

Outline of a Framework for Northern Territory Environmental Offsets

The Northern Territory government has announced that, as part of a suite of environmental law reforms, environmental offsets will be reinstated.

This proposal from The Nature Conservancy (TNC) and the North Australian Indigenous Land and Sea Management Alliance Ltd (NAILSMA) outlines an offsets framework designed to meet the particular needs of the Territory and its Aboriginal land interests and communities. Arguments for regarding environmental offsets as an essential part of an effective environmental management capability and the particular features of the Territory that should be taken into account in design and delivery are in other papers¹. This paper focuses on aspects of design and a process for implementation.

1 Environmental offsets

Environmental offsets are actions taken by developers or by others on their behalf to ensure that their activities cause no net loss of environmental quality. They compensate for unavoidable damage at a development site by delivering equivalent or larger environmental benefits in another place. Offsets cannot be used to compensate for unique (irreplaceable) attributes: developments significantly affecting such values should normally be rejected or redesigned^{2,3} to avoid such damage.

2 Elements of a system

Essential elements of an environmental offsets system are:

- a measure of the environmental detriment to be offset
- a way to decide the right sort of compensation for that detriment
- a way to compare the environmental value of the detriment and offset
- a mechanism to ensure that the cost of the offset is proportionate to the detriment
- an individual, group or organisation who have the interest and the knowledge and other skills to provide the offset
- ways to secure or guarantee the offset
- monitoring systems to measure and report the success of the offset and how much environmental compensation it is actually producing.

2.1 Measuring detriment

In its assessment reports, the NTEPA should specify the nature of and, so far as possible, quantify environmental detriment. This is an essential step, providing the minimum information needed to

1 NAILSMA 2017 Restoring environmental standards in the Northern Territory through offsets. A discussion paper. May 2017. North Australian Indigenous Land and Sea management Alliance Ltd and The Nature Conservancy, Darwin and Melbourne. 30 pp.

2 Kiesecker J, H Copeland, A Pocewicz, N Nibbelink, B McKenney, J Dahlke, M Holloran & D Stroud **2009** A Framework for Implementing Biodiversity Offsets: Selecting Sites and Determining Scale. *BioScience*. 59, 77-84

3 Fitzsimons J, M Heiner, B McKenney, K Sochi & J Kiesecker **2014** Development by Design in Western Australia: overcoming offset obstacles. *Land*, 3, 167-187

begin considering offsets. The NTEPA need not nominate the particular offsets it seeks but may choose to comment on suitable offset types where warranted by specifics of the development or its context. It will also be useful if NTEPA offers comment on who will be most affected by residual impacts, so that offsets that best meet affected communities' needs can be considered.

2.2 Identifying appropriate offset(s)

In addition to any advice from the NTEPA, suggestions should be sought from developers about offsets they may consider relevant in any supplement to their draft EIS when they will have access to preliminary advice from the NTEPA and the wider public. Relevant government agencies routinely make comment on environmental assessments. Those reports should include suggestions about offsets appropriate for the (acceptable) residual detriment they anticipate.

Early in the development of the Territory offsets program, these mechanisms may be sufficient, with relevant regulators and other agencies with related interests supporting developers to identify potential offset providers. In the longer run it will probably be more efficient to develop registers of providers to which developers can refer during the assessment process, facilitating approval of offsets as part of the approvals and condition-setting process.

2.3 Comparing environmental value of detriment and offset

Ensuring that an offset has the potential to perform as intended is the most technically and procedurally challenging element of an offsets system. It will be particularly important to deal with equivalence carefully in the Territory situation, where knowledge of the landscape is often relatively weak and orthodox offsets like setting aside bits of widespread ecosystem types may offer little benefit, if adverse processes affecting most of the landscape continue. At the same time it will be important to avoid excessive complexity that might divert effort from works at offset sites to over-elaborate accounting.

Two key tests must be applied rigorously. First, the offset must be additional: that is, it requires new work that would not have been done if not for the offset arrangement. Second, the sort of work done must be of a class and quality that has been recognised as likely to have a strong causal connection to the condition of the attributes affected by the development. That recognition may be based on empirical evidence, theory-based models, or expert opinion and/or a combination of all three. The connection will usually be documented in formal peer-reviewed publications and statements of conservation status and threatening processes for individual native species and assemblages, including recognition of essential or threatened habitat under Territory or federal law. But clearly the less direct the connection, whether in location or causal pathway, the greater the uncertainty about equivalence. And uncertainty will not always be resolved quickly, because relevant ecosystem structures and functions may take a long time to restore, even if the management prescriptions are the right ones.

A universally accepted safeguard against inadequate benefits is to seek, in the offset arrangement, a quantitative "buffer" against uncertainty. That could involve protecting a larger area of apparently equivalent habitat, and/or focus on a site known to be especially favourable for the attribute affected by development. And actions required at the agreed offset site should, wherever possible, contribute to environmental quality in multiple ways, so that there will always be substantial benefits even if it is hard to demonstrate rapid response of the target attribute, despite the provider's best efforts.

Rather than saddling developers and providers with complex accounting obligations, the best safeguard against complacency and slipping standards will be transparent reporting of outcomes required under the relevant regulator's conditions as agreed by developer and provider, backed by periodic audit done randomly or at the request of the regulator if serious concerns are raised. Offset

conditions and agreements should provide for review and revision or substitution if monitoring indicates that targets are not being met.

As in all instruments for environmental and resource management, a balance is required between regulatory settings that promote confidence in standards and protect the public interest, and over-prescription that stifles innovation and generates too much cost.

2.4 Costs and payment

Where markets exist, costs to developers needing offsets are determined by those markets. At present, national environmental markets are confined to carbon. The Territory has established no environmental service markets of its own. However, situations might arise where, for example, flows to a groundwater water-dependent ecosystem could be restored by a developer providing water sourced from a market. Markets may also in the future include biodiversity and other values.

In the meantime, payments made by developers will be determined in case-by-case negotiation, probably based loosely on the cost of providing the services required, plus the provider's margin. In the Territory, the cost of intervening to provide basic services like improved fire management, weed management and feral animal control are known from a number of situations, so providers can set realistic charges and buyers can assess value for money. Prices are likely to converge to relatively narrow range as the market expands and experience is gained. Price differentials may emerge for "premium" offsets that include social and other cobenefits.

In the case of more specialised services, "bottom up" estimates can be generated from schedules of agreed activities, chosen on the best available scientific and practical advice on methods for the particular attribute. Government and a growing array of Indigenous and non-Indigenous non-government organisations have experience in delivery of generic and specialised land management services and will be important sources of advice and services.

Just as minor developments do not require environmental assessment, small operations will not be required to consider offsets unless their actions affect especially important values, although developers may choose to participate if they see reputational or other benefit.

2.5 Providers

Although abandonment of Territory offsets policies has arguably stunted growth of provider enterprises, a number of organisations have been building capability in other ways. Many Aboriginal organisations run Indigenous Protected Areas to deliver services for maintaining environmental quality to agreed standards. At least 26 Territory sites (and 80+ nationally) are generating carbon offsets under the savanna burning methods developed in the Territory, with operators including Aboriginal organisations and large pastoral companies. Other Aboriginal and non-Aboriginal organisations have worked alone or with Territory agencies on threatened species and various forms of monitoring of natural and cultural values. The internationally recognised Cyber-Tracker technology (known as I-Tracker in northern Australia) is deployed across Aboriginal lands for recording environmental observations.

There is now a strong network of potential providers who have developed the operational workforce and governance systems to engage successfully in offsets provision. What they need now is information about industry requirements for offsets, and an orderly way of engaging with potential buyers. The system should offer precedence to providers from the region or community experiencing the environmental detriment - who will most often be Indigenous people who make up most of the population outside major centres - so that those feeling the costs also gain access to some benefits. But it will need to do so in ways that do not excessively distort prices.

2.6 Security

Most offsets are secured by binding legal agreements between developers and providers. Regulators and some buyers may seek more than this: where impacts are permanent then offsets should also be protected in perpetuity. Governments are best placed to provide guarantees to offer such protection by, for example, incorporating an offset in the declared protected areas network. Governments may also offer other forms of protection that private individuals or groups cannot, like protecting an offset covering mining impacts by reserving the site from future mining. Or if they are reluctant to do go this far, committing to find an equivalent alternative offset if, at some future time, exploration is allowed on an offset site.

2.7 Monitoring and reporting

Conditions requiring offsets must specify monitoring arrangements. An offset without a mandatory and transparent monitoring and reporting system is no offset at all. Obligations go beyond satisfying the developer to include an informed community, especially around the impact site. They and the public more generally require demonstration that offsets are real and effective.

There are national and some Territory systems for monitoring environmental variables and some of these will be adaptable to some classes of offsets. For example, the North Australia Fire Information web service hosted by Charles Darwin University provides fire mapping and reporting tools that can be used for projects requiring improved fire management: Territory agencies monitor condition of pastoral lands using public funds. Although formal reporting of this work by the Pastoral Land Board has at times been interrupted and does not include property details, some of the information gathered could be meaningfully reported at finer scales, including offset sites. A number of organisations are developing systems for measuring other environmental values identified by the Territory public as important, like status of individual species of interest or concern, including threatened species.

There are no insurmountable barriers to development of appropriate monitoring and reporting systems. However, costs should not be under-estimated and must be factored into decisions about offsets. Costs will obviously increase when needs diverge from routinely gathered data to require better spatial or other resolution.

3 A framework and process for implementation

The discussion above considers the major issues that must be considered in establishing an offsets system that is well matched to the Territory situation. We have already highlighted the need to find a balance between confidence-building and over-prescription. The suggestions to follow about a robust Territory offsets framework and pathway to timely implementation seek that balance.

The outline is founded on some key assumptions:

- implementation will begin immediately, given the incomes and opportunity already lost in back-tracking and continuing losses if further delayed
- NTEPA will change its present advice on offsets and cooperate in applying offsets
- government will play a significant facilitating role, with emphasis on building developer, provider and public confidence
- a satisfactory starting system with adequate levels of security can be built on existing law and through a clear statement of policy to instruct agencies, but that confidence and attractiveness of the Territory system will be enhanced by specific law
- there will be no retrospectivity, so the framework will apply only to projects assessed (or change enough in scope or method to be re-assessed) after the framework is announced.

3.1 A framework

Settings required for a Territory environmental offsets system include:

3.1.1 Development types:

- All developments subject to formal environmental assessment under Territory or federal law.

3.1.2 Environmental effects:

- initially carbon emissions, native vegetation (clearing), and biodiversity
- a program for expansion to water availability and quality; status of living renewable resources; restoring customary use; improving recreational and visual amenity.

3.1.3 Offsets register

- established and maintained by government, including:
 - development applications that may generate requirements for offsets
 - options identified by NTEPA in environmental assessments
 - in conditions set by regulators for project approval
 - details of executed agreements (developer, project, provider, attributes offset, monitoring and reporting arrangements)
 - entry of projects to register subject to demonstration of steps to observe relevant standards

3.1.4 Standards

- initially using existing existing relevant standards^{4,5,6}
- providers to show how relevant standards have been applied in submitting offset proposals to developers and to government for registration
- Territory-specific standards to be determined on advice to government from an Offsets Technical Advisory Group comprising relevant technical and legal experts, conservation interests, Indigenous and other landowners, offset providers and interested industry
 - subgroups convened as necessary to address specific issues
- non-government organisations are supported to develop co-benefit standards, especially as they affect Indigenous participants

3.1.5 Performance metrics (linked to standards)

- agreed case by case, wherever possible deploying existing measures
- regulators may reject - as not satisfying conditions - proposals with insufficient or clearly inappropriate measures of change in attributes being offset

4 For example, Business and Biodiversity Offsets Programme (BBOP) 2012 Standard on Biodiversity Offsets. BBOP, Washington, D.C. 22 pp. and

5 CoA 2015 Carbon Credits (Carbon Farming Initiative—Emissions Abatement through Savanna Fire Management) Methodology Determination 2015. *Department of Environment, Department of Environment, Canberra*. 40 pp.

6 The Commonwealth provides guidance for matters of national environmental significance that could be adapted for local values (DSEWPAC 2012 How to Use the Offsets Assessment Guide. *Department of Sustainability, Environment, Water Population and Communities, Australian Government, Canberra*. 19 + attachment)

3.1.6 Complementary work (to be done in parallel)

- discussions with NTEPA about revision of advice on offsets to accord with new policy position
- new law for carbon rights to cover access to emerging carbon sequestration opportunities being developed in the Territory
- new law for offsets, broadening matters covered
- review and amendment of other law regulating and setting conditions for relevant activities to remove any residual ambiguities about the place of offsets in Territory environmental management
- exploration within government of options to work with developers to improve environmental outcomes by adjusting development footprints to optimise the effectiveness of readily available offsets
 - in conjunction with development of policy for strategic environmental assessment (SEA); and
 - engaging NTEPA regarding their potential role in facilitating SEA and offsets working in tandem so that regional development includes complementary environmental measures.
- linkage to other relevant policies, for example in Indigenous economic participation and land use planning.

3.2 Implementation

Steps required for prompt implementation include:

1. Drafting a policy statement clearly setting out Northern Territory government intent, covering all of the framework elements set out above, and including responses to submissions to the May 2017 discussion paper on environmental assessment⁷
2. Assembling a government implementation group supported as required by advisory groups.
3. Within-government agreement on staffing and other resources needed for serious implementation and ongoing refinement within a relevant agency with a clear mandate through the policy statement.
4. Agreement with NTEPA on revisions to guidance on offsets, based on the Cabinet-approved policy statement.
5. Design and construction of the offsets register for “testing” with potential buyers and providers.
6. Concurrent release of the policy statement and revised NTEPA advice at a public launch.
7. A schedule for discussions about implementation with industry and providers, including Indigenous organisations.
8. Progressive formal endorsement of existing offset standards from relevant sources and identification of gaps that may require Territory standards.
9. Entry of some pre-existing projects to the offsets register if sought by providers and developers.

⁷ Department of Environment and Natural Resources 2017 Environmental Regulatory Reform Discussion Paper May 2017. *Northern Territory Government, Darwin*. 31 pp.

10. Annual review of projects included in the register to inform refinement and development of new opportunities.

4 The Territory government role

NAILSMA and TNC have previously considered how an offsets framework might be established if active government support remained unavailable⁸. They concluded that it was possible - by drawing on federal requirements and voluntary markets - but undesirable. The federal system does not recognise some values particularly important to the Territory, like specific Indigenous interests that may require offsetting. And developers, providers and the public generally seek the stability and security that government is best placed to provide as part of a robust system. Even participants in voluntary markets are likely to welcome active government participation to generate confidence in products.

Important government contributions to building confidence will be to articulate broad public goals for promoting environmental quality and the role of offsets in achieving those goals; and in underwriting selection of standards and advancing offset security in various ways. Government should not, however, be involved in delivering offsets itself nor in setting prices for individual offsets.

Between the highly desirable and the activities to be avoided are many options. Issues additional to those outlined above are roles to influence:

- situations in which like for like offsets will be preferred or in which landscape scale interventions that facilitate pursuit of specific conservation goals offer greater benefit
- guidelines and caps on area multiples for some classes of offset.

A sketch of how the offsets framework could operate as an adjunct to the environmental assessment and project approvals processes is shown in the Figure below.

8 Whitehead PJ & B Oliver **2014** Development by Design: opportunities in northern Australia and the potential role of Indigenous people, with particular emphasis on the Northern Territory. A scoping study for The Nature Conservancy. Working Paper 01/2014. *North Australian Indigenous Land and Sea Management Alliance, Darwin*. 435 pp.

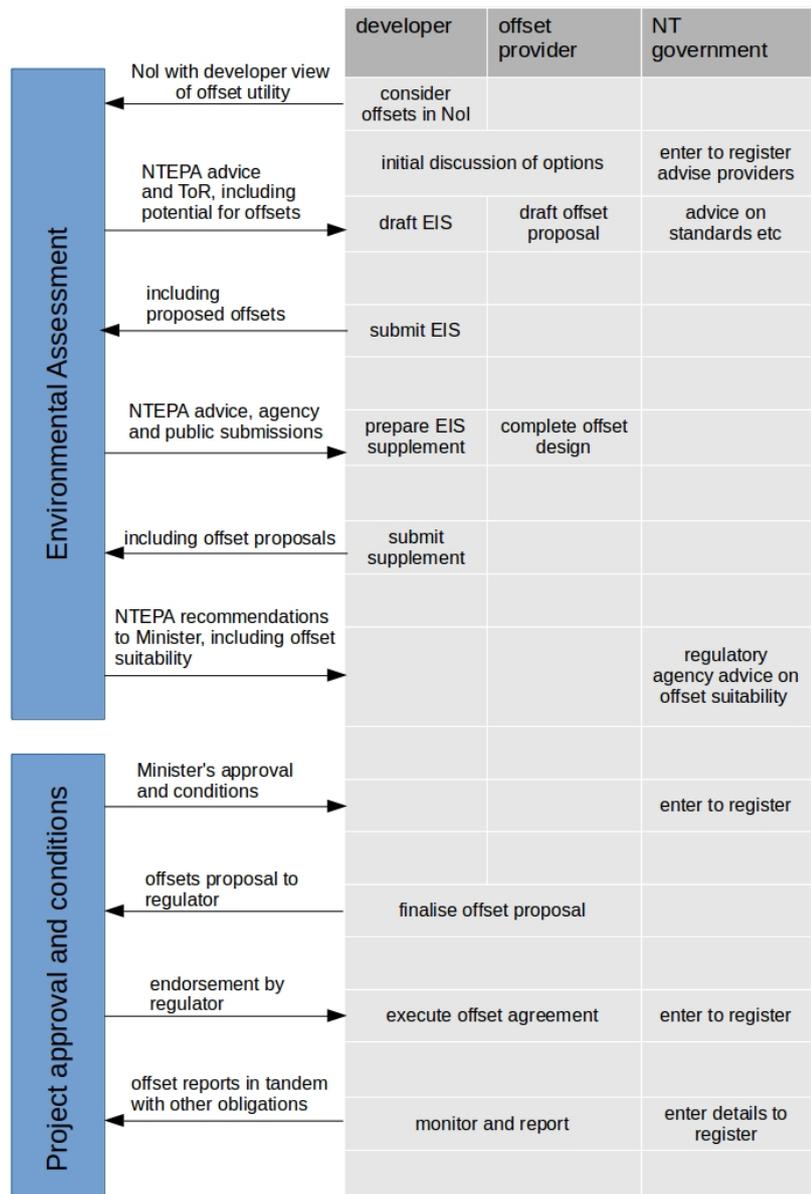


Figure 1: Articulation of offset selection and design with the environmental assessment and project approvals process.

5 The NTEPA role

Although independent in its assessment and advisory roles, the NTEPA obviously must act in accordance with relevant law and policy. If operating to a clear policy statement from government, the NTEPA can play a critical role in efficient application of offsets. Based on the information provided by development proponents and experience of different development types the Authority can flag the potential utility of offsets of particular type and scope early in the process. Preferably, general advice about offset options would be included in notice to proponents about the requirement for environmental assessment; and to the federal government about Territory-relevant application of the EPBCA Environmental Offsets Policy⁹.

9 DSEWPAC 2012 Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy. Department of Sustainability, Environment, Water, Population and Communities, Canberra. 30 pp

This would facilitate selection, design and negotiation of offsets in parallel with other project development work. Including plausible offset conditions would not necessarily delay project timetables and yet allow implementation early enough to have a real prospect of genuinely compensating for environmental damage.

6 Conclusion

This paper has attempted to establish the basic structure for a Territory offsets framework. There are obviously many ways of putting flesh on these bones. Our goal is to identify the most important issues to be addressed and, in that process, show that the tasks involved are not unusually challenging. They have been successfully met by all other jurisdictions and have to be handled by the Territory one way or another given inclusion of offsets in an environmental assessment bilateral agreement with the Commonwealth¹⁰. A re-instated Territory system will ensure that local interests and perspectives on ways of getting the best environmental and social outcomes are not ignored.

¹⁰ CoA and NTG 2014 Bilateral agreement made under section 45 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) relating to environmental assessment. December 2014. *Commonwealth of Australia (Commonwealth) and The Northern Territory of Australia (NT)*, Canberra and Darwin. 21 pp.