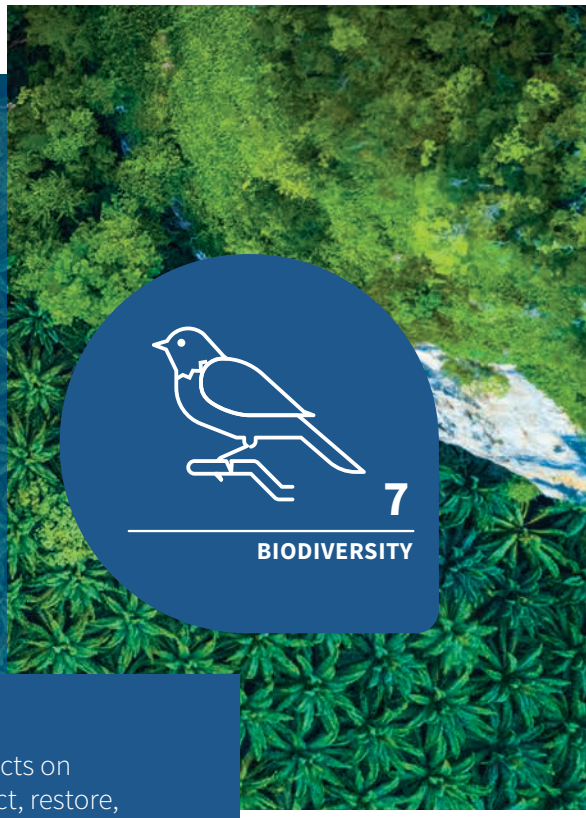
PILLARS 2 & 3
SUSTAINABLE OPERATIONS & VALUE CHAINS

7 BIODIVERSITY

STANDARD



Palm plantation in Hawaii.
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Commitment

Prevent negative impacts on biodiversity and protect, restore, and promote natural ecosystems throughout the company's operations and value chain.

Societal peace and human well-being are dependent on the planet's ecosystems[a] and, therefore, on the preservation of biodiversity.[1] Many cultures derive value and meaning from native species, and surrounding ecosystems are central to their everyday life. At the same time, biodiversity is extremely vulnerable to human activity, including deforestation and industrial development. As a result, more than a quarter of Earth's species are now threatened with extinction and natural ecosystems, especially global forests, are declining rapidly.[2] The livelihoods of small-scale producers and Indigenous and local communities are also threatened by deforestation, while those who defend their land rights often face intimidation and violence. For these reasons, the SDGs include targets aimed at mitigating and remedying biodiversity loss,[b] including the impacts of and threats to food production.

a. Ecosystem services are the beneficial functions that ecosystems provide for humans including provision of food and clean water, leisure and spiritual benefits, protection against climate, and provision of other materials that societies are built upon. FAO. (Source: "Ecosystem Services & Biodiversity (ESB)," Food and Agriculture Organization of the United Nations, accessed May 26, 2021, http://www.fao.org/ecosystem-services-biodiversity/en/.)

b. Biodiversity loss is the loss of "the variability that exists among living organisms (both within and between species) and the ecosystems of which they are part." (Source: Food and Agriculture Organization of the United Nations and Food and Agriculture Organization of the United Nations, "The State of the World's Biodiversity for Food and Agriculture" (Food and Agriculture Organization of the United Nations, 2019).)

Food production, especially its agricultural components, continues to be the largest contributor to biodiversity loss since the Industrial Revolution.[3] In particular, land-based agriculture's expansion, intensification, and homogenization along with increasing pressures on marine-based food sources continue to be major drivers of accelerating biodiversity loss within the food sector.[4] With the rapid growth in the global population in the past century, it has been necessary to increase yields and harvests in order to feed the world. Yet, the practices used to produce food are unsustainable, overexploit natural resources, and render food systems increasingly vulnerable to ecological shocks.[5] Some of these practices include:

- Clearing land (i.e., deforestation) and land-use changes that contribute to habitat degradation or destruction that subsequently threatens species' survival.[6]
- Indiscriminate application of agrochemicals and practices that erode soil health including tilling and monoculture[c] cultivation. These practices lead to greatly reduced numbers of pollinators and beneficial arthropods that contribute to healthy soil structure and fertility, disrupted soil microbial balance, and reduced ecosystem species richness.[d] Monoculture cultivation also directly causes a loss of genetic diversity in plants themselves. All of these place food production systems at greater risk of crop disease and failure.[7]
- Introduction of invasive species through deliberate or inadvertent introduction (i.e., foreign fish species escaping aquaculture nets) that lead to competition with native species for resources and disruption of delicate ecological balances.[8]
- Generation of pollutants at all levels (i.e., on-farm, processing, transport, etc.) that damage wildlife and ecosystem health.[9]
- Agrochemical runoff and livestock waste that causes eutrophication and subsequent acidification of marine waters, disrupting fish and bivalve populations and threatening global fish harvests.
- Overfishing, especially of large, predatory, and keystone species,[e] and non-discriminatory fishing practices (e.g., trawling, purse seines) that contribute to unnecessary by-catch and additional pressures on marine ecosystems.[10]

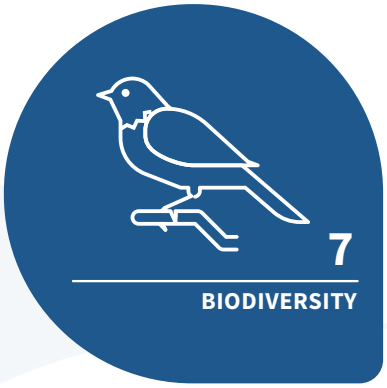
Food systems depend on a complex, interconnected web of ecosystem services such as invertebrate-driven pollination, soil microbial activity, control of pests by beneficial species, and habitat provision (i.e., coral habitat for fished species). Disruption of these integral services has already occurred and will worsen if biodiversity loss persists, threatening global food systems and value chain stability.[11] Food companies, therefore, do not only contribute to the degradation of the planet's ecosystems but also suffer as a result of the impacts biodiversity losses have on global food systems.

Food companies have a responsibility to align their business practices with the SDGs to prevent, eliminate, and reverse biodiversity loss caused through both the direct and indirect impacts of their operations. As companies produce or source their products, ingredients, and other raw materials (i.e., packaging materials), they can ensure their business activities align with the SDGs, and use their leverage to influence the practices of others in their value chains.

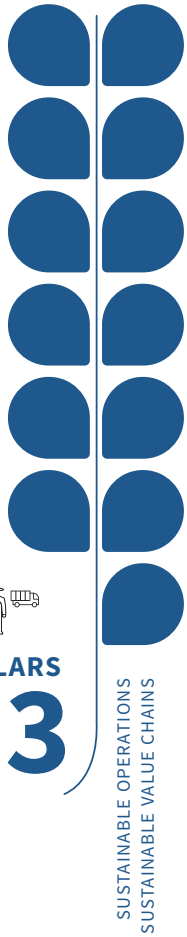
c. Monocultures are large agricultural areas where only one crop is grown, creating a homogenous landscape less hospitable to diverse ecosystems and species richness. (Source: A.J. Wright et al., "Stress Gradients and Biodiversity: Monoculture Vulnerability Drives Stronger Biodiversity Effects during Drought Years," accessed May 24, 2021, https://doi.org/10.1002/ecy.3193.)

d. Different species require unique habitat qualities and even the same species may require different habitat qualities to survive (i.e., habit for nesting v. habitat for foraging/hunting). (Source: Tim G. Benton, Juliet A. Vickery, and Jeremy D. Wilson, Farmland Biodiversity: Is Habitat Heterogeneity the Key? Trends in Ecology and Evolution, 2003.)

e. Keystone species are those that an ecosystem is dependent upon for trophic structure and whose absence disrupts the ecosystems interconnectedness enough that a cascading process of extinction begins. (Source: Secretariat of the Convention on Biological Diversity (2020), "Global Biodiversity Outlook 5." (Montreal), accessed May 24, 2021, https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf.)



SDG-ALIGNMENT: THIS STANDARD CONTRIBUTES TO ACHIEVING THE FOLLOWING SDGS:



SDG 2 – Zero hunger

Target 2.5: By 2020, maintain the genetic diversity of seeds, cultivated plants, and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional, and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.

SDG 12 – Responsible consumption and production

Target 12.2: By 2030, achieve the sustainable management and efficient use of natural resources.

Target 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

SDG 13 – Climate action

Target 13.3: Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.

SDG 15 – Life on land

Target 15.1: By 2020, ensure the conservation, restoration, and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains, and drylands, in line with obligations under international agreements.

Target 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

Target 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

Target 15.8: By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.

Target 15.a: Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.

SDG 14 – Life below water

Target 14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and taking action for their restoration in order to achieve healthy and productive oceans.

Target 14.4: By 2020, effectively regulate harvesting and end overfishing, illegal, unreported, and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.

STEPS TO MEET THE COMMITMENT

1. ADOPT A POLICY AND EMBED IT INTO GOVERNANCE AND MANAGEMENT SYSTEMS

1.1. ADOPT A POLICY

The board or the most senior level of SDG-aligned companies adopt a policy aligned with their public commitment to protect biodiversity and respect the internationally-recognized rights to food, health, water, land, a healthy environment, and life, and the rights of Indigenous peoples, peasants, and communities in their operations and business relationships. The policy:

- Aligns with and references and references the United Nations Convention on Biological Diversity.

1.2. EMBED THE POLICY INTO GOVERNANCE & MANAGEMENT SYSTEMS

To embed the policy, SDG-aligned companies:

- Communicate expectations for implementing the policy internally and externally to the company's workforce, shareholders, subsidiaries' governing bodies, and business relationships.
- Integrate the policy into the company's procurement policy, responsible sourcing policy, contract terms with suppliers, and other business relationships in the value chain.
- Integrate the policy into by-laws and other governance documents (i.e., Code of Conduct, Code of Ethics).
- Ensure their business practices and the incentives they create do not contradict the policy in form or substance.

2. ASSESS ACTUAL & POTENTIAL IMPACTS

SDG-aligned companies identify and assess actual and potential adverse impacts on biodiversity in their operations and value chains. In order to systematically assess such impacts on an ongoing basis, SDG-aligned companies:

- **Evaluate how business decisions and practices, including sourcing, transportation, packaging, product lines, and land use (i.e., headquarters, factory locations), contribute to biodiversity loss or threaten ecosystems**. In particular, companies assess how decisions to maximize profits or realize financial gains (e.g., encouraging the continued homogenization of agricultural land by maintaining existing product portfolios that focus heavily on corn, soy, and other major commodity crops; encouraging the expansion of agricultural land by undercompensating producers) may be at odds with their commitment to protecting biodiversity.
- **Conduct initial and regular, ongoing comprehensive assessments to:**
  - **Identify activities in their operations and value chains that pose threats to biodiversity** including, but not limited to:
    - **Generation of effluents, solid waste, and emissions** that lead to degradation of water, soil, and air quality. Pollutants may result from on-farm or processing activities that lead to leaching, runoff, particulate matter generation, etc.[12]
    - **Agrochemical use**, especially when excessive or indiscriminate, that directly harms or is toxic to species, including beneficial pollinators.[13]
    - **Changes in landscape, land use, or occupancy** including expansion of agricultural footprints (i.e., clearing land), deforestation, and homogenization of farmland resulting in habitat loss or degradation.[14]
    - **Promotion of monocultures & resource-intensive foods**[f] (i.e., through ingredient and/or supplier choice) that lead to genetic pollution or loss in plant biodiversity and/ or increased environmental pressure.
    - **Activities causing soil erosion or fertility loss and subsequent loss of soil microbial diversity** including agrochemical use, disruptive planting and harvesting practices (e.g., tilling), overgrazing, and inappropriate irrigation practices (e.g., inadequate irrigation, utilization of brackish water).[15]
    - **Introduction of invasive species and/or the exploitation, harassment, or direct mortality of native species** that result in detrimental developmental, reproductive, population size, or stability impacts on species. Examples of contributing activities include transportation of invasive species and inadequate quality control of equipment (i.e., aquaculture net failure) or imported goods (i.e., poor inspection practices).

f. Resource-intensive foods include animal foods (i.e., cattle, lamb), some vegetable oils (e.g., palm oil), and ultra-processed foods. Animal foods contribute significantly to increased environmental pressure and habitat loss when natural land is converted to agricultural land in order to increase feed crop (grain) production. When unregulated, palm oil contributes to deforestation in tropical areas with disproportionately high levels of biodiversity (e.g., the Amazon). Ultra-processed foods typically rely on intensive monocultures and inclusion of a limited number of commodity ingredients in large quantities, further increasing agriculture's environmental pressures and footprint. (Source: "Food System Impacts on Biodiversity Loss," Chatham House – International Affairs Think Tank, February 3, 2021, https://www.chathamhouse.org/2021/02/food-system-impacts-biodiversity-loss.)

  - **Overexploitation[g] of natural resources and non-discriminatory harvesting practices** including illegal, unreported, and unregulated (IUU) fishing;[16] generation of by-catch; and overuse of forest, land, and water resources.[17]

- **Identify actual and potential negative impacts on biodiversity** and their specific consequences with regard to the health of both quantitative (e.g., species composition and counts) and qualitative (e.g., tree density, habitat suitability) aspects of ecosystem health, such as:
  - **Species composition & health:** includes insect sample collection to assess pollinator and other invertebrate population change, count of birds and other indicator species,[h] soil sample collection to assess microbial diversity, tracking percent change of invasive species.
  - **Ecosystem conditions:** includes water, soil, air quality, and structural diversity (i.e., density of tree species, canopy structure)[18] analysis.
- **Engage with affected stakeholders, including Indigenous and local communities, and qualified and credible experts to help conduct assessments** and ensure they are as comprehensive and accurate as possible. This engagement also aids in the identification of affected areas most vulnerable to imminent biodiversity loss and help the company develop targeted, prioritized, and appropriate measures to protect and restore those ecosystems.
- **Utilize established, systematic frameworks (e.g., life cycle assessment), indices, and scenario-modeling tools**[19] to assess their current impacts on biodiversity and evaluate potential opportunities to mitigate them and restore ecosystems.

g. Overexploitation is defined as "the exploitation of wildlife and ecosystems at a rate that exceeds their capacity for regeneration." (Source: Matthieu IUCN French Committee, "Corporate Biodiversity Reporting and Indicators. Situation Analysis and Recommendations." (Paris, France, September 2014).)

h. Indicator species are organisms particularly sensitive to environmental conditions and whose presence generally indicates ecosystem health in one or more attributes. (Source: Ahmed A.H. Siddig et al., "How Do Ecologists Select and Use Indicator Species to Monitor Ecological Change? Insights from 14 Years of Publication in *Ecological Indicators*," Ecological Indicators 60 (January 2016): 223–30, https://doi.org/10.1016/j.ecolind.2015.06.036.)

3. INTEGRATE BY SETTING TARGETS & TAKING ACTION

SDG-aligned companies integrate the findings of their comprehensive assessments of biodiversity risks and impacts in their operations and value chain outlined in **Step 2** into their business decisions, processes, and functions by **setting targets** and then **taking action** to align with the standard within set target dates.

3.1. SET TARGETS

SDG-aligned companies set specific, time-bound intermediate and long-term targets to prevent, eliminate, and reverse biodiversity loss that are ambitious enough to contribute significantly to the SDGs' achievement, particularly SDG 12, SDG 13, SDG 14, and SDG 15. The intermediate targets are relevant for the companies to monitor their continuous improvement and that of their business relationships towards meeting the standard. These targets are tailored to the business activities and relationships of the companies, and are based on assessments of actual and potential impacts on biodiversity loss, but are broadly aimed at eliminating threats to biodiversity and supporting ecosystems, including restoring those already degraded by company activities. The following are some examples of performance indicators to track progress over time:

- By 2025, 50% of agricultural land in the company's value chain is managed with regenerative practices
- By 2030, 5% of farmland is set aside for biodiversity protection
- By 2030, 100% of suppliers utilize discriminatory fishing practices (i.e., to reduce by-catch)
- By 2025, 20% of sourcing is from suppliers participating in biodiversity-related assistance programs
- By 2030, the genetic diversity of products has doubled
- By 2025, 100% of fiber-based packaging is from recycled or sustainably managed sources

3.2. TAKE ACTION

Where an SDG-aligned company identifies actual or potential impacts on biodiversity in the context of their operations and value chain it takes appropriate and swift action to cease them to align with the standard. Where SDG-aligned companies identify threats to or damage to biodiversity in their operations, they take the necessary steps to prevent, mitigate, and/or restore biodiversity. Where they identify threats or harms to biodiversity in their value chain, they address the ways in which they might incentivize negative impacts on biodiversity within their value chain and use their leverage to prevent, mitigate, and/or restore biodiversity.

Importantly, SDG-aligned companies prioritize biodiversity preservation and avoid justifying or compensating for activities in their operations or value chain that lead to biodiversity loss by implementing restorative activities (e.g., planting trees to compensate for deforestation). While restoration is important, preserving existing ecosystems has a much higher impact potential with regard to carbon sequestration and climate change mitigation.[20] Additionally, the biodiversity losses of ecosystem destruction are not easily reversed or are irreversible in some contexts, even if aggressive ecosystem restoration is undertaken.[21]

Depending on the specific impacts on biodiversity and based on a company's sub-sector, region, suppliers, commodity needs, and other parameters, measures to address actual or potential negative impacts on biodiversity could include:

- **Adopting biodiversity-aligned production practices** in operations, and choosing suppliers who have already adopted them or support suppliers in adopting them. Such practices include:
  - **Land-based agriculture:** To protect biodiversity when producing crops or land-based animal foods, the companies' operations or suppliers employ three main levers:[22]
    - **Protection of land for biodiversity** through land-sparing (i.e., non-farmed margins and portions of land on farms set aside for biodiversity) or land-sharing (i.e., integrated landscape approaches[i]).[23] SDG-aligned companies cease and use their leverage with suppliers to prevent the unnecessary expansion of agricultural land area,[24] including through closing yield gaps using sustainable agriculture practices and through employing strategies to reduce food loss and thus, maximize the productivity of existing agricultural lands. Also includes the provision of key pollinator habitat requirements including food and shelter opportunities (e.g., flowering plants in otherwise fallow fields, snags, and logs, bee pastures with bolted or cover crops, bee blocks, hedgerows, and field, and road borders).[25]
    - **Biodiversity-supporting production practices** including sustainable intensification methods that maintain yields or productivity while achieving sustainability gains, such as agroforestry, regenerative farming practices, and managed or mob-grazing.[26] Also included are Natural Pest Control & Integrated Pest Management (IPM) strategies[j] that work to first prevent pests through methods such as crop choice and rotation, followed by pest control through methods such as pheromones, mechanical control (e.g., trapping), and highly targeted pesticide application.[27] Another set of important practices are those dedicated to soil preservation, such as the avoidance of tilling, usage of appropriate irrigation practices, planting of deep-rooted perennials or cover crops.[28] Lastly, the planting of polycultures instead of homogenous monocultures to provide heterogeneous landscapes conducive to ecosystem species richness and preserve genetic diversity.[29]
    - **Minimization of agrochemical use & waste** to prevent microbial diversity loss and downstream impacts on water, soil, or air quality that degrade ecosystems.
  - **Fishing & Aquaculture:**
    - **Adopting sustainable fishing practices**, including by complying with annual and seasonal limits on species,[30] and only purchase from suppliers with these same practices. To prevent overfishing, companies harvest and use their leverage in their value chain to promote harvesting within maximum sustainable yields.[k]
    - **Prevent invasive species spread** by ensuring their operations and actors in their value chain have stringent quality control practices for aquaculture (e.g., regular inspection of net integrity when using non-native species) and for transportation via marine pathways (e.g., prevention of hull fouling).[31]
    - **Prevent by-catch of non-target species** by avoiding non-discriminatory harvesting practices including trawling, purse seines, and gillnets in their operations and value chain. In place of these methods, alternative gear such as circular hooks, tow-line methods, and traps/pots is used, provided, or incentivized.[32]

i. Integrated landscape approaches are "frameworks for integrating multiple land uses within a given area, aimed at maintaining biodiversity, ecosystem services, and feedback between the two to ultimately benefit humans." This approach increases heterogeneity of landscapes, improves habitat corridors, and typically increases crop variety. (Source: "Food System Impacts on Biodiversity Loss," Chatham House – International Affairs Think Tank, February 3, 2021, https://www.chathamhouse.org/2021/02/food-system-impacts-biodiversity-loss.)

j. It is estimated that for some highly toxic and long-lasting pesticides, natural and chemical-free pest-control alternatives exist in the vast majority of cases. For example, in 78% of the use cases of neonicotinoids (a pesticide highly toxic to bees and pollinators), a non-chemical alternative can be utilized to effectively control the target pests. (Source: Hervé Jactel et al., "Alternatives to Neonicotinoids," *Environment International* 129 (2019): 423–29.)

k. Maximum sustainable yield is defined as "the highest possible annual catch [for a given species] that can be sustained over time by keeping the stock at the level producing maximum growth." (Source: WWF (2011), "Common Fisheries Policy Reform: Getting MSY Right," accessed May 25, 2021, http://awsassets.panda.org/downloads/wwf_msy_oct2011_final.pdf.)

- **Product lines:** When product lines are in conflict with commitments to biodiversity, product lines are modified to reduce or substitute resource-intensive foods (e.g., offering plant-based protein products, replacing palm oil in products with other liquid oils) to align with biodiversity targets. Where possible, companies also work to design and develop products that create a market for diverse crops and incorporate underutilized varieties and species (e.g., heritage grains, underutilized fish species[33]).
- **Packaging:** Take steps to reduce the impacts of packaging material choice on biodiversity, especially deforestation, aquatic pollution, and harm to animals that mistake it for food. If utilizing fiber (e.g., paper, fiber pulp) packaging, companies attempt to use as large a portion as is possible from recycled sources followed by managed forests. Avoid sourcing virgin fibers or sourcing from areas where deforestation is actively occurring and/or forests are unmanaged.[34] Where products require packaging properties such as moisture and oxygen barriers or transparency that are traditionally met through utilizing conventional plastics, SDG-aligned companies redesign their packaging to employ appropriate alternatives such as protein-based biofilms[35] and durable bioplastics[36] or attempt to greatly reduce plastic packaging through innovative design (e.g., rigid paper bottles lined with a thin layer of recyclable plastic[37]).
- **Engagement with suppliers, producers, and communities:**
  - **Supplier engagement, contract terms, & certification:** Communicate biodiversity protection and restoration expectations to suppliers, including by integrating them in contract terms. Depending on sub-sector, region, and commodities, this may include requiring the time-bound acquisition of biodiversity-related certifications. However, due to large discrepancies in governance, transparency & traceability requirements, auditing schedules, and stringency between certifications,[38] SDG-aligned companies do not rely solely on them to ensure biodiversity protection in their value chain and track alignment with biodiversity expectations through independent, third-party assessments that include engagement with local communities.
  - **Capacity building & support:** Actively build capacity among suppliers and other business relationships, especially among smallholder farms and small-scale operations, to protect biodiversity, and provide financial and technical support to adopt biodiversity-protective practices. Specific efforts to build capacity and support suppliers include:
    - Incentives and benefit schemes
    - Compensation for the cost of conserving land for biodiversity or cover crop planting
    - Provision of coaching or consulting services to help adapt production methods to align with biodiversity targets. This is done in partnership with well-established extension programs where they exist, or by providing alternatives to help producers meet biodiversity targets in locations where extension programs are underdeveloped or non-existent.
  - **Collaboration:** Partner with industry peers, governments, civil society organizations, certification schemes, and multi-stakeholder groups to influence the behavior of value chain actors that are causing negative impacts.
  - **Disengagement:** Where a company determines negative impacts on biodiversity caused or contributed to by the business relationship persist because the party will not or cannot prevent or mitigate impacts, the company disengages from the business relationship.
- **Research & development:** Constructively participate in initiatives and invest in research & development to scale biodiversity-promoting practices.
- **Multi-stakeholder initiatives:** Use leverage and join international coalitions (e.g., OP2B,[39] Lisbon Declaration[40]) and other multi-stakeholder initiatives to encourage industry-wide or food-systems wide commitment, policy change, and biodiversity-protective action at scale.
- **Discretionary giving:** Support biodiversity-promoting initiatives at the local, national, and international levels (e.g., sponsorship of pollinator corridor preservation projects, social awareness campaigns, fishery rehabilitation) through discretionary spending. SDG-aligned companies, however, never utilize discretionary projects to draw public attention away from real or potential threats to biodiversity in their business practices or to compensate for harm done to biodiversity in their value chains.

4. ESTABLISH AND PARTICIPATE IN EFFECTIVE GRIEVANCE MECHANISMS & PROVIDE OR ENABLE REMEDY

4.1. ESTABLISH GRIEVANCE MECHANISMS

SDG-aligned companies establish effective grievance mechanisms that are accessible to stakeholders to report adverse impacts on biodiversity. These mechanisms include processes for reporting grievances regarding the harm done to lands and ecosystems.

4.2. COOPERATE IN STATE-BASED GRIEVANCE MECHANISMS

SDG-aligned companies cooperate with and support legitimate judicial and non-judicial State-based mechanisms to report and adjudicate illegal deforestation and other impacts on biodiversity. Where State-based mechanisms order sanctions or remedy in relation to biodiversity loss, the companies comply and use leverage to ensure their business relationships comply.

4.3. PROVIDE OR ENABLE REMEDY

When the companies identify that they have, even inadvertently, caused or contributed to adverse impacts on biodiversity through their operations or business relationships, they acknowledge their part in the harm done and provide or cooperate in remediation through legitimate processes. When SDG-aligned companies identify that they are directly linked to biodiversity-related impacts in their value chain, they enable remedy. Remedy for biodiversity and deforestation impacts includes actively carrying out, supporting, and financing natural ecosystem restoration in collaboration with suppliers, stakeholders, local governments, and communities, especially Indigenous communities and other local communities disproportionately negatively impacted of biodiversity loss. Any conservation efforts undertaken respect the land, water, and other natural resource rights of Indigenous and other local communities, as laid out in the Resource Rights standard.

5. TRACK PERFORMANCE

SDG-aligned companies track the implementation of actions to meet the standard within their target dates through qualitative and/or quantitative outcome-based performance indicators on an ongoing basis and in partnership with suppliers and other stakeholders in their value chain. SDG-aligned companies also partner with suppliers, multi-stakeholder groups, governments, civil society organizations, academic institutions, and other stakeholders to track and monitor biodiversity in geographic areas relevant to their operations and value chain to evaluate the impact of measures taken on larger-scale ecosystem health. Relevant metrics are similar to those utilized in the initial assessment of biodiversity impacts (see "Species composition & health" and "Ecosystem conditions" under step 2). The following are some examples of performance indicators to track implementation of measures to prevent, mitigate, and restore biodiversity:

- Percentage of agricultural land managed with regenerative practices or diversified cropping systems.[l]
- Percentage of agricultural area in "land classes of different habitat quality."[41]
- Absolute change in agricultural land area (i.e., increase or decrease in agricultural footprint).
- Percentage of land set aside for biodiversity protection (i.e., land-sparing) or utilized in an integrated landscape approach (i.e., land-sharing).
- Percentage of ecosystem restored[m] or being restored by company's efforts.[42]
- Percentage of utilized forest under sustainable management (i.e., agroforestry).
- Percentage of suppliers solely using discriminatory fishing practices.
- Percentage of fish caught from stocks under sustainable management (i.e., stocks that are stable and fished at their MSY or below).[43]
- Percentage of total marine harvest (by weight) that is bycatch.
- Percentage of sourcing from suppliers participating in technical or financial assistance programs aimed at improving farming or harvesting practices to align with the biodiversity standard.
- Trends in genetic diversity[n] of products.
- Percentage of fiber-based packaging from recycled or sustainably managed sources.

l. Diversified cropping system can include single measures such as cover crops & green manure, diversified crop rotation, reduced tillage, intercropping, agroforestry, structural elements (linear features in the landscape) and / or systems (combined measures) such as conservation agriculture, diversified crop-livestock systems, organic agriculture or others. (Source: Julia Rosa-Schleich et al., "Ecological-Economic Trade-Offs of Diversified Farming Systems – A Review," Ecological Economics 160 (June 1, 2019): 251–63, https://doi.org/10.1016/j.ecolecon.2019.03.002.)

m. In order to meet the standard, the company's ecosystem restoration activities are undertaken to address pre-existing harms done or in addition to aggressive measures taken to preserve and protect biodiversity. Restoration activities are not used to compensate for destructive activities that negatively impact biodiversity.

n. Genetic diversity = (genetic diversity of plants or animals found in products/total available genetic diversity per plant or animal). (Source: Matthieu IUCN French Committee, "Corporate Biodiversity Reporting and Indicators. Situation Analysis and Recommendations." (Paris, France, September 2014).)

6. DISCLOSE PERFORMANCE

To enable transparency and accountability, SDG-aligned companies communicate publicly on their performance against their biodiversity commitment and targets, particularly when concerns are raised by or on behalf of affected stakeholders. Where relevant, SDG-aligned companies also share aggregate data and high-level findings directly with affected stakeholders and organizations, including human rights organizations and researchers.

Regular public disclosure is accurate, clear, accessible, and third-party verified information about the actual and potential impacts on biodiversity in their operations and value chain, their efforts to address these to implement their policy commitment, and performance against targets. Disclosure includes sufficient information to evaluate the adequacy of the company's approach and activities. Formal disclosure includes information on the following:

- **Findings of their biodiversity assessment**, including biodiversity risks and negative impacts within their operations and value chain. Companies also disclose how they assessed their operations and business relationships to identify and measure these risks.
- **Measures undertaken during the reporting period to prevent, mitigate, and restore biodiversity in their operations and value chain**. This includes information on changes in sourcing, product lines, production practices and impacts (i.e., pollutants, agrochemical use), land use and occupancy, and business relationships as well as monitoring efforts to assess outcomes on biodiversity and ecosystem quality in geographic areas relevant to business operations.
- **Progress on relevant performance indicators, even when progress is not as good as expected and the companies fall short of targets set**. When companies fail to meet their targets, they disclose key learnings and delineate how they are modifying their strategies in order to achieve intermediate and long-term targets to protect biodiversity.
- **Any impacts on biodiversity impacts that are identified in their operations or value chain**, specifying the geographic location where the impacts occurred, contributing activities and actors, the extent of damage done to both live species and abiotic components of the affected ecosystem.[44] Companies disclose how the impact was identified and how they are providing or enabling remedy for the damage done.

ENDNOTES

1. United Nations Environment Programme (2021), "Making Peace with Nature A Scientific Blueprint to Tackle the Climate, Biodiversity and Pollution Emergencies," 2021, https://sdgs.un.org/sites/default/files/2021-04/Publication%20-%20Making%20Peace%20with%20Nature%20A%20scientific%20blueprint%20to%20tackle%20the%20climate%2C%20biodiversity%20and%20pollution%20emergencies.pdf.
2. "IPBES (2019): Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services" (IPBES secretariat, Bonn, Germany, November 25, 2019), https://doi.org/10.5281/zenodo.3553579.
3. Johan Rockström et al., "Planetary Boundaries: Exploring the Safe Operating Space for Humanity," *Ecology and Society* 14, no. 2 (November 18, 2009), https://doi.org/10.5751/ES-03180-140232.
4. Food and Agriculture Organization of the United Nations and Food and Agriculture Organization of the United Nations, "The State of the World's Biodiversity for Food and Agriculture."
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To improve sustainability in their value chains, SDG-aligned companies change their own business practices that might be incentivizing unsustainable practices, and also use their leverage with value chain actors to influence them to adopt improved practices.

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