BLUE MARINE FOUNDATION

Marine Biodiversity Credits Explained:

FROM CONCEPT TO INVESTMENT

YOU CAN'T BUILD A MARKET WITHOUT DEMAND

In 2019, the gap between what is currently spent on biodiversity conservation and what is needed, referred to as 'the biodiversity financing gap', was estimated to be in the range of USD 598 – 824 billion per year [1]. To close this gap, there is a growing need for innovative mechanisms that can channel capital into measurable conservation outcomes. Biodiversity credits are emerging as one such tool.

Unlike traditional offset schemes, biodiversity credits do not grant permission to harm nature elsewhere. Instead, they represent a voluntary commitment by buyers to generate additional positive outcomes for biodiversity. Credits are issued only when ecosystem conditions are maintained or when measurable improvements can be verified. This offers buyers an advantage, as they can demonstrate that their investment has directly generated measurable improvements in biodiversity.

But nature markets are still very new and remain small compared to carbon markets. Although more projects are beginning to supply credits - particularly on land - there are ongoing concerns about demand: whether enough companies and individuals are willing to buy them.

This concern stems in part from the fact that most biodiversity credit schemes are voluntary. Unlike carbon markets, which are often regulated by governments, biodiversity credit markets currently rely on companies to voluntarily opt-in to the scheme. Although compliance markets are beginning to emerge in some regions such as the UK, Australia and the US, the voluntary market still holds significant potential in the short-term - driven by several demand factors that are expected to gain momentum over time.

These drivers of demand can be grouped as the following:

- Reputation: Investing in tangible ocean recovery by investing in credits enhances ESG performance, sustainability credentials and brand value.
- Risk: Sectors like seafood, coastal tourism, insurance, and maritime logistics depend on healthy marine ecosystems. Credits offer a tool to support long-term ocean resilience and business continuity.
- Regulation: Disclosure frameworks such as the EU Corporate Sustainability Reporting Directive (CSRD) are pushing companies to report on their biodiversity impacts. Marine biodiversity credits can help demonstrate action and accountability in response.

At Blue Marine, we are pioneering some of the world's first marine biodiversity credits using Plan Vivo's newly launched Nature Standard. This work is focused on the Solent Seascape Project, a multi-habitat, multi-partner initiative which aims to restore one of the UK's most degraded coastal ecosystems at a seascape scale. The pilot aims to demonstrate how high-integrity biodiversity credits (those that are verifiable, additional and have adequate benefit-sharing and fair pricing mechanisms) can generate measurable improvements across intertidal and subtidal habitats, while ensuring tangible benefits for local communities and on-the-ground conservation actors.

The project's success will hinge on knowing who the potential buyers are and what drives their decisions. This will help transition the project from grant dependency to a sustainable, credit-based funding model.

Below, we explore the factors that currently drive investment in voluntary biodiversity credits and evaluate which are best suited to support the Solent Seascape Project.

[1] Deutz, A. et al. (2020). Financing Nature: Closing the Global Biodiversity Financing Gap. The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability.

Drivers of demand for marine biodiversity credits:

REPUTATION

Executive summary: Marine biodiversity credits present a growing opportunity for businesses to demonstrate environmental leadership, unlock new markets and enhance brand value. Companies are increasingly recognising that investing in biodiversity not only contributes to global sustainability goals but also offers first-mover advantages and consumer-facing opportunities. For some, this is about protecting brand reputation, responding to consumer expectations or satisfying ESG commitments. For others, it's driven by corporate values and a desire to contribute to ocean conservation. As awareness grows, businesses are positioning biodiversity investments as a strategic lever for long-term resilience, market differentiation and stakeholder trust.

Consumer-facing opportunities

Consumer-facing brands - particularly those with ties to the ocean such as seafood, coastal tourism, apparel, cosmetics and lifestyle - are well positioned to generate demand for marine biodiversity credits as part of their broader sustainability strategies. As voluntary carbon credit schemes have shown, customers are increasingly responsive to brands that offer tangible environmental action. Companies that have invested in biodiversity credits may also charge a premium on their products (e.g. sustainably sourced seafood certified with biodiversity credits) or build customer engagement by offering co-branded restoration campaigns, such as surf or swimwear brands partnering with coral reef restoration initiatives offering biodiversity credits.

These mechanisms not only build consumer engagement but could represent a significant and scalable source of voluntary demand in the emerging marine biodiversity credit market.

Companies involved in Corporate Social Responsibility (CSR) initiatives may also be driven to buy biodiversity credits as a way in which to demonstrate to clients that their investments contribute to measurable, nature-positive outcomes.

To supply high-integrity biodiversity credits, projects must undergo rigorous verification and certification processes, including continuous monitoring, proof of additionality (ensuring the outcomes achieved by the project go above business as usual) and equitable benefit-sharing with local communities. Credits are thus only issued once a measurable biodiversity improvement - known as 'uplift' is independently verified. This model offers businesses who invest in biodiversity credits the assurance that their contributions are directly supporting on-the-ground conservation.

First-mover advantages

Businesses that engage early in the marine biodiversity credit market stand to benefit from first-mover advantage, gaining reputational and strategic benefits before the market fully matures. As with early entrants in the voluntary carbon market, companies that commit to biodiversity credits ahead of regulatory requirements or mass adoption will be seen as industry leaders, enhancing their brand equity, customer loyalty and access to sustainability-linked capital.

Early participation also allows businesses to secure credits before prices increase. For example, a company that funds seagrass restoration might
secure biodiversity credits at a lower price now compared to competitors who join the market at a later stage (when demand is higher). Ultimately, early movers can help shape industry standards, influence policy and build strategic partnerships with governments, NGOs and investors - further embedding their leadership in a fast-growing market.

Enablers motivating businesses to take advantage of biodiversity credit markets

Global frameworks

- Target 19 of the Kunming-Montreal Global Biodiversity Framework (GBF) explicitly calls for a substantial increase in financial resources for biodiversity from all sources, including innovative mechanisms such as biodiversity credits. This creates a strong mandate for engaging the private sector in marine conservation finance and developing credible biodiversity credit markets.

Brand value and corporate goodwill

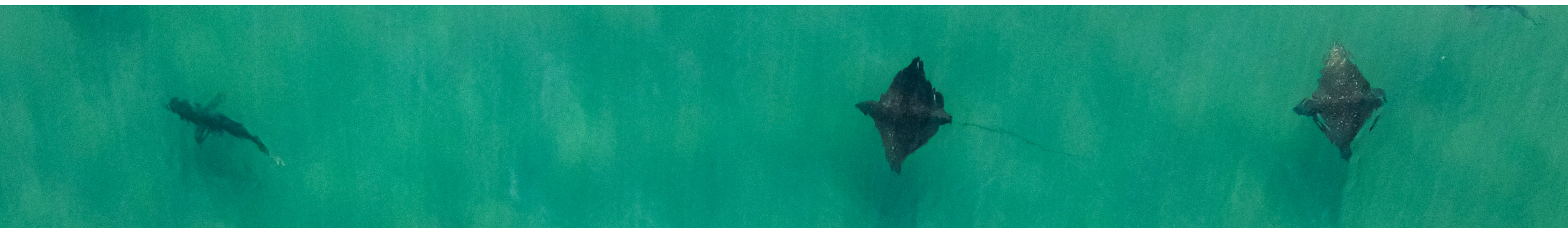
- Investing in marine conservation allows businesses to demonstrate sustainability leadership, strengthen their Environmental Social and Governance (ESG) credentials and enhance brand reputation (e.g. through B Corp certification).
- For purpose-driven companies, biodiversity credit investments align with core values, mission statements and internal sustainability culture, reinforcing stakeholder trust and employee engagement.

The Nature Positive movement

- The Nature Positive movement offers a common, science-aligned framework for businesses to contribute to nature recovery in a credible way.
- Coalitions such as the Nature Positive Initiative are working to standardise definitions and methodologies, helping mitigate greenwashing risks and ensuring that brand reputation gains are grounded in genuine ecological outcomes.

Revenue growth and new market access

- Participating in biodiversity credit markets opens pathways to new collaborations, participation in blue finance initiatives and access to preferential procurement or funding opportunities tied to environmental performance.



Drivers of demand for marine biodiversity credits:

RISK MANAGEMENT

Executive summary: The ocean economy - valued at over $2.5 trillion annually - is underpinned by marine biodiversity. Sectors such as fisheries, tourism, coastal infrastructure and pharmaceuticals depend directly on the health and diversity of marine ecosystems. The OECD estimates that ocean ecosystem collapse could result in economic losses of up to $428 billion annually by 2050. As global biodiversity continues to decline, the private sector is increasingly recognising the financial, operational, and reputational risks posed by nature loss, especially within complex and location-dependent supply chains. In response, voluntary corporate sustainability and risk disclosure frameworks including the Taskforce on Nature-related Financial Disclosures (TNFD), Global Reporting Initiative (GRI), as well as target-setting frameworks like the Science Based Targets Network (SBTN) are playing a growing role in aligning business practices with global biodiversity goals. The sections below explore how these frameworks are driving demand for investment in outcome-based financing mechanisms.

Voluntary corporate sustainability reporting frameworks

Voluntary biodiversity credits are emerging as an outcome-based mechanism to align the private sector with marine conservation goals. Simultaneously, corporate risk reporting frameworks are emerging as structures to guide this. While still voluntary, these frameworks could indirectly stimulate demand for biodiversity credits by creating a pathway for businesses to not only assess and disclose their nature-related risks but also offer them a market-based approach to mitigate their impacts on biodiversity, thereby supporting conservation. Despite the voluntary biodiversity credit market being relatively nascent, the World Economic Forum forecasts that by 2030, the market could reach USD $2 billion and climb to USD $69 billion by 2050. Companies seeking to address their marine-related impacts are well-positioned to invest in marine biodiversity credits as a way in which to halt and reverse damage such as pollution or overfishing.

Framework	Description	Adoption	Link to marine environment
Taskforce on nature-related financial disclosures (TNFD)	The TNFD supports businesses in identifying, assessing and managing nature-related risks and understanding their dependencies on nature across their operations and value chains.	Since its inception, over 500 organisations across 62 sectors have committed to the TNFD - including asset managers overseeing $17.7 trillion in assets under management and publicly-listed companies with a total market capitalisation of $6.5 trillion.	While TNFD does not mandate specific nature-positive actions, it explicitly recognises biodiversity credits as a potential incentive that businesses can disclose as a nature-related opportunity within the marine biome section of the TNFD's Guidance on Biomes publication.
Global Reporting Initiative (GRI)	The GRI is a global framework developed in 1997 which provides sustainability standards for organisations to report on their economic, environmental and social impacts.	Over 10,000 companies across more than 100 countries have adopted the Global Reporting Initiative (GRI) standards for sustainability reporting.	GRI addresses ocean-related issues primarily through GRI 101: Biodiversity 2024 which recognises "land and sea use change" as a key direct driver of biodiversity loss, as well as GRI 13: Agriculture, Aquaculture and Fishing Sectors 2022 which is relevant for businesses operating in or connected to marine environments.

Target-setting initiatives

Target-setting frameworks like the Science Based Targets Network (SBTN) take corporate nature reporting a step further by providing science-based methodologies and pathways for companies to set specific, measurable and time-bound targets to reduce their negative environmental impacts and contribute to positive outcomes aligned with global goals.

Framework	Description	Adoption	Marine environment
Science-Based Targets Network (SBTN)	The SBTN provides corporates with guidance on setting measurable targets to minimise harm and restore biodiversity. These targets may require changes within a company's value chain (e.g. removing reliance on overexploited resources) or external commitments (e.g. restoration).	The SBTN has a corporate engagement programme where over 115 companies are participating. In addition, over 160 companies are preparing to adopt SBTN targets, with 80+ collaborating partners and 30+ countries represented.	As of March 2025, SBTN has introduced ocean-related targets focused on the seafood sector. These targets emphasise: (1) preventing and reducing overexploitation of wild fisheries, (2) protecting structural marine habitats and (3) mitigating risks to endangered, threatened and protected marine species.

Enablers contributing to the adoption of corporate disclosure and target-setting frameworks

Global frameworks and initiatives

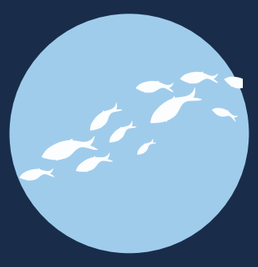
- The TNFD was created to support Target 15 of the Kunming-Montreal Global Biodiversity Framework, which urges governments to require large companies and financial institutions to assess and disclose their nature-related risks, impacts and dependencies.
- The UN Global Compact, which supports the delivery of the UN Sustainable Development Goals, promotes businesses to adopt reporting standards such as the GRI.

Stakeholder pressure

- Investors, corporate leadership, consumers and civil society are demanding transparency and accountability from corporates on their nature-related impacts and dependencies.
- Investor coalitions such as FAIRR and Nature Action 100, are also pushing corporates to disclose and manage their biodiversity risks and contribute positively to nature.

Enabling tools, datasets and methodologies

- NGOs, multilateral organisations and consultancies are playing a key enabling role by developing tools, datasets and guidance to support nature-related disclosures, for example:
  - The Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE) platform
  - The WWF Biodiversity Risk Filter
  - The Integrated Biodiversity Assessment Tool (IBAT)
- Specialist consultancies such as Biodiversify, AECOM, Ramboll and NatureMetrics have also emerged to assist companies with complex reporting frameworks.



Need to understand risks of biodiversity decline to supply chains

- As global biodiversity declines, the private sector are recognising the financial and operational risks this poses driving them to assess their nature-related impacts.
- This is particularly true for companies that directly rely on marine natural capital and are location-based (e.g. a coastal hotel that is at risk of storm surge)

Drivers of demand for marine biodiversity credits:

REGULATION

Executive summary: Governments and regulators play a critical role in catalysing the biodiversity credit market by establishing the enabling conditions necessary to attract large-scale investment in measurable, nature-positive outcomes. Compliance markets - grounded in legal requirements to mitigate environmental impacts - represent a key mechanism for scaling nature finance. However, these markets require time, regulatory clarity, and strong government commitment to develop effectively. While frameworks such as Biodiversity Net Gain in the UK are beginning to take shape, progress in the marine environment lags behind. Nonetheless, a set of emerging drivers and enablers - many linked to evolving regulatory frameworks - are proving instrumental in embedding nature into corporate strategy and decision-making.

Mandatory disclosure of natural capital accounts

What are mandatory natural capital accounts?

Similar to mandatory greenhouse gas emissions reporting, corporates could be required to prepare periodic natural capital accounts for assets they control, and report on their trends (such as the physical state and condition of the assets). This involves measuring the actual condition of environmental assets using various data sources (earth observation, sensors, field data, etc.). The UK's Office for National Statistics has been actively developing national-level natural capital accounts and associated principles. However, this framework is primarily for the national level and not for mandated corporate reporting.

How could it drive investment?

INDIRECT DRIVER

Requiring companies to monitor and report on the state of nature within their operations increases internal awareness of negative impacts. Public availability of this data would significantly increase stakeholder scrutiny of their impacts and dependencies on nature. While not direct, scrutiny may lead to pressure on businesses to demonstrate positive contributions to nature, which may drive them to buy biodiversity credits.

What is the potential for scaling?

While not yet widely mandated, the endorsement of natural capital accounts by frameworks like the Taskforce on Nature-related Financial Disclosures (TNFD) suggests this is a likely future direction. Implementing this globally would create a fundamental shift in corporate accountability for nature, directly linking negative trends in natural capital accounts to the need for compensatory or restorative action, which can be achieved through investment in nature through credible mechanisms such as biodiversity credits.

Mandatory disclosure of nature-related financial risks

What is mandatory disclosure of nature-related finanical risks?

Mandatory disclosure of nature-related financial risks requires companies to identify, assess and report on their exposure to risks like biodiversity loss, ecosystem degradation, water scarcity and deforestation. Currently, the Corporate Sustainability Reporting Directive (CSRD) mandates large and listed companies in the EU to report on their ESG performance. Following the precedent of the Taskforce on Climate-related Financial Disclosures (TCFD), the TNFD framework might also become mandatory in the future.

How could it drive investment?

INDIRECT DRIVER

Mandatory disclosures increase internal awareness of nature-related risks within direct operations and supply chains. Public reporting then heightens external stakeholder scrutiny, including shareholders, lenders and customers, pressuring companies to address financial risks by investing in nature-positive outcomes such as via biodiversity credits.

What is the potential for scaling?

Transparency plays a vital role in revealing nature-related risks and impacts. However, while it is an essential first step, transparency alone is not sufficient to drive large-scale, market-wide investment. The ability of these frameworks to mobilise finance at scale will also depend on factors such as governance (e.g. the strength of enforcement) and the extent to which they are mainstreamed and translated into practical action - both of which are shaped by a range of contextual conditions.

Nature tax

What is a nature tax?

While not yet implemented, in future, governments could impose a tax on corporations that conduct nature-destructive activities – such as tourism, shipping, or industrial fishing – to account for their impact on marine biodiversity. A biodiversity tax could function similarly to carbon taxes but would target corporate impacts on natural capital. The tax could be structured either as a fixed percentage of revenue, scaled according to environmental harm, or as a restoration-linked fee, requiring companies to pay the estimated cost of ecosystem repair if they fail to restore biodiversity within a set timeframe. This tax could be enforced at national or regional levels, with compliance linked to emerging biodiversity disclosure frameworks like TNFD. The revenue generated could then be directed applied by the government to fund the purchase of biodiversity credits from marine conservation projects in accordance with international commitments such as the global committment to protect 30% of the the ocean by 2030 ('30x30').

How could it drive investment?

DIRECT DRIVER
Taxes create a direct financial incentive for corporates to reduce their negative impacts on nature to minimise tax exposure. Critically, the proceeds from such a tax could be used by the government to directly fund the purchase of biodiversity credits from priority projects (e.g., those contributing to national conservation targets). This mechanism facilitates government investment in biodiversity outcomes via the credit market.

What is the potential for scaling?

If successfully linked to natural capital accounting and designed to channel funds into credit purchases, biodiversity taxes could provide a powerful, direct funding stream for the biodiversity credit market and a strong incentive for corporate behavioral change. However, implementing such a tax presents challenges, particularly due to the location-specific nature of biodiversity loss. Unlike carbon emissions, which have a global impact, marine degradation varies by region, making a standardised tax difficult to design. Additionally, attribution issues arise when multiple industries contribute to ecosystem harm, such as the combined effects of shipping, coastal tourism and industrial fishing.

Enablers contributing to nature-positive regulation

Multilateral frameworks

- Frameworks such as the Kunming-Montreal Global Biodiversity Framework (GBF) set global targets for biodiversity protection and climate action, guiding national policy and private sector alignment.
- Disclosure is essential to track progress toward targets (e.g., GBF Target 15 on corporate disclosure of biodiversity risks).
- Encourage alignment of disclosure requirements across jurisdictions.

Banks and investment institutions

- Acknowledge that biodiversity loss poses material financial risks to markets.
- Encourage the inclusion of biodiversity criteria in investment mandates, lending guidelines and ESG frameworks.
- Provide preferential treatment to financial institutions that fund sustainable projects.

Governments

- Integrate nature-related financial risk into national strategies, such as National Biodiversity Strategies and Action Plans (NBSAPs) or climate adaptation plans.
- Enact or revise legislation to require mandatory nature-related disclosures, especially for large corporates / financial institutions.
- Support national statistical offices, environmental ministries and financial regulators to collect, verify and monitor data.
- Offer incentives (e.g. tax benefits, green finance eligibility) for companies that report on and reduce nature-related risks.

UNDERSTANDING BUYER DEMAND IN THE SOLENT SEASCAPE PROJECT

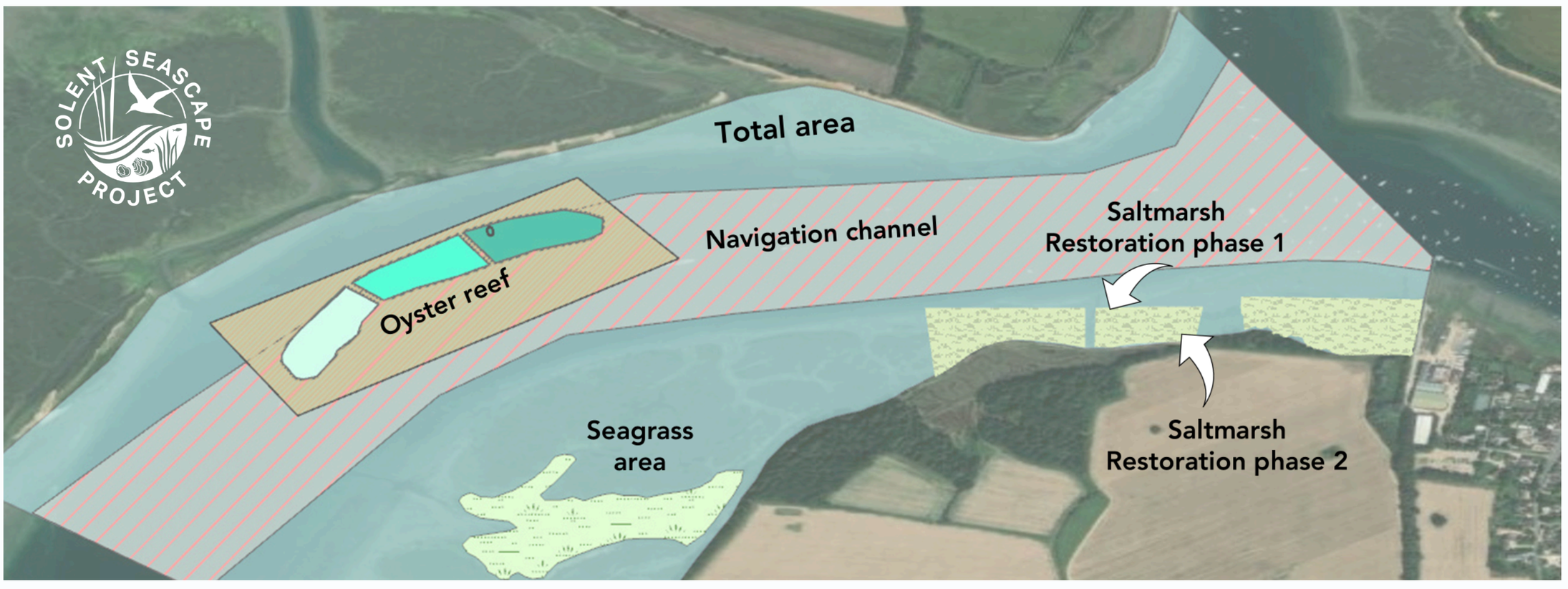
What is the Solent Seascape Project?

The Solent Seascape Project (SSP) is a pioneering initiative dedicated to restoring and reconnecting vital marine habitats within the Solent, a strait between the Isle of Wight and mainland Great Britain. Over an initial five-year period, project partners are focused on improving the condition, scale and connectivity of oyster reefs, seagrass meadows, saltmarsh and seabird nesting habitats which have been degraded due to anthropogenic pressures including coastal squeeze, pollution and climate change. This ambitious undertaking aims to create a more resilient coastline while enhancing biodiversity and community benefits.

How is this going to be financed into the future?

To help cover the long-term costs of restoration, management and monitoring, the SSP is developing some of the first 'high-integrity' marine biodiversity credits, which represent verified, measurable and additional gains in biodiversity. These credits have been developed in collaboration with Plan Vivo, a leading certification body who have developed a Biodiversity Standard called PV Nature in partnership with Fauna & Flora and Carbon Tanzania - ensuring holistic impact (for nature, climate and communities), a participatory approach, and transparent, equitable benefit-sharing for communities.

The credits (which PV refers to as 'certificates') will be generated through restoration of the degraded marine environment. These credits are thus not designed to compensate for damage elsewhere (like offsets) but rather to positively incentivise actions that halt and reverse nature loss, i.e. 'Nature Positive'.



Proposed total site area including the initial 15 ha oyster reef survey area, within which a 3.84 ha area has been identified as potentially suitable oyster reef existing seagrass meadow, saltmarsh control site, phase 1 and 2 restoration sites, a saltmarsh reference area and the main navigational channel to highlight where long-term deployment of equipment within the marine environment would be challenging or not granted permission from the Harbour Authority.

How are credits calculated and issued?

The issuance of credits follows a rigorous and transparent process under the PV Nature Standard. From year two onwards (2028), projects can issue credits annually. These credits will be issued if there are verified improvements in biodiversity (% uplift per ha per year) or the established biodiversity baseline is maintained. Biodiversity uplift is calculated using a set of indicators including (1) species richness, (2) species diversity, (3) taxonomic dissimilarity, (4) habitat health, and (5) habitat spatial structure. To ensure ongoing integrity and accountability, the project must undergo a rigorous third-party validation and verification process every five years.

How does the community benefit?

In line with PV Nature, at least 60% of the income generated from the sale of credits must be allocated to community benefits. These benefits can take the form of direct cash payments, appropriate in-kind contributions or payments into a community development fund directed by project participants, including adjacent communities. The remaining 40% of income is allocated to cover project coordination and operational costs. While the exact revenue is dependent on market development and certificate sales, indicative estimates suggest that, in a best-case scenario with all certificates sold annually, the community grants scheme could receive around £100,000 a year.

Who are the potential buyers?

While SSP biodiversity credits are available to all buyers that are aligned with Blue Marine's mission, most purchasers are expected to be companies and financial institutions seeking to manage nature-related risks within their supply chains, access emerging markets and strengthen their reputation among local stakeholders. Some corporates may also view participation as a strategic opportunity to align their brand with the SSP, given the project's long-term commitment to community investment. In addition, corporates with philanthropic goals, as well as foundations dedicated to funding nature-positive outcomes, are likely to be important contributors.

Potential drivers of buyers

Risk management

Voluntary disclosure frameworks
Medium to high potential

While not mandatory, frameworks including the Taskforce on Nature-Related Financial Disclosures (TNFD), the Global Reporting Initiative (GRI) standards and the Science-Based Targets for Nature (SBTN) are becoming the standard for leading businesses to assess, manage and report on nature-related impacts across their value chains and operations. Companies committing to these frameworks may seek out credible, high-integrity mechanisms to demonstrate positive contributions and manage nature-related risks. The PV Nature Standard's emphasis on "robust and credible outcomes" and third-party verification aligns well with the rigorous data and transparency expectations of the TNFD, GRI and SBTN. For multinational corporations or publicly listed companies already engaging with these frameworks, SSP credits offer a quantifiable and verifiable opportunity to include in their sustainability reports and strategies, which go above and beyond their own mitigation efforts. This driver is less about immediate public acclaim (though that's a by-product) and more about strategic, long-term risk management and the demonstration of accountability to investors and regulators who are themselves increasingly guided by these frameworks.

Regulation

Mandatory corporate disclosure frameworks
Low in short-term, potentially high in long-term

In the UK, there are no widespread mandatory biodiversity disclosure frameworks or specific regulations requiring or incentivising companies to purchase biodiversity credits. However, developments such as Biodiversity Net Gain (BNG) - which mandates developers to deliver measurable biodiversity improvements - signal a shift toward regulatory approaches that internalise nature-related impacts.

While BNG currently applies primarily to land-based developments, its existence reflects growing regulatory attention to biodiversity that may eventually extend to the marine space. As such, corporate interest in purchasing marine biodiversity credits from the SSP is likely to be driven by a combination of risk management and strategic business decisions.

Reputation

Consumer-facing opportunities & first-mover advantage
High potential

In a voluntary market, reputational benefits and the opportunity to be seen as a "first mover" are arguably the most powerful early drivers for corporate buyers of SSP credits. The SSP, as one of the first marine project to pilot the PV Nature methodology offers a unique opportunity for early corporate adopters. This allows companies to differentiate themselves by enhancing their brand image as environmental leaders, and proactively address mounting stakeholder pressure.

Civil society are becoming increasingly vocal as the threats to biodiversity increase. An investment in tangible, conservation and restoration like the SSP that ensure clear clear community benefit-sharing, provides a powerful story to meet these demands and cultivate goodwill. This isn't just about "doing good"; it is about managing brand risk and engaging with a market that values sustainability.

Philanthropic interest
Medium potential

For organisations whose leadership is motivated by conservation ethics or who wish to align with global goals like the Kunming-Montreal Global Biodiversity and Sustainable Development Goal 14 (Life Below Water), the SSP provides a direct channel for contribution.

However, these are unlikely to serve as a primary driver for widespread corporate uptake of credits (as opposed to pure donations). Philanthropy can open the door, but the 'business case' for purchasing credits often needs to be linked to broader strategic benefits for sustained interest, especially when compared to other donation opportunities. The SSP credit model thus moves beyond pure philanthropy into a more structured, outcomes-based investment.