



IPART Independent
Pricing and Regulatory
Tribunal | NSW

Monitoring the Biodiversity
Credits Market in NSW

Issues Paper

July 2023

Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders both past and present.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Tribunal Members

The Tribunal members for this review are:

Carmel Donnelly PSM, Chair

Deborah Cope

Sandra Gamble

Enquiries regarding this document should be directed to a staff member:

Melanie Mitchell

(02) 9113 7743

Kira van Os

(02) 9019 1943

Invitation for submissions

IPART invites comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by Friday, 4 August 2023

We prefer to receive them electronically via our [online submission form](#).

You can also send comments by mail to:

Biodiversity Market Monitoring Review
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop, Sydney NSW 1240

If you require assistance to make a submission (for example, if you would like to make a verbal submission) please contact one of the staff members listed above.

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our [website](#) as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed above.

We may decide not to publish a submission, for example, if we consider it contains offensive or potentially defamatory information. We generally do not publish sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please let us know when you make the submission. However, it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's [submission policy](#) is available on our website.

The Independent Pricing and Regulatory Tribunal

IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from [IPART's website](#).

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1 We are reviewing the biodiversity credits market

Healthy biodiversity is important for the quality of life of current and future generations. Our diverse ecosystems are home to a variety of unique flora and fauna that are not found anywhere else in the world due to Australia's geography and distinct climate conditions. This rich biodiversity provides numerous ecological, cultural, intrinsic and economic benefits.

Rainforests, deserts and wetlands contribute to vital ecosystem services, such as water purification, nutrient recycling and carbon sequestration. These are essential for the survival of wildlife that rely on them for clean air, water and fertile soils. Indigenous communities have long held a deep spiritual connection with the land, and many of their cultural practices have their roots in its biodiversity. Our unique species, such as koalas and kangaroos, also attract nature-based tourism that contributes to our economy.

However, this important biodiversity is threatened by habitat loss and degradation, native vegetation clearing for agriculture, urban development and resource extraction, as well as climate change, invasive species, disease, pollution and poaching. Biodiversity loss can have catastrophic effects on ecological processes, including imbalanced food chains, reduced pollination and nutrient recycling. This can lead to the eventual decline in agriculture, forestry, fisheries and tourism, which would impact human wellbeing and quality of life.

In NSW, biodiversity is supported by the Biodiversity Offsets Scheme (the Scheme). The Scheme provides a framework to avoid, minimise and offset the impacts of development and native vegetation clearing on biodiversity. One of the key elements of the Scheme is the establishment of a market for biodiversity credits to create a price signal of the true cost of biodiversity loss from development.

The biodiversity credits market brings together landholders who want to develop or clear vegetation on their land with landholders who want to protect and manage biodiversity. It facilitates the supply of, and demand for, over a thousand different types of ecosystem and species credits. A well-functioning credits market plays an important role in ensuring that unavoidable losses of biodiversity are balanced against biodiversity gains.

1.1 We will monitor and report on the market over a 3-year period

IPART is an independent, strategic agency of NSW Government, charged with regulating key markets and government services to ensure effective social, environmental and economic outcomes. We have been asked to monitor the performance of, and competition in, the biodiversity credits market over a 3-year period. This Issues Paper is the first step in that process.

Our biodiversity credits market review aims to improve how the market minimises biodiversity loss by providing accurate price signals to promote the right level of development in the right locations, in order to make the people of NSW better off.

Our review will make findings and recommendations to maintain and promote competition in the market, identify opportunities to improve efficiency and address any market failures, and support fair trading.

In doing so, we will consider a wide range of matters, including:

- the purpose and structure of the Biodiversity Offsets Scheme
- how well the market is meeting the needs of existing and potential participants
- the incentives on existing and potential participants to participate in the market
- the impact of government interventions in the market, including the Biodiversity Credits Supply Fund and Biodiversity Conservation Fund
- recent reviews of the Biodiversity Offsets Scheme
- other matters as outlined in our terms of reference, including any other matters we consider relevant.¹

Each year, we will look at the market over the previous financial year and release an annual report in December outlining our findings and any recommendations for improvement. Our first annual report, in December 2023, will examine what happened in the market between 1 July 2022 and 30 June 2023.

Our proposed approach to the review is to:

1. define what the current biodiversity credits market would look like if it was functioning as intended and what outcomes it would deliver
2. develop robust and repeatable measures to track the market's performance and ability to deliver its intended outcomes each year compared to a well-functioning market
3. identify market improvements to deliver biodiversity outcomes that have not been recommended through other means, or have arisen as an unintended result of other actions
4. based on our findings, provide quality advice to the Government on strategies to address market failures, improve market efficiency and support fair trading.

This year, our review will focus on the first 3 process steps to set a baseline for our analysis, based on how the market performed in 2022-23.

In subsequent years of our review, we will consider the impact of recent and current policy developments on the market. We will target specific areas to provide more detailed analysis as evidence arises.

¹ See **Appendix A**.

1.2 Our review focuses on the biodiversity credits market's contribution to the broader Biodiversity Offsets Scheme

Our review focuses on the lifecycle operation of the biodiversity credits market and how it contributes to minimising biodiversity loss. It will follow the participation of landholders (who generate and supply credits to the market) and developers of land (who buy credits in the market) from their point of entry into the market, through the market platform, until they've satisfied their offset or credit sale obligations.

For **credit suppliers**, this commences when they make an initial inquiry about becoming a Biodiversity Stewardship Agreement holder and Scheme credit supplier. It continues until they have sold enough credits to fulfill their Total Fund Deposit, which covers their in-perpetuity land management costs under their Biodiversity Stewardship Agreement.

For **credit buyers**, this commences once they have exhausted all options to avoid or minimise biodiversity impacts and become aware that they may need to fulfill an offset obligation to proceed with their development or land clearing project. It continues until they meet their offset obligation.

As part of this, we will consider:

- how the Department of Planning and Environment and other relevant agencies and stakeholders forecast credit supply and demand prior to credit suppliers and credit buyers entering the Scheme, including the transparency of offset requirements consent authorities impose
- what information credit suppliers and credit buyers require prior to entering the Scheme and throughout their customer journey to inform their decision-making
- whether the market is delivering credit prices that reflect the cost to society of development that impacts biodiversity and, if not, what factors might be preventing this (e.g. market design, governance).

Figure 1.1 illustrates the key issues our review will cover.

Figure 1.1 What our review will cover



1.3 We are seeking feedback on our proposed approach

The purpose of this Issues Paper is to outline the general approach we will take in monitoring the credits market. We are seeking your feedback on:

- what a well-functioning credits market would look like and what outcomes it would deliver
- what we will report on to measure market performance and competition
- factors affecting supply, demand and market function and governance that may prevent the market from functioning as intended.

1.3.1 Who we want to hear from

We are keen to receive input from a broad range of interested parties in the community to ensure we receive a range of views. In particular, we want to hear from:

- current Biodiversity Stewardship Agreement holders and landholders that are interested in participating in the Scheme
- ecologists, environmental researchers and academics with an interest in biodiversity markets.
- developers and proponents with current or future offset obligations
- accredited assessors and brokers about their experiences in engaging with market participants throughout the process
- consent authorities, including local councils about their experiences in the market
- agencies with a role in facilitating the market

1.3.2 How to have your say

You can provide input to our review in a number of ways, including:

- making a written submission to this Issues Paper via our website
- telling us about your situation via the quick feedback form on our website
- registering to attend our public hearing in September 2023.

A complete list of questions is available at the end of this chapter. You don't have to respond to all questions, you may choose to respond only to those that are important to you.

1.4 How this paper is structured

The remainder of this Issues Paper is divided into chapters that make it easy to identify the issues that are important to you in your experience with the credits market.

- **Chapter 2** discusses the context for our review, including what improvements the Government has made to date and what issues are currently under review by other entities
- **Chapter 3** discusses the characteristics of a well-performing market, our preliminary views on what the credits market would look like if it were functioning as intended
- **Chapter 4** discusses some of the challenges the credits market is facing
- **Chapter 5** outlines what measures we will report on to show how well the market is working.

1.5 Review process and timing

Our review process will involve ongoing engagement with market participants and interested parties including the opportunity to provide feedback on our proposed approach and the key issues outlined in this Issues Paper. We are seeking feedback on our Issues Paper until **Friday 4 August 2023**.

We will consider all feedback received in response to our Issues Paper before holding a public hearing for all interested parties in September 2023 to seek further feedback and refine our approach. We will publish our first Annual Report covering 2022-23 in December 2023. The timeline for our review is presented in Figure 1.2.

Figure 1.2 Review timeline



Have your say

Your input is critical to our review process.

You can get involved by making a submission, submitting quick feedback or attending our public hearing.

[Make a submission »](#)

[Provide quick feedback »](#)

[Attend the public hearing »](#)

Tell us what you think

Seek Comment

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2 Context for our review

This chapter provides information on the context for our review. It discusses what biodiversity is and how it is protected in NSW. It explains how the biodiversity credits market operates in NSW, key market participants, and some of the reviews and changes to the market, and the Scheme more broadly, that are likely to have an impact over the 3-year review period.

2.1 What is biodiversity and how is it protected in NSW?

Biodiversity is the variety of living animal and plant life from all sources, and includes diversity within and between species and diversity of ecosystems.¹ The more variety, growth and security of those life forms, the more biodiversity we have and the healthier our ecosystem. A loss of biodiversity can negatively impact air and water quality, pollination, pest control and even the economy, making it vital to conserve all our native species, great and small.²

The NSW State of the Environment 2021 report notes that habitat destruction and native vegetation clearing presents the single greatest threat to biodiversity in the State.³ The NSW Government's Biodiversity Outlook Report 2020 estimates that, without effective management, only 50% of species and 59% of ecological communities that are listed as threatened in New South Wales will still exist in 100 years.⁴



In 2016, the *Biodiversity Conservation Act 2016* (Biodiversity Conservation Act) established the Biodiversity Offsets Scheme to provide a framework for offsetting unavoidable impacts on biodiversity from development with biodiversity gains through landholder stewardship agreements.

Under the Scheme, applications for development or clearing approvals must set out how impacts on biodiversity will be avoided and minimised. The remaining residual impacts can be offset by buying biodiversity credits. Landholders can establish Biodiversity Stewardship Agreements on their land to generate biodiversity credits.² Selling these credits earns income for landholders and provides funding to support the long-term management of the biodiversity stewardship site.

The Department of Planning and Environment supports the Minister for the Environment to administer the Biodiversity Conservation Act and therefore the Biodiversity Offsets Scheme. Its responsibilities include developing rules and supporting market participants.

2.2 What role does the biodiversity credits market play?

The biodiversity credits market is a mechanism for developers of land to find and purchase the biodiversity credits they need, and for Biodiversity Stewardship Agreement holders to sell the credits they are permitted to create on their land.

Credit demand in the market is driven by development consent obligations that consent authorities impose on proponents that apply to develop or clear vegetation on a site. Credit supply comes from landholders entering into in-perpetuity Biodiversity Stewardship Agreements with the Government.

Not all biodiversity credits created are traded directly by credit buyers and sellers in the market. Credit buyers have 3 options for meeting their credit obligations: purchasing them in the credits market – either directly from credit sellers or intermediaries, such as the Biodiversity Credits Supply Fund, creating credits themselves on land they own, or paying into the Biodiversity Conservation Fund to transfer the credit obligation.

When credit buyers choose to pay into the Biodiversity Conservation Fund instead, the Biodiversity Conservation Trust takes on their liability and must seek credits to cover the liability. The Biodiversity Conservation Fund Charge System determines how much they must pay into the Fund to transfer their liability. It is based on the estimated cost to the Biodiversity Conservation Trust of meeting the obligation in future, plus a premium for risk and administrative costs. The price charged by the Trust effectively sets a ceiling price for credits traded between buyers and sellers in the market.

A separate Biodiversity Credits Supply Taskforce, within the Department of Planning and Environment, enters Biodiversity Stewardship Agreements with landholders on behalf of the Government and supports landholders with potential to generate in-demand credits to enter Biodiversity Stewardship Agreements. The Taskforce also operates the Biodiversity Credits Supply Fund, which is used to purchase existing and future in-demand credits from landholders, on-sell them to credit buyers and reinvest the proceeds back into the fund to purchase more credits.

² The Agreement is registered on the title of the land and runs in perpetuity. The Agreement sets out the number and type of credits that they may generate on their land, their Total Fund Deposit and an annual payment schedule (once enough credits are sold) and a management plan for the site.

The Department of Planning and Environment acts as a market facilitator. It publishes the Biodiversity Credits Market Sales Dashboard – a searchable tool that allows participants to view historical credits sales, prices and trends. It also keeps public registers of available, transferred and retired credits. It also accredits and oversees the private assessors that are the only people allowed to undertake the biodiversity assessments that underpin the creation of credits and credit obligations.

The biodiversity credits market is rapidly growing, and this is expected to continue because of economic development, including investment in renewable energy, housing, manufacturing and infrastructure delivery. Governments are rezoning land to boost housing supply due to projected increases in population, creating renewable energy zones to combat climate change and developing major transport projects, such as the in-land rail. This, in turn, is likely to stimulate demand in the NSW biodiversity credits market.

Figure 2.1 Key participants in the biodiversity credits market



Credit buyers – proponents such as land developers, government agencies or mining companies that undertake residential, major infrastructure and mining projects that must offset biodiversity impacts of development they cannot avoid or minimise.



Credit sellers – landholders, including private landowners, local councils or government agencies that enter into Biodiversity Stewardship Agreements with the Government to create and sell biodiversity credits on their stewardship site.



Accredited assessors – ecological experts accredited by the Department of Planning and Environment to apply the Biodiversity Assessment Method. The method calculates the number and type of credits that credit buyers would need to retire to offset their biodiversity impacts on a like-for-like basis and the number and type of credits sellers may be able to create on their stewardship site. They may be private entities or employed by the Department of Planning and Environment.



Biodiversity Conservation Trust – statutory body established under the Biodiversity Conservation Act that acts as a market intermediary to take on biodiversity offset obligations from credit buyers that opt to pay into the Biodiversity Conservation Fund and buy credits or fund conservation activities to meet these obligations in future. The Trust is also responsible for ensuring credit sellers meet their obligations under Biodiversity Stewardship Agreements.



Biodiversity Credits Supply Taskforce – a business area within the Department of Planning and Environment that:

- processes applications for, and enters into, Biodiversity Stewardship Agreements with landholders on behalf of the Government
- supports landholders with in-demand credits to enter Agreements

- operates the Biodiversity Credits Supply Taskforce that acts as a market intermediary by buying in-demand credits from credit sellers, on-selling them to credit buyers and reinvesting the proceeds back into the Fund.



Brokers – assists credit buyers and sellers to navigate the process, find and negotiate the price of credits in the market. They are not specifically regulated and may be ecologists, lawyers, real estate agents or accredited assessors.



Consent authorities – state or local government entities that determine development applications and if approved, imposes an offset obligation and is responsible for ensuring compliance with this obligation.



Department of Planning and Environment – supports the Minister for Environment to administer the Biodiversity Conservation Act and Scheme, including by maintaining registers about credit ownership, transactions and retirements, and by training, accrediting and overseeing the conduct of accredited assessors.

2.3 How is NSW's approach to managing the impacts of development on biodiversity evolving?

Since its introduction, the Biodiversity Offsets Scheme has undergone, and continues to undergo, significant change. These changes have resulted from reviews of the Scheme as a whole, periodic reviews of elements of the Scheme and an ongoing review and improvement plan undertaken by the Department of Planning and Environment.

Changes that have been made to the Scheme over recent years include:

- new roles created for the Government to facilitate the process of obtaining credits and reduce delays to development
- improvements to the assessment process and governance around it
- added ecological monitoring requirements
- establishment of a helpdesk for the Scheme.

In July 2022, the establishment of the Biodiversity Credits Supply Fund injected around \$100 million into the Scheme with the aim of fast-tracking the supply of in-demand biodiversity credits.⁵ The Biodiversity Credits Supply Taskforce manages this fund. It engages with developers to determine what credits will be demanded in future and proactively collaborates with landholders who can supply in-demand credits. The Taskforce encourages landholders to enter into Biodiversity Stewardship Agreements by reducing or removing the up-front costs and making biodiversity stewardship information more accessible. This helps landholders understand their rights, obligations, and opportunities under these agreements.

Recently, the Biodiversity Conservation Trust implemented a new Biodiversity Conservation Fund Charge System that is designed to estimate the future costs of purchasing biodiversity credits more accurately. This is used as the basis for the price paid into the Biodiversity Conservation Fund (as an option for credit buyers to meet their offset obligations). This system is meant to support cost recovery for the Biodiversity Conservation Trust while providing more stable pricing, taking into account typical costs of generating different credit types, opportunity costs, transaction costs and a return on investment.

The Department of Planning and Environment has also worked to make more market information available, through data tools such as the Biodiversity Credits Market Sales Dashboard.

Many of these changes were implemented during the 2022-23 financial year and so the full effects on supply, demand and market operation will not be fully reflected in the data for our first Annual Report in December 2023.

There are currently several other major reviews underway that are likely to lead to further changes to both the Scheme more broadly and the credits market. Independent reviews of the Biodiversity Conservation Act, the Local Land Services Act and the Biodiversity Assessment Method are well advanced and due to report by the end of August 2023. A review being undertaken by the NSW Nature Positive Advisory Panel regarding NSW's contribution to new nationwide commitments is due to report in November 2023.

Federal Parliament is also currently debating the Government's Nature Repair Bill, which seeks to establish a voluntary national biodiversity market. The Bill has been referred to a Senate Inquiry due to report in early August.⁶

The outcomes of these reviews will continue to inform our review over the 3-year period. They may affect the Scheme's objectives and the drivers of supply and demand in the credits market. For example, the emergence of other biodiversity credits markets or certificate schemes increases competition and choice for credit sellers, which may affect credit supply in the NSW credits market.

Table 2.1 lists the major reviews that have taken place or are currently underway that are related to the biodiversity credits market.

Table 2.1 Current and recent reviews affecting the biodiversity credits market

| Agency | Review name | Scope | Report date |
|---|--|--|--|
| Independent Panel | Independent review of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth) | Whether Commonwealth environmental laws, which include environmental offsetting, are fit for purpose. | October 2022 |
| Audit Office | Effectiveness of the Biodiversity Offsets Scheme | Whether the Department of Planning and Environment and Biodiversity Conservation Trust have effectively designed and implemented the Biodiversity Offsets Scheme to compensate for the loss of biodiversity due to development. | August 2022 |
| Portfolio Committee no. 7 – Planning and Environment | Inquiry into the Integrity of the NSW Biodiversity Offsets Scheme | <ul style="list-style-type: none"> Effectiveness of Scheme to halt or reverse loss of biodiversity values. Role of Biodiversity Conservation Trust in administering the Scheme. The use of offsets by the NSW Government for major projects and strategic approvals. The impact of non-additional offsetting practices on biodiversity outcomes, offset prices and opportunities for private landowners to engage in the Scheme. | November 2022 (Government response tabled February 2023) |
| Australian Government Department of Climate Change, Energy, the Environment and Water | Nature Positive Plan | In response to the independent review of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth), the Australian Government released the Nature Positive Plan which commits to reform environmental offsetting requirements to achieve a nature positive outcome, among other things. | November 2022 |
| Independent Panel | Review of the Biodiversity Conservation Act | Whether the policy objectives of the Biodiversity Conservation Act remain valid and any required changes to the Act to secure those objectives. | August 2023 |
| Led by Local Land Services, supported by independent experts | Review of the native vegetation provisions of the Local Land Services Act | Whether the pathways for a landholder to clear native vegetation remain appropriate. | August 2023 |
| Department of Planning and Environment | Review of the Biodiversity Assessment Method | Statutory 5-yearly review of the method. ^a | August 2023 |
| NSW Nature Positive Advisory Panel | | Will advise the NSW Government on how New South Wales can contribute to new national biodiversity commitments in a manner that: <ul style="list-style-type: none"> is equitable, science-based and cost effective optimises environmental, social, and economic benefits for New South Wales. | November 2023 |
| Australian Parliament Senate Environment and Communications Legislation Committee | Inquiry and report on Nature Repair Market Bill 2023 | Inquiry and report on the Nature Repair Market Bill 2023, which seeks to provide a framework for a voluntary national market that delivers improved biodiversity outcomes. | August 2023 |

^a See *Biodiversity Conservation Act 2016*, s 6.9(1).

3 What would a well-functioning biodiversity credits market look like?

Before we consider how the biodiversity credits market is operating and meeting the needs of current and potential participants, it's important to have a clear idea of what a well-functioning market looks like and what outcomes it aims to achieve.

In this chapter, we discuss the purpose of the biodiversity credits market in the broader Biodiversity Offsets Scheme and our preliminary views about what a well-functioning credits market would look like.

A well-functioning market brings together buyers and sellers to enable transactions at an efficient price, which signals the true cost of biodiversity to landholders so that they can make informed decisions about how and whether to develop or preserve their land. This Chapter discusses how the credits market can help deliver the objectives of the Scheme, and the various market characteristics and outcomes that would indicate it is working effectively.

3.1 How does the credits market help to achieve the Biodiversity Offsets Scheme's purpose?

A well-functioning market is one that it delivers on its objectives. Our preliminary view is that a well-functioning credits market would bring together credit buyers and sellers to enable transactions at a price that signals the true cost of biodiversity. When landholders understand these costs, they can make informed decisions about whether and how to develop or preserve their land for the benefit of current and future generations. A well-functioning credits market would also be aligned to the purpose of the Scheme more broadly.

The Department of Planning and Environment states that the Biodiversity Offsets Scheme aims to ensure no net loss of biodiversity from development.⁷ However, it is not clear whether this objective sets the standard for the Scheme as a whole or only for how the Biodiversity Assessment Method is applied in each case.⁸

The Biodiversity Offsets Scheme's purpose is not explicitly stated in the Biodiversity Conservation Act. Broadly, the Act aims 'to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development'.⁹ The Act states that for the purposes of the Biodiversity Offsets Scheme, the biodiversity measures – which includes the retirement of credits – are 'to offset or compensate for impacts on biodiversity values'.¹⁰

In 2022, the Audit Office found that there was no clear statement on what success for the broader Scheme would look like in the context of environmental and economic policy priorities, and the progress of major projects.¹¹ However, the Audit Office also noted that a 'purpose of the Biodiversity Conservation Act 2016 (the Act) is to establish a market-based conservation mechanism through which impacts on biodiversity can be offset. Sufficient credits of appropriate types, which are well matched to demand, are necessary for enough transactions to inform prices and enable efficient like-for-like offsetting'.¹²

Currently, the Department of Planning and Environment is developing a long-term strategic plan for the Scheme, with clear performance indicators that provide an objective measure of success in delivering biodiversity outcomes.¹³ In addition, the independent expert panel reviewing the Biodiversity Conservation Act (due to report in August) may make recommendations on the Act's objectives in relation to the Scheme.

The outcomes of these processes, which are expected throughout our review, should provide greater clarity about the Scheme's purpose. In the meantime, we will consider what the biodiversity credits market's contribution to the Scheme should be and have outlined some preliminary views in this paper. Having a credits market that signals the true cost of biodiversity so that all parties can make informed decisions is an important component of the Scheme. However, it may not be the right mechanism to solve all biodiversity problems, particularly in relation to areas of very high conservation value, where biodiversity credits are scarce.

3.2 What are the indicators of an effective market?

A well-functioning market is one that achieves its objectives at least cost to participants and the broader society. It is generally characterised by:

- a continuous source of supply and demand
- sellers are able to enter and exit the market freely
- sellers offer a product that buyers want
- buyers are aware of, and understand, product differences
- liquidity - buyers and sellers exchange in a timely manner without substantially impacting a product's value
- a sufficient number of buyers and sellers, such that no single buyer or seller has the power to unduly influence prices and market outcomes
- prices that reflect all available market information, including any external costs or benefits borne by parties other than market participants
- transparent and timely information about prices, products and market conditions
- an effective regulatory framework that ensures fair competition and allows participants to trade with confidence, without stifling innovation and market dynamics
- a clear understanding of property rights
- achieving its objectives, consistent with public interest.

The biodiversity credits market has some unique characteristics that mean this may look different than it does in other markets. For example, if a credit seller was able to terminate a Biodiversity Stewardship Agreement after selling credits, this could affect the ecological integrity of the Scheme. Exiting the market may instead mean that there are no unnecessary barriers to selling land that is subject to a Biodiversity Stewardship Agreement, or that the credit seller has options to outsource conservation management activities.

3.3 What market outcomes would suggest the credits market is effective?

Figure 3.1 shows our preliminary views on the outcomes of an effective biodiversity credits market.

Figure 3.1 Outcomes of a well-functioning biodiversity credits market



Continuous supply and demand

- New credit sellers enter the market to meet current and expected offset obligations, subject to the finite availability of land with biodiversity value
- The market administrator has a good understanding of the pipeline of land with biodiversity value and offset obligations from upcoming development projects



Sellers can enter and exit the market

- Landholders who own land of biodiversity value can enter into a Biodiversity Stewardship Agreement to become a credit seller, subject to eligibility criteria, e.g. obtaining mortgage consent, being a 'fit and proper person'
- Credit sellers may not be able to terminate an agreement without impacting the ecological integrity of the Scheme. However, those who no longer want, or are able, to manage a stewardship site face no unnecessary barriers to selling land or outsourcing conservation activities
- There are sufficient resources to ensure participants can enter the market efficiently, e.g. sufficient supply of accredited assessors



Sellers offer products buyers want

- Credit sellers have incentives to:
 - create in-demand credits of the types most demanded
 - sell credits in the market at a fair price



Buyers understand market products

- Dis/aggregation of credit types provide sufficient balance between ecological integrity and market simplicity
- Credit buyers can find like-for-like credits that match their offset obligation most of the time
- The variation rules allow credit buyers to find credits that the consent authority approves as a suitable substitute for their offset obligation
- The Biodiversity Conservation Trust can find credits to match any transferred offset obligations within a reasonable timeframe



Liquidity

- Most credit buyers can buy credits in a timeframe that suits their needs. Some credits may not be available because they are scarce, or too expensive for the development to be economically viable and the buyer decides not to go ahead.
- Most landholders can sell required credits to fund active management of their stewardship land within a suitable timeframe. Some scarce credit types may remain untraded until demand emerges.



Prices reflect available market information

- Credit prices reflect:
 - the upfront and in-perpetuity costs of managing land under stewardship agreements
 - species or ecosystem scarcity



No buyer or seller has power to unduly influence prices

- Prices for credit types that are readily available are relatively consistent and stable, regardless of who is buying them and the purchase timing. E.g. buying and selling credits by the Biodiversity Conservation Trust and Credit Supply Taskforce do not cause substantial price fluctuations.



Timely and transparent information

- Credit sellers have sufficient information about the price and demand for their potential credits to make informed decisions about whether and when to generate and sell credits.
- Credit buyers have sufficient information about price and supply of credits to meet their potential obligation to determine whether to proceed with their project
- Credit buyers and sellers can readily identify and engage with each other to trade efficiently.



Effective regulatory framework

- Participants understand their obligations, the process, their credit property rights and can trade confidently in the market
- There is transparency around how credits are transferred and retired.



Achieves objectives

- The Biodiversity Conservation Trust can meet all of its transferred offset obligations within a reasonable timeframe
- Biodiversity Stewardship Agreements progress from passive to active management within a reasonable timeframe
- Credit sellers can generate sufficient funds from selling credits to manage their stewardship agreement obligations
- Prices send appropriate signals to market participants about the value of biodiversity to encourage avoidance and minimisation of biodiversity impacts

Tell us what you think



1. What contribution should the biodiversity credits market make to achieving the Biodiversity Offsets Scheme's purpose?



2. Do the outcomes in Table 3.1 accurately depict a well-functioning biodiversity credits market? What other factors should we consider?

4 What are some of the challenges facing the credits market?

The biodiversity credits market has some unique characteristics and faces challenges with balancing the growing demand for economic development with biodiversity conservation.

Inefficient market practices or market failures may also affect how well the market functions. Market failures can include barriers to entry (or exit) for credit suppliers, lack of information or information asymmetry – where credit suppliers or buyers do not have the same relevant and timely information to inform their decisions – and externalities (external costs) that the market creates, which are not accurately reflected in credit prices.

Issues with the biodiversity credits market have emerged through recent reviews or have already been raised by stakeholders in their submissions to the terms of reference for our review. This section provides a summary of some of the key issues which we are likely to focus on over the course of our 3-year review.

4.1 Balancing biodiversity conservation with economic development

A key challenge for the market will be balancing the Biodiversity Conservation Act's environmental objectives and any acceleration in the rate of land development and native vegetation clearing to accommodate infrastructure, housing and renewable energy growth in urban and regional areas. As the supply of land with 'in-demand' biodiversity is finite, sourcing private supplies of credits will become more difficult, and this will impact on development costs and affordable development locations.

It is important that any market improvements remove only unnecessary barriers to credit buyers, but do not reduce the price signals that indicate the true cost of biodiversity loss. For example, allowing credit buyers to pay into the Biodiversity Conservation Fund and transfer obligations to the Biodiversity Conservation Trust should remove temporal barriers only. It should not result in biodiversity loss, which would be the case if the Trust cannot acquit its obligations with like-for-like credits to achieve the required biodiversity conservation in a suitable timeframe.

4.2 Credits have finite supply, are heterogenous and trade irregularly

The biodiversity credits market is highly heterogenous, consisting of over a thousand different credit types. While credit types are clustered into tradeable classes of offset trading groups to improve fungibility, around 86% of ecosystem offset trading groups and 97% of species credits have never been traded.¹⁴ While this may be necessary to ensure ecological integrity, it poses a challenge for the market, as it may create uncertainty for credit buyers and sellers if they don't understand credit types and there is insufficient price and trading information available about them.

4.3 Credit sellers face barriers to participating in the market

In 2022, the Audit Office and Parliamentary Inquiry found that there are high upfront costs, financial risks and complexity associated with establishing stewardship sites. Overall, the market is complex, and difficult for new entrants to navigate and understand.

Credit sellers who have not secured a buyer for their credits before entering a Biodiversity Stewardship Agreement also face uncertainty about how and when they will be able to sell credits and receive annual payments to fund their conservation obligations. Credit sellers must also commit upfront to managing stewardship sites in perpetuity – an obligation that runs with the land.

4.4 Credits are not well matched to demand and may not be available in some cases

Credit buyers may find it unnecessarily difficult to procure like-for-like credits within a suitable timeframe, causing delays, increased development costs or even abandoned development plans, which don't reflect the actual biodiversity costs. The Audit Office of NSW found that just 9% of ecosystem credits and 4% of species credits demanded could be matched with existing supply on a like-for-like basis.¹⁵

By nature, credits for threatened species and ecological communities are limited in supply. It is important that the market provides appropriately high price signals where ecosystems or species that would be impacted by development are scarce. However, the market may not be functioning well if there are other reasons for the lack of supply.

4.5 Market interventions may distort price signals and participants' incentives

There are several Government market interventions, which are aimed at improving market operation, but which may distort market price signals and incentives. Credit buyers use the Biodiversity Conservation Fund Charge System to calculate what they must pay into the Biodiversity Conservation Fund to transfer their offset obligations to the Trust. However, this may create an artificial price ceiling above which credit buyers are deterred from buying credits in the market. Reliance on paying into the Biodiversity Conservation Fund may also mask the price signals to credit buyers resulting from scarcity.

Likewise, the average price the Credit Supply Taskforce pays through its reverse auctions to purchase in-demand credits from credit suppliers may affect the prices in the broader market. If these entities are buying and selling larger volumes of credits, they may have the power to influence market prices, which may distort participants' decisions.

4.6 Lack of information to inform participants' decisions

Information currently published about the biodiversity credits market may not provide an adequate picture of credit supply, demand and price to support market participation. Previous reviews have found that there is a lack of transparency about the lifecycle history of a credit from creation to retirement to ensure integrity of the Scheme.

Tell us what you think



3. What are the main challenges facing the credits market? What evidence is there that might suggest the market is not working as effectively as it should be?

5 What information will we use to assess the credits market's performance?

We have identified measures that will help us understand how the market is performing against the indicators in section 3.2. We will use a combination of publicly available information, information collated by the Department of Planning and Environment (and its agencies), and input from market participants and other interested parties. This will include market data and qualitative or anecdotal information. In subsequent review years, we may seek additional information on selected topics to explore market activity in greater depth.

We are interested in your views on how and whether this information would:

- assist market participants to navigate the market more efficiently and effectively
- enable the Government to make improvements to areas that are not functioning well
- provide greater transparency about how well the market is achieving its objectives.

5.1 Credit supply and demand

Demand for credits is largely determined by regulatory requirements outside the scope of our review. However, we will consider how market participants ascertain and forecast the type and quantity of credits that credit buyers require now and in future and how that impacts incentives for credit suppliers to enter the market.

We will analyse key measures of supply to understand the characteristics of current and potential landholders entering Biodiversity Stewardship Agreements to generate credits, and any barriers to them doing so. We have listed the information we will seek on credit supply and demand below.

Current and forecast credit demand

- Number and type of credits wanted to offset current obligations
- Number and type of credits known/forecast for future major projects
- Lead times between offset obligations arising and credit buyers seeking credits

Current and forecast credit supply

- Number and characteristics of new Biodiversity Stewardship Agreement inquiries, assessments, applications and approvals
- Number and type of credits generated under these agreements
- Market shares of Biodiversity Stewardship Agreement holders
- Quantity of suitable landholdings with biodiversity value not currently under a Biodiversity Stewardship Agreement
- Number and type of credits available through historic BioBanking agreements

Barriers to entry and exit

- Cost of entering a Biodiversity Stewardship Agreement, including any ongoing compliance costs
- Time taken to enter a Biodiversity Stewardship Agreement, including time to complete key stages of the process – inquiry, assessment, application, and approval
- Reasons why landholders that inquire or apply to enter a Biodiversity Stewardship Agreement do not proceed
- Ability and costs for credit sellers to exit the market – for example, by terminating or varying a Biodiversity Stewardship Agreement where they have sold no credits yet or selling the land that is subject to a Biodiversity Stewardship Agreement.

5.2 Market operation and performance

We will consider how efficiently credit buyers and sellers trade credits in the market, including the time it takes, complexity of finding and pricing credits and proportion of unmet supply/demand. We will also consider the impact that market intermediaries such as the Credit Supply Taskforce and Biodiversity Conservation Trust have on credit pricing and trades. We have listed the key factors we will consider below.

Market complexity

- Number of credit types possible, available and demanded
- Number and type of credits never traded
- Number, type and value of payments made to the Biodiversity Conservation Trust in lieu of purchasing credits directly
- Number, type and value of credits that credit buyers acquire from their own stewardship sites

Market prices and liquidity

- Number and price of unique trades by credit type, including like-for-like trades and use of variation rules
- Whether credit buyers and sellers consider that they are able to buy/sell credits in a suitable timeframe that meets their needs
- Whether credit sellers consider that credit prices accurately reflect the costs of their conservation management activities
- Whether prices reflect scarcity of certain credit types

Effect of market intermediaries on competition and performance

- Number, type and price of credits bought by the Biodiversity Conservation Trust
- Quotes generated for credits by the Biodiversity Conservation Fund Charge System versus payments into the Biodiversity Conservation Fund
- Number, type and price of credits bought by the Credit Supply Taskforce (i.e. through its reverse auctions)

5.3 Availability and timing of information

We will consider whether market participants have enough information and at the right time to make informed decisions in the market. Data includes:

- What information is available to market participants on type, price and supply of/demand for credits and how far in advance is it known
- What other information would help market participants to navigate the market efficiently
- The role and prevalence of brokers and the Credit Supply Taskforce in disseminating information and bridging information asymmetries between credit buyers and sellers

5.4 Effective governance and market outcomes

We will consider whether there is enough transparency around whether market participants are trading within the market rules (e.g. how credits are generated, traded and retired and how credit ownership is tracked) and the market is achieving its objectives.

Governance and transparency

- How well market participants understand the market rules and objectives
- How conflicts of interest between credit buyers and sellers are managed where they are both government agencies
- Whether there is appropriate oversight of brokers and other third parties who buy and sell credits or facilitate trading between buyers and sellers
- Whether there are sufficient numbers of accredited assessors to prevent barriers to credit supply and demand

Market outcomes

- Number and value of offset liabilities held by the Biodiversity Conservation Trust compared to forecast market price of discharging those liabilities
- Stewardship sites under active management
- Gaps between forecast costs of management actions under Biodiversity Stewardship Agreements and funds generated by credit sales
- Whether there is sufficient transparency around a credit's lifecycle - from creation to retirement - to ensure ecological integrity

Tell us what you think

-  4. What published information would help you buy or sell credits in the market more efficiently?
-  5. Have you used a broker to buy or sell credits? Tell us about your experience.
-  6. How clear are the biodiversity credits market rules and objectives? Is there appropriate oversight of brokers and other intermediaries?
-  7. What other information should we collect that would tell us how the market is performing?
-  8. What affects your decision to enter a Biodiversity Stewardship Agreement? If you have inquired or applied, but not proceeded with an agreement, tell us why.
-  9. Have you wanted to terminate or vary an Agreement, or sell land under a Biodiversity Stewardship Agreement? What were the reasons?
-  10. Have you found you could not sell credits at the price you need to manage your land under your Biodiversity Stewardship Agreement?
-  11. Do you have unsold credits under your Biodiversity Stewardship Agreement? Are you confident you will have adequate funding to carry out management actions under your agreement?
-  12. Have you found it difficult to find credits in the market? What were the reasons?
-  13. Have you decided not to proceed with a development because credits were too expensive or not available?

Appendices

A Terms of reference

Terms of reference for IPART to monitor the biodiversity credits market

I, Victor Dominello, Minister for Customer Service and Digital Government, under section 12A of the Independent Pricing and Regulatory Tribunal Act 1992, request the Independent Pricing and Regulatory Tribunal (IPART) to monitor and report on the operation of the biodiversity credits market within the Biodiversity Offsets Scheme (the Scheme).

Background

The Scheme is the NSW framework for offsetting unavoidable impacts on biodiversity from development with biodiversity gains through landholder stewardship agreements.

Applications for development or clearing approvals that enter the Scheme must set out how impacts on biodiversity will be avoided and minimised and remaining residual impacts as identified in the approval must be offset. This can be achieved by retirement of biodiversity credits or payment to the Biodiversity Conservation Fund (BCF) which transfers the offset obligation to the Biodiversity Conservation Trust (BCT).

Landholders can establish Biodiversity Stewardship Agreements (BSAs) to create biodiversity credits. These credits are then available to the market for purchase to offset the impacts of biodiversity by development, by the BCT (through the BCF), the Credit Supply Fund (through the Department of Planning and Environment) or by government or others to secure outcomes for conservation.

Developers can also establish their own Biodiversity Stewardship Agreements to generate and retire the credits they need to offset their development. Part of the proceeds from credit sales are held in trust by the BCT to support the long-term management of the biodiversity stewardship sites.

The current biodiversity credits market builds on the previous NSW biodiversity credits market created under the Biobanking Scheme. The market is rapidly growing, and this is expected to continue over the next 10 years and beyond because of economic development, including housing, manufacturing and infrastructure delivery.

The task

IPART is requested to:

1. Monitor the performance of and competition within the biodiversity credit market, and make findings and recommendations with the aim of:
 - a. maintaining and promoting competition
 - b. addressing the interests of existing and potential biodiversity market participants, and supporting fair trading
 - c. identifying opportunities to improve market efficiency and address market failure

2. Report annually on the performance of and competition within the biodiversity market for a period of three years (annual market monitoring report).

Relevant considerations

In undertaking this task, IPART is to have regard to:

1. The purpose and structure of the Scheme
2. The roles and responsibilities of the Department of Planning and Environment, the BCT, local government authorities and other participants
3. The incentives and impacts of the Scheme on existing and potential market participants, including developers, landholders and Biodiversity Stewardship Agreement holders, accredited assessors, local government authorities and other interested parties
4. The impact of government interventions, including the Biodiversity Credits Supply Fund and the BCF
5. Whether there are gaps in data collected or reported on by participants in the market or the timing of making that data available that could help track performance of the market
6. Recent reviews of the Scheme including the parliamentary inquiry into the integrity of the Biodiversity Offsets Scheme and Audit Office report on the effectiveness of the Biodiversity Offsets Scheme
7. Any other matter that IPART considers relevant.

The process

IPART is required to consult with the Department of Planning and Environment, the BCT, developers, BSA holders, accredited biodiversity assessors, local government authorities and other interested parties during the preparation of an annual market monitoring report.

IPART is to publish an annual market monitoring report within six months after the end of each financial year, commencing with an annual report for the 2022-23 financial year.

IPART may also publish reports at other times if it considers appropriate.

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- ¹ *Biodiversity Conservation Act 2016*, s 1.5 (1).
 - ² See NSW Department of Planning and Environment website, accessed 15 June 2023.
 - ³ NSW EPA, *State of the Environment 2021*, p 53.
 - ⁴ Department of Planning, Industry and Environment, *NSW Biodiversity Outlook Report*, 2020, p vi.
 - ⁵ See *About the Biodiversity Credits Supply Fund and Taskforce*, accessed 21 June 2023.
 - ⁶ Nature Repair Market Bill 2023, Parliament of Australia, accessed 26 June 2023.
 - ⁷ See Improvements to the Biodiversity Offsets Scheme, accessed 15 June 2023.
 - ⁸ See Audit Office, *Effectiveness of the Biodiversity Offsets Scheme*, August 2022, p 28.
 - ⁹ *Biodiversity Conservation Act 2016*, s 1.3.
 - ¹⁰ *Biodiversity Conservation Act 2016*, s 6.4.
 - ¹¹ See Audit Office, *Effectiveness of the Biodiversity Offsets Scheme*, August 2022, p 18.
 - ¹² See Audit Office, *Effectiveness of the Biodiversity Offsets Scheme*, August 2022, p 25.
 - ¹³ See *Response from Department of Planning and Environment to Audit Office Report on the Effectiveness of the Biodiversity Offset Scheme*, August 2022, p 3.
 - ¹⁴ Audit Office of New South Wales, *Effectiveness of the Biodiversity Offsets Scheme*, August 2022.
 - ¹⁵ Audit Office of New South Wales, *Effectiveness of the Biodiversity Offsets Scheme*, August 2022, p 25.

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