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How legal personhood and markets can partner to help save the whale

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Recently, the Māori People of Aotearoa, Cook Islands, and Tahiti supported a resolution to endorse their ancestors, the whales, as Ocean Ambassadors to the United Nations and to protect their legal personhood. This historic move aims to help protect the whales against dangers such as ship strikes as they migrate through their South Pacific waters. This paper explores how markets can further strengthen this declaration by providing incentives that reward responsible behavior of maritime vessels as they navigate Māori waters. Legal steps needed to engender market support and extend protection to other cetaceans and localities are also discussed. By combining personhood declaration with legal actions and market-based incentives, we show how this novel approach can enhance conservation outcomes and reshape the market in favor of protecting whales, nature, and its stewards.

KEYWORDS

legal personhood, market discipline, whale protection, rights of nature, public goods, international cooperation

Introduction

On March 27, 2024, the Māori people of Aotearoa, Tahiti and Cook Islands supported a resolution to protect the legal personhood of whales (Tumin, 2024). The declaration which is signed by Kiingi Tuheitia Pootatau Te Wherowhero VII, the late Māori King, states: “The Tohorā is our ancestor and we as kaitiaki (ocean guardians) are here to honor our tipua (spirit), our taniwha (ocean denizen), and our taonga (treasure).” The Māori worldview holds that whales are their ancestors and Māori people have a duty of care to look after these animals and all other natural beings. Conferring legal personhood on whales (tohorā) would acknowledge and formally recognize this fundamental relationship of kinship and reciprocity within modern legal frameworks, aligning with indigenous views. Their declaration aims to help protect whales against maritime human activity that endangers them as they migrate through Māori waters, as well as to spur a global conversation around the protection of whales and other cetaceans in the ocean.

The declaration states “We express our solidarity for this resolution as Indigenous Peoples living on Island nations that are the most vulnerable to the impacts and systemic causes of climate change. We reaffirm the unbreakable and sacred connection between Tohorā and ourselves and between the land, air, water, oceans, forests, sea ice, plants,

animals, and our communities.” This underscores the key messages that restoring nature is of paramount importance for responding to climate change (United Nations Climate Action, 2024), and that indigenous peoples are both at the forefront of climate change and the best stewards of nature (Nitah, 2021). Granting whales personhood symbolizes these essential truths and helps to close the circle between indigenous and modern worldviews, offering practical opportunities to preserve whales as a nature-based solution.

The Māori people, however, are aware that their declaration alone is not enough to stop the harm that continues to be inflicted on whales from myriad sources. The International Whaling Commission collates information annually on the growing and compounding threats to all cetaceans and their habitats (International Whaling Commission, 2024). These stem from diverse sources such as plastic and chemical pollution; noise pollution from offshore installations, shipping, sonar and seismic testing; bycatch and fishing gear entanglements; climate change affecting prey availability and ship strikes (International Whaling Commission, 2024; Johnson et al., 2022a). Ship strikes continue to be a primary cause of whale fatalities, as shipping intensity has increased over recent years and many shipping lanes traverse areas important for cetaceans (World Wildlife Federation, 2017). Hotspots where whales are most at risk from ship strike are being identified, supporting opportunities for management interventions (International Whaling Commission, 2024; World Wildlife Federation, 2017). Whales have existed for millions of years relative to the recent advent of ships (and human ocean activity), and have not yet evolved to recognize ships and change their behavior to avoid being hit. Efforts to reduce ship strikes on whales have focused either on moving shipping lanes or turning to voluntary speed reductions by ships. However, recent studies find that compliance with voluntary speed reductions have been insufficient to reduce collisions to a level that would allow whale populations to regenerate and thus additional incentive-based mechanisms are needed (Pirota et al., 2019).

At the crux of the matter is the fact that the market system, of which maritime activity is a part, has not been designed to recognize or to avoid harming whales or other cetaceans. Simply put, living whales are invisible to the markets and, as a result, to ships. For example, there are typically no penalties for striking a whale (Morten et al., 2022), nor is there a reward for avoiding striking one. Herein lies the dilemma: conservation efforts geared to protecting the whale and economic activity that is indifferent to the plight of the whales are colliding, to the detriment of both whales and humanity.

The questions that we tackle in this paper are the following: Can conferring legal personhood be a game changer for whales, in the sense of making living whales visible to the market system, with rights that can be upheld and obligations on those sharing the ocean space? How can markets become aware of the whales' presence and rights, and thus provide the correct incentives for maritime activity to avoid harming the whales? What are the conditions necessary to achieve such an outcome?

Why the markets are ready for legal personhood of nature

The Māori Declaration is poised to take advantage of significant changes in the relationship between markets and nature, and in fact is positioned to accelerate these changes. Historically, the market has viewed nature protection and regeneration as a cost, a position which still characterizes current conservation efforts. Worse yet, the market system has generally valued only the provisioning services of nature that provide goods and services directly consumed by humans or are used as inputs into the production of other products, often in the form of dead or extracted natural resources (Kumar, 2010). For example, a tree has market value for its timber or its fruits, a dead fish has market value as food, and a dead whale has market value when sold for its meat or oil.

This mindset has begun to change, however, as market participants understand and internalize that nature living for itself is an asset that has value, and, therefore, warrants protection (United Nations Environment Programme, 2023; Deutz et al., 2020). This process has benefited from recent advances in science. Research has shown that conservation and restoration of natural systems such as forests, mangroves, salt marshes, and seagrass can provide at least 37% of the carbon mitigation needed by 2030 to stay within the 1.5 degree warming scenarios (Griscom et al., 2017). Other recent research points out that fauna on land and in the ocean also play a role in fighting climate change (Berzaghi et al., 2022b), by animating the carbon cycle (Berzaghi et al., 2022a; Chami et al., 2022). For example, whales, fish, elephants, wildebeests, and wolves are all examples of fauna that have been shown to help sequester CO₂ through their activities. These include dispersing nutrients at scale across latitudes and depths to stimulate primary productivity (whales); transporting organic carbon from surface waters to depth (fish); trampling and browsing activities to stimulate old growth forest (African forest elephants); maintaining grasslands and their soils (wildebeests); and regenerating forests through predation of herbivores (wolves) (Schmitz et al., 2023). Thus, a nature restored and rejuvenated not only helps in fighting climate change by capturing and sequestering CO₂ from the atmosphere, but also by providing ecosystem services needed to sustain our economies and societies.

The development of the carbon markets further supports this change in mindset. Carbon markets such as the European Union's Emissions Trading System were introduced as a mechanism to reduce industrial carbon emissions by creating tradable annual allowances for carbon emissions and gradually reducing the number of allowances available to private companies (European Commission, 2024). The 2015 Paris Agreement provided the impetus for the development of the voluntary carbon markets through its Article 6 (UNFCCC, 2015). In the voluntary carbon markets, countries and private sector entities purchase carbon credits that are counted toward their voluntarily-adopted emissions reduction targets. One of the main ways carbon credits are created is to implement a program that avoids the loss of existing natural carbon-capture services or adds to the amount of natural carbon capture taking place in a particular ecosystem.

The pricing of CO₂ in the voluntary carbon markets enables market valuation of the carbon capture and sequestration services of fauna and flora, creating a tangible incentive for the private sector to not only value living nature, but also invest in its protection and restoration (Berzagli et al., 2022a). For example, carbon sequestration service by a single whale is estimated at over \$2 million, over \$1.75 million for a forest elephant (Chami et al., 2022). The value of carbon services of mangroves have been estimated at \$1.6 million/km² with global coastal ecosystems estimated at US\$190.67 billion (International Advisory Panel on Biodiversity Credits, 2024). The development of the voluntary carbon market has also led the private sector to search for additional ecosystem services that could form the basis for new markets. A leading example of this is biodiversity, which is the object of many attempts to create a new market based on credits for causing an increase or uplift in the measured biodiversity present in an ecosystem (Nature Finance, 2023). The 2022 CBD Global Biodiversity Framework acknowledges a role for biodiversity credits in its target on mobilizing finance for nature (Bertram et al., 2021), and new alliances have arisen to address the robust design of these (International Advisory Panel on Biodiversity Credits, 2024; Nature Finance, 2023; Biodiversity Credit Alliance, 2024).

The market's incentive to fight climate change through nature protection and restoration has been strengthened by recent regulatory innovations in Europe, such as the Nature Restoration Regulation which recently entered into force and the 2023 Corporate Sustainability Reporting Directive. The new Nature Restoration Regulation recognizes the need for large scale restoration efforts and focuses on the synergies between people, nature and climate policy. It mandates that restoration measures covering 20% of the EU's land and 20% of the EU's sea area are implemented by 2030 and that measures are introduced covering all ecosystems in need of restoration by 2050.¹ The EU Corporate Sustainability Reporting Directive requires companies to improve reporting on the social and environmental impacts of their activities, enabling investors and stakeholders to assess the impact of companies on people and the environment and the associated financial risks and opportunities.² In the UK a Biodiversity Net Gain requirement for new developments has been introduced, to ensure habitats are left in a measurably improved state after new developments. The scheme requires developers to improve habitats by 10% on site, using a statutory biodiversity metric tool, or buy statutory biodiversity credits to support offsite nature recovery (UK Environment Act, 2021). These measures all stimulate market interest in and innovation around inclusive nature recovery, giving rise to demand by governments and investors to finance projects

that yield nature and sustainability credits that include not only carbon sequestration, but also biodiversity and cultural benefits.

The growing awareness of biodiversity loss also recognizes the pivotal role of indigenous peoples and local communities (IPLCs) in the stewarding of nature and its biodiversity (Etchart, 2017). Recognizing that nature has rights and thus warrants protection can help promote indigenous peoples' worldviews and their rightful role as nature's stewards and supports this overall change in mindset (Stilt, 2021; Bender et al., 2022). As we argue below, endowing whales (and other natural resources) with legal personhood will complement these regulatory changes by providing additional market incentives to invest in the restoration and protection of nature.

How can personhood help markets protect whales?

Conferring legal personhood on whales has the potential to cause a fundamental change in how the law, and consequently markets, view these creatures. Modern Western legal systems still use a framework inherited from Roman law that is organized around three subjects: persons, things, and actions (Wise, 2000). For much of recorded history, Western legal systems including Anglo-American Common Law have classified non-human living beings as things, which are objects of persons' actions and possess no rights, but may be protected and stewarded because of their value (Wise, 2000). Currently, whales are considered primarily as things, with protections extended to them by resource stewards such as national governments and the United Nations. Such protections include global measures under the International Whaling Commission (IWC); the International Convention on the Conservation of Migratory Species of Wild Animals (CMS) (CMS, 1979), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); (CITES, 1973) as well as regional measures such as the SPREP Action Plan for Whales and Dolphins in the South Pacific (SPREP, 2021), and national measures such as the United States Endangered Species Act (ESA).³ Together they create a legal framework to bind state parties to a moratorium on whaling, enact agreements to protect whales from threats across national boundaries, prohibit or limit the trade of endangered or threatened whales, cooperate toward conservation measures to protect whales and their habitat, and limit or prohibit the exploitation of whales in their coastal waters, respectively.

Despite these existing frameworks, whale populations face increasing threats and restoring their health is not legally obligated under the measures listed above. But if whales were recognized as legal persons, they would gain a more expansive set of rights associated with this status, such as the right to exist, flourish, and live freely, as well as the right to a healthy environment (Kauffman and Sheehan, 2019; UNGA Resolution A/1/266, 2016).

The legal status of non-human living beings as things has increasingly been challenged on several grounds. First, the essence of personhood does not originate from identity, but rather from

1 Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202401991.

2 Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting (Text with EEA relevance) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022L2464>.

3 United States Endangered Species Act (ESA). 16 U.S.C. 1531-1544. <https://www.fws.gov/media/endangered-species-act> (accessed September 26, 2024).

an entity's possession of interests and rights, which does not necessarily preclude other living beings from being legal persons (Carnelutti, 1955). Another challenge is that the assigning of the rights, duties and obligations of personhood are social conventions adopted by those in power, and hence subject to change (Stone, 2010; Stutzin, 1984). These conventions have evolved in a way that tends to expand the boundaries of personhood, particularly since the beginning of the 20th century (Stone, 2010; D'Amato and Chopra, 1991; Naffine, 2009). Still another argument is that our current human-centric legal system needs to be replaced by one which has as its main goal supporting the survival and thriving of the entire planet. According to this view, non-human members of the environment should automatically have rights because of the essential roles they play in supporting all life on earth (Cullinan, 2011).

Legal personhood is also advocated by the Rights of Nature (RoN) movement, an emerging ethical and legal framework that emerged in response to the environmental crisis. Inspired by many indigenous worldviews that treat nature as a living being and in which people and nature are interdependent and interconnected, RoN frameworks recognize both intrinsic values and inherent rights of the ecosystems and species upon which humanity depends and posit an obligation upon humans and their governments to respect and protect these rights (Tanasescu, 2020). Legal actions inspired by RoN frameworks began with a community ordinance in Tamaqua Borough, Pennsylvania in the United States in 2007 and has grown to hundreds of laws, policies, treaty agreements and judicial decisions in approximately 40 countries (Putzer et al., 2022). For example, the Constitutional Court of Ecuador confirms that the central idea of the rights of nature is that nature has value in itself and that this should be expressed in the recognition of its own rights (The Constitutional Court of Ecuador, 2022). A treaty agreement in New Zealand recognizes Te Awa Tupua (or the Whanganui River) as a legal person.⁴ The InterAmerican Court of Human Rights established that the right to a healthy environment is not just a human right, but a right of nature and its elements, including whales (InterAmerican Court of Human Rights, 2017).

The "Interest Theory" of law is also of relevance. It posits that an entity must have interests in order to hold rights, and those interests can be protected by the scope of the rights (Raz, 1986). Further, a legal person is created by the convergence of personal interests (an economic element) and substantive law or subjective rights (a legal element) (Terry, 1903). Interests can vary from aspects of a legal person's wellbeing, such as intangible basic freedoms or needs, to tangible (value-driven) economic interests (The Constitutional Court of Ecuador, 2021). In the case of whales, recent evidence related to the ecosystem services they produce suggests they have a significant economic interest that could justify personhood. Some of the ecosystem contributions provided by whales that are beneficial to all of humanity have been quantified. The value of such contributions, which have been estimated at up to \$2 million per whale, could be claimed by whales to be used for their benefit if they were recognized as legal persons (Chami et al., 2022).

Legal personhood is generally understood to be the acknowledgment via a designation act that an entity is owed the status of being subject to certain rights and duties in law (Law, 2018). Critically, a legal person is not synonymous with a human (or natural) person, and rights and duties of personhood are specific to each legal entity (Quintana Adriano, 2015). In other words, a particular legal person does not have the same rights and duties as a living person or as other legal persons. Different understandings of a legal person exist and can include any subject other than a human being (Salmond and Fitzgerald, 1966), anything to which rights are attributed to⁵, or a unit with interests that need and deserve social protection (Salmond and Fitzgerald, 1966). As such, legal personhood is applicable to humans and non-human entities such as corporations and ships (Smith, 1928).

The concept of legal personhood has continued to evolve and been reexamined with a view to better protecting the interests of vulnerable entities including animals and the environment, and recognizing the interconnectedness of the natural world and the relational nature of the socio-legal world (Kotzmann et al., 2023; O'Donnell and Arstein-Kerslake, 2021). Indeed, it has been confirmed by multiple courts that there is nothing inherent in the concept of legal personality that prevents its extension to animals (D.C. Cir., 1989; Belize, 2011). Therefore, specific rights can be articulated and operationalized that are exclusive to whales, in line with their nature, value (both intrinsic and economic), and interests.

Wherever whale rights are adopted through personhood (individual states, regions, or globally), one of the immediate benefits is that they would gain legal standing. Legal standing is generally interpreted as the ability to "bring grievances before a court and a legal mechanism to make polluters pay for the externalities that their actions cause" (Miller, 2019). But because whales are unable to articulate their grievances or file lawsuits on their own behalf, suitable governance arrangements whereby human representatives are appointed to respect and protect whales' interests in decisions and disputes affecting their health will need to be implemented. Possible governance models could include guardianship, in which whale guardians such as the Māori would be able to represent whales under their custodianship in disputes and hold actors accountable for harm done to them (Stone, 2010). Other arrangements such as mandates within management bodies and co-governance structures can also ensure that whales' rights are upheld proactively and through remediation (Kauffman and Martin, 2021).

Additionally, possessing rights under the law justifies the imposition of correlative duties upon other entities or persons to observe such rights without necessarily imposing duties upon the entity holding legal rights (Kramer, 2001; Franceschini, 2022). Consequently, designating and legislating personhood for whales creates a duty upon other entities to uphold such rights and therefore generates legal and potentially financial liabilities for these entities (Cullinan, 2016). In particular, the Principle of Harm, which is defined by legal scholars "as implying interests or values which have been destroyed wholly or in part," may be invoked on behalf of whales, along with a right to restoration (Eser, 1965).

4 Government of New Zealand, Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, Public Act 2017 No. 7.

5 High Court of Punjab & Haryana at Chandigarh (2019), p. 78.

This enables injuries to whales to be recognized, valued, and compensated by the parties found responsible. Similarly, states may devise legal and policy mechanisms to prosecute whale rights violations in their territorial seas, contiguous zones, and even in their exclusive economic zones (EEZs) although the latter needs to be explored further.

Many RoN laws and judicial decisions recognize that nature has the right to restoration. This right has been found to require full reparation from harm, or recovering nature to as close as possible to its pre-damage state and which allow the proper development of its life-cycles, structures, functions and evolutionary processes, and the payment of damages (or a monetary penalty) ([The Constitutional Court of Ecuador, 2011](#)). Notably, in lawsuits in both Ecuador and Belize, the accounting of damages in instances where an ecosystem is no longer considered property or owned has led courts to account for both material and immaterial damages, or pure ecological damage ([Código Orgánico Integral Penal, 2014](#); [Belize, 2011](#)). This means that harm and “injury” to the natural resource is taken into account, and separate from the compensations or reparations found necessary to people or communities. That is, relief can be sought and secured for whales, if they are the injured party in the case, regardless of whether harm was also caused to humans.

Legal standing facilitates the inclusion of externalities when assessing the costs of marine activity. An externality is seen as “a positive or negative outcome of a given economic activity that affects a third party that is not directly related to that activity” ([International Institute for Sustainable Development, 2024](#)). These indirect effects are usually not reflected in the cost of a product or activity, such as the cost of offshore oil drilling not reflecting the harm to the marine environment from oil spills or human health impacts, or in the specific case of whales, shipping costs not accounting for harm to whales and the marine environment. In traditional environmental cases, courts often conflate harm to the environment with harm to human interests and therefore fail to properly value injuries or harm to the environment that occur through externalities ([O'Donnell and Talbot-Jones, 2018](#)). Legal personality and standing ensures that injuries to whales and to the marine environment are adequately recognized and valued by enabling them or their representatives to bring damage claims before a court. Standing is therefore a legal mechanism to make entities that harm whales through externalities pay for the injuries to whales that their actions cause ([Arnold, 2023](#)).

It should be noted, however, that exclusive use of and reliance on market-based approaches in the quantification of damages have been criticized as insufficient in capturing the true economic value of the environment or its components, seriously undervaluing their worth and resulting in low assessments of damages that leave injuries uncompensated ([D.C. Cir., 1989](#)). Nonetheless, the availability of a market for nature “is a matter that is relevant to damages” ([Belize, 2011](#)) and thus seen as necessary in order to account properly for damages in the event of harm and rights violations.

In summary, the argument that a legal person is created by the existence of both an interest element and a legal element justifies the use of legal personality to make whales count in the eyes of the law ([Carnelutti, 1955](#)). Legal personhood for whales can be conceived as a bridge that connects market and legal strategies to ensure that the value of their contributions to society is accounted for and

that corporations and governments have both the incentive and the responsibility to protect them. The right to restoration provides an enforcement avenue through appropriate remedies to ensure the reparation of injuries to whales, which holds a key to unleashing the power of markets toward their protection. When whales become visible before the law through obtaining legal standing, the legal and financial costs from causing harm to them could generate a chain reaction in the markets working through incentive structures that lead to technological or operational advancements to support prevention of harm.

Example: maritime insurance

Marine insurance provides an example of how whale personhood and markets can interact in the manner described above. Ship strikes are a leading cause of death among great whale species ([World Wildlife Federation, 2017](#)). Shipping companies are required to obtain marine protection and indemnity (P&I) insurance, which insures their vessels against liability arising from damage to people, property and the environment caused by the vessel⁶. The required coverage is equivalent to the limits on liability established by the Convention on Limitation of Liability of Maritime Claims ([International Maritime Organization, 1976](#)). Importantly, the environmental liability focuses on pollution risks related to spills of oil and bunker fuel, but not specifically against whale strikes ([Tan, 2021](#)). If whales were legal persons, whale guardians such as the Māori could pursue legal and financial remedies against any shipping company whose vessel strikes a whale in the waters they oversee. A lower bound on damage calculations could be based on the carbon sequestration and any other market-priced ecosystem services produced by the type of whale struck.

In the absence of liability insurance, the possibility of being held liable in the case of a ship strike, potentially for millions of dollars per incident, is likely to give pause to owners of these vessels. Being financially liable in case of a ship strike should provide an incentive for the vessel owners to invest in avoiding hitting or hurting whales to avoid expensive penalties. This could create a new market for whale protection through providing innovative whale detection and shipborne anticollision devices. Technology and science continue to advance rapidly to provide for real-time tracking and monitoring of human impacts on nature.

Most of these vessels, however, do carry liability insurance. As such, the maritime insurance (or reinsurance) providers could ultimately be held financially liable in case of injury to a whale. This possibility is likely to lead the insurer to rethink their existing policies to reflect the presence of this new potential legal obligation. For example, they may decide to explicitly deny coverage to the vessel in case of a whale ship strike, or to raise their insurance premium to cover the potential payout in case of a ship strike. They could also require ships to install technology which would alert a ship to a whale's presence and thus reduce the likelihood of a

⁶ European Parliament and the Council of the European Union. *Directive 2009/20/EC. On the insurance of shipowners for maritime claims.* Available at: <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32009L0020>.

collision as a condition of insurance, or increase the premiums for shipping firms that do not do so.

The possibility of loss of insurance coverage represents a serious problem for a shipping company, as it can cause its cost of doing business to rise significantly. Without sufficient insurance or the use anti-collision devices, the company could be viewed as having a higher credit risk by the capital markets, customers, and by its suppliers. This is so because without anti-collision technology on board, the ship's likelihood of striking a whale is likely to be higher, with the financial penalty coming out of the pocket of the owner. The shipping company may then be forced to raise its fees to cover the higher cost of operation, which would drive away customers. In addition, its suppliers could insist on more costly guarantees and its securities could suffer downgrades and decline in value due to a higher risk premium.

In contrast, a shipping company that agrees to the new insurance policy and installs monitoring and anti-collision technologies should experience a reduction in the possibility of collision with a whale. Moreover, and in contrast to the previous case, the insured company could be viewed more favorably by its customers and by suppliers, who may reward it with increased loyalty and a lower cost of doing business. Capital markets could also reward this company that now is considered a lower credit risk relative to the previous case, and, as such, assign it a lower risk premium. This company could also benefit from enhancing its nature-positive and climate-mitigating reputation and ecological reputation, as well as be looked on favorably by regulators, in light of the recent regulations such as the Nature Restoration Law.

In short, conferring legal personhood on whales makes them visible to legal systems and market systems. The market mechanism reinforces protection by rewarding the desired behavior by the ship owner to protect whales (Figure 1). The right to restoration makes both the intrinsic and economic values of whales concrete and provides a mechanism for enforcement through commensurate remedies to ensure the reparation of their rights. As foreshadowed above, the right to restoration is essential to the implementation of insurance requirements against environmental risks. From a legal point of view, this right would make it possible to invoke the Polluter-Pays Principle (European Court of Auditors, 2021), which would incentivize private sector responses such as the possible ones described above.

Dealing with the global nature of whales

The regional expanse of the Māori Declaration increases opportunities for the effective protection of whales, as all participating countries through which they travel in their migratory pathways will have an interest in safeguarding their rights. The United Nations Convention on the Law of the Sea (UNCLOS) allows coastal states to adopt stricter regulations in their Territorial Waters, Contiguous Zones and Exclusive Economic Zones, specifically to limit or prohibit the exploitation of marine mammals such as whales (United Nations Convention on the Law of the Sea, 1982). As such, with national laws and regulations in place, individual states are able to punish infringement of the law within

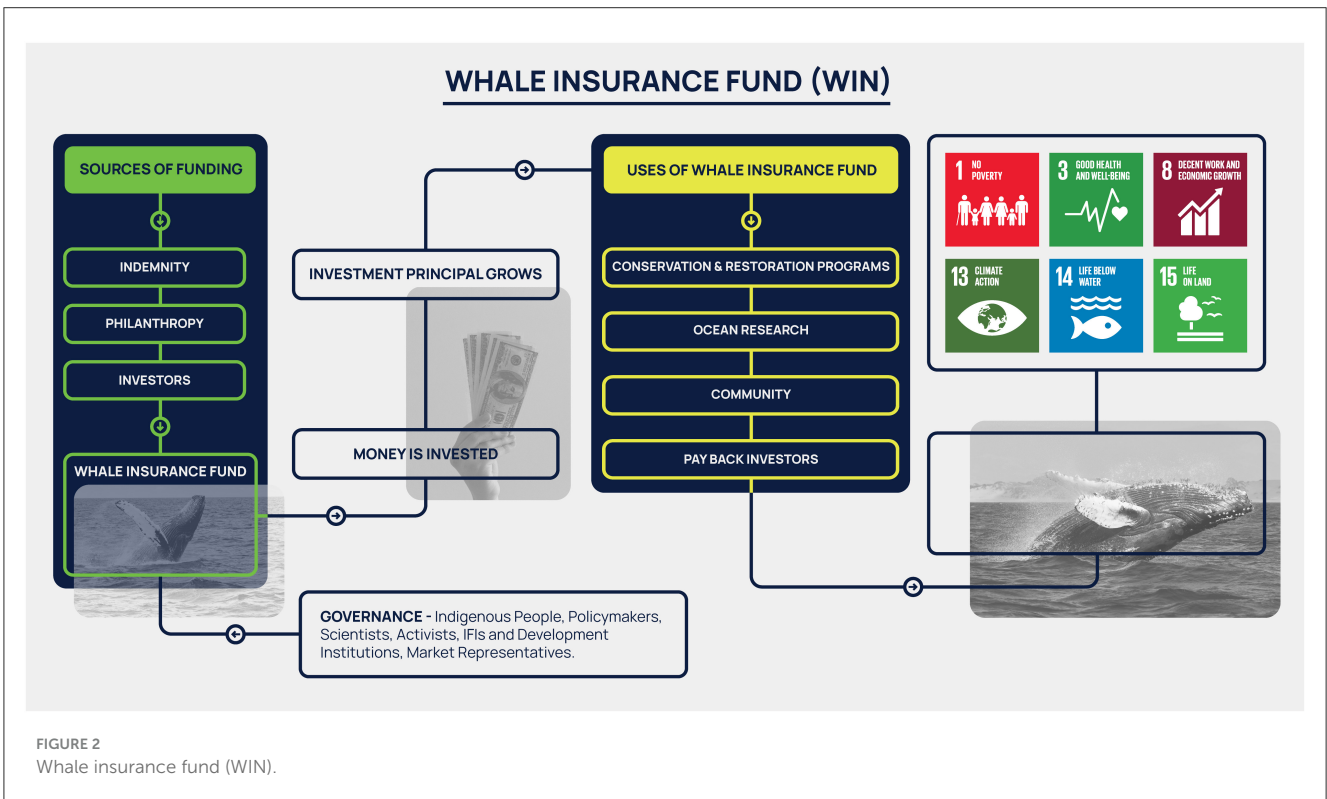
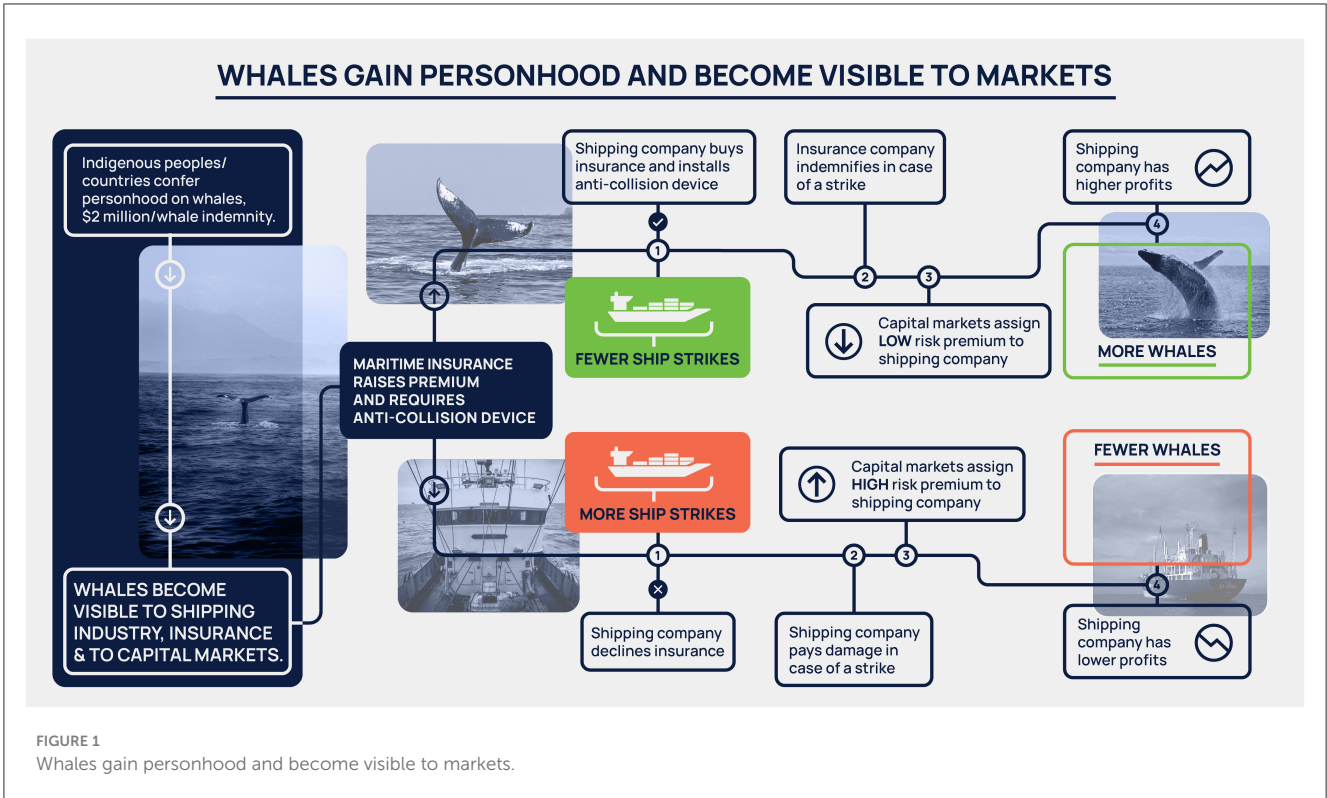
these areas. But it is well known that whales have extensive migration paths that commonly bring them within the territorial waters of many countries as well as the open ocean (Johnson et al., 2022b). Thus, an important unresolved issue is how to protect whales wherever they are.

As whales travel through the oceans they provide services that are beneficial to all of humanity as well as region-specific and country-specific benefits. Local and regional benefits include increased whale tourism and increased local krill and fish stocks, whereas global benefits include mitigating climate change (Chami et al., 2022). Thus, keeping whales alive and helping them to regain their population size is in the interest of all people, regardless of their proximity to whales. Similarly, harm inflicted on a whale either in one country's territorial waters or in the open ocean would deprive the remaining communities and countries of the value generated by that same whale. Because whales' benefits to humanity extend beyond national boundaries, they have the characteristics of a global public good.

Given this view, a coordinated international approach to whale personhood and rights appears preferable to appeals to each individual jurisdiction's sovereignty. For example, it would be in the interest of all countries to form a regional or global coalition to require that anti-collision devices and monitoring systems be installed and activated on all ships and in all areas, not only in the territorial waters of any one country or community. Such a regulation could be modeled on existing partnerships such as the US-Mexico-Canada Agreement to cooperate on dynamic protection of North Atlantic right whales as they travel between the waters of these nations (United States Treasury, 2024).

In addition, because the High Seas are not subject to the sovereignty of any one state, international action to bind many states may be the most practical mechanism available to protect whales traveling through the open ocean. The form of such agreements is flexible, as UNCLOS allows states to confer upon, by agreement, an international organization the competence to prohibit, limit or regulate the exploitation of marine mammals in the High Seas (United Nations Convention on the Law of the Sea, 1982). This has, for example, been done already by the International Whaling Commission (IWC), but the IWC is not, or does not need to be, the only competent organization that can do so (Proelss, 2017). This opens the door for different pathways, such as those under the Noumea Convention and the competence of the South Pacific Regional Environment Programme (SPREP), to create a multilateral agreement to confer legal personhood upon the whales in the Pacific that would include areas under national and international jurisdiction (Convention for the Protection of the Natural Resources Environment of the South Pacific, 1986).

In practice, however, broad international cooperation has proven to be difficult to achieve and maintain. At the global level, the IWC largely achieved its core purpose of providing for the conservation of whale stocks and the orderly development of the whaling industry until 1982, when it implemented a moratorium on commercial whaling. Since then, however, it has struggled to reconcile the differing views of member countries and to keep up with newer escalating threats to whales from sources other than whaling, such as climate change, ship strikes and entanglements



(Rose, 2015). Some have called into question its effectiveness and fitness for purpose in the post-whaling era (Bridgewater et al., 2024).

Meanwhile, a recent and potentially far-reaching Advisory Opinion from the International Tribunal for the Law of the Sea may provide an unexpected new legal avenue in support of whale

protections. It recently concluded that CO₂ emissions constitute marine pollution, and that signatory states must collaborate globally to take all necessary measures to prevent, reduce and control marine pollution from anthropogenic greenhouse gas emissions, including those from shipping, and cooperate in taking measures necessary for the conservation of living marine resources in the high seas that are threatened by climate change impacts and ocean acidification ([International Tribunal for the Law of the Sea, 2024a](#)). The Opinion also clarified that the general obligation of states to protect and preserve the marine environment under Article 192 of the UN Convention on the Law Of the Sea ([United Nations Convention on the Law of the Sea, 1982](#)), including requiring restoring marine habitats and ecosystems where these have been degraded, is one of stringent due diligence ([International Tribunal for the Law of the Sea, 2024b](#)). In practice this requires states to implement measures for both climate change mitigation and adaptation and to prevent further harm to marine ecosystems that sequester CO₂, which includes whales and their habitats ([Clyde and Company, 2024](#)). The Opinion may boost litigation efforts against governments and maritime companies in respect of their climate change impacts and environmental impact assessments, creating further impetus to act ([Watson, 2024; Cornerstone Barristers, 2024](#)).

These developments suggest that accelerating international momentum to tackle climate change through all possible means may strengthen the incentive for market actors such as shipping companies to pursue measures to mitigate ship strikes and thereby reduce their climate and litigation risks. This may also make the extension of protections such as legal personhood for whales and other marine fauna more attractive to individual states as a means of complying with recent UNCLOS guidance.

In addition, unilateral or regional actions such as the Māori Declaration of Whale Legal Personhood may have impacts that exceed their limited geographic range, to the extent that they produce noticeable spillover effects on other states and stakeholders who also benefit from whales' services. The demonstration effect arising from these benefits may support the development of a virtuous cycle in which individual states adopt their own protective policies and become more supportive of international collaboration to protect whales in areas beyond national jurisdiction as they observe and experience the positive spillovers from other states' actions.

Whale investment fund

Moving from declaration of personhood to creating effective market discipline and extending this new regime globally will involve several practical steps. A key practical question is how to provide funding for the enforcement and other mechanisms necessary to engender the development of markets and market discipline that are envisioned in this framework. One possible means is through an endowment fund such as a Whale Insurance Fund (WIN) ([Figure 2](#)). Such a fund would collect the penalties assessed on entities found responsible for harming whales, accept deposits from investors and possibly accept charitable donations as well. Like other endowment funds, the WIN would invest the monies it received into various assets and commit to spending a

minimum proportion of its value each year on activities that fulfill its charitable purpose. The activities funded by the WIN would aim to enhance the protection and regeneration (P&R) of the whale population and local communities stewarding their protection.

Activities funded by the WIN could also include supporting whale and ocean research, developing new whale protection technologies that provide continuous monitoring and verification of whale and ship activity, providing income to local communities involved in P&R and monitoring efforts, as well as capacity building to train local communities to carry out new economic activities geared toward nature protection and restoration.

Governance of the WIN would need to reflect the regional and global nature of whales. As such, the WIN board membership should include scientists, policymakers, activists, legal experts, and representatives from indigenous populations who have close knowledge of whales, as well as representatives of international financial and development institutions.

Conclusion

In this paper, we describe how extending legal personhood to whales could interact with markets to improve the protection of these endangered species and their habitats. As with most policy proposals, it is impractical to run controlled experiments to test this idea; rather, political bodies must be convinced to implement the policy and then evaluate the results as well as possible. This paper is intended to begin a conversation about the feasibility and desirability of this approach that leads to serious consideration of this recommendation's merits as conservation policy and possibly to widespread, real-world testing of its merits.

In particular, we have argued that granting legal personhood to whales and other natural entities is possible and precedented. We also described how this action could catalyze a market reaction by making whales "visible" to the markets through their improved ability to sue for damages to individual whales and to their habitats. We argued that a likely outcome of increased private sector liability for harming whales would be a response from the insurance industry that seeks to manage this new risk by requiring insured entities to take concrete actions to avoid injury to whales. We also briefly explored further possible outcomes of this policy, such as the creation of a whale investment fund and improved global protection of whales. These claims remain hypotheses, however, until tested on a large enough scale over a sufficiently long period to enable the markets to fully internalize the policy's actual impacts on incentives.

The ideas presented in this paper also raise further important questions that are relevant to the merits of extending legal personhood to nature. These include the practical issues of whether, and under what circumstances, legal personhood could be extended to any facet of nature, as well as whether market mechanisms will arise to protect other natural entities that gain legal personhood. The analysis in this paper suggests that the answer to the first question is yes for Western legal systems but it is unclear whether other legal systems and traditions have analogous mechanisms. In addition, because legal personhood is usually created through legislative action, it will be important to study the political economy of extending legal personhood to nature in order to gain insight into

the conditions that support or prevent the passage of personhood legislation. The response of the market to protect a particular entity should be determined by the size of the monetary penalties or damages that an injured species or other natural asset could command. The larger these expenses, the greater the incentive the market has to introduce mechanisms designed to avoid or minimize them, such as insurance.

These issues are important in their own right, but they are also relevant to another question that our proposal raises: why should some species receive the protections of legal personhood but not others? This question leads to many ethical issues related to legal personhood for nature that should be discussed, including but not limited to the following. Should society move toward legal personhood for nature in general? Is it ethically acceptable to use legal personhood instrumentally, to assist only facets of nature that are highly endangered or that are difficult to protect through other means? Is legal personhood the best way to understand or redefine the relationship between human beings and nature? Much additional thought and discussion on these issues are warranted.

Because this idea has potentially far-reaching implications for both nature protection and society's relationship with nature, we believe that legal personhood for whales and other entities is a policy idea worth investigating further. We look forward to taking part in the developing conversation around this approach.

Author contributions

RC: Conceptualization, Visualization, Writing – original draft, Writing – review & editing. MB: Writing – original draft, Writing

– review & editing. BB: Writing – review & editing. TC: Writing – review & editing. RI: Writing – review & editing. DN: Writing – original draft, Writing – review & editing, Visualization. ER: Writing – original draft, Writing – review & editing. MT: Writing – review & editing. CF: Writing – review & editing, Writing – original draft.

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Conflict of interest

RC, BB, TC, DN, and ER were employed by Blue Green Future, LLC.

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