The Environmental Defender's Office (NT) Inc. ("EDO") thanks you for the opportunity to present this submission in relation to the Pastoral Land Act 1992 ("the Act").

The EDO notes the Discussion paper released in July 2004 and invites the Committee to consider the submission made by the EDO on the 19 August 2004 on that discussion paper as relevant to this review.

The Act is the primary authority for the administration of nearly one half of the total land mass of the Northern Territory. The Act ought to cover, at some depth, three key areas of administration –

1. Administration of Certificate of Title for land under the purview of the Act;
2. Administration of social interactions with the land (i.e. public access, aboriginal community etc.)
3. Environmental protection.

It is with the third key responsibility of the Act that the EDO is particularly concerned.

As the Act currently stands a mere four sections of the Act are devoted to environmental protection. These include –

- the Objects (section 4 subsection (b)),
- general duties of pastoral lessees, (subsections 6(b)and (c)),
- conditions of pastoral leases (subsection 38(1)(h)) and
- conditions relating to land management (subsection 39(b)).

Clearly the Act is deficient as authority for protecting the environment. It fails to deliver the policy direction needed to even fulfil its own objectives.

The Objects include the following reference to environmental protection – to provide for –

(i) the monitoring of pastoral land so as to detect and assess any change in its condition;
(ii) the prevention or minimisation of degradation of or other damage to the land and its indigenous plant and animal life; and
(iii) the rehabilitation of the land in cases of degradation or other damage.
The ecological imperative

The EDO believes that the principal Act for administering such a large area of diversified landscape should incorporate the principles of ecological sustainability and catchment management as core considerations in the management of pastoral land. The pastoral industry in the Northern Territory extends across two fundamentally different ecological systems: the tropical savannas in the north, and the arid and semi-arid rangelands of central Australia. The Act regulates land use over these vast and ecologically diverse regions. The tropical savanna is a highly dynamic landscape, with constant changes in environmental boundaries and in the distribution of species. The ecology of the tropical savannas is driven by a distinct monsoonal pattern with a very long dry season and a short wet season. This seasonality leads to dramatic annual fluctuations in resources for the resident biota. Many species cope with these seasonal fluctuations by being highly mobile and tracking food resources over extensive areas. Conservation of these species must be considered on a landscape scale. The management of both pastoral lands and national parks are crucial to their conservation. There are also many sedentary species in the tropical savannas. These species are prone to the extinction of local populations when resources disappear at the end of the long dry season or are affected by fire. However this local loss of biodiversity is temporary as these species are regularly recolonised across a relatively barrier-free landscape.

The tropical savannas are fire-prone. The long dry season creates a dense, extensive ground-layer of highly inflammable grasses, readily ignited by the lightning that often occurs at the beginning of the wet season. Indigenous peoples have used fire for millennia to manage these ecosystems. The combined effect of fires lit by lightning and humans creates a complex, shifting mosaic of variability that contributes to the maintenance of local biodiversity. The timing and intensity of fires creates added variability. This mosaic dictates the probability of survival of populations of sedentary species and the regional distribution patterns of more mobile species. Where there is uniformity in fires over many years and over large areas regional extinctions occur. Proactive management by humans to maintain this shifting mosaic across the landscape is crucial to the maintenance of biodiversity.

The Act's present position on the ecological imperative

This information about the ecology of the Northern Territory is well known and accepted. But the Act makes no reference to ecology and ecosystem maintenance nor to the principles that have evolved and continue to evolve that ought to underpin the management of these vast areas.

The arid southern part of the Northern Territory contains immense tracts of sandy desert, mulga woodlands, spinifex grasslands, chenopod (saltbush) shrublands, desert rivers and salt lakes. The spinifex grasslands alone cover 38% of the land area of the Northern Territory. The arid and semi-arid zones have a distinctly different biota to the tropical savannas including many unique plant and animal species. In contrast to the tropical savannas, the ecology of arid Australia is driven by rainfall variation between years rather than seasonally. The climate is capricious, swinging unpredictably from heavy rain to drought. These fluctuations mean that no one place can be considered permanently occupiable by some plant or animal species. Local extinctions are inevitable during prolonged drought but recolonisation will eventually occur from refuge areas or from adjacent regions. This pattern

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1 The information in this submission about ecology draws on a paper by Freya Dawson – *Adapting Land Management Law to the Land: A critical look at the Pastoral Land Act 1992*

of adaptation to a capricious climate has evolved over millennia but is subject currently to severe disturbance.

The evolution and great variety of the ecosystems in the Northern Territory and the high variability of rainfall patterns from year to year mean that management approaches must take the very long term view if environmental degradation is not to occur. Management approaches need to think seriously about more than stock carrying capacity and measures to avoid soil erosion. This approach to land management is, of course, not a novel concept. It is widely accepted as a common sense approach and has been adopted across Australia but what is required is legislative recognition of these concepts and the weight of statutory authority to ensure that they are adopted and applied here in the Northern Territory. The Objects section of the Act needs to be amended to this end, but it is only the starting point as other amendments of the Act are also required to achieve this aim.

Recommendation 1: Include ecological sustainability in Objects and Interpretation sections
- Amendments are required to define ecological sustainability.
- Amendments are required to the Objects to describe the management approaches, to apply the defined principles of ecology and to include the precautionary principle.

Recommendation 2: Create a new Part dealing with ecological management principles
EDO proposes that the following principles\(^3\) should be incorporated into the Act. This may best be achieved by inserting a new Part in to the Act – Management of Pastoral Land. The Part may require lessees to inform themselves or participate in compulsory practice management education so that knowledge of how these principles can be applied in practical terms becomes inculcated throughout managers in the industry.

1. **Ecological protection:** management regimes must recognise, understand and protect the ecosystems of the Northern Territory –
   a. Protected areas and complementary management of all other areas. Biodiversity should be protected by the establishment of a comprehensive, adequate and representative system of ecologically viable protected areas, integrated with the management of all other areas based on ecological protection strategies. Since pastoral land covers nearly 50% of the Northern Territory it is essential that this land be included in considerations of protected areas.
   b. Special ecological values. Ecosystems and species of special value or vulnerability need special protection.
   c. Economic progress can occur within ecological limits so that sustainable economic progress works on the basis of no net loss of ecological assets. Short-term gains must be weighed up from a long-term perspective - sustainability must not be prejudiced by short-term gains achieved at the expense of declining ecological services, values or resilience.
   d. Ecological scale. Arrangements for the management of ecosystems (or for managing the human impacts on ecosystems) need to recognise, understand and accommodate the important ecological processes and

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\(^3\) Jon Nevill: *Good governance of the oceans: a summary of key resource management principles.*
linkages in operation, and the scales and time-frames at which they apply. Integrated and cohesive management should be applied across jurisdictional boundaries within the commons, recognising that the integrity of cross-boundary ecosystems needs to be understood and protected.

e. Market externalities and ecological incentives. Economic incentives should be applied to markets so as to ensure that economic progress in the long term goes to those who compete best while maintaining or improving ecological assets and integrity. The use of natural assets must be correctly costed (To make you think about costing the use of natural resources consider the following question. Is it possible to put a cost on a species going to extinction? To paraphrase John Donne – no life form is an island entire of itself).

2 Good governance. The concept of the stewardship of land and principles of biodiversity maintenance mean that a particular lessee of pastoral land ought to recognise that management decisions, as far as they impact on the long term viability of the resource, should adopt management regimes that call on the participation of all stakeholders, and should be

a. transparent,
b. reliable,
c. accountable,
d. enforceable,
e. ethical (have integrity),
f. cost-effective,
g. flexible and also practical.

We are not talking about commercial in confidence management decisions here although clearly the above considerations will have an impact on assessments of what is profitable and inform management decisions in that light. What is important is that lessees come to understand that management of such large tracts of land is not management of the bottom line alone but carries a far deeper responsibility. This leads to the third principle.

3 Resource management: The pastoral land resource should be used wisely, fairly, and without unnecessary waste, taking into account the needs, rights and responsibilities of current generations, the differing economic, cultural, political and technical resources of stakeholders and the rights of future generations. Management decisions must recognise the need to pass on both renewable and non-renewable resources to future generations in a way which does not unduly prejudice their, i.e. the future generations, options.

In doing so, management regimes should take account of:

a. the rights and responsibilities of stakeholders,
b. market behaviour and imperfections,
c. the need for a precautionary approach in the face of complex and uncertain futures,
d. the need to manage the cumulative impacts of incremental growth in resource use, and
e. the ability of an adaptive approach to deliver continuous improvement in management outcomes.
Recommendation 3: Include mandatory issues for management consideration and support

The principles described above are not guidelines but are the three limbs of the environment test that any proposed management plan or action can be assessed against and meet or surpass before the action is taken. Management outcomes must be evaluated against the three limbs of this test and feedback loops developed which must inform on-going decision making.

- The practicalities of how this is achieved can be incorporated into Regulations but the principal Act needs to make it clear that these principles form the basis of management approaches.
- Pastoral Land Management practices need to be informed by better expert support and “in-service” education programs. Provisions need to be included in the Act to ensure that this happens and that government departments are required to identify areas of deficiency and provide the required assistance.

In a recent review of the sustainability of pastoralism across Australia, Stafford Smith, Morton and Ash⁴ stress that it is the resilience of a system to management mistakes (its ability to absorb disturbance before a significant change in state occurs) that is crucial. The risks of making a mistake are different between regions. In some rangeland regions the problems for sustainable land use are relatively minor, but in others they are severe. The authors assess the risks using a combination of environmental factors as well as ease of management and the costs of production. The extent to which management mistakes can be reversed by investment in rehabilitation is also included in the assessment. For example, pastoralism in the MacDonnell Ranges region of central Australia is assessed as having a high risk of causing damage to the public interest in ecological sustainability. A number of other Northern Territory regions are assessed as having moderate risk. In all regions stocking rates are a particularly important factor, both at the pastoral lease level and within very large paddocks. Appropriate stocking rates vary greatly depending on fluctuations in climate and other regional factors. Management decisions about stocking levels must not be taken only on what the carrying capacity is at the current time but include considerations of the long term carrying capacity as well as the effects from the potential disturbance to ecosystems and biodiversity. Included here must be considerations of fire management regimes based on scientific assessment of how different fire regimes will effect ecosystems, biodiversity and other resources.

- These elements must be included as mandatory considerations in the Act and Regulations.

Currently the Act has mandatory conditions of pastoral leases (subsection 38(1)(h)) and conditions relating to land management (subsection 39(b)).

- These two subsections could be enhanced to include the management principles discussed above. However the EDO preferred option would be to give these concepts the status of a Part. This would indicate the significance and importance that these concepts have in the Act.

Habitat loss is one of the major causes of species decline. We are currently, at the global level, experiencing the greatest rate of species extinction⁵ since the extinction episode of 70 million years ago when the dinosaurs disappeared.

Recommendation 4: Enhance provisions constraining land clearing

- It is imperative therefore that the Act includes prevention of habitat destruction through strict requirements for any proposed land clearing.

Currently the land clearing provisions of the Act require the approval of the Board before they can be implemented.

- This part of the Act ought to be amended to define those considerations that the Board must take into account before approval is given to clear land. These should include the principles of ecological sustainability, biodiversity conservation and habitat protection already discussed as well as consideration of the cumulative effect of adjoining land clearing proposals.

Once again thank you for allowing the EDO (NT) to present this submission.

Tom Cowen
BA BSc LLB(Hons) MEnvS
Principal Lawyer

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