

# Our approach to engagement on natural capital

Investment Stewardship

BlackRock®

**BlackRock believes that sustainability risk, particularly climate risk, is investment risk. Accordingly, sustainability is a key component of our investment approach.**

**To that end, BlackRock Investment Stewardship (BIS) asks companies to have clear action plans to manage climate and natural capital risks and to realize opportunities. Companies should provide disclosures that enable investors and other stakeholders to assess their approach and progress.**

BIS believes that how a company manages material environmental, social and governance factors can be a signal of operational excellence and management quality. For companies whose business models have material dependencies or impacts on “**natural capital**,”<sup>1</sup> i.e. the supply of the world’s natural resources from which economic value and benefits can be derived, the management of these factors can be a defining feature in their ability to generate long-term, sustainable value for shareholders. Companies that fall short may face regulatory, reputational or operational risks. This commentary provides more detail on our approach to engagement on natural capital and why we consider biodiversity preservation, deforestation risk management, oceans and freshwater protection to be potential drivers of long-term value. We describe our approach and provide detail in the following sections:

- 1 Natural capital as an investment issue**
- 2 BIS’ expectations of companies in stewarding natural capital**
- 3 BIS’ engagement with companies on natural capital-related risks and opportunities**
- 4 BIS’ natural capital focus areas: biodiversity, deforestation, oceans and freshwater**
- 5 Conclusion**

Natural capital and climate are interconnected. As we set out in our [Global Principles](#), we expect companies to articulate how their business is aligned to a scenario in which global warming is limited to well below 2°C (ideally 1.5°C ) and is consistent with a global aspiration to reach net zero greenhouse gas (GHG) emissions by 2050.<sup>2</sup> We also expect companies to implement processes to identify, manage and mitigate adverse impacts on the environment, and to provide robust disclosures on these processes. Our expectations on climate risks and opportunities are described in our commentary: [Our approach to climate risk and the transition to a low carbon economy](#).



## UN SDGs alignment

*We believe that there is significant intersection between many of the topics that we discuss with companies and aspects of these four [Sustainable Development Goals](#) (SDGs).*

All companies rely on natural capital and/or impact it in some way. As the world transitions to a low-carbon economy, we ask companies to demonstrate how they are minimizing their negative impacts on,<sup>3</sup> and ideally enhancing the stock of, the natural capital on which their long-term financial performance depends. As long-term investors, we encourage companies to disclose how they have adopted or plan to incorporate business practices consistent with the sustainable use and management of natural capital, including resources such as air, water, land, minerals and forests. We also seek to understand how companies promote biodiversity and ecosystem health and the responsible use of energy, as well as account for their broader impact on the communities in which they operate. Our [Global Principles](#) underscore our belief that in order to deliver value for shareholders, companies should also consider their other key stakeholders. As described in our commentary on [Our approach to engaging companies on their human rights impacts](#), we ask companies to implement processes to identify, manage and prevent adverse human rights impacts that are material to their business, and provide robust disclosures on these practices.

BIS engages with the companies in which we invest on behalf of our clients in order to better understand current policies and promote sustainable business practices. Given the groundwork BIS has already laid communicating our views and engaging on corporate sustainability and related disclosures, we may take voting action at companies by voting against the re-election of responsible board directors when companies have not effectively managed, overseen or disclosed natural capital-related risks. We may also vote for relevant shareholder proposals addressing material natural capital risks if we believe a company could better manage such risks or report on its approach.

## **1 Natural capital as an investment issue**

The ability of many resource-intensive companies to operate is dependent on sustaining the ecosystems that provide them with these underlying resources. For example, beverage companies need a reliable supply of freshwater for product development; consumer goods companies need cardboard boxes derived from trees to ship their goods; food companies rely on the stability of crops and arable land to generate their products; and biopharma companies rely on ecosystems to derive novel sources of medicines. According to the World Economic Forum (WEF), more than half of the global gross domestic product (GDP) - US\$44 trillion - is moderately or highly dependent on nature.<sup>4</sup> However, one in five companies globally face significant operational risks as a result of collapsing ecosystems.<sup>5</sup>

It is extremely challenging, however, to calculate the full financial value of the natural resources on which economies depend, and therefore this value has not been fully priced into the cost of doing business.<sup>6</sup> Heightened awareness of the economic and social impacts of unsustainable natural capital depletion could accelerate policy actions that either introduce or increase taxes on the externalities from which companies currently benefit.<sup>7</sup> This has the potential to significantly impact the economic viability of some business models.

A company that fails to effectively oversee risks related to the use of natural resources may face negative consequences arising from regulatory, reputational or operational risks, among others. Increasingly, employees, consumers, investors, policy makers, and communities expect companies to diligently manage their full range of environmental and social impacts in order to preserve their social license to operate.

In addition to human impacts on nature, there is significant interconnectivity between various environmental and social factors. A changing climate impacts all aspects of the natural environment, society, and the economy globally. Locations where biological diversity is greater tend to be inhabited by indigenous and traditional peoples whose livelihoods, languages, and traditions are dependent on that land and its species.<sup>8</sup> As such, BIS is also particularly interested in understanding companies' impacts on the communities in which they operate, locally or through their supply chains.<sup>9</sup>

## **2 BIS' expectations of companies in stewarding natural capital**

BIS asks companies to disclose how material natural capital risks and opportunities might affect their operations, long-term strategy, capital expenditures and risk management, as well as the communities in which they operate. We encourage companies to explain how relevant risks are identified, assessed, managed and mitigated, and how opportunities are harnessed.

To this end, we encourage reporting aligned with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the metrics identified by the Sustainability Accounting Standards Board (SASB).<sup>10</sup> Some companies are already reporting against other standards, commonly the Global Reporting Initiative (GRI). In those instances, we ask that companies map existing reporting to the metrics identified for their sector by SASB.<sup>11</sup>

We ask companies to explain the board’s role in overseeing management’s approach to natural capital dependencies and to incorporating sustainable practices into the business. We are interested in understanding how the board and management keep abreast of natural capital trends likely to impact the business, such as fast-changing consumer demand for products designed with a lighter environmental footprint or the adoption of policies and regulations to accelerate the global transition to a low-carbon economy by governments.

BIS encourages companies that materially depend on natural capital to contribute to, or help establish, programs that support the conservation of those resources. This might include efforts to preserve biodiversity and ecosystem health, reforest land, conserve water, minimize waste and pollution, and promote recycling, among other initiatives. In addition, the shift to or expansion of renewable energy sources will be necessary for companies in the context of the global transition to a low-carbon economy. Given the urgent need to transition to a low-carbon economy, companies have an opportunity to utilize and contribute to the development of current and future low-carbon transition technologies, which are an important consideration for the rate at which global emissions can be reduced.<sup>12</sup>




We believe companies should take all possible steps to see these efforts carried through their first and second tier supply chains. In this way, companies can help prevent the unsustainable use of natural capital, repair damage already done, build ecosystem resilience to meet future needs, and ameliorate negative impacts on communities. BIS views the efficient management of natural capital as core to a sustainable long-term corporate strategy for those companies who rely on the benefits that natural capital provides.

The challenge of producing more with fewer inputs—e.g. land, water, raw materials—can also provide opportunities for companies to invest in innovation, research and development (R&D), and partner more effectively with their supply chains and consumers. Active participation in industry initiatives can help companies contribute to sector-level supply chain improvements, such as storage and logistics and traceability programs. Initiatives can also advance practices through establishing meaningful policies and commitments, such as those addressing deforestation and human rights, including conduct relating to indigenous peoples.

### **3 BIS’ engagement with companies on natural capital-related risks and opportunities**

We use corporate disclosures to determine our engagement focus based on our assessment of a company’s management of natural capital-related risks and opportunities. In our conversations with company leadership, we seek to understand companies’ policies, business practices, and disclosures related to natural capital where it is a material factor in their business models. A company’s determination of its universe of material natural capital risks should be guided by SASB, public information, and the company’s stakeholder engagement. We ask questions to understand the company’s perspectives and provide feedback based on our assessment of a company’s approach, but we do not tell management what to do.

#### **We ask companies to disclose the following with regard to their material natural capital dependencies or impacts:**

-  Identification and disclosure of their natural capital related risks and opportunities (as guided by the SASB sector specific guidelines and materiality map)<sup>13</sup>
-  Management and the board’s specific roles in mitigating and overseeing natural capital risks and opportunities, including explaining how management accounts for natural capital in strategy setting and risk management processes, and clear articulation of meaningful natural capital targets<sup>14</sup>
-  The governance structure within the business to ensure natural capital management is appropriately integrated into corporate strategy and key business decisions

- ✔ Short, medium-and long-term targets for natural capital factors, particularly in terms of improving efficiency or reducing a company's negative impacts, and clear articulation of how progress is monitored
- ✔ Whether the company has policies addressing how relevant natural capital risks are identified, managed and mitigated
- ✔ Mechanisms to ensure compliance with company policies or codes of conduct, including processes to address breaches or non-compliance, and whistleblower protections
- ✔ Supply chain due diligence processes, including how the company is working with stakeholders or participating in sector-relevant initiatives, and how the company identifies and mitigates impacts across first and second tier supply chains
- ✔ Any investments in research and development that enhance operations and products that reduce natural capital dependencies and impacts
- ✔ Contributions to programs that support natural capital conservation
- ✔ Participation, as appropriate, in industry collaborations aligned with addressing pervasive issues
- ✔ Efforts to engage with local communities, and in particular, safeguard the rights of any indigenous peoples directly impacted by company operations
- ✔ Any independent third-party assessments of the approach taken to manage natural capital-related risks and any benchmarking of policies, practices, and performance

#### 4 BIS' natural capital focus areas

- **Biodiversity preservation**
- **Deforestation risk management**
- **Freshwater and oceans protection**

In the subsequent sections of this commentary we discuss our expectations of companies in relation to some of the material risks to long-term value creation associated with our natural capital scope – inclusive of biodiversity, deforestation and water conservation.

##### **Biodiversity preservation**

Biodiversity refers to the various forms of life on earth, including plants and animals.<sup>15</sup> Many studies support the notion that human activities are causing unprecedented and accelerated loss of biodiversity.<sup>16</sup> Yet, the economy and society remain highly dependent on ecosystems and the services that these provide, such as fresh water, pollination, soil fertility and stability, food and medicine, among others.<sup>17</sup> Forests and ecosystems, such as mangroves, marshes, and coral reefs provide critical habitats and are crucial sinks necessary for achieving the carbon reductions needed to counteract the impacts of global warming.<sup>18</sup> Biodiversity is also an integral part of religious, cultural, and national identities throughout society, and provide sources of recreation, knowledge, and inspiration.<sup>19</sup>

Ecosystems weakened by the loss of biodiversity are less likely to deliver those services, a risk exacerbated by the demands of a growing human population and climate change.<sup>20</sup> Research also indicates a close link between disease outbreaks and the degradation of nature as humans and animals increasingly co-exist in smaller areas.<sup>21</sup>

BIS views natural capital as a societal issue as much as a business one. The Global Futures Report 2020 determined that the impacts to major ecosystem services under a “business as usual” scenario would lead to a drop of 0.67% in annual global GDP by 2050.<sup>22</sup> From 2011 to 2050, the total cumulative loss would be US\$ 9.87 trillion.<sup>23</sup> In its annual Global Risks Report, the WEF found that environmental risks dominated perceived business threats and that biodiversity loss was considered among the five most impactful and most likely business risks in the next decade.<sup>24</sup> Concerns range from the potential collapse of food and health systems, to the disruption of entire supply chains.<sup>25</sup>

Moreover, due to the interconnectivity of these environmental factors and culture, BIS believes it is important for companies to obtain the free, prior, and informed consent (FPIC) of indigenous peoples for initiatives that affect their rights. Additionally, companies should work to protect cultural heritage sites and provide access to resources and/or compensation in the event of displacement or destruction.

### **Our approach to engagement on biodiversity**

In addition to the disclosures we ask of companies that have material dependencies or impacts on natural capital, it is helpful that those with material biodiversity exposure disclose:

- ✔ Habitat restoration and preservation policies and practices as well as targets related thereto, and any initiatives to encourage innovation in practices to help maintain surrounding natural habitats, limit waste and GHG emissions, and protect against the adverse impacts of climate change
- ✔ Responsible land usage and management practices, including efforts to limit deforestation
- ✔ Efforts undertaken to limit the introduction of invasive species
- ✔ Efforts undertaken to purchase sustainably sourced raw materials and components as inputs into their own products
- ✔ Soil and water contamination controls in place
- ✔ Initiatives to improve practices that minimize the use of chemical inputs like pesticides, fertilizers, and wide-spectrum antibiotics to protect biodiversity, reduce the degradation of natural resources (including water pollution), and reduce the spread of antibiotic resistance through food chains
- ✔ For agriculture and forestry businesses, initiatives to improve land use in order to maintain yields and meet market demand while also optimizing resource efficiency and preserving land for natural ecosystems

### **The Agriculture Sector**

Modern society is dependent on agriculture to ensure the security, quantity, quality, and safety of food. In many economies, the agricultural sector is credited with driving economic growth and sustaining communities. Expectations of the sector are likely to increase as more, and more efficient, agricultural production is needed to provide for a growing global population and to improve socioeconomic conditions.

Biodiversity loss and deforestation risks play a key role in the future financial stability of the agricultural sector as well as other sectors, including consumer staples and pharmaceuticals. Unsustainable business practices can lead to environmental degradation, supply-chain disruptions, fluctuating prices, smaller crop yields from overused land and loss of pollinators, among other risks.

As a result, long-term shareholders increasingly expect companies with agribusiness interests – either through direct operations or significant supply chain connectivity – to demonstrate that their business practices are sustainable through their actions and disclosures to investors and other key stakeholders.<sup>26</sup> These may include efforts around land use and management, mitigating climate risk, lowering GHG emissions, preventing illegal logging, biodiversity protection, and waste and water management.

## Deforestation risk management

Commodity-driven deforestation and other land use is one of the key drivers of the loss of global forests which in turn plays a significant role in accelerating climate change. Behind the emissions produced by the energy sector, agriculture, forestry and other land uses are the second-largest source of global GHG emissions.<sup>27</sup>

Carbon storage, through carbon sinks, is one of the most critical ecosystem services forests provide.<sup>28</sup> A recent study found that doubling nature and water conservation efforts through avoided deforestation and natural forest regrowth by 2030 could reduce atmospheric CO<sub>2</sub> in a range equal to 4 to 12% of the annual CO<sub>2</sub> emissions reductions needed to limit global warming to less than 2°C.<sup>29</sup> Simply put, the world will not reach the goals of the Paris Agreement, let alone the aspiration to reach net zero emissions by 2050, without curtailing deforestation and accelerating protection and restoration efforts.<sup>30</sup>

In addition to the climate benefits, companies across nearly all industries rely on the products and services that forests provide and will continue to look to these resources to ensure the economic viability of their businesses well into the future. Unsustainable approaches to forests have raised financial and reputational risks for companies. These have been underscored in the Amazon Basin and across regions in South East Asia and Africa, especially with regard to the impact on indigenous peoples' rights, biodiversity loss, and climate and air quality concerns.

The issue is nonetheless complex, with wider socioeconomic implications for local communities, as in many cases companies implicated in deforestation are one link within a broader supply-chain, rather than a single actor. Those companies also may provide jobs on which local communities depend. In addition, some operating environments do not have strong regulatory enforcement mechanisms to deter and reprimand entities that are contributing to illegal deforestation. These challenges will require continued engagement and collaboration on the part of companies, investors, governments, and stakeholders more broadly, in order to reach viable solutions.

### **Our approach to engagement on deforestation**

In addition to the disclosures we ask of companies that have material dependencies or impacts on natural capital, it is helpful that those with material deforestation exposure disclose:

- ✔ A breakdown of every geographical location where the company is growing or sourcing agricultural commodities as a proportion of its total production/sourcing. This allows investors to understand how exposed a company is to high risk areas
- ✔ Systems to trace and label products to assure customers and end consumers of the sustainability of the practices associated with the product
- ✔ Initiatives, policies, certifications or codes of conduct that support enhanced practices and outcomes, e.g. committing to first and second tier deforestation-free supply chains
- ✔ Initiatives to protect the habitats which support the biodiversity on which companies depend by avoiding deforestation and supporting global reforestation efforts

### **Our approach to engagement with the Palm Oil Industry**

Palm oil is credited with improved living standards for many, yet environmental and social issues ranging from deforestation and biodiversity loss, to disputed land use and labor practices have also been raised. For the palm oil industry in particular, we have engaged with numerous companies across the region of South East Asia to further our understanding of, and encourage companies to better address, the environmental and social risks associated with palm oil production. BIS will continue to engage with palm oil producers, downstream buyers, and other relevant stakeholders to promote sustainable palm oil practices.

## Our approach to engagement on the Amazon Basin

Fires in the Amazon Basin have attracted considerable international attention and raised concerns about land use and agribusiness practices. As a result, we believe companies with business interests in the region – either through direct operations or significant supply chain connectivity – could face increased regulatory, operational or reputational risk. Where companies have been implicated in poor practices in vulnerable regions, as are some companies operating in the Amazon basin, we will engage to better understand how the board and management are approaching their operations and practices in the region, and assess the governance and business practices the company has put in place to address them. Specifically, we may discuss the management of climate-related risks and opportunities, the company's investments in sustainable land use and agriculture practices, any regulatory issues they face, and how the communities in which they operate – including those of indigenous peoples – are impacted by their activities. Such engagements usually involve several meetings with the companies and require continued monitoring.<sup>31</sup>

## Freshwater and oceans protection

Virtually every economic sector – agriculture, pharmaceuticals, power generation, manufacturing, apparel, tourism, food and beverage production – is heavily dependent on fresh water.<sup>32</sup> According to the World Wildlife Fund (WWF), freshwater habitats such as lakes, rivers, streams, wetlands, and aquifers house a significant proportion of the world's biodiversity: more than 10% of all known animals and about 50% of all known fish species. Furthermore, the WWF notes that while nearly 70% of the globe is covered by water, only 2.5% of it is freshwater. However, less than 1% of that water is accessible and available for use.

The small percentage of available fresh water is further impacted by population growth, pollution and runoff, industrial processes, agricultural and farming demands, among other factors. Changes in consumption patterns towards more meat and sugar-based products is also contributing to freshwater withdrawal.<sup>33</sup> Demand for freshwater is outstripping supply and<sup>34,35</sup> the World Resources Institute predicts a water supply-demand deficit of 56% by 2030.<sup>36</sup>

In addition to fresh water, oceans and seas cover over two-thirds of the earth's surface, and provide food and minerals, generate oxygen, absorb greenhouse gases, determine weather patterns, and facilitate the international shipping trade.<sup>37</sup> Oceans are also threatened by pollution and run off, plastics pollution, overfishing, and climate change. These adverse impacts are causing ocean acidification, altered marine food chains and human food supply (including contamination), decreased storm protection from reefs, diminished tourism opportunities, and other harms to local communities that are difficult to quantify.<sup>38</sup> Moreover, water stress could have major financial repercussions for companies.<sup>39</sup> Preserving oceans and seas can play a major role in achieving sustainable development, economic growth, and stable livelihoods.

### Our approach to engagement on freshwater and oceans

In addition to the disclosures we ask of companies that have material dependencies or impacts on natural capital, it is helpful that those with material water exposure disclose:

- ✔ Company water, waste, and materials policy, including their approach to identifying and managing water scarcity and pollution-related risks, as well as responsible waste disposal and recycling efforts
- ✔ Water stewardship strategy, with a focus on facilitating sustainable water security for their business and for the communities in which they operate
- ✔ Efforts the company is taking to reduce overall freshwater withdrawals in their direct operations as well as through their value chains, especially in areas under stress or facing high demand, including:
  - Frequency and magnitude of a company's freshwater withdrawals and consumption
  - Water recycling and wastewater treatment efforts, including how much of the company's wastewater is released back into the environment untreated
  - The frequency and process around measuring and monitoring a company's discharges
- ✔ Efforts undertaken to prevent pollution incidents and policies regarding timely reporting on any unplanned discharges and accompanying remediation efforts
- ✔ Water pollution reduction goals or freshwater conservation targets the company has set
- ✔ The development of any water-efficiency solutions, infrastructure development, good agricultural and sustainability practices, or new technology deployment to conserve water and eliminate discharge of plastics or waste

## Plastics Pollution

Over 300 million tons of plastic are produced every year, however about 8 million tons of plastic end up in oceans,<sup>40</sup> endangering marine species. At the same time, plastic waste particles called microplastics and plastic microfibers have been found in municipal drinking water systems and drifting through the air.<sup>41</sup> Plastic pollution presents risks to companies and consumers as it threatens food safety and quality,<sup>42</sup> human health, coastal tourism, and contributes to climate change. Engaging on plastics pollution is an increasingly important topic for BIS. Through our engagement, we seek to understand:

- How companies are accelerating efforts related to recycling and reuse of plastic products in consideration of a circular economy; which may include efforts around improved infrastructure support in challenged areas
- Efforts and investments around research and innovation to develop new products such as biodegradable plastics to replace single-use plastics<sup>43</sup>
- Targets established to limit runoff and waste and to support efforts to clean up existing plastics pollution

As data indicates that five countries in Asia (China, Indonesia, the Philippines, Thailand and Vietnam) are estimated to account for as much as 60% of the plastic waste entering the ocean,<sup>44</sup> this topic is particularly important for companies in the APAC region.

## 5 Conclusion

Investors' expectations of companies in relation to how they manage their dependencies and impacts on natural capital are increasing. Companies that disclose detailed information on their approach to managing and mitigating material natural capital-related business risks and opportunities are likely to benefit from shareholder support. BIS will continue to engage with companies to better understand their approach to, and oversight of, the natural capital that underpins their company strategy. In addition, we may take voting action at companies by voting against the re-election of responsible board directors when companies have not effectively managed, overseen or disclosed natural capital-related risks. We may also vote for relevant shareholder proposals addressing material natural capital risks if we believe a company could better manage such risks or report on its approach.



## Endnotes

1. According to the International Integrated Reporting Council (IIRC), [natural capital](#) refers to “all renewable and non-renewable environmental stocks that provide goods and services that support the current and future prosperity of an organization.” Natural capital includes air, water, land, forests and minerals, and biodiversity and ecosystem health.
2. In the 2015 Paris Agreement on climate change, countries around the world agreed to keep global warming “well below 2° C above pre-industrial levels [while] pursuing efforts to limit the temperature increase to 1.5° C.” However, a recent [report](#) by the Intergovernmental Panel on Climate Change (IPCC) shows that steep greenhouse gas (GHG) reduction efforts are urgently needed. Countries and companies should strive to limit warming to 1.5°C to achieve an ultimate goal of net zero GHG emissions by mid-century in order to mitigate the worst effects of climate change. The [pathway to net zero](#) begins with a decreased reliance on fossil fuels, reducing, and ultimately eliminating, carbon from the burning and production of these energy sources. Our reference to a transition to a low-carbon economy hinges on these first steps. As technology continues to evolve, we expect a revision of GHG reduction targets to stabilize a global economy working towards net zero GHG emissions by 2050.
3. Currently there is a wide range of language to describe human impacts on the environment. For example, the Sustainable Accounting Standards Board (SASB) refers to these topics as “ecological impacts.”
4. World Economic Forum, “[Nature Risk Rising: Why the Crisis Engulfing Nature Matters For Business and the Economy](#)”, January 2020
5. Swiss Re Group. “[Swiss Re Institute Biodiversity and Ecosystem Index](#).” 23 September 2020.
6. According to the [USGS publication](#), “The natural capital accounting opportunity: Let’s really do the numbers”, “[t]he U.S. and many other nations currently do not account for the natural capital – such as the wildlife, forests, grasslands, soils, and water bodies—upon which all other economic activity rests.”
7. Like other readily available resources, overuse is exacerbated by the absence of clear financial metrics to appropriately value and protect natural capital, coupled with a historic economic focus on short-term gains rather than a broader focus on long-term sustainability. In addition, the current absence of adequate rules and regulations focused on protecting and strengthening natural capital globally, plays an important role.
8. United Nations Environment Programme. “[Cultural and Spiritual Values of Biodiversity](#).” 1999.
9. Please refer to BlackRock Investment Stewardship’s (BIS) Approach to Engagement on Human Capital Management and our Approach to Engagement on Human Rights.
10. TCFD is focused on climate-risk reporting but, in our view, its four pillars - governance, strategy, risk management, and metrics and targets - are conceptually as applicable to all corporate reporting relating to environmental and social (E&S) risks and opportunities. The SASB standards provide the content, principally for the metrics pillar. We anticipate [convergence](#) in sustainability reporting frameworks and standards in the next few years but advocate for TCFD and SASB aligned reporting to meet investors’ informational needs in the interim.
11. SASB standards are sector-specific and focus on material topics that are relevant to investment decision-making.
12. Please refer to BlackRock Investment Stewardship’s (BIS) approach to engagement on [Climate Risk and the Transition to a Low-Carbon Economy](#).
13. SASB. “[SASB Materiality Map](#).”
14. This is aligned with the [TCFD framework](#), which we see as relevant for all sustainability reporting. The four pillars of the TCFD—governance, strategy, risk management, and metrics and targets—provide an opportunity for companies to disclose standardized information, in both data and narrative form.
15. The [Convention for Biological Diversity](#) (CBD) defines biodiversity as the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems.
16. Henry M. Paulson Jr., Chairman of the Paulson Institute, explains in “[Financing Nature: Closing the Global Biodiversity Financing Gap](#)” that although extinction is a natural phenomenon, scientists estimate that our planet is now losing species at 1,000 times the natural rate of one to five per year. If we continue on this trajectory, we face a future where 30–50% of all species may be lost by the middle of the 21st century.
17. Shaw, J. “[Why is biodiversity important?](#)” Conservational International. 15 November 2018.
18. See endnote #17.
19. Gomez-Baggethun, E., and Martin-Lopez, B. “[The socio-economic costs of biodiversity loss](#).” *Lychnos*. December 2010.
20. See endnote #19.
21. World Wildlife Federation. “[The Loss of Nature and the Rise of Pandemics: Protecting Human and Planetary Health](#).” 2020
22. This is as compared to a baseline scenario in which there is no change in ecosystem services by 2050. The six ecosystem services described in the report are: pollination, coastal protection, water yield, forestry production, marine fisheries, and carbon storage.
23. This represents a 3% discount rate. See [WWF’s](#) “Global Futures: Assessing the Global Economic Impacts of Environmental Change to Support Policy-Making” – summary report for government and business decision-makers. February 2020.
24. World Economic Forum (WEF). “[The Global Risks Report 2020](#)”
25. HM Treasury, Independent Review on the Economics of Biodiversity led by Professor Sir Partha Dasgupta. “[The Economics of Biodiversity: The Dasgupta Review – Full Report](#).” February 2021.
26. UN PRI. “[Sustainable Agriculture](#).” August 2018.
27. Ceres’ “[Investor Guide to Deforestation and Climate Change](#),” to which BlackRock Investment Stewardship (BIS) participated as an investor reviewer of the report.
28. WWF, GTAP, and Natural Capital Project. “[Global Futures: Assessing the Global Economic Impacts of Environmental Change to Support Policy-Making](#).” February 2020.
29. McKinsey & Company. “[Valuing Nature Conservation. A methodology for quantifying the benefits of protecting the planet’s natural capital](#).” September 22, 2020.
30. Ceres’ “[Investor Guide to Deforestation and Climate Change](#),” to which BlackRock Investment Stewardship participated as an investor reviewer of the report.
31. See case study #2 in BlackRock Investment Stewardship’s [Q3 2019 Investment Stewardship Report: Americas](#).
32. Erwin, E. “[Overuse of Water Resources: Water Stress and the Implications for Food and Agriculture](#).” University of Twente, Enschede, The Netherlands. 2018.

## Endnotes – continued

33. See endnote #32.
34. See endnote #32.
35. Several of the UN Sustainable Development Goals (SDGs) address these issues, including Clean Water and Sanitation (SDG 6), Life Below Water (SDG 14), and Life on Land (SDG 15).
36. Strong, C., Kuzma, S., Vionnet, S., and Reig, P. "[Achieving Abundance: Understanding the Cost of a Sustainable Water Future.](#)" World Resources Institute and Valuing Nature. January 2020.
37. U.S. Environmental Protection Agency (EPA). "[Climate Change Indicators: Oceans.](#)"
38. National Oceanic and Atmospheric Administration. "Understanding Ocean Acidification." U.S. Department of Commerce.
39. BlackRock Investment Institute, "[Troubled waters.](#)" July 2020.
40. United Nations Environment Programme, "[Marine litter and the challenge of sustainable consumption and production](#)" 15 July 2020.
41. Natural Resources Defense Council (NRDC). "[Single-Use Plastics 101.](#)" 9 January 2020.
42. National Oceanic and Atmospheric Administration (NOAA). "[Ocean pollution.](#)" U.S. Department of Commerce. April 2020
43. See endnote # 41.
44. See endnote # 40.

## Want to know more?

[blackrock.com/stewardship](https://blackrock.com/stewardship) | [contactstewardship@blackrock.com](mailto:contactstewardship@blackrock.com)