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Biodiversity: Next steps post COP 15

The Biodiversity Conference of Parties (COP 15), which took place from December 7-19, 2022, saw 188 governments coordinate on nature conservation to create a new Global Biodiversity Framework (GBF). This framework seeks to accelerate the pace and scope of land and marine area conservation, restoration of degraded ecosystems, reductions in harmful-to-nature subsidies, conservation financing, and corporate transparency. We think the GBF and other work initiated at COP 15 may emerge as a key catalyst for increased engagement on and investment in biodiversity, including new regulations and increased transparency requirements for large companies over time. COP 15 yielded a number of new commitments from the parties of the Convention on Biological Diversity¹, though additional discussions and country-level action plans will be needed to achieve a 'Paris Agreement equivalent' for biodiversity, in our view.

In this report we identify eight targets included in the final agreement from COP 15 that we think could have the most impact driving the global conversation around nature restoration and conservation moving forward.

These targets will likely drive new regulations, increase transparency requirements for large companies and establish priority topics to help cut through the noise.

We see beneficiaries among stocks that provide Biodiversity solutions and risk management, with our investment framework for the theme outlined in Biodiversity: Assessing the Financial Links to Natural Capital. This includes Biodiversity consulting and remediation businesses, land and ocean owners and managers, and substitution business models.

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¹ Every country in the world is a party to the Convention, except Holy See and the United States of America. The USA and the Vatican had representatives attending COP 15 despite not being parties to the Convention.

Eight Key Takeaways from COP 15

COP 15 resulted in the new Kunming-Montreal Global Biodiversity Framework with four overarching long-term goals and 23 ambitious nature-related targets for 2030, agreed upon by the 188 countries present at the conference. The framework responds to the Global Assessment Report of Biodiversity and Ecosystem Services from IPBES, along with other scientific documents that provide evidence of unprecedented rates of deteriorating biodiversity globally. Key targets and takeaways include:

Currently, 17% of land and 10% of marine areas are protected, according to the Convention on Biological Diversity.

1. Protecting 30% of both land and coastal/marine areas by 2030, perhaps the most high-profile target to come out of the conference. This is widely discussed as the **30-by-30** goal. ***Indigenous lands will count towards this goal, with a stated goal of the framework to support indigenous peoples' contributions to nature and their 'rights, knowledge, innovations, worldviews, values and practices' when implementing the GBF.***
2. Channelling US **\$200 billion per year toward conservation** initiatives from both public and private sources, targeting \$20 billion per year by 2025 for wealthy countries to provide to developing nations for conservation efforts and \$30 billion per year by 2030. The \$200 billion would work towards reducing but would not close the existing conservation financing gap of US \$600-800 billion per year, according to the Paulson Institute. This could be a source of continued pressure by developing countries to raise these funding numbers, as demonstrated by the objection to the final agreement at COP 15 by the Democratic Republic of Congo. ([Exhibit 1](#))
3. Restoring 30% of degraded terrestrial and aquatic ecosystems over the next decade, and **reducing the destruction and loss of areas of high biodiversity importance to 'close to zero' by 2030.**
4. Identifying subsidies harmful to biodiversity by 2025 and working to get rid of or reform those identified. The final agreement committed to **reducing subsidies that deplete nature by US \$500 billion** per year by 2030 and increasing incentives for nature restoration and conservation (no amount specified). ([Exhibit 2](#))
5. **Cutting global food waste in half** and reducing both overconsumption and waste generation by 2030 (no numbers specified). This emphasizes the relationship between biodiversity and movement towards a circular economy, though further work will be required on establishing baseline levels and subsequent quantitative targets. ([Exhibit 3](#))
6. The framework acknowledged the disclosure and data gap in regard to biodiversity, stating that **large companies should have disclosure requirements of information relevant to operational impacts, risks and dependencies on biodiversity** and should commit to restoring nature. This could increase focus on the Taskforce on Nature-Related Financial Disclosures (TNFD) and their reporting recommendations and framework for companies and investors. Many companies with biodiversity dependencies and impacts have started reporting under a variety of sustainability reporting frameworks, but we expect material disclosures on

A multilateral benefit sharing system for digital sequence information (DSI) on genetic resources will permit international flow of sequence information in exchange for monetary benefits from an international fund supporting predominantly developing countries.

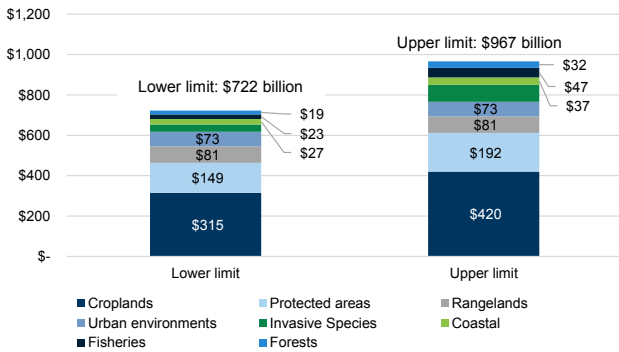
biodiversity and nature-related issues to increase in occurrence and sophistication moving forward. (Exhibit 4)

7. Parties agreed to establish a **funding mechanism for digital genetic information from nature**, which has historically been extracted from a number of developing nations without payment. The change would mean countries would receive payment for their resources that go on to be used for drugs, vaccines, food products, etc. This is a significant change that could impact sectors highly dependent on natural capital. Further work is required to develop and operationalize the mechanism, to be finalized at COP 16.
8. All of these goals will be implemented through **national action plans on biodiversity**, which will be set and reviewed in a similar format currently used for greenhouse gas emissions. ***There is currently no deadline for countries to submit their respective national action plans, so we expect details on party-level transparency to be a continued point of discussion until timelines are established.*** We expect the completed biodiversity strategies and action plans to further push forward legislation targeting biodiversity protection from the 196 parties of the Convention. (Exhibit 5)

Targets were also established to reduce both invasive species and threats from pesticides and hazardous chemicals by at least half, though neither of these goals specified baseline levels or how to measure progress. In addition to the Global Biodiversity Framework, progress was made on other fronts throughout COP 15, including establishing the Global Biodiversity Framework Fund (GBF Fund) to support and scale up financing for implementation of the GBF (to be finalized at COP 16), the Make it Mandatory campaign, in which 330+ businesses and financial institutions with combined revenues of over US \$1.5 trillion call on world leaders to require mandatory disclosures of impacts and dependencies on nature by 2030, and the Finance for Biodiversity pledge, which now has 126 signatories representing over US \$20 trillion in assets under management.

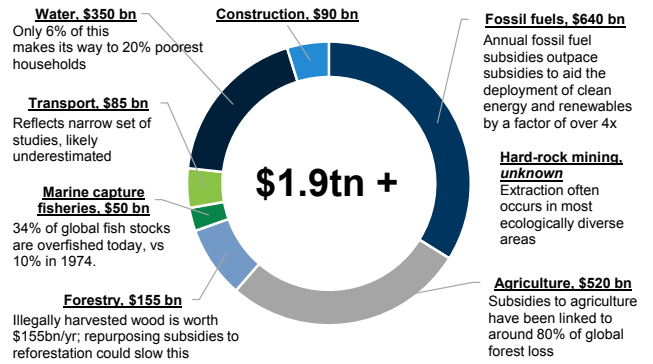
Biodiversity in Charts: Global Biodiversity Framework targets

Exhibit 1: Global biodiversity conservation funding needs are high: nearly \$1 trillion per year
Biodiversity funding needs, inclusive of existing spending (\$124-143 bn)



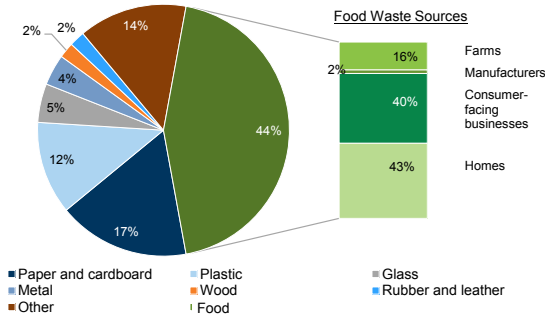
Source: Paulson Institute

Exhibit 2: Business for Nature sees nearly \$2 tn invested in activities connected to biodiversity loss
Annual environmentally harmful subsidies estimates, 2021



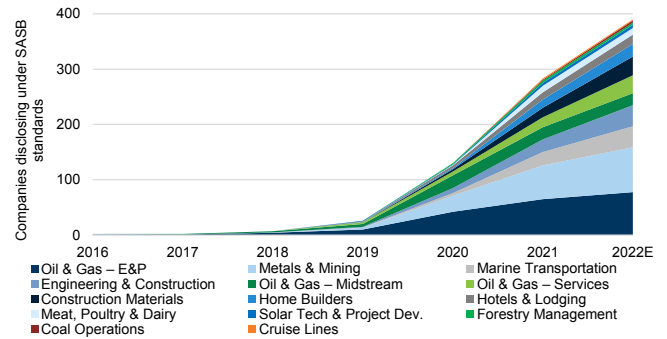
Source: Earth Track, OECD, IEA, UN Food and Agriculture Organization, World Bank

Exhibit 3: Food makes up a huge portion of global waste, and each source requires different solutions to minimise disposal in landfills
Global waste production by type, with food waste breakdown



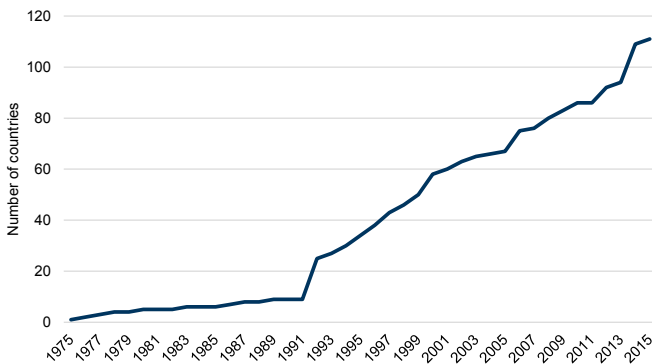
Source: World Bank, ReFed, Goldman Sachs Global Investment Research

Exhibit 4: Incorporating SASB Standards into ESG reporting has exploded for sectors with outsized ecological impacts
Number of companies reporting under SASB standards, by industry



Source: SASB, Data compiled by Goldman Sachs Global Investment Research

Exhibit 5: Government discussions around biodiversity policies and regulations have taken off since the 1970s
Number of countries that have, are developing or are discussing national policies that require, encourage, suggest or enable biodiversity offsets



Source: Global Inventory of Biodiversity Offset Policies

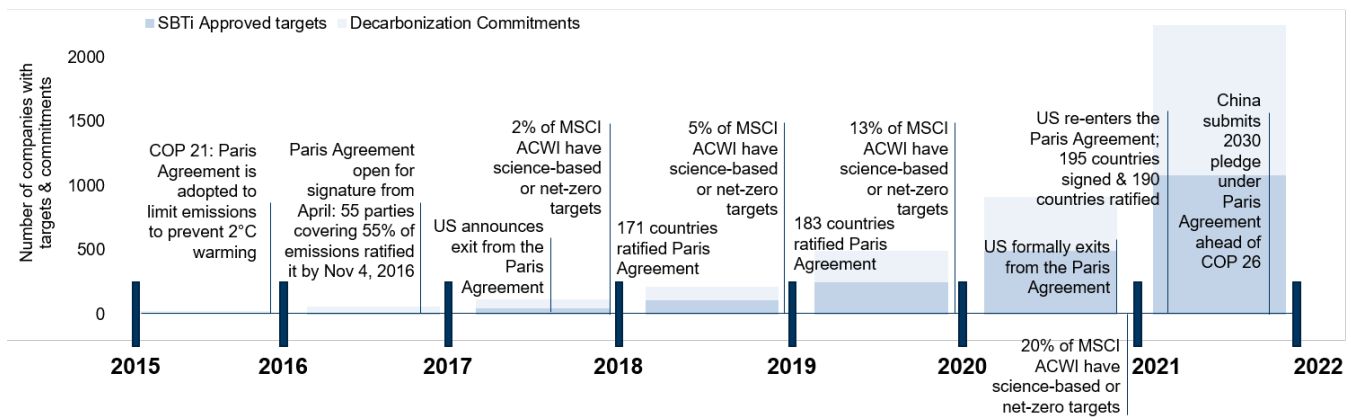
COP 15: The Biodiversity Paris Agreement Equivalent?

COP 15 aimed to match the impact of the Paris Agreement, with stakeholder buy-in on global limits for biodiversity loss and targets for protection and restoration. We believe additional discussions and country-level action plans will be needed to achieve the a ‘Paris Agreement equivalent’ for biodiversity, as unlike COP 21 in Paris, no deadlines have been set for countries to submit national actions plans for biodiversity. However, as with the Circular Economy, we expect a pickup in public and private biodiversity investments to help achieve decarbonization goals.

The Paris Agreement, penned in 2015 at the COP 21 climate conference, committed to limit the rise in the global average temperature to well-below 2°C above preindustrial levels, in pursuit of 1.5°C, requiring net zero emissions be achieved by 2050 or sooner. On the back of the initial agreement, countries were asked to establish “nationally determined contributions” by 2020 and strengthen efforts in the years ahead, with check-ins every five years to assess collective progress. Similar national action plans were agreed upon for biodiversity, but a key element remains missing: a deadline.

The Paris Agreement kicked off a chain reaction of country-level commitments, regulations, corporate commitments, ESG fund flows and stakeholder focus on climate change. COP 15 on Biodiversity could spur similar increased attention to biodiversity and nature conservation for a variety of stakeholders, leading slowly but surely to increased company-level biodiversity commitments, investor engagement on the topic, and focus on identifying leading solutions over the next few years.

Exhibit 6: The Paris Agreement from COP 21 kicked off country and company commitments to decarbonize, leading to a jump in investment in the green transition; we believe last month’s COP 15 on Biodiversity will be a catalyst to kickstart over time greater corporate and investor focus towards solutions to biodiversity challenges



Source: SBTi, Bloomberg, Goldman Sachs Global Investment Research

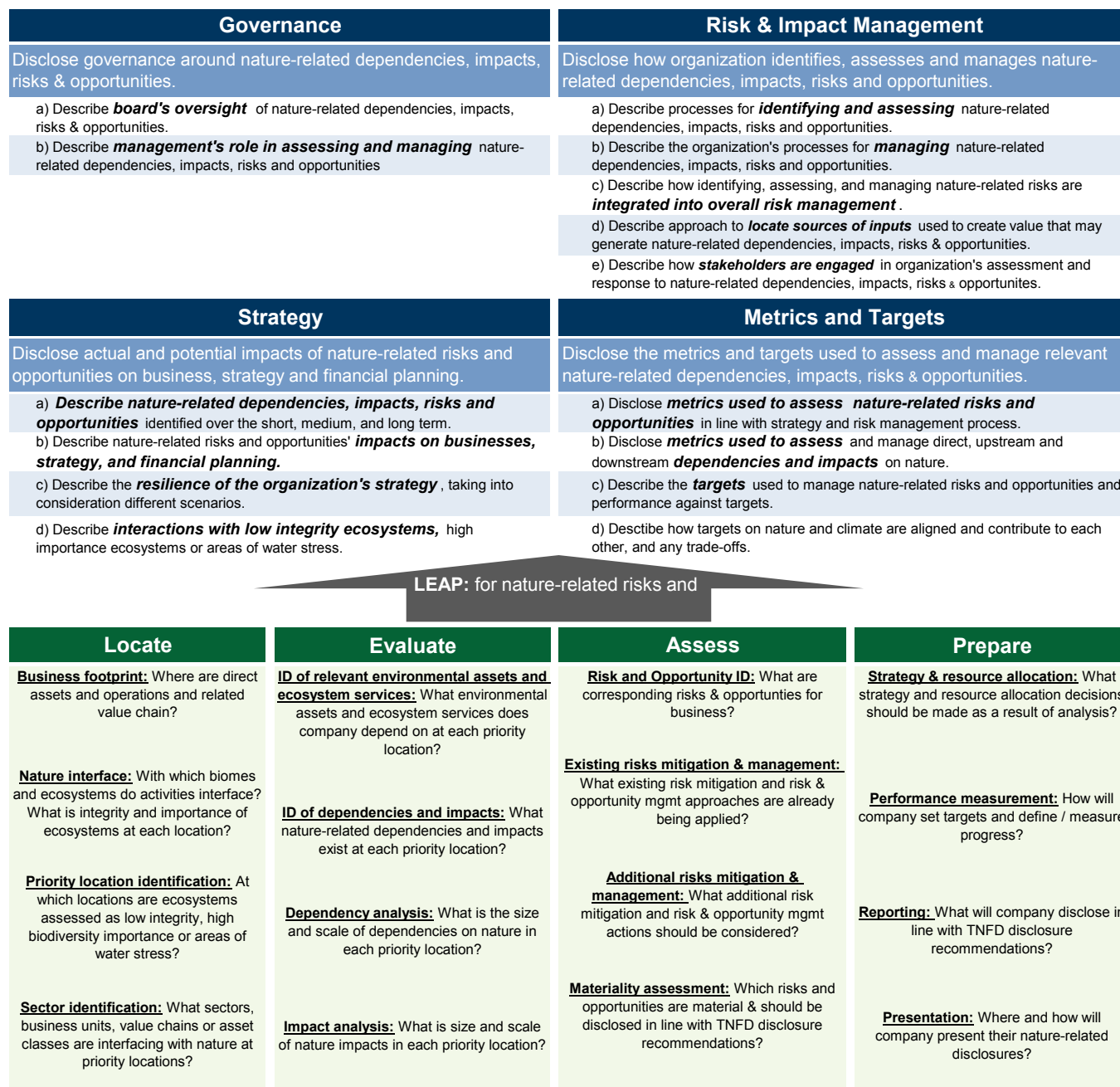
The speed of progress and adoption of nature-positive commitments will depend on countries’ ability to adopt and interpret the GBF into local legislation. The targets to maintain, restore and enhance the integrity and connectivity of ecosystems are a starting point, but the document holds no legislative power over the parties to the Conference. National action plans must be equally or more ambitious than the GBF in order to stay on track for the longer-term overarching goal to live in harmony with nature.

Data, definitions and measurement of biodiversity

The Global Biodiversity Framework sets a number of targets related to biodiversity, but further work is required on agreed-upon global limits, and metrics to measure the impact of the targets on these global limits. Right now, the GBF includes a target for large and transnational businesses and financial institutions to monitor, assess and disclose risks, dependencies and impacts on biodiversity, provide information to consumers in order to promote sustainable consumption, and to report on compliance with access and benefit-sharing regulations, where applicable. The framework does not dive into greater detail on materiality assessments or specific metrics, but it does offer information on elements of biodiversity that are important enough to have individual targets, including **land area and connectivity, extinction risk, invasive species, pollution risks, sustainable management of agriculture, aquaculture and forestry, genetic resources, harmful vs. helpful subsidies**, etc. Many of these targets will require a unique set of measurement tools, data and disclosures. This could lead, ultimately, to corporates and investors coalescing around a targeted set of metrics that can be applied across ecosystems to ensure sufficient and transparent disclosures on material elements of biodiversity.

We see TNFD becoming an early framework with high levels of engagement and adoption by a wide variety of stakeholders that could play a meaningful role in defining common standards for biodiversity measurement and reporting. TNFD's third beta framework ([Exhibit 7](#)) seeks to assess risk against four pillars: (1) Governance; (2) Strategy; (3) Risk Management; and (4) Metrics and Targets. The third release expands the Metrics and Targets pillar and adds additional Risk & Impact Management disclosures on sources of inputs and how stakeholders are engaged in assessments and responses. Further guidance on the Metrics and Targets pillar, including guidance on how to frame impact (land use, over-exploitation of resources, pollution prevention, climate change, invasive species) and dependencies, is expected. **The final release of the framework is set for September 2023, which companies can begin using to report on both qualitative, process-oriented disclosures, and any final quantitative metrics included in the final framework.**

Exhibit 7: TNFD revised draft disclosure recommendations and revised risk and opportunity assessment approach



Source: TNFD, Data compiled by Goldman Sachs Global Investment Research

Implications of COP 15 for companies and investments

We see two key pillars through which investors can approach investment in biodiversity: 1) Solutions business models, and 2) Risk Management. While we believe both pillars will receive increased attention on the back of COP 15, we think risk management will continue to drive short term focus for governments, corporate and investors, with revenue beneficiaries and solutions business models to subsequently follow. For more information on this framework for investing in biodiversity, see Biodiversity: Assessing the Financial Links to Natural Capital.

We expand our set of best practices for biodiversity risk management to include elements of the GBF, including (though not limited to) disclosures on the following:

- Physical footprint of operations, inclusive of supply chain;
- Detailed information on supply chain traceability and transparency;
- Information on proximity to and engagement with key biodiversity areas, inclusive of supply chain;
- Funding or investment in conservation and/or restoration initiatives;
- Policy detailing approach to restoration and regeneration of land for company and suppliers, if relevant;
- Waste footprint of operations along with waste footprint information through supply chain;
- Use of pesticides and/or hazardous chemicals and accompanying policies for responsible use from company and suppliers;
- Reliance on digital genetic information from nature and information on any payment for these resources;
- Biodiversity assessments audited by third-party organization with associated action plans;
- “No net loss” and/or “net nature positive” biodiversity commitments with clear timelines, metrics and intermediary goals;
- Avoiding land conversion from natural ecosystems in operations and supply chain;
- Following all relevant regulation that aims to protect biodiversity, species and ecosystems.

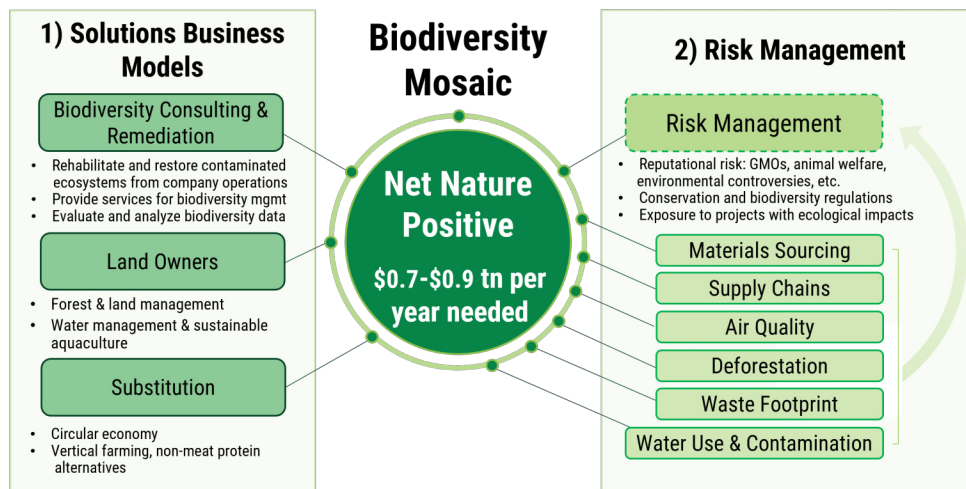
Right now, most companies do not report on the majority of these metrics or policies, and many third party data providers do not aggregate data these metrics for use by investors and other stakeholders. We think as corporate reporting on biodiversity increases in volume and sophistication, data will become increasingly usable for stakeholders to determine leaders, improvers and laggards.

We think regulatory and investor focus will likely focus on risk management in the short-term, and investor engagement on biodiversity could expand to opportunities and revenue beneficiaries over the medium and long-term. Within revenue beneficiaries of increased focus on biodiversity, we have identified three critical components of biodiversity conservation, remediation and restoration business activities to lead to net nature positive outcomes through regenerative land and water management:

1) Biodiversity consulting and remediation businesses - rehabilitation of contaminated ecosystems damaged from company operations, or services to help organizations analyze biodiversity risks, impacts and opportunities, build strategies to minimize risks and restore existing damage, and carry out action plans to maximize natural capital alongside business operations.

2) Land and ocean ownership and management - sustainable forestry and other land / ocean management that supports a variety of species, protects natural habitats, and maintains carbon sinks through regeneration, replanting, and other sustainable management strategies; sustainable seafood production that prioritizes marine ecosystems and maintains health levels of biodiversity.

3) Substitution business models - replacement of extractive business models to new structures that require fewer natural raw materials or reduce land use footprint throughout the entire value chain.



Source: Paulson Institute, Goldman Sachs Global Investment Research

Disclosure Appendix

Reg AC

We, Madeline Meyer, Evan Tylenda, CFA, Brian Singer, CFA, Derek R. Bingham, Brendan Corbett, Emma Jones, Rachit Aggarwal, Keebum Kim, Enrico Chinello, Ph.D. and Grace Chen, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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