

Can Economics Regulate the Environment?

The Biodiversity Offsets Market in NSW

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5 November 2020



Introduction

- This presentation will focus on effect of the current NSW Biodiversity Offsets Scheme in under-valuing biodiversity credits, thereby disincentivising private land conservation.
- We will look at:
 - The effect of allowing payment into the Biodiversity Conservation Fund as an alternative to retiring credits;
 - Problems with the way the Offsets Payment Calculator calculates prices; and
 - Other disincentives to private land conservation

Relevant aspects of the Scheme

- Where development consent is granted for Part 4 development, proponents required to retire biodiversity credits or pay an amount into the Biodiversity Conservation Fund (the **Fund**).
- Offsets Payment Calculator is used as the basis for assessing amount payable to the Fund.
- No requirement to demonstrate attempt to find offsets before paying into the Fund.
- If proponent pays into the Fund, the Biodiversity Conservation Trust (**BCT**) is under obligation to later secure the required offsets.



Relevant aspects of the Scheme

- Biodiversity credits created through establishment of biodiversity stewardship agreements (**BSA**) over land.
- BSAs usually require the landowner to carry out management actions on the site in perpetuity.
- Creator of a biodiversity credit sells the credit on the market. Must pay a portion of the proceeds to the BCT to cover cost of management actions.





In-lieu payment into the Biodiversity Conservation Fund

- Why allow developers to pay into a fund in lieu of directly securing biodiversity credits at all?
- Policy justifications include –
 - economies of scale
 - strategic investment to maximise biodiversity gains.

Significant take up of in lieu payment alternative

As at 30 June 2020:

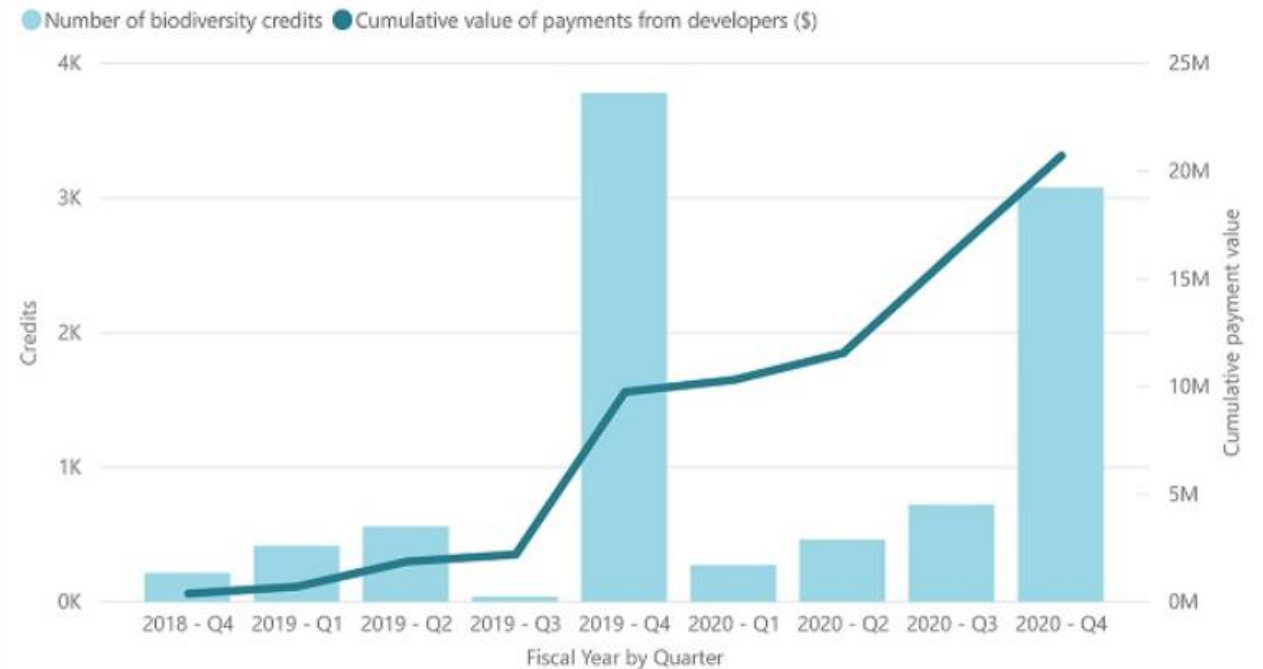
- No. developer payments into the Fund = 108
- Cumulative value of payments into the Fund = \$20 million
- 231 offset obligations transferred

More recent increase reflective of delay in application of scheme in growth areas.

Data current to 30 June 2020

Securing biodiversity credits under the Biodiversity Offsets Scheme (BOS)

Developer payments into the Biodiversity Conservation Fund (BCF)



Source: Biodiversity Conservation trust ([Link](#))





Practical effect of allowing payment into the Fund

- Offsets Payment Calculator sets “ceiling” prices for credits on the market.
- Payment into the Fund likely to be faster and easier than purchasing from the market, avoiding need to locate, negotiate with and enter into agreements with a seller.
- Developer can also establish own Biodiversity Stewardship Site.
- Price at which in-lieu payment is set is therefore pivotal to the success of the system.

The Offsets Payment Calculator

Biodiversity Offset Payment Calculator

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andatory
Global Biogeographic Regionalisation for Australia (IBRA) *

IBRA subregion *

Threaten status ☒ TEC ☐ non-TEC

Offset trading group *

PCT ^ ADD F

Species ^ ADD SF

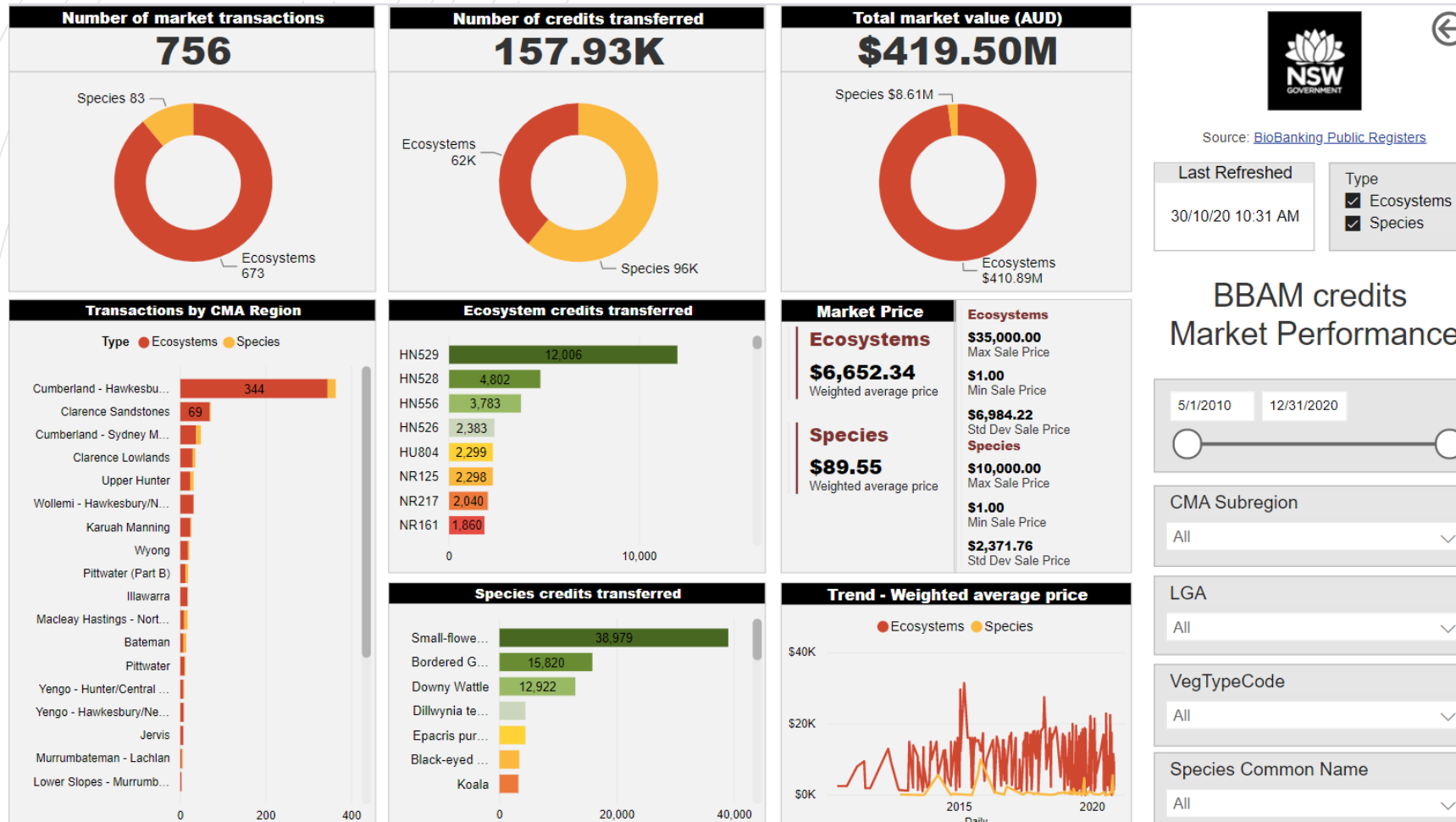
Offset trading group	Ci
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Biodiversity Offset Payment Calculator ([Link](#))

Calculator comprises several components:

- a credit price model - predicts market price for credits based on observed trades;
- a “risk premium” margin - accounts for probability the market credit price paid by the BCT to landholders is different to predicted; and
- costs of the BCT administering the Fund.

Calculator relies on a limited data pool of trades



Source: Spot Price Index for Biodiversity (Biobanking) Credits ([Link](#))

- As of end-October 2020, less than 10 trades of credits under BAM have been recorded.
- Only been 743 transactions of credits generated under BBAM since May 2010.
- As of October 2020, only 122 PCTs, out of a total of 1000+ PCTs, have been subject of BBAM credit transactions.



Credit Price Model is based on offset variation rules

- Calculator predicts prices for biodiversity values without trades based on the like-for-like rules and the variation rules, which allow offsetting with a broader suite of biodiversity that is the same or more threatened than the biodiversity impacted.
- Use of variation rules is problematic because biodiversity values are non-fungible.
- Has potential to distort the market, particularly given the low number of trades undertaken.

Credit Price Model is based on the BCT's offset variation rules

- The BCT has more flexible variation rules in applying the amounts paid into the Fund than those applicable to proponents - can retire credits generated from anywhere in NSW.
- It is the BCT's version of the variation rules that are built into the Calculator.
- Arguable that the value of credits should be tied to the offset rules required to be followed by proponents.
- Unfairly reduces the value of credits held by landowners.





Risk Premium Model does not factor in true environmental risk

- Calculator does not take into account environmental costs when offset obligations not met at time biodiversity destruction authorised.
- The longer the time lags between payment into the Fund and securing the relevant offset, the scarcer the biodiversity resources will be.
- Increasing payment into the fund over time will therefore make the true worth of biodiversity credits higher.



Issues with credit equivalence calculations

- Calculator must account for a different number of credits being generated under the BAM compared to the BBAM.
- Would expect a functioning credit equivalence model to produce price roughly around the average pricing that BBAM credits have previously sold for, just adjusted for the different credit ratios.
- Calculator consistently under-estimates the value of some biodiversity credits, resulting in lower prices than under the previous BBAM system.

Other disincentives to private land conservation

- Reduced Credit ratios under BAM – requiring greater amount of land to be locked up to meet offset obligation (although this is supposed to be addressed in a new draft BAM).
- Cost of biodiversity assessments (higher than under previous biodiversity methodology) barrier to entry into the offsets scheme.





Other disincentives to private land conservation

- Due to change in calculation of the amount to be put aside for future management of a Biodiversity Stewardship Site, profit margins on credits have decreased.
- Calculator does not directly factor in the cost of the management actions required or value of land.
- In-perpetuity management obligations lock development potential of land forever, without corresponding compensation tied to the cost of management actions or the unencumbered land value.

Growing environmental debt

- As at October 2020, only 4 Biodiversity Stewardship Agreements entered on the public register (not including previous biobanking agreements).
- The BCT has secured or is in the process of securing biodiversity credits to meet only 18 of 231 offset obligations transferred.
- Currently offsets secured are like-for-like, but high probability that BCT will need to resort to variation rules.
- Reliance on variation rules will give the BCT a level of financial protection, but contributes to dysfunction in the Scheme as offsets used are progressively less equivalent to the values lost.





Conclusion

- Biodiversity Offsets Scheme in NSW is still fledgling, so premature to make any firm assessments of the Scheme.
- But we are seeing some troubling trends, with increasing threats to biodiversity from deregulation and climate change fuelled natural disasters.
- Market mechanism needs to be redesigned to provide greater incentives for landowners to invest in biodiversity conservation.