

# Submission to the Australian Government on the draft "EPBC Act Environmental Offsets Policy"

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## 1. Introduction

As the principal legislative instrument concerned with matters of environmental and biodiversity protection in Australia, the strength of the EPBC Act has historically been in its firm defence of nationally significant environmental assets. Thus, the introduction of an environmental offsets policy that enables losses of biodiversity or environmental impacts to be compensated for elsewhere is a significant modification of the Act, and should not be adopted lightly or without substantial evaluation.

We found that the Consultation Draft: Environmental Offsets Policy (the Policy) contained a number of statements and concepts that ought to be commended, yet lacked sufficient quantitative detail to enable a complete and meaningful review or to be enforced and insure that the more qualitative, aspirational goals are met. *We strongly urge the Department of Sustainability, Environment, Water Populations and Communities (DSEWPC) to produce an operational model of the Policy after considering the recommendations of this round of submissions and release the revised policy for an additional round of review before it is integrated into the EPBC Act.*

We are concerned that much of the language used in the Policy was unclear, ambiguous and unbinding in a policy sense. A high level of detail in the workings of an offset policy, combined with clear and specific language is necessary for such a policy to successfully achieve the aims for which it is devised, namely "long-term conservation outcomes" for "national environmental assets" (p 5). Greater detail is required especially in defining attributes of appropriate offsets (section 6.1).

For example, in section 6.1.2 the Policy states that "the offset required for each impact is determined by taking account of risk, the level of impact, the best available science and other considerations". We agree that all these factors should be considered, however there is a need for these to be defined in more detail (e.g. the "risk-based approach", section

6.1.4). Mere 'consideration' of these factors without explicit and quantitative instructions could lead to a suite of alternative conservation outcomes (of varying efficacy) that all could be said to 'adhere to the Policy guidelines' but do not meet the Policy goals.

The "Environmental Offset Assessment Guide" requires a greater level of detail and the inclusion of quantitative requirements before an adequate assessment of its efficacy and accuracy in calculating appropriate offset scores can be made. Nevertheless, we have included some comments on the overall structure of the assessment approach in following sections of this submission.

## **2. Specific recommendations**

### ***2.1 Criteria determine "unacceptable" risk***

A crucial omission in the Policy was any mention of criteria that determine when an offsetting approach cannot be applied. We note that the Policy states that offsetting may not always be appropriate, and that offsetting for impacts to highly endangered species or ecological communities would oftentimes fall under the category of "unacceptable risk". However, we believe that it is only through setting clear quantitative criteria on what constitutes "unacceptable risk", that the persistence of listed species and ecological communities can be ensured. Without explicit criteria, it can be difficult to justify why individual actions with small impacts should be rejected and can therefore result in large cumulative effects from many small individual actions ("death by a thousand cuts"). Further, a lack of explicit criteria means decisions can more easily be influenced by social, economic and political factors in ways that undermine the stated Policy aim of transparency.

Such quantitative criteria are alluded to in section 6.2.2, but require clear definitions. Once proposed, these definitions should be included for comment after further refinement of the Policy. Examples of criteria could include, extent of a listed species/community, population size, proportion of original extent remaining, or measures such as extinction risk derived from population viability models. Risks to certain ecosystem services could also be included, for example changes to river flow regimes.

### ***2.2 Policy goals and baselines***

The proposed offset policy has many good aspirational goals, including the "efficient, effective, transparent, proportionate, scientifically robust and reasonable use of offsets" (p 4). However, in its current form, the Policy requires no quantitative evidence from any of the parties in showing that the proposed offsets will achieve the Policy goals.

On page 10, the Policy states that offsets must "contribute to the ongoing viability of the impacted protected matter" and that the protected matter "be improved or maintained as compared to *before the action occurred*" (our emphasis). We agree that this should indeed be the goal of the policy, but in an email from the EPBC Act Reform Taskforce (in response to further clarification of this point by a colleague from the University of Queensland), an inconsistent Policy goal has been stated: "improving or maintaining compared to what is *likely to have occurred under the status quo*" (our emphasis; Email from ██████████ EPBC Act Reform Taskforce, Monday, 17 October 2011). This issue of which baseline the offset outcomes should be measured against is of utmost importance to the final conservation outcomes that will ensue. Three salient points in regard to this matter are outlined below:

- There should be a clear articulation of the goals of the policy and whether the gains should be “compared to before the action occurred” or “compared to what is likely to have occurred under the status quo”. Given that a reasonable person might interpret “improve or maintain” as with respect to the current condition, this distinction is important to make clear.
- The extent to which the “improve or maintain” criteria is met can vary significantly with different baselines (Gordon et al., 2011a). For example if a development that results in the clearing of native vegetation is proposed with associated offsets, what is the status quo baseline to measure against? Reasonable arguments can be made that it is either (i) the situation where development occurs without offsets, or (ii) the situation where no development and no offsets occur. The choice of which to use has serious consequences for whether the “improve or maintain” goal has been achieved.
- Using the goal of “improving or maintaining compared to what is likely to have occurred under the status quo” is inherently less transparent, as it is impossible to predict with any acceptable level of certainty what would have occurred in the future under the “status quo”, particularly over longer timeframes. Indeed, the destruction of ecosystems and the loss of biodiversity have not taken place in a predictable, linear fashion in the past, and thus it is fundamentally erroneous to expect environmental destruction to occur in a predictable way in the future. In these situations it would be difficult to quantify whether an offset actually has achieved the “improving or maintaining” goal, resulting in a lack of transparency in the Policy. This issue needs to be recognised in the Policy.
- For the above reasons, we recommend that the Policy uses the baseline measure “compared to before the action occurred” as it provides a simpler and more transparent way to assess the policy.

### *2.3 Providing evidence that the Policy goals will be met*

The Policy has a stated aim of achieving offsetting through a “scientifically robust” and “transparent process”. In its current form, the Policy requires no quantitative evidence from any of the parties in showing that a proposed offset will achieve the policy goal. One way of dealing with this issue is through the use of dynamic, quantitative models of the system and its uncertainties (e.g. Gordon et al., 2011a; Gordon et al., 2011b). This allows a transparent and quantitative process for systematically combining beliefs about the system. Such an approach provides a way for the evidence for all claims to be exercised and evaluated and evidence to be given for and against model assumptions. This approach has already been demonstrated in previous actions where modelling has taken the form of population viability analysis (Bekessy et al., 2009) or dynamic simulation of landscape condition and evolution of contextual effects such as urban growth (Gordon et al., 2011a). Such modelling needs to give explicit estimations of evidence for risk, uncertainty, and correctness. Whatever the method, it needs to demonstrate that the goals will be reached or are very likely to be reached before an offset package is accepted and should be a compulsory part of the assessment process. This approach is consistent with good governance principles (p12), namely the second principle of the National Strategy for Ecologically Sustainable Development:

*“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” (NSED, 1992)*



Evaluating offsets via the use of such models could be undertaken by the Government, or by the party requesting the offset. Evidence for the appropriateness and correctness of the data and the models should be required and verified by scientific experts in the area. This in turn requires that the Government has explicitly and quantitatively stated what the minimum quantitative outcomes are required for the offsetting. One useful outcome from such a modelling approach is that it can quickly become apparent that there is a lack of ecological information to inform decision-making. This can be a useful result and could be used to trigger requirement for further data gathering to before offsetting could be considered.

#### **2.4 Multipliers**

Multipliers to be used in offset calculations must be derived from the quantitative estimates of the system dynamics rather than chosen arbitrarily. In particular, the multiplier should be derived from modelling in such a way that the derived value is the one that will achieve the quantitative statement of the required policy goal. For example, if an arbitrary choice of multiplier is given, that multiplier should be applied in models of the system to determine the likelihood that it will actually lead to the required goal. If it does not, then the multiplier should be changed to a level that does at least meet the required outcome.

#### **2.5 Temporal issues**

In many cases, offsetting results in trading losses that are certain and immediate for gains that are inherently uncertain and may not occur until some future point in time. Once gains have occurred, there is still the issue of being able to maintain these gains in perpetuity. One of the criteria in assessing offsets from Figure 2 is the question of "will the benefit last at least as long as the impact?" In most cases it is reasonable to assume that the impact is permanent (e.g. the clearing of vegetation for development). Thus for there to be any chance of the offset resulting in the "maintain or improve" criteria over time, the offset needs to be permanently protected. The costs of *permanent* protection and the provision of ongoing maintenance of offsets of the long term needs to be fully considered, and will likely be very large if accounted for accurately. The effectiveness of some protection measures, such as covenants, may not be adequate given the subsequent clearing of covenanted offset areas in several recent cases (for example, the Bulli Seam, Wollongong).

The definition of time points and responsibilities in the process can have a significant impact on the outcomes and must be made explicit.

- It should be clear when the outcomes are required to be achieved.
- It should be explicit who will determine whether the outcome has been achieved, who will fund that monitoring, and that sufficient funding to carry it out is guaranteed.
- Any requirement that an outcome be achieved at some point in the future should provide mechanisms guaranteeing/enforcing that it will be done and specifying the consequences for the offsetting party if it is not achieved. They must also account for what is to be done if the responsible party might not exist at some point in the future (e.g., a property developer goes bankrupt and can no longer fund the management of offsets).
- For outcomes to be achieved in the future, there should be mechanisms for monitoring the process at intervals that allow problems with the process to be caught in time to be fixed and to enforce their being fixed.

## *2.6 Burden of proof*

There should be clarity around who holds the burden of proof for showing the offsets will achieve policy objectives. Our recommendation is that this must fall with the proponent undertaking the offsetting, as they are the ones who stand to gain. The Commonwealth Government, citizens of Australia and impacted ecosystems are the actors in such an exchange that are at risk of incurring some form of loss.

## *2.7 Biodiversity banking*

We recommend that in light of the various uncertainties involved, a precautionary attitude should be taken. The would-be biodiversity trader should demonstrate to pre-determined standards that the net gain has occurred before the trade occurs. Moreover, the trader should bear the cost of such demonstrations.

We strongly advocate an approach that incorporates the banking of biodiversity offsets for future use (Bekessy et al., 2010). In this approach, biodiversity gains are required to be demonstrated *before* any losses can occur, and these gains are comprised entirely of tangible “direct” offsets. The value of biodiversity assets (savings) should be demonstrated before they can be used to offset loss of biodiversity elsewhere. New investments could be sold to a party interested in liquidating an equivalent amount and quality of vegetation. Alternatively, banked biodiversity (i.e., habitat created above and beyond “duty of care”) could be bought or sold in an established market. This is the ideal approach as it mitigates many of the risks and uncertainties associated with offsets as described in the Policy.

While it may not be feasible to implement a banking version of offsetting immediately, we strongly recommend a strategy of moving towards this approach. One way of doing this would be to have this banking version of offsetting be designated as coming into force at some fixed date in the future (e.g. in 10 years time), which would then allow those requiring offsets to start banking gains in preparation for when the policy was implemented.

In order to increase the area of land available for offsetting, other investment initiatives such as carbon trading should be harnessed as a source of funds for investments in biodiversity restoration (Bekessy & Wintle 2008). Integration of the biodiversity bank with the carbon bank will increase the potential for improved biodiversity outcomes. We believe that allowing investors to double dip (initially, at least) in the carbon and biodiversity banks (i.e., to accrue both carbon and biodiversity credits from one restored parcel of land) will favour biodiverse carbon sequestration investments over biodiversity poor carbon sequestration investments (e.g., monoculture plantations) (see Bekessy & Wintle 2008 for details).

## **References**

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