, in the case of new developments, must rely on an existing industry model) and cannot be replicated if confidential information is used in the analysis (Hendrickson et al. 2006). However there is also a substantial amount of information available in the public domain. For instance Huijbregts et al. (2008) have published LCA data on the ecological footprint of 2630 products and services consumed in the western economy.

GLOBAL EXAMPLES

The development of the ecological footprint methodology has centred on comparing consumption across nations to provide an indicator of sustainability. While ecological footprint analyses have been applied to numerous contexts around the world, much of the literature on their application comes from European examples. Studies using ecological footprint methodologies have occurred at the national, regional, and city scales (Wackernagel and Rees, 1996; Wackernagel 1998; Wackernagel et al. 2004). For instance, Wackernagel and Rees (1996) and Wackernagel et al. (1996) performed one of the first global analyses of ecological footprints, looking at 152 nations around the world. Scotti et al. (2009) applied EFA at the municipal level and developed 'territorial footprints' and 'citizen footprints' with the aim of informing local level policy formulation and decision-making. Recently, McGregor et al. (2008) implemented a modified input-output and ecological footprint study to estimate the CO2 footprint generated by trade between Scotland and the rest of the United Kingdom.

Since these first assessments, much literature investigating single countries has emerged and particular attention has been paid to analysing the trends of ecological footprints across time (Haberl et al. 2008) to track progress and impacts of policy interventions. However, there remain some difficulties in developing time series analyses of ecological footprints at all levels (van Vuuren and Bouwman 2005). The main problem is that the ecological footprint calculations use standard values for the yield of land types (i.e. biocapacity) but the productivity of land types can change at the local level, and be drastically different across regions and nations as well as through time. Thus, while effective at communicating information about relative consumption and sustainability, ecological footprint cannot readily be applied as an empirical measure.

AUSTRALIA

Australia has an ecological footprint of 7.8 gha/person (WWF 2008), which is nearly three times the global average of 2.7 gha/person. Despite Australia's relatively large ecological footprint, current estimates of our national biocapcity indicate that the Australian continent is 0-50% larger than our current ecological footprint (Ewing et al. 2008). However, our large footprint, and thus consumption, has impacts that extend beyond our own nation and biocapacity.

Of the states Victoria has been particularly proactive in developing EFA, which it has done at a variety of scales. The Victorian Environment Protection Authority provides access to several calculators of ecological footprints: personal, home, school, office, event, and retail levels. With the exception of the retail level calculator, they all use life-cycle analysis to estimate ecological footprints (EPA 2009). The State Government of Victoria has also commissioned ecological footprint reports at a State and regional scale (Wiedmann et al. 2008). This was achieved using a combination of standard national input-output tables for Australia and regionally derived household expenditure data for Victoria. Victoria has a slightly higher ecological footprint than the national average, probably because of reliance on brown coal-fired power stations to produce electricity.

ECOLOGICAL FOOTPRINT OF THE NORTHERN TERRITORY

The Northern Territory has several characteristics that influence the size of its ecological footprint. Isolation from other cities of Australia, an extreme climate, and a dispersed low-density population all contribute to relatively large overall ecological footprints. Wood and Garnett (2009) provide the first detailed account of ecological footprints for the Non-Indigenous and Indigenous populations of the Northern Territory. Their findings show that the overall ecological footprint for the Northern Territory is driven by transport (personal and commercial transport of goods), the consumption of meat, and the use of electricity. In summary the findings are that:

- The population of the Northern Territory has a 25% larger average ecological footprint than the average Australian

- People of the Northern Territory have an ecological footprint that is four times greater than the global average.

- Non-Indigenous residents have larger footprints than indigenous residents

- Urban populations have larger footprints than remote populations

Wood and Garnett (2009) conclude that 'Northern Territory urban populations are not necessarily requiring less land, but are just offsetting their land impacts to other regions'. Furthermore, it appears that the provision of government services to remote communities constitutes a large portion of the Indigenous footprint.

POTENTIAL FOR USE OF ECOLOGICAL FOOTPRINTS BY THE ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL PLANNING

Globally, the human population increasingly is being concentrated in cities for a number of reasons including access to services and employment. As regions and cities grow, so does the need for electricity to heat and cool homes, service business and provide street lighting. Cities have the capacity to run efficiently and support huge numbers of people but need to be planned to maximise efficiencies of energy generation and supply, transport, and housing. EFA can be applied to the decision-making process for higher level strategic planning for infrastructure investments and energy policy. The NT is an energy intensive society largely because of our isolation and the extreme climate. Our population is expected to grow considerably during the next three decades while our electricity generation capacity may have trouble keeping pace. It is highly likely that new sources of energy generation will be required. Studies have shown that housing design and type (e.g. apartment, house, detached, attached), housing density, and the configuration of suburbs can significantly influence the ecological footprint of a city and thus its sustainability (e.g. Holden 2004). EFA could be incorporated into policy and planning through the use of realistic development scenarios of the future that explore the ecological footprints of different planning options. Such integrated assessments of future ecological footprints have been used at a global and regional level using a combination of land use, agricultural, and energy models (van Vuuren and Bouwman 2005).

REGIONAL PLANNING

The current draft review of the Environmental Assessment Act for the Northern Territory suggests adopting Strategic Environmental Assessment (SEA) principles to provide higher-level assessments for decision-making before specific proposals are assessed individually. SEA is the process adopted by the European Union to ensure that environmental considerations are incorporated into policies, plans and programmes. Stoeglehner and Narodoslawsky (2009) provide a comprehensive review of the application of ecological footprint in decision-making processes, particularly as it applies in Europe to SEA. They note that Ecological footprint analysis has particular relevance if applied at the regional level to guide decision-making in the SEA process. The NT EPA Review goes on to suggest some potential benefits including 'a more regional approach to resource management and planning' and 'more thorough understanding of cumulative impacts' of developments, plans, and policies.

EFA would lend itself to quantification of environmental impacts at a regional scale where appropriate data exist. Wood and Garnett (2009) perform such analyses at a crude level by examining the ecological footprints of regional populations (Indigenous and non-Indigenous) of the Northern Territory. Ecological footprint (or input-output) analyses at a regional level could also be valuable for informing government policy that is

designed to address big issues e.g. climate change and energy use, that will result in significant changes to the economy and thus are likely to impact on the environment. However, while this may theoretically be possible, it would rely on regional level I-O data, particularly household surveys, that are not usually collected from enough households in the Northern Territory to be able to assess the ecological footprint with sufficient rigour regional level assessment. Collection of additional data would therefore be a pre-requisite for EFA to be used in SEA in the NT for any sites beyond Darwin. While a crude assessment may be possible, this may add little to other assessment processes.

SPECIFIC PROJECTS

Within an environmental impact assessment framework, the information or specific details within a development proposal may enact a 'trigger' within relevant state and/or legislation. Such triggers can lead to formalised Environmental Impact Assessments. The three triggers listed under the Commonwealth Environmental and Biodiversity Protection Act 1999 that may require a proponent to carry-out an environmental impact assessment are:

- Where an action has, will or is likely to have a significant impact on a matter of national environmental significance;

- Where an action has, will or is likely to have a significant impact on the environment on Commonwealth land;

- Where an action by the Commonwealth or its agencies has, will or is likely to have a significant impact on the environment inside or outside Australia.

EFA could be used to evaluate 'significant projects' because the approach can quantify not only the localised impact (already described in EIA) but also account for the extended impacts beyond the site. Knaus et al. (2006) argue that such assessments could add value to the formal EIA process through the identification of indirect impacts on the environment and the 'off-set' measures required to address them. In essence this is consistent with the principles of 'polluter pays' and 'extended polluter responsibility' (OECD, 2009) whereby the proponent, not society is required to take responsibility for impacts on the environment. The analysis could use LCA to estimate the ecological footprint, drawing on existing analyses. An example relevant to the NT could be the consideration of a new large mine and smelter proposal. Analysis of the component elements of the EFA could enable the EPA to advise on actions that the proponent must take to reduce the footprint within an acceptable footprint area. This could also include new infrastructure required to support the new project (e.g. housing, roads, energy production etc.).

CONCLUSIONS

The ecological footprint approach has many applications beyond the scope of Environmental Impact Assessment

As a generic tool it could provide a mechanism by which to measure performance of a strategy or policy, or for policy development. For instance Ecological Footprint Analysis could be used to assess progress with initiatives such as the Northern Territory 2030 plan.

Regionally the use of Ecological Footprint Analysis will require collection of additional data on household consumption patterns but could be used to inform regional planning decisions and associated design. For instance it could be used to provide a mechanism to measure performance of new suburbs.

Ecological Footprint Analysis is also a valuable educative tool for the community, government and the business sector. In particular it could be used as a tool to promote energy efficiency and innovation in NT business, especially the Government sector (Wood and Garnett 2009), rather than be a burden to the development process.

For specific projects Life Cycle Analysis could be used to estimate the ecological footprint of project components and their local flow-on effects could help inform advice from the Environment Protection Authority on project sustainability. However, although Ecological Footprint Analysis does provide a measure of the full environmental impacts of development, including those that are off site, the tools for its regular application on a project basis are still being refined and will need substantial work on validation before they can be employed as a intregral tool in environmental impact assessment.

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GLOSSARY

Sustainable development: The United Nations Division for Sustainable Development advocates that sustainable development is '*Development that meets the needs of the present without compromising the ability of future generations to meet their own needs*'. This is a very broad definition with several components and differing perceptions of what is sustainable. For example, one perception is that sustainable development somehow implies extracting the maximum sustainable benefit from a social-ecological system. However, another perception of the same term stresses 'resilience' in the system: reduced benefit derived from the system, but likelihood of sustainability in the long-term is increased.

Biocapacity: the biological productivity of land.

Ecological footprint: the area of productive land and water required to sustain the current levels of consumption of one person. The ecological footprint is therefore measured as area per Capita (global hectares/person).

Global hectares (gha): the ecological footprint relative to the global average biocapacity.

Input-Output analysis: a macroeconomic analysis methodology that uses describes the interdependencies of different sectors of the economy and how demand in one part of the economy stimulates production in others.

$$X=(I-A_a)^{-1}\times Y \qquad \text{Eqn. 1}$$

Strategic Environmental Assessment: A process that attempts to achieve a high level of environmental protection through the integrated assessment of many aspects of 'environmental impact' of developments, plans, and polices i.e. social impact, cultural impact, natural resource impact.