

Business Company Approaches to the Protection of Nature and Biodiversity

By Peter Jones*

The conservation and protection of nature is attracting increasing attention in the business world, and this reflects the growing explicit corporate recognition that many businesses depend on nature and natural resources. However, business company initiatives to protect nature and biodiversity have received very limited attention in the business and management literature, and this represents a gap in that literature. With this in mind, this paper looks to explore and illustrate, why, and how, a number of major companies have publicly claimed to be protecting nature and biodiversity. The paper identifies five themes, namely an ambitious approach, a business led rationale, forest regeneration, collaborative endeavours, and a focus on the supply chain, which collectively capture the companies' approach to protecting nature and biodiversity. The author also argued that a number of wider issues were important in exploring the role of businesses in protecting and restoring nature and biodiversity.

Keywords: *business; nature; biodiversity; nature positive; sustainability*

Introduction

The conservation and protection of nature is attracting increasing attention in the business world. McKinsey and Company (2023), for example, argued that *'global companies are paying more attention to nature and natural capital'*, while S&P Global (2022), acknowledged that protecting biodiversity was *'capturing more attention in the corporate world.'* Taking an academic perspective, Krause et al. (2020), claimed that *'while climate change has been a comparatively prominent topic for some time, issues around biodiversity protection and nature conservation are starting to gain attention from the global business community as well.'*

In part the growing business interest in, and commitment to, nature and biodiversity protection, can be seen to reflect the growing explicit corporate recognition that many businesses depend on nature and natural resources, though Hahn and Tampe (2020) acknowledged that many *'business activities rely on functioning social-ecological systems but tend to take these for granted.'* In a similar vein, S&P Global (2022), argued that *'businesses have long harnessed nature's resources without having to pay a full price for the privilege'*, that *'there is now a growing realization that the real-world cost of exploited natural capital — everything from bees and fish stocks to the carbon-storing capacity of trees — ought to be properly tallied on corporate balance sheets'*, and that *'such an accounting could spur companies to make and sell goods and services in a way*

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that causes no net loss of natural capital or, better yet, yields a gain — thus helping to restore a small part of the natural world.' In part, the increasing corporate interest in protecting biodiversity also reflects growing and widespread concerns about the global nature crisis, which has seen the planet '*experiencing a dangerous decline in nature*', in which '*one million species are threatened with extinction, soils are turning infertile, and water sources are drying up*' (United Nations Environment Programme 2023).

However, specific commitments and initiatives pursued by business companies to protect nature and biodiversity have received very limited attention in the business and management literature, and this represents a gap in that literature. With this in mind, the objective of this exploratory paper is to explore, and illustrate, why and how, a number of major companies have publicly claimed to be protecting nature and biodiversity, and as such to contribute to helping to fill this gap in the literature. The paper includes a personal summary of the changing relationship between businesses and nature, a brief literature review, an outline of the frame of reference and method of enquiry, an exploratory review of a number of large companies' reported commitments and initiatives to protect nature and biodiversity, some reflections on these commitments, and a brief conclusion.

The Changing Relationship between Businesses and Nature

The relationship between people and nature has changed over time. Looking back into history, there is a broad consensus, that for a long period of time, human beings predominantly lived in harmony with nature. Here, a hunting and gathering culture, which relied on hunting, fishing and foraging wild vegetation, saw human beings as very much an integral part of the natural world in which they lived. With the gradual emergence of sedentary agriculture, the domestication of plants and animals, and permanent settlement, nature provided a sufficiently rich and reliable variety of food and resources at fixed locations. Over time agriculture's relationship with nature evolved, and human agency became increasingly active, epitomised, for example, by the clearance of natural woodlands and forest, with the land being turned over to grazing for sheep and cattle.

However, it was the origins, and spread of the so-called Industrial Revolution, from the late eighteenth century onwards, that brought about dramatic changes in the relationship between people and nature. On the one hand industrialisation has seen the exploitation of a seemingly ever wider range of the earth's natural resources, including timber, coal, oil, gas, mineral ores, and water. On the other hand, industrialisation has also often brought a number of damaging environmental consequences, including air and water pollution, increases in carbon dioxide and greenhouse gas emissions, the depletion of ozone levels in the atmosphere, and the loss of biodiversity. All these changes served to increasingly sever the once harmonic relationship between people and nature, and led to the dysfunction and destruction of a growing number of ecological systems.

Individual, and often isolated, fears about the damage people and industries were inflicting upon nature and the natural environment have a long pedigree, but

during the last half century or so, the majority of concerns about nature, and its conservation have crystallised around the environmental movement. Rachel Carson's (1962) book *Silent Spring* is often cited as the spark for the movement, that now embraces sustainable development, the United Nations Sustainable Development Goals, the climate movement, and the Global Biodiversity Framework. More recently, the concept of nature positive, where nature is being restored and is regenerating, rather than declining, has attracted prominence as a result of widespread recognition of the global scale at which nature is being lost, the threat this poses to the collective survival of the human race, and the urgent need not only to conserve, but also to restore, nature.

Literature Review

The role of business in protecting nature and biodiversity has received limited attention in the business and management literature though a number of themes can be identified. In looking to stimulate business research into the protection of biodiversity, Panwar et al. (2022) recognised that while there was growing academic interest in understanding and enhancing corporate engagement in protecting biodiversity, this research had a narrow focus on corporate sustainability. The paper looked to facilitate future research on corporate biodiversity protection strategies. Here the argument was that there are multiple pathways to biodiversity loss, and that this, in turn, raises questions about the reasons for an apparent lack of attention to biodiversity in the business community outside the highly visible industries such as food, forestry and mining. In conclusion, Panwar et al. (2022) emphasised not only that global targets set by governments cannot be achieved without the full engagement of the private sector, but they also suggested that their work would inspire researchers to examine how companies can enhance, rather than destroy, biodiversity.

Wagner (2022) analysed corporate action to support biodiversity and ecosystem services by a wide range of manufacturing companies in Germany. This analysis was premised on the recognition that businesses rely on resources sourced from nature, that their operations were also a major contributor to biodiversity loss, and the paper focused directly on activities directly designed to protect biodiversity and ecosystem services, rather than on wider environmental protection activities. The findings revealed tensions between risk perception and activities pursued for the protection of biodiversity, not least because companies shied away from substantive action. The findings also revealed that small and medium sized firms are less active in focusing on nature and biodiversity, and that their environmental management systems are not conducive to corporate activities to support biodiversity and ecosystem services.

In recognising that businesses now regularly face calls to contribute to the protection of biodiversity and natural capital, Fegger and Mermet (2022) presented the results of an action research project with a major French company in the environmental sector that had been experimenting with innovative services dedicated to ecosystem management. More specifically, the authors introduced a

new theoretical framework, centred on the development of four business models for ecosystem management services. These models, defined by the centrality they gave to measurable diversity performances, looked to combine corporate value creation with ecological value at the ecosystem level. Looking to future research Fegger and Mermet (2022) suggested that the development of ecological accounting innovations will be vital in working with client companies who expect, and pay for, measurable results in the improvement of biodiversity and natural capital.

Prue et al. (2020) recognised that companies are beginning to look for ways to assess their biodiversity performance, but suggested that, to date, the focus has been on developing indicators for specific business contexts. However, the authors claimed that many of these indicators are not widely transferable across different contexts, which makes it difficult for many businesses to manage their biodiversity performance. More positively, Prue et al. (2020) proposed a framework to support the more comprehensive development of quantitative biodiversity indicators for a range of business contexts, and the authors illustrated how the framework offers a pathway for businesses to assess their biodiversity performance by mitigating their biodiversity impacts, thus enabling them to demonstrate their contribution to global biodiversity targets.

Krause et al. (2020) applied a structural equation model, based on the theory of planned behaviour, to analyse how over 600 German companies might increase corporate action for conservation. Their findings revealed that a favourable attitude, driven by perceived business relevance and benefit prospects, fostered engagement, while perceived difficulties, notably a lack of finance and knowledge, hindered engagement. The authors also found that while customers, employees, and the general public were the only stakeholder groups driving corporate conservation expectations, the expectation levels of virtually all stakeholders were found to be low and certainly inadequate for the current ecological crisis. Looking more positively to the future, Krause et al. (2020) discussed how political will and goal setting can encourage greater business support for conservation and protection of nature.

Roberts et al. (2022) examined the intersections between biodiversity and the circular economy, arguing that both were crucial for the future of sustainable development, and focused on companies reporting practices on both the introduction of the circular economy and the corrective actions taken to repair biodiversity using a new disclosures index. Data was collected from some 28 companies in the defence, motor vehicle and transport sectors, over four years. The overall scoring of disclosures was low, indicating that the majority of companies had a lack of knowledge of biodiversity and of the circular economy. The authors claimed that the paper had practical implications to help policy makers to provide guidelines to regulators about the importance of creating awareness of biodiversity and extinction accounting among the business community.

Kennedy et al. (2022) recognised that measuring biodiversity impact was attracting corporate attention as companies faced increasing scrutiny over the mass extinction of animals, but that many current approaches were seen to be in their

infancy, and did not address the dynamic complexity that can bring about sudden ecosystem change. The authors argued that corporate biodiversity impact measurement could be advanced by incorporating resilience thinking from the natural sciences, in that such an approach could refocus measurement on how biodiversity contributes to an ecosystem's capacity to adapt to disturbances and avoid abrupt transformative change. More specifically, Kennedy et al. (2022) put forward seven key mechanisms that they suggested could inform the development of measurements across three biodiversity attributes, namely abundance, composition, and distribution.

A number of specific issues, which are relevant to business and nature can be identified within this brief literature review. These issues include the belief that targets on halting biodiversity loss cannot be achieved without the full engagement of the private sector; the need for researchers to examine how companies can enhance, rather than destroy biodiversity; a view that large companies, are likely to be more active, in protecting nature, than their small and medium sized counterparts; the relevance of protecting nature to specific businesses; the value of setting goals; the role of the circular economy; and the importance of metrics and measurement.

Frame of Reference and Method of Enquiry

In looking to explore why, and how, major business companies have claimed to be protecting nature and biodiversity, the author adopted what might best be described as a simple opportunistic approach. More specifically, a preliminary search on Google, using the terms, businesses companies and protecting nature, simply drawn from the research objectives of the paper, as key terms, revealed that Broderick (2023), writing under the banner of the Ramboll Consultancy, identified 15 businesses, namely, the Nature Conservancy, Google, Unilever, Danone, GSK, Kering, Coca Cola, Nike, Ben and Jerry's, Ikea, Johnson and Johnson, PepsiCo, The Body Shop, Walmart and Boeing, that were described as *'leading the way on biodiversity.'* However, the Nature Conservancy is a not for profit organisation, and as the focus was to be on business companies, it was excluded.

The author conducted a series of Internet searches, using nature and biodiversity protection, and the names of the selected 14 selected business companies, as key terms, on Google in December 2023. The use of simple key terms and the companies' names seemed appropriate in an exploratory paper. This search revealed that though all 14 companies provided some information on their environmental policies, only 8 of them, namely, Danone, Google, Ikea, Johnson and Johnson, Kering, PepsiCo, Unilever, and Walmart posted specific information on their approach to protecting nature and biodiversity. Brief pen pictures of these companies are provided at the end of this section of the paper.

This information provided the source material for this paper. This information was well clearly signposted, and the author took the considered view that a detailed content analysis would be unnecessary in an exploratory study. Rather, a close reading of the source material was undertaken and a number of major

themes were identified. As the information was in the public domain, on the selected companies' websites, the author felt that it was not necessary to seek formal permission to use them. At times, the author explicitly quotes from the selected companies' websites, and here the aim is to add authenticity to the narrative by exploring how the selected clothing retailers publicly expressed, and looked to evidence, their approaches to sustainability, in their own words.

Danone is a French multinational food company founded in 1919. The company specialises in nutritional supplements, both dairy and dairy-free products, coffee and bottled water. Google is a US multinational technology company, founded in 1989, and focused on artificial intelligence, online advertising, search engine technology, and computing, and it employs some 140,000 people. Ikea is a Swedish multinational company, founded in 1943, it designs and sells self-assembly furniture, kitchen appliance and home accessories, and trades from over 400 retail outlets. Johnson and Johnson is a multinational pharmaceutical and medical technologies company, founded in 1886, and it has a global workforce of 130,000 employees. Kering is a French global luxury goods company, and it has some 38,000 employees. PepsiCo is US multinational food and beverage company, founded in 1989, and it oversees the manufacturing, distribution and marketing of its products. Unilever, is a UK multinational fast-moving consumer goods company, founded in 1929, and it employs some 148,000 employees. Walmart is a US multinational retail corporation, it has 2.3 million employees, and trades from over 10,000 stores worldwide.

Findings

The information on the protection and restoration of nature and biodiversity posted by the eight companies varied in scope and content, but rather than looking to describe each company's approach in detail, the author looked to identify, and draw out, a number of general themes to provide a narrative account. More specifically, five interlinked themes were identified, namely an ambitious approach, a business led rationale, a commitment to the regeneration of forests, collaborative endeavours, and a focus on the supply chain, which collectively captured the selected companies' activities to protect and nature and biodiversity.

The selected companies' ambitious approaches to the protection of biodiversity and nature were articulated in a number of ways. Unilever (2023), for example, emphasised '*we have set out a range of ambitious targets to protect nature*', and '*by increasing the scale of the action we're taking within our own business and in partnership with others, we can help to regenerate nature and build systems that protect biodiversity.*' Walmart (2023) claimed '*we aspire to become a regenerative company, one dedicated to placing nature and humanity at the center of our business practices. In support of this ambition, Walmart and the Walmart Foundation, have set a goal to help protect, more sustainably manage, or restore, at least 50 million acres of land and 1 million square miles of ocean by 2030.*'

Kering (2023a) reported launching a *'Biodiversity Strategy'* in 2020, and in so doing claimed to be *'creating a real paradigm shift.'* This strategy, is underwritten by a commitment *'to have a net positive impact on biodiversity by 2025, by regenerating and protecting an area about six times our total land footprint'* (Kering 2023b), and embraced three goals, namely stemming biodiversity loss, restoring ecosystems and species, and triggering systemic change, and included four stages, namely *'Avoid'*; *'Reduce'*; *'Restore and Regenerate'*; and *'Transform.'* In the first stage the focus is on making decisions that do not have, or prevent, a negative impact on areas of high conservation, while in the third stage the aim is to restore ecosystems in areas where impact is unavoidable.

Many of the selected companies offered a business led rationale for protecting nature and biodiversity. Google (2023), for example, argued that *'investing in nature is an investment in our workers, our products, and our communities. We want nature and people to flourish together in the communities that Google calls home, as well as the ecosystems where we source food for the hundreds of cafes we operate.'* Johnson and Johnson (2023) recognised *'the importance of conserving biodiversity'* and *'believes it is an important shared responsibility'*, that *'nature has long played an integral role in the discovery of new medicines and ingredients'*, and that *'biological resources provide opportunities to develop lifesaving healthcare solutions and naturally derived product ingredients.'*

In his *'Foreword'* to Kering's (2023b) *'Biodiversity Strategy'*, Françoise-Henri Pinault, the company's Chief Executive Officer, claimed our *'products begin their lives in farms, fields, forests and other ecosystems around the world'*, and that *'the careful stewardship of these landscapes is fundamental to our continued success, and also linked to our responsibility on a broader global scale.'* In a similar vein, Marie-Claire Deveu, the company's Chief Sustainability Officer, argued *'biodiversity is intrinsically linked to our business, and the need for holistic integration with nature through a strategically-driven approach is critical for our entire industry, and beyond'* (Kering 2023b).

A commitment to forestry regeneration is a feature of many of the selected companies' approaches to nature and biodiversity protection. IKEA (2023), for example, emphasised that the company had been working *'with responsible forest management practices, where biodiversity considerations have been an integral part'* for over 20 years, and that *'all wood used in IKEA products is sourced from responsibly managed forests which do not contribute to deforestation'*, and, looking to the future, the company claimed that its *'2030 Forest Positive Agenda'* enshrined its commitment to *'further ramping up the work to enhance biodiversity globally'* (Ikea 2023). In a similar vein, PepsiCo (2023) *'is committed to doing business the right way and strives to realize deforestation-free sourcing in our company owned and-operated activities'* by 2025.

Danone (2022) claimed to recognise *'the urgent need to continue and amplify our effort in protecting and restoring forests'*, that this was *'not only a moral imperative but a business imperative as well'*, because *'as a global food business, we depend on healthy ecosystems and thriving communities where we source our raw materials'*, that *'combatting deforestation and conversion will strengthen our*

supply resilience and help pave the way for sustainable growth, and that *our vision is to shift toward a forest-positive future, through protecting our remaining forests and regenerating what has been lost.* The focus of this forest-positive vision is to be on *forging new alliances to protect and restore land and support livelihoods of smallholders and local communities* (Danone 2022).

A variety of collaboration partnership were also was also seen as important in tackling the problems of biodiversity and nature loss. Danone (2022), for example, emphasised *that collaboration sits at the heart of how we operate*, that *our commitments extend beyond our own operations to cover our suppliers and manufacturers, so we will work closely to drive action and report progress along the value chain*, and that *our forest positive vision means forging new alliances to protect and restore land and support livelihoods of smallholders and local communities.* The company illustrated its collaborative commitments linked to soy production in Europe and South America, where it claimed to be preventing indirect land use change by supporting the expansion of production only on existing agricultural land, and by supporting financial incentives for landowners to protect native vegetation and forests. More generally, Danone reported contributing to a number of initiatives designed to protect and expand native forests.

Google claimed to be building tools and technologies that enabled a range of partners, including governments, non-governmental organisations and academics to help address nature and biodiversity loss. More specifically, Google reported on teaming up with Australia's Commonwealth Scientific and Industrial Organisation to protect coral reefs, and on the development of a machine learning solution to analyse underwater images of some species of starfish which feed on living coral. Further illustrations of Google's partnership activities focused on the collaboration with the Crowther Lab in Zurich designed to develop transparency, as well as connectivity to the biodiversity movement, and with Wildlife Insights to streamline biodiversity monitoring with the help of artificial intelligence, and to make it easier to collect and analyse data from remote cameras.

The selected companies looked to include their supply chains within their approach to the protection of nature and biodiversity. Unilever (2023), for example, emphasised that that the company was committed to a *deforestation-free supply chain by 2023*, which meant that all the company's palm oil, paper and board, tea, soya and coffee would come from *places verified as deforestation and conversion free, by which we mean that natural ecosystems haven't been converted to farmland*, that *we believe that, to make our greatest impact, we must focus first on generating change*, and *that's why we are concentrating on the first critical mile – from where our commodities are sourced, to where they are first processed.*

PepsiCo (2023), emphasised its commitment to *doing business the right way*, to striving *to realize deforestation free sourcing by 2030*, and its recognition that the company had the opportunity to ensure that *we and our suppliers operate in accordance with applicable legal requirements, and practice responsible forest and natural ecosystem stewardship.* More specifically, PepsiCo (2023) emphasised that the company will source from suppliers that strive to *use sustainable forest and natural ecosystem management practices in lands they own, lease, or manage*

to provide fiber, timber, and other ingredients’, that it will ‘implement sustainable and regenerative agriculture practices, support resilient livelihoods and communities, and support landscape approaches that enable sustainable agriculture production and thriving natural ecosystems to co-exist’, and that it will ‘preserve biodiversity and cultural values and optimize the social, environmental, and economic benefits of managed forests and other natural ecosystems.’

Ikea claimed to encourage its suppliers to include biodiversity in its plans, and in 2021 the company included biodiversity considerations in its updated supplier code of conduct, which looks to restrict business activities in areas of high conservation value. Google (2023, webpage) emphasised *‘we are focused on sourcing responsibly across our supply chain by procuring sustainable building and hardware materials and supporting biodiverse food systems’, that ‘we procure building materials for development projects and hardware materials for products, while aiming to minimize negative impacts on global biodiversity’, that ‘we work to ensure our food operations contribute positively to global biodiversity, and that ‘we leverage procurement practices and menu design to replace monocrop commodities with climate-resilient crops, and jumpstart local markets to support agrobiodiversity.’*

Reflections

The findings revealed that the selected companies publicly claimed to be pursuing a variety of approaches designed to protect and restore nature and biodiversity, but five general issues, namely, greenwashing, measurement, the concept of nature positive, unsustainable consumption, and a change in the dominant capitalism system, merit more general reflection and discussion. In discussing these issues, the focus is on general challenges faced by business companies, rather than on specific challenges associated with the selected companies featured in the current research. This seems the appropriate approach in a general discussion of the issues facing business companies that publicly claim to be protecting nature and biodiversity.

While business companies often claim to be committed to protecting nature and biodiversity, the reality can be different. Greenwashing, the process of providing misleading or false information, about the environmental impact of a company’s products or activities, must be seen as a potential problem. Here, there are three issues. Firstly, few, if any, of the selected companies’ claims are part of a rigorous analysis of their impact on nature and biodiversity, and are not subject to verification as part of an independent external assurance process. Secondly, while some of the companies draw attention to selected initiatives designed to protect and restore nature and biodiversity, there is no evidence that such an approach characterises all their business activities. Thirdly, many of the selected companies rely heavily on their supply chains, and while they might emphasise the importance of suppliers setting nature protection and restoration policies in train, they have limited power to enforce such policies, without damaging their, often cheap, sources of supply.

Measurement is a key issue, not least in that the complexity of nature means that the development of an agreed set of metrics, and a methodology, to measure changes in nature and biodiversity, are difficult tasks. That said, some companies, do specialise in providing biodiversity assessment and measurement services to companies. NatureMetrics (2023), for example, claim to offer businesses the ability to *'measure and report on nature with scalable biodiversity monitoring'*, and *'to set meaningful goals aligned to science-based targets, build a roadmap for implementation, and mainstream nature in their organization.'* NatureMetrics claims to have worked with over 500 companies, including Tesco, Anglo American, MSC Cruises, Jacobs, and Nestlé, in over 100 countries. However, in reviewing some of the tools that help businesses to measure their performance on biodiversity issues, Katic et al. (2023) revealed that understanding the strengths and limitations of each of these tools, and of how they might respond to a business's needs, was not straightforward for companies, and that while *'these tools contained significant requirements related to biodiversity conservation, their implementation, being driven by market forces, is, at best, only partially aligned with global targets for biodiversity protection.'* This led Katic et al. (2023) to conclude *'there is a growing need to develop a common view among key stakeholders on the measurement, monitoring, and disclosure of corporate biodiversity impact and dependencies, to help integrate more credible and comprehensive indicators of corporate contribution to global biodiversity goals into corporate reporting and global policy frameworks.'*

For some conservationists, the ultimate goal of initiatives designed to turn the tide of nature and biodiversity loss is seen to be crystallised around the concept of nature positive. The World Wildlife Fund (2023) defined nature positive *'as halting nature loss, measured from 2020 levels, by increasing the health, abundance, diversity, and resilience of species, populations, and ecosystems, so that by 2030 nature is visibly and measurably on the path of recovery.'* However, while the concept of nature positive might seem to be an attractive goal, there are concerns that it may be captured by businesses for their own ends, or that it may pose unacceptable challenges for businesses. On the one hand, Silva (2022), writing under the Greenpeace banner, argued that *'the nature positive agenda promotes the financialisation of nature'*, that *'nature positive is more focused on saving a failed economic model than on protecting biodiversity'*, and that nature positive could enable corporate decision makers, and potentially governments, to *'distract, defer and obscure their harm for nature.'* On the other hand, while many companies might express their support for, and commitment to, a number of nature positive initiatives, it may pose unacceptable challenges for businesses.

Initiatives designed to reduce the loss of nature and biodiversity, to introduce restorative programmes, and to move towards a nature positive business future, are seen to be important in contributing to sustainable development, and ultimately to a transition to a more sustainable future. However, current levels of consumption, principally in western societies, which are largely responsible, for example, for increases in the land given over to food production, and for new tourism developments, are one of the principal drivers of the continuing loss of biodiversity and nature, and are ultimately unsustainable in a world of finite

natural resources. That said, changing consumption behaviour, and curbing consumption, poses major challenges, not least in that many consumers are unlikely to reduce their consumption levels voluntarily, in part because consumption has become an important element of many people's identity, and in part such a change could be seen as a retrograde step in societies, where what are seen as continuing improvements in lifestyles, have become the norm.

Taking an alternative and more radical perspective, there are arguments, rooted in Marxist political economy, that under capitalism, nature and biodiversity are commodities, feeding continuing economic growth, and that it is the workings of the capitalist system, that is the underlying cause of the global nature crisis. As such, the only genuine solution to problems attendant upon the loss of nature and biodiversity must be grounded in a radical change in the dominant global economic system, and in confronting capitalism. In theory, the development of a new alternative global economic model, centred on abandoning economic growth and prioritising the welfare of the planet, offers a way forward, but such a model currently seems unlikely, at best, to find more than token support in political and business communities.

Conclusions

This paper looks to explore why, and how, eight large companies have publicly claimed to be protecting nature and biodiversity. By way of a summary, the findings revealed that five interlinked themes, namely an ambitious approach, a business led rationale, a commitment to the regeneration of forests, collaborative endeavours, and a focus on the supply chain, effectively captured the selected companies' activities to protect nature and biodiversity. While a number of the issues identified in the literature review were reflected in the selected companies' approaches to the protection of nature and biodiversity, the companies did not report on how either the circular economy was facilitating this process or on metrics and measurement. At the same time, the author argued that measurement, greenwashing, the concept of nature positive, unsustainable consumption, and a change in the dominant capitalism system, were all important wider issues in exploring the role of business companies in protecting and restoring nature and biodiversity.

The paper has a number of limitations, not least that it draws its empirical information from the corporate websites of a limited number of companies, and in that it involves the author's selection of material from these websites. That said, the author believes it makes a modest contribution to helping to fill the gap in business and management literature identified earlier, on how companies are addressing the protection of nature and biodiversity, and that it may provide a platform for future research agendas. Such research agendas might, for example, include more detailed empirical investigations, into why, and how, companies develop programmes designed to protect and restore nature and biodiversity; how they look to measure reductions and improvements in nature and biodiversity associated with their activities; and the extent to which a company's approach to

nature and biodiversity protection influences customers' patronage and buying behaviour.

References

- Broderick M (2023) *15 Businesses Leading the Way for Biodiversity and Target 15 Implementation*. Retrieved from: <https://www.ramboll.com/en-gb/insights/biodiversity-and-ecosystems/15-businesses-leading-the-way-for-biodiversity-and-target-15-implementation> [Accessed 20 December 2023]
- Carson R (1962) *Silent Spring*. Boston: Houghton Mifflin
- Fegger C, Mermet L (2022) New Business Models for Biodiversity and Ecosystem Management Services: Action Research with a Large Environmental Sector Company, *Organization and Environment* 35(2): 252-281
- Hahn T, Tampe M (2020) Strategies for regenerative businesses. *Strategic Organization*, 19(3): 456-477
- Katic PG, Cerretelli S, Haggard J, Santika T, Walsh C (2023) Mainstreaming biodiversity in business decisions: Taking stock of tools and gaps, *Biological Conservation*, 277, Retrieved from: <https://www.sciencedirect.com/science/article/pii/S0006320722003846> [Accessed 28 December 2023]
- Kennedy S, Fuchs V, van Ingen W, Schoenmaker D (2022) A resilience approach to corporate biodiversity measurement, *Business Strategy and the Environment* 32(5): 2567-2582
- Krause MS, Doste N, Matzdorf B (2020) What makes business commit to nature conservation. *Business Strategy and the Environment* 30(2): 741-755
- McKinsey and Company (2023) *Companies are broadening their commitments to nature beyond carbon*. Retrieved from: <https://www.mckinsey.com/industries/agriculture/how-we-help-clients/natural-capital-and-nature/our-insights/companies-are-broadening-their-commitments-to-nature-beyond-carbon> [Accessed 20 December 2023]
- NatureMetrics (2023) *Actionable nature intelligence for the future*. Retrieved from: https://www.naturemetrics.com/?gclid=Cj0KCQiAv8SsBhC7ARIsALikVT3Z1Voil0LQ-qDLrldfuvYXQhoLUHrukqMkVgaYdxmBUwWh5WgQP6saApTiEALw_wcB [Accessed 28 December 2023]
- Panwar R, Ober H, Pinske J (2022) The uncomfortable relationship between business and biodiversity: Advancing research on business strategies for biodiversity protection, *Business Strategy and the Environment* 32(5): 2554-2566
- Prue FE, Addison PJS, Bull JW, Carbone G, Burgman M, Burgass MJ, Gerber LR, Howard P, McCormick N, McRae L, Reuter K E, Starkey M, Milner-Gulland EJ (2020) Bringing sustainability to life: A framework to guide biodiversity indicator development for business performance management. *Business Strategy and the Environment* 29(8): 3303-3313
- Roberts L, Georgiou N, Hassan AM (2022) Investigation biodiversity and circular economy disclosures: Insights from global firms. *Business Strategy and Environmental Management* 30(3): 1053-1069
- Silva MM (2022) *What is wrong with Nature Positive?* Retrieved from: <https://www.greenpeace.org/international/story/57395/what-wrong-nature-positive/> [Accessed 28 December 2023]
- S&P Global (2022) *The Sustainability Yearbook*. Retrieved from: <https://www.spglobal.com/esg/csa/yearbook/articles/nature-is-climbing-the-agenda-but-corporate-biodiversity-commitments-remain-rare> [Accessed 20 December 2023]

- United Nations Environment Programme (2023) *Five drivers of the nature crisis*. Retrieved from: <https://www.unep.org/news-and-stories/story/five-drivers-nature-crisis> [Accessed 20 December 2023]
- Wagner M (2022) Business, Biodiversity and Ecosystem Services: Evidence from large-scale survey data. *Business Strategy and the Environment* 32(5): 2583-2599
- World Wildlife Fund (2023) *A Global Goal for Nature: Nature Positive by 2030*. Retrieved from: <https://www.naturepositive.org/> [Accessed 24 November 2023]

Corporate Websites

- Danone (2022) *Renewed Forest Policy*. Retrieved from: <https://www.danone.com/content/dam/corp/global/danonecom/about-us-impact/policies-and-commitments/en/2022/danone-renew-forest-policy-dec-2022>. [Accessed 22 December 2023]
- Google (2023) *Nature and biodiversity*. Retrieved from: <https://sustainability.google/operating-sustainably/nature-biodiversity/> [Accessed 22 December 2023]
- Johnson and Johnson (2023) *Position on Respecting Biodiversity*. Retrieved from: <https://www.jnj.com/about-jnj/policies-and-positions/our-position-on-respecting-biodiversity> [Accessed 22 December 2023]
- Ikea (2023) *Our view on biodiversity*. Retrieved from: <https://www.ikea.com/global/en/our-business/our-view-on/biodiversity/#:~:text=All%20wood%20used%20in%20IKEA,going%20beyond%20our%20own%20business>. [Accessed 22 December 2023]
- Kering (2023a) *Sustainability: Biodiversity strategy*. Retrieved from: <https://www.kering.com/en/sustainability/safeguarding-the-planet/biodiversity-strategy/> [Accessed 22 December 2023]
- Kering (2023b) *Biodiversity Strategy: Bending the curve on biodiversity loss*. Retrieved from: https://www.kering.com/api/download-file/?path=Kering_Sustainability_Strategie_Biodiversite_2023_a57da2f106.pdf [Accessed 22 December 2023]
- PepsiCo (2023) *PepsiCo Stewardship of Forests and Natural Ecosystem Policy*. Retrieved from: <https://www.pepsico.com/docs/default-source/sustainability-and-esg-topics/pepsico-forestry-stewardship-policy.pdf> [Accessed 22 December 2023]
- Unilever (2023) *Protecting biodiversity and regenerating nature*. Retrieved from: <https://www.unilever.com/planet-and-society/protect-and-regenerate-nature/protecting-biodiversity-and-regenerating-nature/#:~:text=Together%2C%20our%20Beauty%20%26%20Wellbeing%20and,beauty%20and%20personal%20care%20products> [Accessed 22 December 2023]
- Walmart (2023) *Regeneration of Natural Resources: Forests, Land, Oceans*. Retrieved from: <https://corporate.walmart.com/purpose/esgreport/environmental/regeneration-of-natural-resources-forests-land-oceans#:~:text=> [Accessed 22 December 2023]