

PART 2  
**CORPORATE  
IMPLEMENTATION, IMPACTS,  
AND REPORTING ON NO-  
DEFORESTATION & “NATURE  
POSITIVE” POST 2020**

AN ANALYSIS BASED ON *SUPPLY CHANGE* DATA

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# GLOSSARY

**Audits/Auditing:** Audits are used to monitor production units and other supplier facilities and to verify the results of the monitoring processes (any form of monitoring). Audits of production units typically take the form of in-person visits from auditors (either the company themselves, an auditing organization hired by the company, or an independent third-party organization standard), during which the auditors follow a systematic and documented process for obtaining records, statements of fact, or other relevant information and assessing them objectively to determine the extent to which specified requirements are fulfilled, including deforestation-related requirements. Certification standards often rely on audits to assess whether certified producers are abiding by the standard's requirements for land use change and other environmental and social criteria, and that the chain of custody for physically certified products is maintained. The Accountability Framework recommends that audits be impartial and transparent, be conducted by skilled and knowledgeable auditors, and follow consistent procedures and rigorous methodologies.<sup>1</sup>

**Commitment:** A corporate statement that establishes a target for the company to improve the sustainability of the agricultural and forestry commodities it produces or procures. *Supply Change (SC)* currently tracks commitments for cattle products, cocoa, palm oil, soy, and timber and pulp. The commitment must be focused on driving sustainable land use in commodity production, preferably targeting the reduction or elimination of deforestation from the commodity's production. *SC* categorizes commitments by the type of target around which the commitment is oriented. The commitments largely fall into three categories:

**Zero-/Zero Net-Deforestation:** A company commits to eliminating gross or net loss of natural forests due to the production of the commodity it produces or procures. Zero-deforestation (also called no-deforestation, deforestation-free, or zero gross deforestation) commitments aim to eliminate entirely any forest conversion within the company's commodity supply chain, while zero net-deforestation commitments aim to reduce forest conversion as much as possible while offsetting any remaining deforestation through reforestation and restoration of degraded forests (facilitated by the company directly or through environmental currencies like the purchase of carbon or biodiversity offset credits). A small but growing number of commitments go beyond zero-deforestation to no-conversion, which aims to eliminate the conversion of all natural ecosystems, not only forests, due to commodity production.

**Certification:** A company commits to produce or purchase commodities that are certified by an independent, third-party certification standard, such as Roundtable for Sustainable Palm Oil (RSPO). This type of target is often a proxy for the company to reduce or eliminate deforestation from their commodity supply chains or production operations. Certification standards typically audit and otherwise monitor production units regularly and address any non-compliance issues to ensure that certain land use and other sustainability requirements are met.

**Traceability:** A company commits to determine the origin or intermediate source of a commodity within its supply chain (e.g., 100% of cocoa will be traceable to the plantation). Doing so allows the company to ensure its commodity supplies are from "known or controlled" sources where deforestation has not occurred.

**Dormant commitments:** Commitments with a target date that has passed (or, if without a target date, the commitment was announced more than two years ago), but no progress has been reported towards the main goal or any interim milestone targets.

**Stale commitments:** Commitments that otherwise appear to be active, but the target date provided in all commitment documentation has passed. Because *Supply Change* conducted this research in mid-2021, target dates from 2020 or earlier were considered stale.

**Free, Prior, and Informed Consent (FPIC):** The practice of recognizing the right of indigenous and traditional communities to give or withhold consent to actions that will affect them, especially actions affecting their lands, territories, and natural resources. FPIC is intended to prevent intentional or unintentional negative impacts from large-scale land use or development projects on these communities caused by their exclusion from decision-making processes. FPIC is considered a "best practice" in conservation and development to identify, avoid or negotiate potential conflicts with communities.<sup>2</sup>

**Grievance Mechanism:** A process through which employees, suppliers, and other affected parties can alert the company to negative impacts on human rights and the environment that stem from the company's or its supplier's business operations.



## High and Low Deforestation Risk Areas:

**High Deforestation Risk Areas:** Areas where there is an imminent risk of large-scale forest conversion or degradation associated with the production of a particular agricultural or forestry commodity. Overall, deforestation risk tends to be highest in the tropics, although some temperate and boreal regions are at risk for forest degradation from commodity production. Certain areas may be considered to have high-deforestation risk associated with some commodities, but not others (e.g., countries in Southeast Asia are at high risk from deforestation to produce palm oil, but not cattle<sup>3</sup>). The World Wildlife Fund's 2015 Living Forests report, used by some companies in their risk assessment process, lists eleven regions it determined to be at high risk from deforestation: the Amazon, Atlantic Forest/Gran Chaco, Borneo, Cerrado, Chocó-Darién, Congo Basin, East Africa, Eastern Australia, Greater Mekong, New Guinea, and Sumatra.

**Low-Deforestation Risk Areas:** Areas where there is no imminent risk of large-scale forest conversion or degradation associated with the production of a particular commodity.

**Known or Controlled:** **Known** commodity material origins are materials that the company is able to trace to the production units. **Controlled** commodity materials are sourced through a control system that assesses and manages the attributes of raw materials or products at their place of production and/or as they move through a supply chain, such as a certification system, government regulation and enforcement, and supplier-managed control systems. The Accountability Framework recommends that companies ensure that the materials they source are known or controlled to "a sufficient extent to ascertain that the production and processing units of origin comply with commitments, or to determine the extent and nature of issues that must be resolved."<sup>4</sup>

**Monitoring:** A process that assesses the extent to which the company's intended actions, progress, performance, and compliance are being carried out or achieved. Monitoring systems allow companies to evaluate their suppliers' compliance with their commitments and assess commitment progress.

### Progress:

**Quantitative progress:** SC considers quantitative progress to have been made if the company provides the percent (or data that can be used to calculate this percent, such as the total commodity volume and the volume in compliance with the commitment) of their commitment goal that they have achieved. This figure is usually the percent of the commodity volume that is compliant with the commitment, though some commitments have different units of measurement (e.g., number of production units).

**Non-quantitative progress:** SC considers a company to have made non-quantitative progress towards their commitment if it reports information on the achievements made towards the commitment target other than the percentage of the main commitment target that has been achieved. This includes disclosure of the percent of the commodity that was traceable to any level (production units, processing facilities, country, other), the certified commodity volume produced or sourced, and full or partial achievement of any interim (milestone) targets.

**Risk Assessment:** A systematic process to evaluate the potential extent of deforestation within a company's direct operations, raw material supply chains, investments, and the potential impact this deforestation is likely to have on the company's financial performance.

**Smallholder producers:** Small-scale producers of forest or agricultural commodities receive the bulk of their income from commodity production and operate independently of large-scale producers. Smallholders control large portions of global production for certain commodities, like palm oil (40 percent<sup>5</sup>) and cocoa (90 percent<sup>6</sup>). Poverty, disenfranchisement, and other livelihood challenges are major obstacles for smallholders to farm more sustainably.<sup>7</sup>

**Scope 1, 2, and 3 Emissions:** The categories of emissions as outlined by the Greenhouse Gas (GHG) Protocol (Box 9). Scope 1 emissions are direct emissions from owned or controlled sources, such as their manufacturing facilities. Scope 2 emissions are indirect emissions from energy generated off-site, such as purchased electricity. Scope 3 emissions are other indirect emissions, including those embedded in supply chains for purchased goods and services (e.g., land conversion and degradation, fertilizer use, livestock, etc.).

**Supplier Support:** Technical, financial, or community support that companies provide to their suppliers to 1) encourage sustainable agricultural and forestry practices in forest-risk commodity production and 2) facilitate greater compliance with company procurement standards and commitments. The types of support offered include, workshops and trainings, access to financial services, and community development projects.

**Verification:** Validation of the company's or its suppliers' compliance, performance, and/or actions relative to their stated commitment, standard, or target. Verification can be conducted by the company themselves, a party hired by the company, or an independent third party (the latter is considered best practice).

# INTRODUCTION

## Annual Findings on Corporate Deforestation Commitments

Over the past eight years, *Supply Change (SC)*, an initiative of Forest Trends, has developed an expansive database of market intelligence on over 900 companies, tracking commitments and progress companies make towards addressing commodity-driven deforestation within cattle, cocoa, palm oil, soy, and timber and pulp supply chains. Over the next five years (2022–2027), *SC* will publish reports annually, summarizing key trends in the commitments, implementation and impacts of companies' sustainable commodity commitments. The series will identify trends in corporate sustainability commitments within key forest-risk supply chains that are emerging post-2020, to provide companies and investors alike with actionable information to enhance sustainable practices in their corporate portfolios and mitigate potential reputational, operational, and market risks.

## Part One: Evaluating Corporate Commitments and Sustainability Policies

This report is the second in a two-part series exploring the evolution of corporate commitments and supply chain management since 2020. In [Part 1, Corporate Progress on No Deforestation and "Nature Positive" Post 2020](#), *SC* found that most companies had time-bound commitments to reduce forest loss, but many did not have sufficient systems to implement their commitments, including comprehensive risk assessment processes and greenhouse gas (GHG) emissions measurement and mitigation strategies that included Scope 3 emissions. Despite maintaining a commitment for at least one forest-risk commodity, many commitments did not cover companies' entire supply chain, and *SC* noted recurring issues with commodity coverage and the level of detail provided by companies. Overall, *SC* found that companies are working to understand and minimize the impacts of their commodity pro-

duction and sourcing, but many are still falling short on key facets of sustainability reporting.

## Part Two: Assessing Implementation and Reporting Performance

Companies are setting stronger, more wide-reaching commitments to address commodity-driven deforestation, but greater transparency and more consistent reporting are needed across all stages of the value chain to achieve these commitments, and deliver meaningful positive impacts on forests and other natural ecosystems. In the second part of this two-part series on the findings of *SC*'s 2021 company research and analysis, *SC* builds on its previous findings to assess trends in the approaches used by companies to implement and disclose progress on their commitments. Trends discussed include companies' approaches to monitoring, traceability, risk management, supplier engagement, progress reporting, and GHG emissions reporting. This report highlights the implications of these trends and where there are opportunities for investors to encourage companies in their portfolios to adopt best practices for effective implementation and reporting. Although uptake of best practices has increased in recent years, varied methodologies, gaps in commitment coverage, and ongoing supply chain complexities from the COVID-19 pandemic and other global events, have continued to undermine overall progress.

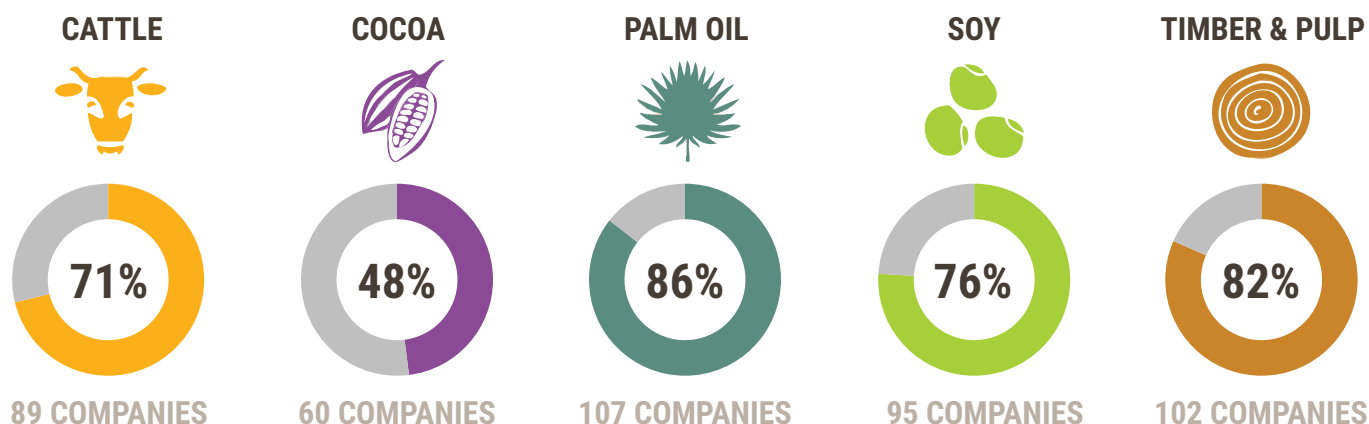
This report demonstrates that above all, urgent action is needed to overcome persistent barriers to drive progress in fulfilling corporate sustainability commitments in forest-risk supply chains. Both companies and investors will have a pivotal role in the next five years in driving transformational change towards eliminating commodity-driven deforestation, reducing greenhouse gas emissions, and protecting human rights throughout their supply chains.

# 2021 SUPPLY CHANGE COMPANY TRACKING OVERVIEW

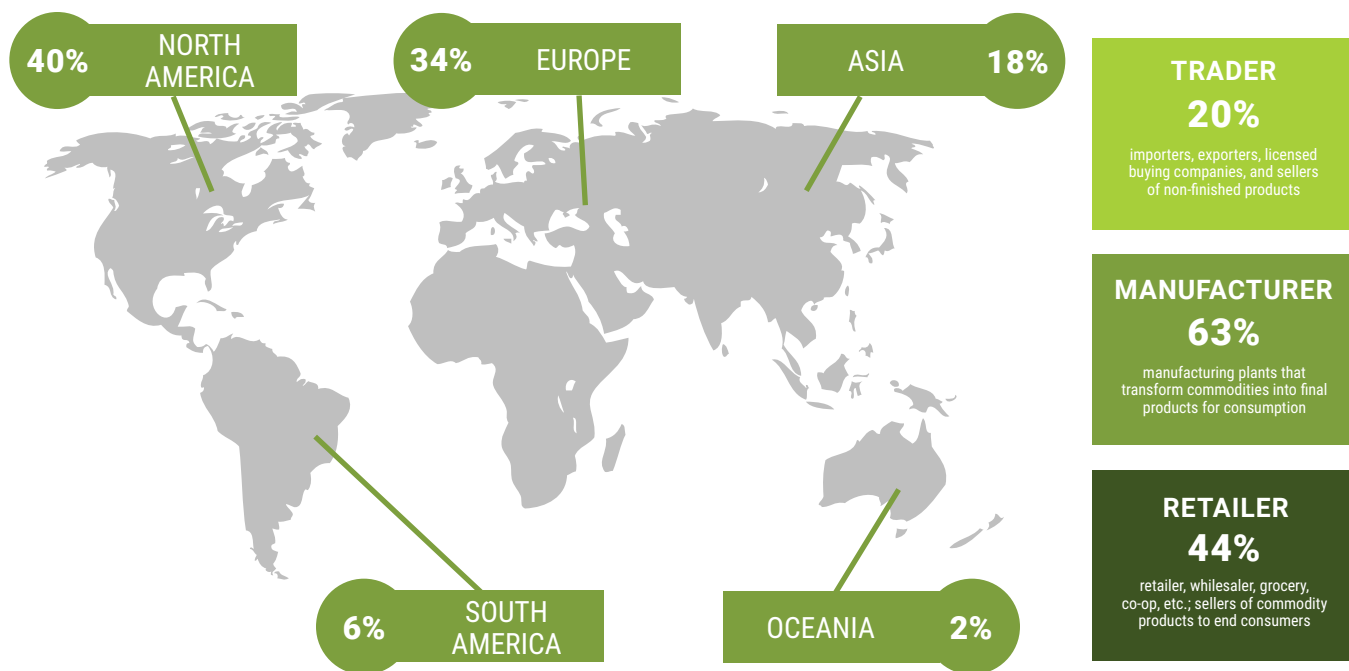
To understand how corporate commitments are evolving in a post-2020 landscape, SC evaluated 125 prominent consumer-facing retailers, manufacturers, and traders who source forest-risk commodities from the tropics. This selection of companies represents some of the largest brands with global operations accounting for over \$4 trillion USD in global sales. Collectively, they make up approximately 60 percent of the holdings in the Consumer Discretionary sector and encom-

pass up to 70 percent of the holdings in the Consumer Staples sector listed in the S&P 500. For more information on the companies including commodities evaluated, headquarters locations, supply chain levels, and industry classifications, please see Figures 1, 2, and 3. For additional details on the companies and the selection criteria utilized by SC, please refer to the [Methodology](#).

**FIGURE 1: COMPANIES WITH EXPOSURE TO FIVE FOREST-RISK COMMODITIES RESEARCHED BY SUPPLY CHANGE**

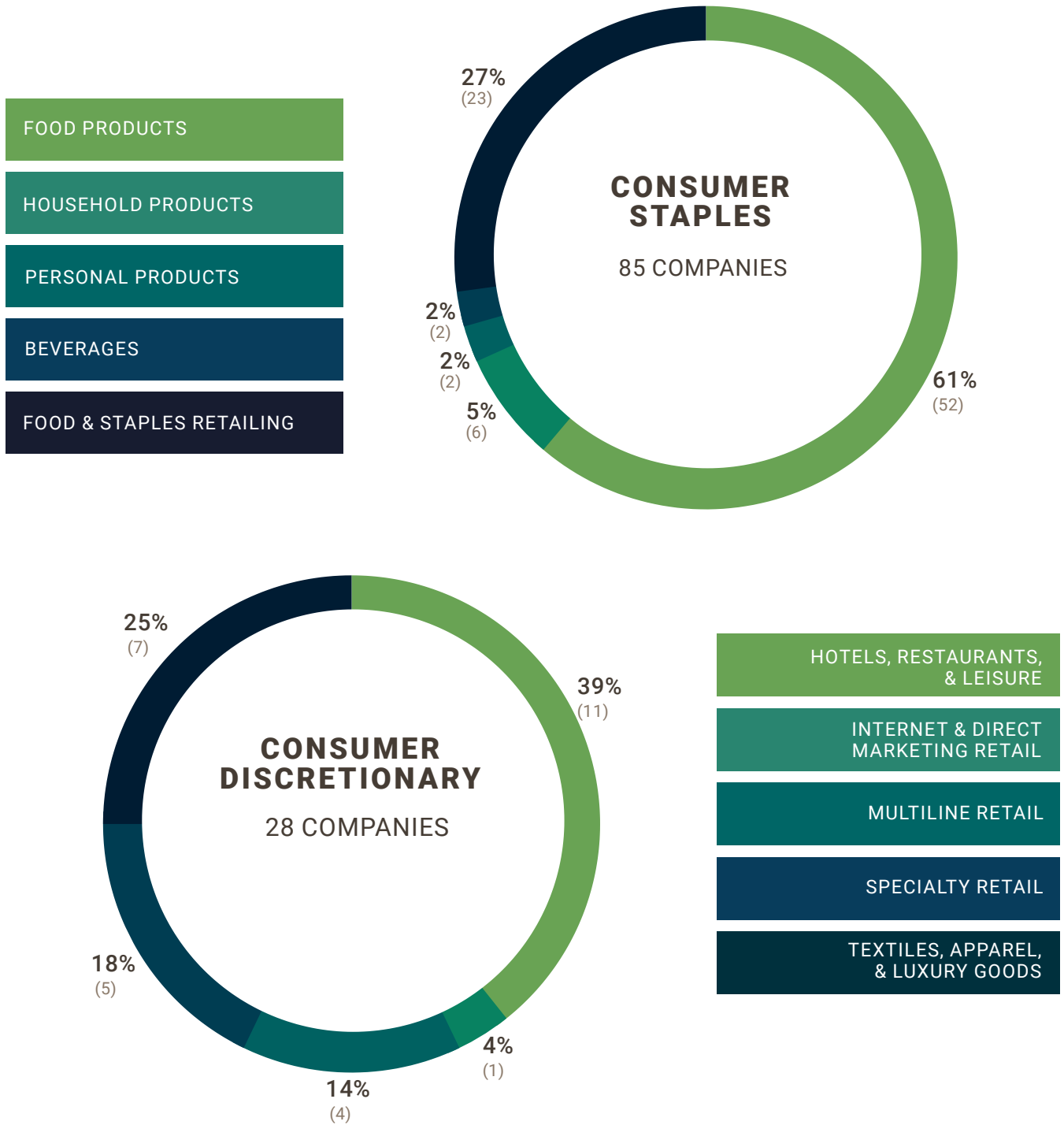


**FIGURE 2: PERCENTAGE OF COMPANIES BY HEADQUARTER LOCATION AND TOP 3 SUPPLY CHAIN LEVELS**





**FIGURE 3: PERCENTAGE OF COMPANIES BY SECTOR AND INDUSTRY (GICS): CONSUMER STAPLES & CONSUMER DISCRETIONARY**





# KEY FINDINGS

- 1. Companies are still struggling to identify the origins of forest-risk commodities**, which is a crucial first step in being able to assess potential exposure to deforestation and other negative sustainability impacts. Overall, less than one-third (38/125) of companies were able to provide the percentage traceable to the source or primary production unit for at least one commodity sourced. The lack of corporate visibility at the source of production inhibits investors' abilities to assess and mitigate potential exposure to deforestation from the companies in their portfolios.
- 2. Companies continue to rely strongly on certification standards to implement their commitments and minimize deforestation risk**, with almost 90 percent of companies (110/125) sourcing or producing certified commodity materials. One-third of companies (41/125) restricted sourcing based on deforestation risk levels in different sourcing regions, and over 40 percent (51/125) implemented additional scrutiny measures (e.g., monitoring suppliers) for commodity materials originating from regions with high-deforestation risk. The trends in company choice of implementation approach reflected the nature of different commodity supply chains (e.g., availability of certified materials) and the levels of risk in different producing regions (determined by the company's risk assessments).
- 3. Companies are monitoring commodity supply chains using a variety of approaches.** Seventy percent of companies (88/125) implemented some form of monitoring to assess supplier compliance with their deforestation policies. The most popular types of monitoring companies used were audits of production units (59), remote sensing (46), and supplier engagement (43). Grievance mechanisms were also a common feature of companies' monitoring strategies: three-quarters (94/125) of companies used them to field and respond to reports of company policy violations. Overall, the availability of tools and resources for different forest-risk commodities influenced the monitoring strategy selected.
- 4. Two-thirds of companies (82/125) have a policy to respond to suppliers violating their established procurement standards, but many did not provide details about their resolution processes.** Only 37 percent of these companies (30/82) disclosed using time-bound action plans, which are a crucial element of working with suppliers to resolve instances of non-compliance. Failure to disclose non-compliance policies undermines a company's credibility and ability to eliminate practices that put forests and their inhabitants at risk.

## KEY FINDINGS (CONTINUED)

- 5. Many companies disclosed progress made towards their commitments, but some struggled to quantify progress for all commitment types and forest-risk commodities.** The extent of reported progress differed by commodity, ranging from almost 90 percent (80/90) of companies quantifying progress for their palm oil commitments to only half of companies doing so for their cattle commitments (15/30). The type of target specified in the commitment also influenced progress disclosure: almost 90 percent of certification-based commitments (119/134) had recorded progress versus less than half (44/98) of zero-/zero net-deforestation commitments. A lack of quantitative progress can undermine the credibility of companies' deforestation policies and statements and may indicate that companies need more support and guidance on measuring and reporting progress.
- 6. Nearly one-quarter of companies have at least one commitment to which they have never reported progress.** SC found that, out of the 112 companies with at least one commitment, nearly one-quarter (25 companies) had at least one commitment to which they have never reported progress (i.e., dormant\*). Far fewer companies (4/90 with a palm oil commitment) allowed their palm commitments to go dormant than commitments targeting other commodities, such as beef (7/30), cocoa (5/22), soy (7/38), and timber & pulp (15/67). These performance gaps signal to investors that some companies may be struggling to implement and report on all of their commitments. In such cases, greater external pressure and support could be leveraged to address challenges with certain commitment types and commodity supply chains.
- 7. Disclosure on greenhouse gas emissions is on the rise, but efforts to measure and mitigate emissions from deforestation and land-use change embedded in commodity supply chains are lagging.** Though supply chain emissions from land use make up a substantial portion of many consumer goods companies' carbon footprints, SC found that less than half of companies (51/125) reported on these emissions. The lack of reporting underlines that companies are neglecting to capture and track a major source of emissions and risk in their commodity supply chains. Overall, greater corporate transparency is needed for investors to effectively understand the detrimental impacts of climate change attributed to agricultural supply chains.

\* Please see [Glossary](#) for definition of dormant commitments



## KEY FINDING 1

# Companies Are Still Struggling to Identify the Origins of Forest-Risk Commodities

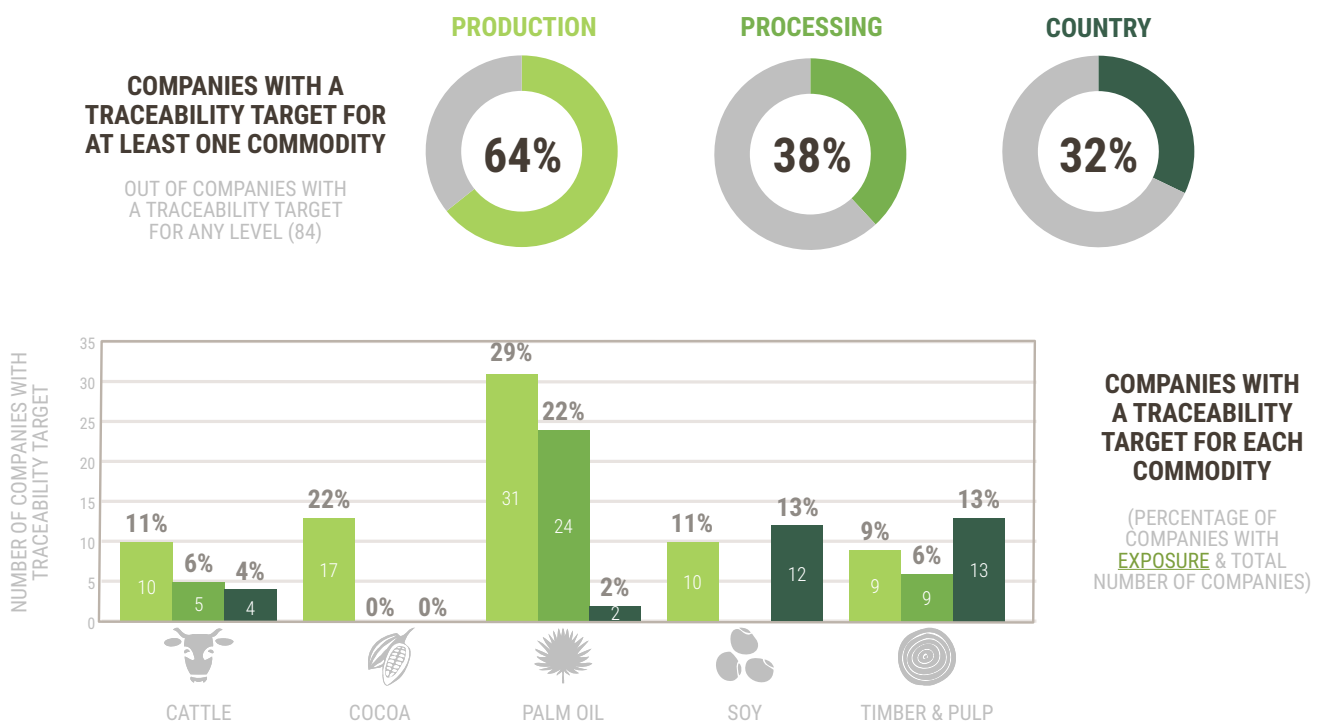
Traceability refers to a company's ability to follow a product or its components through stages of the supply chain.<sup>8</sup> This visibility is an essential component of company sustainability commitments, as it provides companies with crucial information about the origins of the commodities they source. This allows them to assess the presence and extent of deforestation embedded in their supply chains, implement effective solutions, and measure on-the-ground impacts and commitment progress. Two-thirds of companies (84/125) had a target to improve their traceability for at least one forest-risk commodity.

Companies typically specify the point(s) to which they will trace the commodity materials in their supply chain, which typically fall into three categories: 1) individual production units (farms, plantations, ranches, etc.); 2) facilities that pro-

cess the commodities (refineries, mills, slaughterhouses); or 3) commodity country of origin. Some companies have goals to achieve traceability to multiple supply chain points (e.g., a company may have an ultimate goal for production-level traceability and interim goals for processing facility and/or country of origin traceability).

Overall, company traceability statements indicate that they have a strong interest in understanding impacts on the ground and directly assessing supplier compliance. Most companies with traceability statements (64/84) planned to trace forest-risk commodities to the production units, while fewer companies (32/84) had goals to trace commodity materials only to their processing facilities, and fewer still had goals to trace the commodity only to its country of origin (27/84) (Figure 4).

**FIGURE 4: CORPORATE TRACEABILITY TARGETS BY TRACEABILITY LEVEL & FOREST-RISK COMMODITY**



Although more companies were pursuing traceability to production units, less than one-third (38/125) of companies reported the percentage of the commodity volume traceable to the individual production units for at least one commodity. Companies had greater success tracing to the processing (54/125) and country (49/125) levels. Companies also had greater success tracing volumes for some commodities than for others (Figure 5).

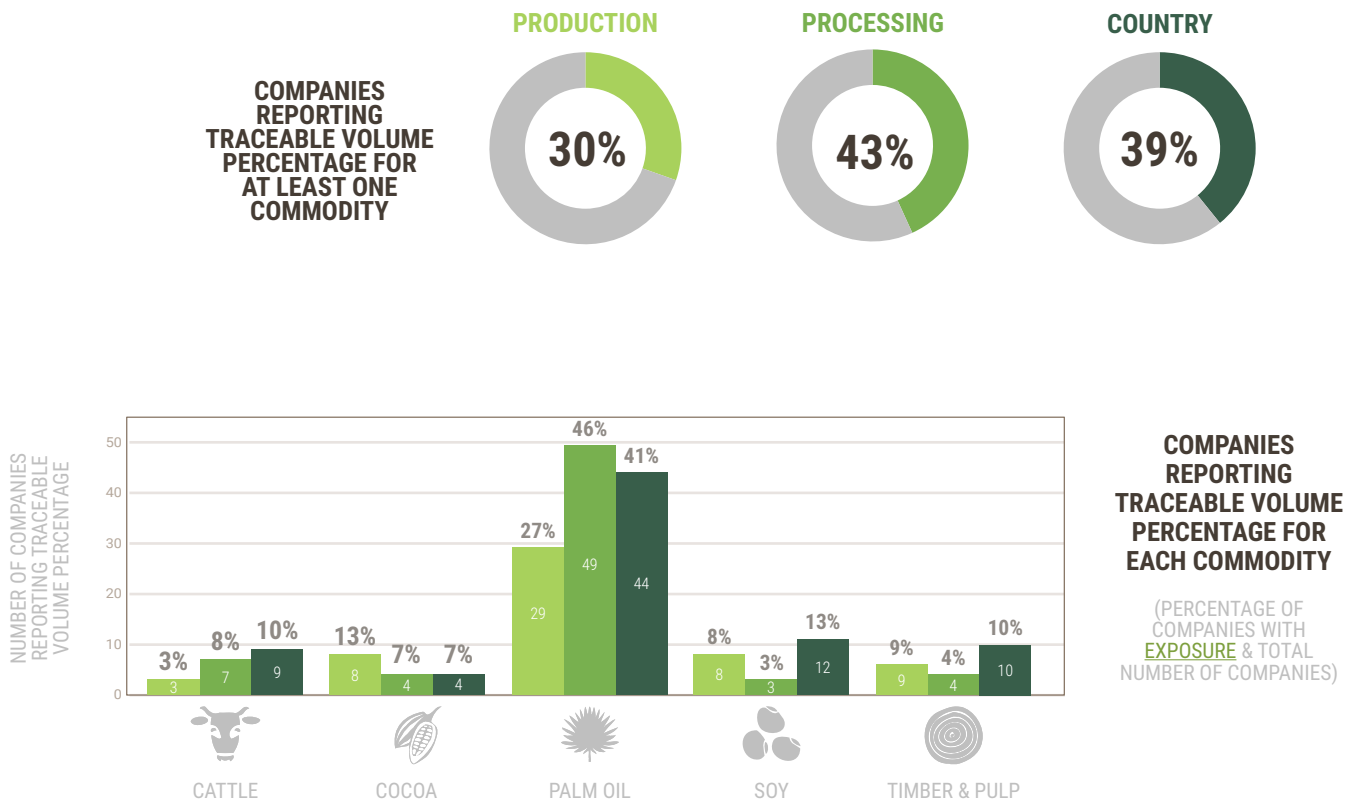
This wide variation SC observed may stem from supply chain complexities, such as the difficulty of mapping direct suppliers all the way to individual plantations, farms, and ranches. For example, cattle often live on multiple farms throughout their lives, so to be certain that the cattle products are deforestation-free, companies must be able to identify each farm that contributed to the rearing of each animal and assess the farms for deforestation, which is extremely difficult and has hampered the progress of many companies sourcing cattle products.<sup>9</sup>

### BOX 1: COMPANY SPOTLIGHT

#### WILMAR INTERNATIONAL'S TRACEABILITY POLICY

Wilmar International is a major trader, processor, and producer of palm oil with operations across 20 countries in Africa and Asia. The company both operates its own oil palm plantations and purchases palm oil from suppliers. The company reports that it is “engaging with mill owners who can reach their own FFB suppliers to ensure the process of transformation can begin across the entire supply,” and this has been crucial to helping them achieve 100 percent traceability to each plantation in its palm oil supply chain.

**FIGURE 5: COMPANY REPORTING OF PERCENT OF COMMODITY VOLUME TRACEABLE, BY TRACEABILITY LEVEL & COMMODITY**





Although traceability to production enhances a company's understanding of risks in their upstream supply chains, the process of mapping commodity origins to this level is a lengthy, logistically complicated, and expensive process. This is especially true for companies in downstream supply chain levels, such as manufacturers and retailers, who may have hundreds of direct suppliers for each forest-risk commodity and may be separated from the production operations by many levels of indirect suppliers.

Depending on the specific supply chain and commodity, achieving production-level visibility may not be necessary to verify that the commodity is deforestation-free, and there are other traceability points and tools that companies use instead of or in addition to pursuing production-level traceability.<sup>10</sup> The Accountability Framework, which outlines established best practices to achieve deforestation-free supply chains, recommends several other traceability levels and approaches that may be sufficient to verify that the commodity is deforestation-free. This includes tracing to a trusted intermediate supplier (25/125 companies) with visibility and control at the production level, tracing to a jurisdiction with low or improving deforestation rates (14/125), or sourcing commodities sourced through a certification chain of custody system (59/125 companies) (e.g., from RSPO's Segregated supply chain model), which tracks and monitors the commodity materials through the supply chain from the production phase to the end buyers.<sup>11 12</sup>

The most popular alternative to production-level traceability was to rely on certification chain of custody systems, and almost half of companies (59) were found to be sourcing certified commodity materials this way. However, many companies combine certification with other approaches because certification standards may have limited effectiveness in addressing certain environmental and social issues.\* Out of the 59 companies using certification chain of custody systems, almost half (28) were also tracing the commodity materials to production units for at least one commodity. The proportion of companies using certification and tracing to production units was highest for companies sourcing cocoa (47 percent, or 8 out of 17 companies sourcing cocoa through certification chain of custody systems) and lowest for cattle (1/3). Company use of certification standards to manage deforestation risk in their supply chains will be discussed in greater depth in [Key Finding 2](#).

Investors need companies to clearly define the objectives and scope of their activities to demonstrate compliance for their given forest-risk supply chain and soundly assess forest-related risks within their portfolios. Companies following the Accountability Framework are encouraged to verify sufficient traceability by continuing to publicly disclose their methods and identify any remaining challenges in their forest-risk supply chains.<sup>13</sup>



\* Please see [Installment 1](#) for more information on trends regarding corporate commitments to source forest-risk commodities through third party certification systems

## KEY FINDING 2

# Companies Continue to Favor Sourcing Certified Materials to Manage Deforestation Risk

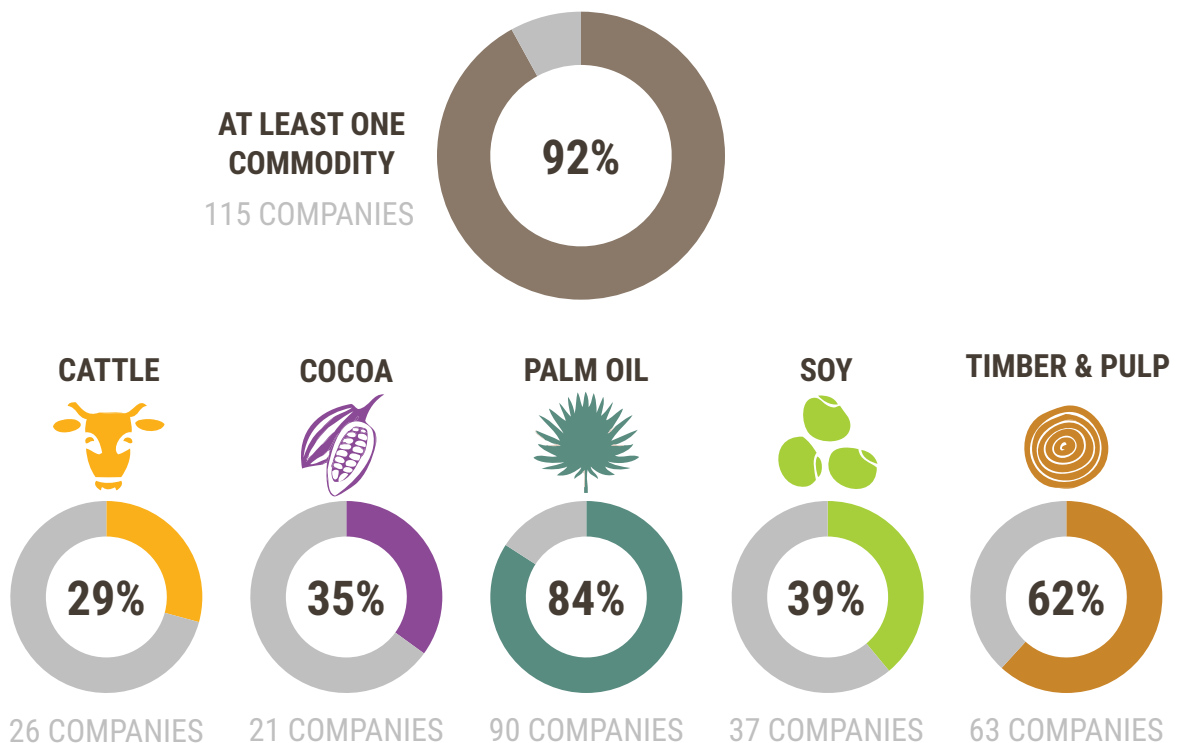
For investors, it is especially important that companies in their portfolio have robust approaches to manage deforestation risks and deliver on their commitments. The approaches companies take should allow them and their investors to be reasonably confident that deforestation is not occurring in the supply chains of the forest-risk commodities they source, and that they are well-equipped to identify and respond to suppliers that violate their deforestation policies.<sup>14</sup>

Generally, corporate deforestation risk management falls into three broad categories: 1) sourcing certified commodity ma-

terials, 2) restricting sourcing based on the relative deforestation risk in certain producing regions, and 3) establishing certain additional scrutiny measures for commodities originating from certain areas with high-deforestation risk. The type of commitment target set by companies, the intricacies of the different commodity supply chains, and the results of risk assessments all influenced company approaches to risk management and commitment implementation (Figure 6). For more information, see [Part One: Corporate Progress on No Deforestation and "Nature Positive" Post 2020](#).

**FIGURE 6: COMPANY DISCLOSURE OF IMPLEMENTATION AND RISK MANAGEMENT STRATEGIES, BY FOREST-RISK COMMODITY**

(PERCENTAGE OF COMPANIES DISCLOSING THEIR IMPLEMENTATION OR RISK MANAGEMENT APPROACH OUT OF THE NUMBER OF COMPANIES WITH **EXPOSURE** TO EACH COMMODITY)

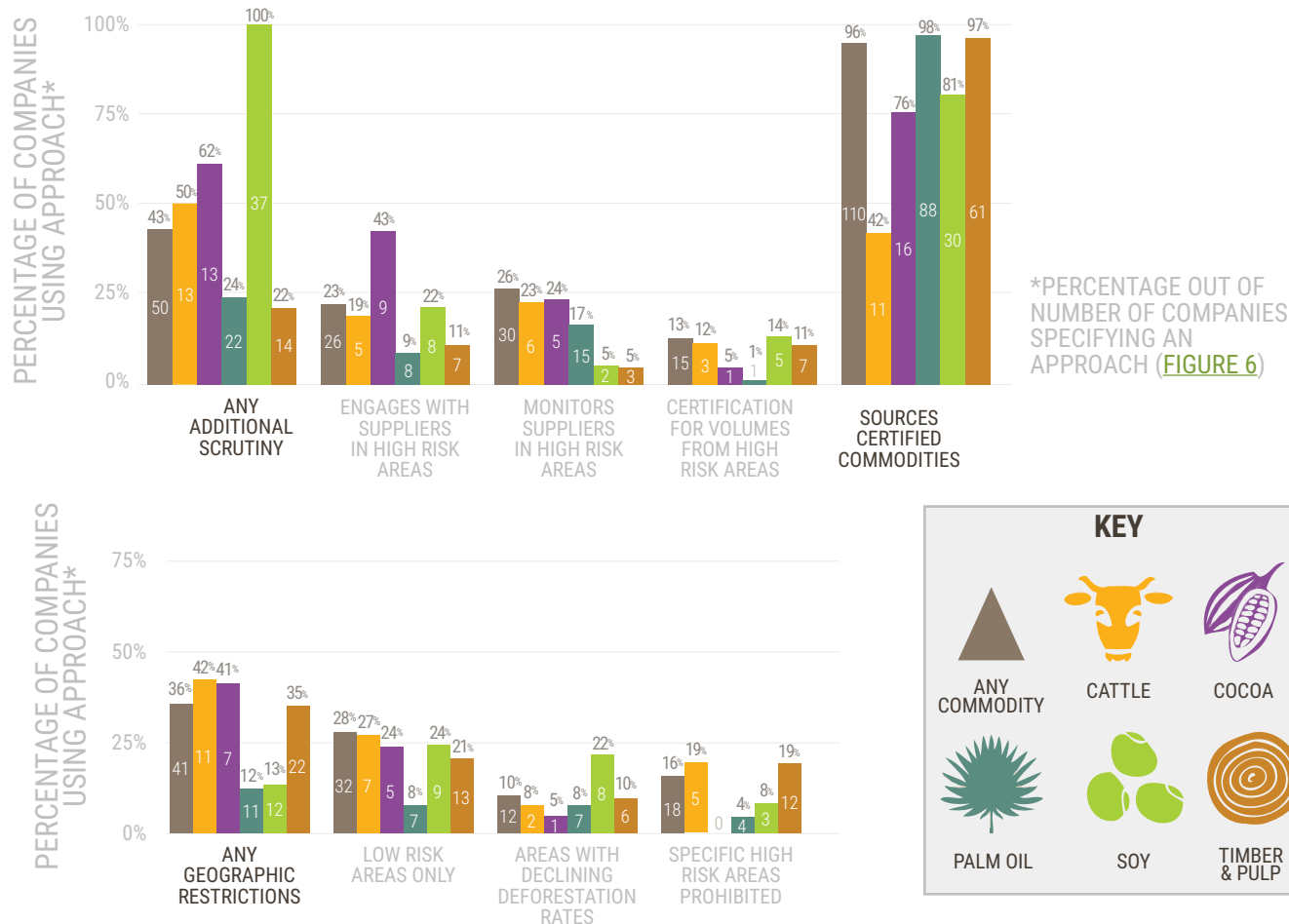




Certification was the most popular approach, used by almost 90 percent of companies (110/125), followed by risk-based additional scrutiny measures used over 40 percent (50/125), and geographic restrictions used by 33 percent (41/125). Companies may use multiple implementation approaches, even for the same commodity and commitment, and some approaches may fall into multiple categories. For example,

requiring commodity materials to be certified if they originate from high-deforestation risk areas would be considered both a risk-based due diligence approach and a certification-based approach. See Figure 7 for a breakdown of implementation approaches by commodity.

**FIGURE 7: COMPANIES' RISK-BASED SOURCING APPROACHES, BY COMMODITY**



## Certification

Previous reports by SC<sup>15</sup> (Box 2) have consistently found that an overwhelming majority of companies rely on sourcing certified commodity materials, where possible, to implement their commitments, and companies largely maintained this trend in SC's 2021 research. Though sourcing certified commodity materials tends to be more expensive than non-certified materials, doing so allows companies to outsource much of the burden of implementation and monitoring to a third-party certification standard, including tracking the commodity materials through the supply chain (see [Key Finding 1](#)), identifying and responding to non-compliant suppliers, and measuring on-the-ground impacts.

The percentage of companies implementing their commit-

ments via certification varied by commodity, with over 80 percent of companies sourcing or producing certified palm oil (88/107), compared with only 12 percent of companies sourcing cattle (11/89). Over two-thirds of companies (69/105 timber product users) sourced certified timber products, and around one-third of companies sourced certified soy (32/95) and certified cocoa (21/60), respectively. This largely reflects the availability of certification standards that cover deforestation and land-use change for different commodities. The RSPO, for example, is well-known, widely used, and easily accessible for companies sourcing palm oil, has more robust forest protections than many certification standards, and covers about one-fifth of the global palm oil supply.<sup>16 17</sup>

## BOX 2: CERTIFICATION SCHEMES — LOOKING BACK TO 2017

In a 2017 report, *Tracking Corporate Commitments to Deforestation-Free Supply Chains*,<sup>18</sup> *Supply Change* found that certified commodity production was increasing, and more companies were sourcing certified commodities specifically for their palm oil and timber and pulp supply chain. *Supply Change* attributed this “in part to the widespread proliferation of certification programs (RSPO, FSC), as well as the more stringent import/export regulations for timber & pulp markets (U.S. Lacey Act, European Union Timber Regulation).” In 2021, this trend persisted, and companies continue to rely on certification schemes to develop, implement, and report on their commitment targets.

### Risk-Based Additional Scrutiny

Over forty percent of companies (51/125) had implementation approaches that differed by the levels of deforestation risk in different sourcing regions, applying additional scrutiny measures to commodities originating from regions with high-deforestation risk associated with the production of the commodity. This included companies monitoring or engaging with suppliers in high-deforestation risk areas\* (29 and 27 companies, respectively), companies requiring materials originating from high-deforestation risk areas to be certified (15), and companies applying other or unspecified forms of additional scrutiny (12).

### Restricted Sourcing Regions

About one-third of companies (41/125) restricted sourcing to certain geographic regions based on deforestation risk. Out of these 41 companies, 32 (78 percent) required commodities to be sourced from regions with low-deforestation risk, 18 (44 percent) prohibited sourcing from certain (high-deforestation risk) regions, and 12 (29 percent) sourced from regions with declining deforestation rates. These restricted sourcing approaches were generally more popular with companies sourcing cattle (15 out of 89 companies with cattle exposure), soy (12/95), and timber (17/102) than with cocoa (7/60) and palm oil (11/107). This may be because soy, cattle, and timber are produced in geographic areas with varying levels of deforestation risk. Commodities like cocoa and palm oil only grow in tropical climates and are primarily produced by a few coun-

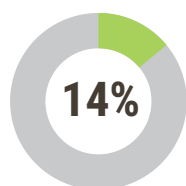
tries where deforestation rates tend to be higher.

Therefore, companies sourcing cattle products may choose to remove certain regions with high-deforestation risk from their supply chain and source from regions with lower deforestation risk or apply additional scrutiny measures only to materials from regions with high-deforestation risk. The restrictions *SC* observed companies using largely aligned with established risk assessment tools, such as WWF’s Living Forests report,<sup>19</sup> which identifies biomes under threat from human activities, including commodity production in the form of expanding livestock pasture, large-scale crop production (e.g., plantations for soy and palm oil production), and timber harvesting. Of the forests under threat from livestock production outlined in the report, all but two are in South America. This corresponds to *SC*’s findings that companies sourcing cattle applied additional scrutiny measures or sourcing restrictions to products from South America more often than to any other country or region, particularly Brazil (Figure 8).

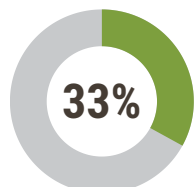
Two companies (Marks and Spencer and Domino’s) avoided this challenge altogether by restricting sourcing to only low-deforestation regions (United Kingdom and Ireland, and United States, respectively). See Table 1 for an overview of the geographic restrictions used by companies sourcing cattle products.

\* Please see [Glossary](#) for definitions of low- and high-deforestation risk areas.

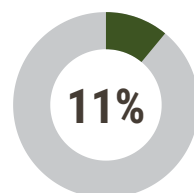
## FIGURE 8: GEOGRAPHIC SOURCING RESTRICTIONS FOR CATTLE PRODUCTS FROM SOUTH AMERICA



COMPANIES WITH SOURCING RESTRICTIONS IN **SOUTH AMERICA**



COMPANIES WITH SOURCING RESTRICTIONS IN THE **AMAZON BIOME**



COMPANIES WITH SOURCING RESTRICTIONS FOR **BRAZIL**



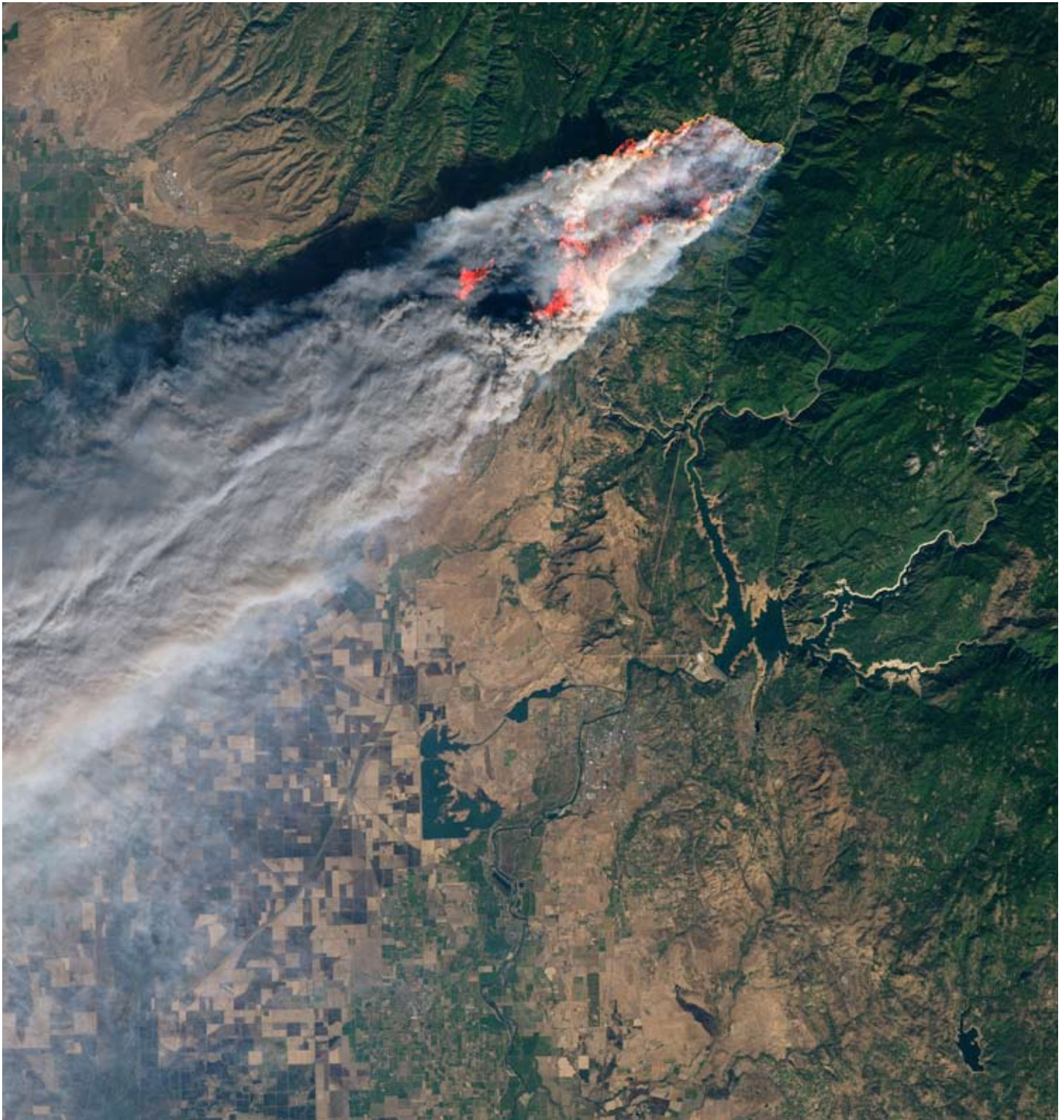
## TABLE 1: GEOGRAPHIC SOURCING RESTRICTIONS FOR CATTLE PRODUCTS FROM SOUTH AMERICA

COMPANY	PRODUCT TYPE	RESTRICTION TYPE	GEOGRAPHIES RESTRICTED
ADIDAS	Leather	Additional Scrutiny	Non-European countries
IKEA	Leather	Additional Scrutiny	Europe, Brazil, Argentina, Russia
JERONIMO MARTINS	Beef	Additional Scrutiny	Brazil
MARFRIG	Beef	Additional Scrutiny	Amazon biome
MARS	Beef	Additional Scrutiny	Brazil, Amazon biome
MCDONALD'S	Beef	Additional Scrutiny	Argentina, Australia, Brazil, Paraguay
METRO AG	Beef	Additional Scrutiny	Brazil, South America
SAINSBURY'S	Beef	Additional Scrutiny	Brazil
TESCO	Beef	Additional Scrutiny	Brazil, South America
TYSON FOODS	Beef	Additional Scrutiny	South America
WALMART	Beef	Additional Scrutiny	Brazil
YUM! BRANDS	Beef	Additional Scrutiny	Brazil
H&M	Leather	Additional Scrutiny	Brazil
		Prohibits Sourcing	Bangladesh, Amazon Biome
JBS	Beef	Prohibits Sourcing	Amazon biome
KERING	Leather	Prohibits Sourcing	Amazon biome
NIKE	Leather	Prohibits Sourcing	Amazon biome
VF CORPORATION	Leather	Prohibits Sourcing	Brazil
MARKS & SPENCER	Leather	Prohibits Sourcing	Amazon biome
	Beef	Exclusively Sources	United Kingdom, Ireland
DOMINO'S	Beef	Exclusively Sources	United States



By implementing rigorous supply chain management approaches and assessing varying levels of risk, companies can minimize the risk that deforestation is embedded in their supply chains and measure progress towards their commitment targets. Investors can encourage companies in their portfolio to adopt rigorous approaches, including robust risk assessments, traceability and supply chain mapping exercises, sup-

ply chain management and monitoring policies, and regular reporting on their activities. Resources like the Accountability Framework can help companies and their investors identify and implement the best approaches to ensure that their commodity supply chain is deforestation-free.



## KEY FINDING 3

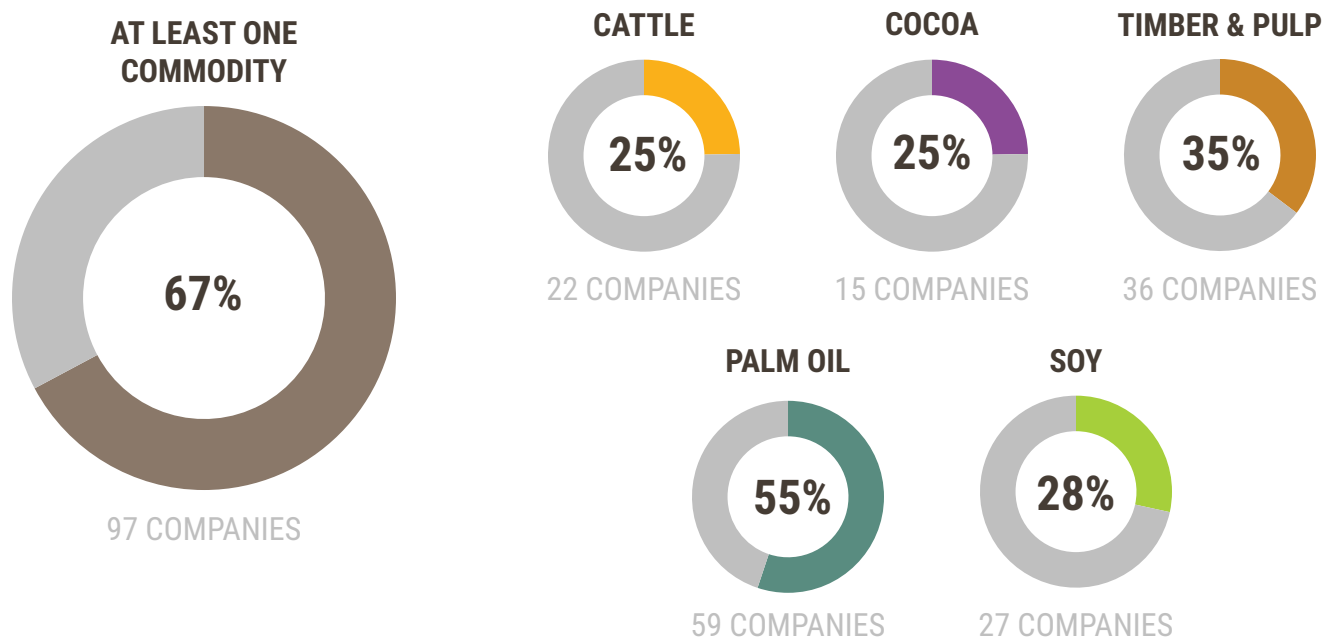
# Companies Are Monitoring Commodity Supply Chains Using a Variety of Approaches

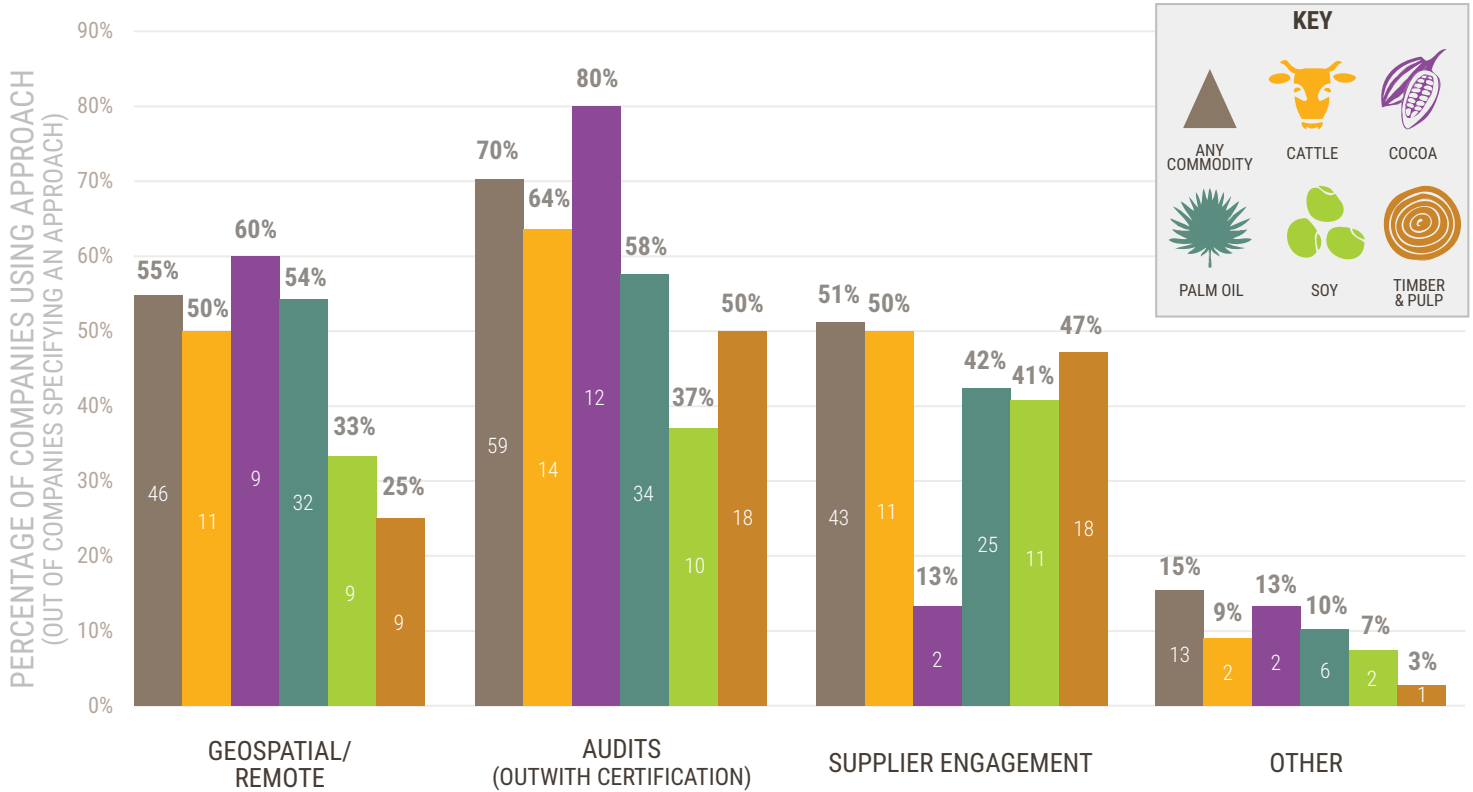
Robust monitoring and verification systems are crucial elements of successful commitment implementation and evaluation. Companies must know who their upstream suppliers are and where they are located if they are committed to transparency and to be able to identify whether suppliers are complying with the terms of their corporate deforestation policy. Effective monitoring allows companies to identify and resolve issues, make data-based decisions, and verify the volume of the commodity in compliance with their commitment, which is essential for companies to report quantifiable progress towards their commitment goals (see [Key Finding 5](#)). Publicly reporting on the monitoring and verification systems reassures investors, corporate management, and customers that the company has robust and reliable systems in place to identify and resolve deforestation issues within the companies' commodity supply chains.

Seventy percent of companies (88/125) used some form of monitoring – not including monitoring conducted through a certification standard – to evaluate supplier compliance and commitment progress, and almost all (84/88) specified the type of monitoring approach used for at least one commodity. As with progress disclosure, companies did not report monitoring their supply chains for all commodities. Of the companies with exposure to all five commodities, only about 30 percent reported monitoring for cattle (22/89), soy (29/95), and cocoa (15/60). Encouragingly, over half of companies exposed to timber and pulp (56/102) and 70 percent of companies exposed to palm oil reported monitoring (Figure 9). SC found that companies tended to use different monitoring systems depending on the forest-risk commodity and tools available to suit their operational needs. Many companies also used more than one monitoring system.



**FIGURE 9: COMPANIES REPORTING MONITORING PRACTICES, BY FOREST-RISK COMMODITY** PERCENTAGE OUT OF COMPANIES WITH EXPOSURE ([FIGURE 1](#)) & TOTAL NUMBER OF COMPANIES




**FIGURE 10: COMPANY APPROACHES TO MONITORING BY FOREST-RISK COMMODITY**


Auditing\* production facilities and other suppliers were the most popular monitoring strategy overall: around 70 percent of companies specifying a monitoring approach (51/84) use audits to monitor and verify supplier compliance and commitment progress for at least one commodity. Although auditing is a popular approach, the cost, intensity, and credibility of audits varies widely (e.g., first-party auditing performed by the company itself vs. independent, third-party auditing). Audits were most commonly used by companies sourcing cocoa (63 percent, or 12/15) and cattle (58 percent, or 14/22).

Just over half of companies also use remote sensing-based technologies (46/84) (e.g., satellite, unmanned aircraft/drones, Lidar, etc.), which was especially popular with companies monitoring cattle and cocoa supply chains. Historically, forest conversion for cocoa production has been difficult to monitor using remote sensing because satellite imagery cannot easily distinguish between cocoa farms and natural forest, especially as cocoa is often shade grown. Updated Lidar-based monitoring tools are slowly improving this capability with higher-resolution, three-dimensional representations of landscapes, which can help companies and governments assess forest degradation and conversion more accurately.

### BOX 3: COCOA & FORESTS INITIATIVE (CFI)



CFI is a coalition of stakeholders – 35 major cocoa and chocolate companies and the governments of Cote d'Ivoire and Ghana – led by the World Cocoa Foundation and IDH Sustainable Trade Initiative. The CFI guides these actors in actions to eliminate deforestation from cocoa production and improve the wellbeing of cocoa farmers and cocoa farming communities.

CFI company signatories are encouraged to submit annual progress reports on their achievements for an array of indicators, including farm mapping, provision of cocoa farming materials, land tenure support, and workshops on Good Agricultural Practices.

Fifteen companies – a quarter of those with cocoa exposure (60) – were signatories to the CFI and participated in these CFI-recommended activities to address deforestation and other social and environmental issues endemic in cocoa production.<sup>20</sup>

\* Please see [Glossary](#) for definition of audits and auditing



The CFI works with the remote sensing service Ecometrica through the UK Space Agency's Forests 2020 Initiative to provide this service. Twenty-five percent (15/60) of companies with cocoa exposure are signatories to the CFI, which provides best-practice guidance, including a recommendation that companies report progress on geospatial mapping and monitoring individual cocoa farms (Box 3).

## Grievance Mechanisms

Although not always described as a monitoring strategy, many companies use a grievance mechanism to identify and track violations of their policies by suppliers and employees. Grievance mechanisms often take the form of hotlines and similar platforms (email addresses, web portals, etc.) where individuals can anonymously alert the company to violations, and include policy frameworks to guide the company in its response to these alerts.

Three-quarters of companies (94/125) had a grievance mechanism covering environmental and social standards, which are often outlined in procurement policies or supplier codes of conduct. Standards may include compliance with local and international labor laws, prohibition of bribery and corruption, respect for indigenous peoples and local communities, and explicit or implied protection for forests and deforestation-related restrictions.

Although many companies have reported implementing a grievance procedure, only about half (46/94) provide contact information for informants to submit a grievance. By withholding this information, companies are limiting information collection to only those with inside knowledge of the grievance process, such as employees. This may also raise questions about the anonymity of the process and disincentivize complainants from speaking up for fear of reprisal. Only 15 percent of companies (14/94) with a grievance mechanism provided any related information, including information on filed complaints, if and how the company responded, and whether a resolution had been reached. Cargill, for example, has a relatively transparent grievance procedure for its sustainable palm oil policy (Box 4).

Effective grievance mechanisms are crucial for companies to monitor their own operations and for investors to identify and remediate risks in their agricultural supply chains. To strengthen their existing grievance mechanisms, companies are encouraged to strengthen their grievance mechanisms by collaborating with industry bodies, designing commodity-specific processes, and engaging multi-stakeholder initiatives to establish best practices for their forest-risk supply chains.<sup>22</sup>

Monitoring and verification are essential components of supply chain management and provide investors with key informa-

tion about the rigor of companies' deforestation and supply chain management policies, environmental and social performance, indicators for which data are collected, and the impact of their forest-related policies. Not all monitoring strategies are equally effective, and investors should consider whether the companies in their portfolio are using methods that align with the best practices outlined in industry resources like the Accountability Framework. For example, the Accountability Framework emphasizes that companies should align their monitoring strategy with positive social and environmental outcomes associated with forest-risk commodity production. The Framework also recommends that companies maximize the effectiveness and efficiency of their efforts by publicly disclosing efforts and coordinating with other companies, civil society, and governments.<sup>23</sup>

### BOX 4: COMPANY SPOTLIGHT CARGILL'S TRACEABILITY POLICY

"Our suppliers are accountable to respond to grievances, set time-bound action plans to ensure progress and close the grievance in a timely manner as agreed to by the complainant. Cargill's Palm Grievance Procedure provides a transparent, open and robust process for dealing with grievances. Listings of supplier grievances are posted in the Palm Sustainability Dashboard. Cargill's policy extends to all parts of our palm supply chain and requires plantations, processing and trading operations, and all third-party suppliers to act in an environmentally sustainable and socially responsible manner."<sup>21</sup>

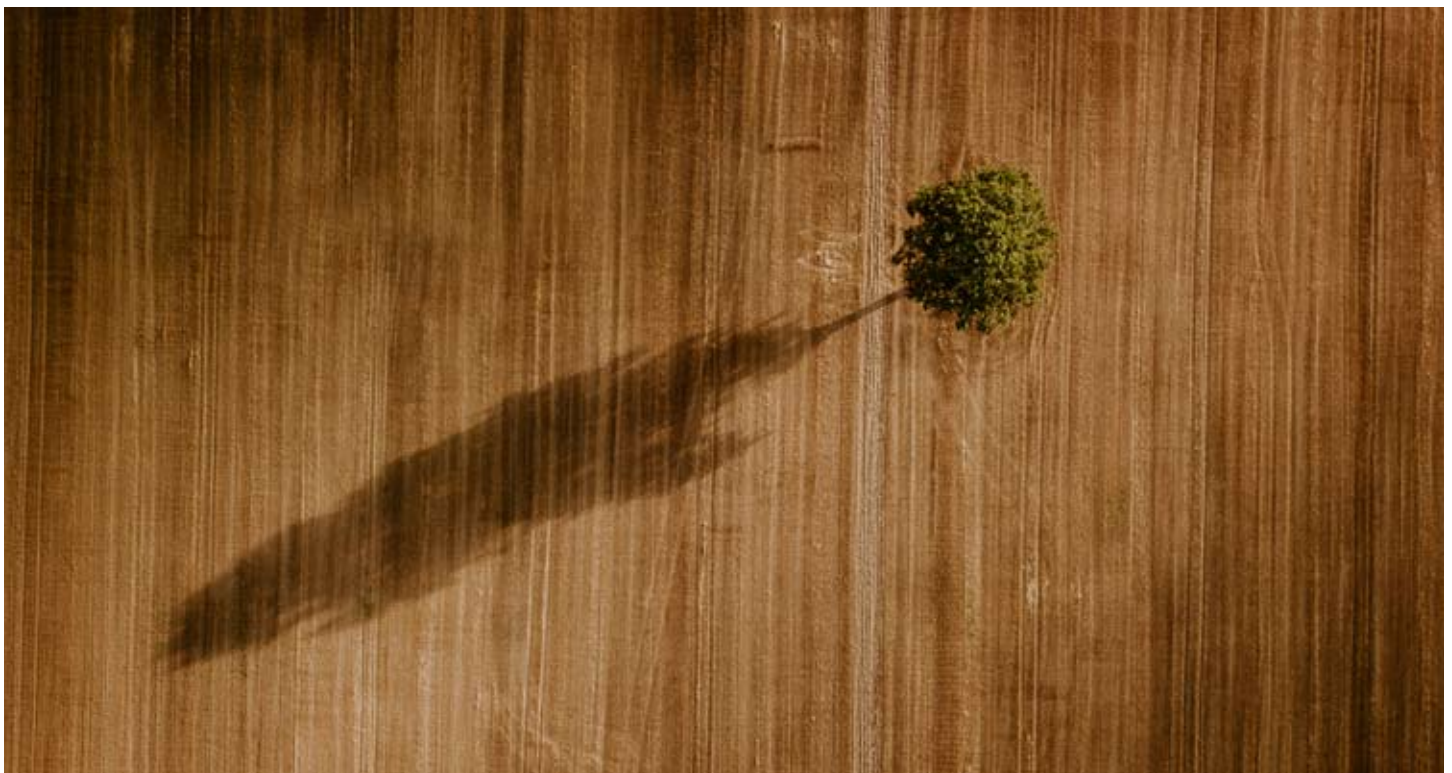
— Cargill,  
*Grievance Process for Policy  
on Sustainable Palm Oil*

## KEY FINDING 4

# Two-thirds of companies have a policy to respond to non-compliant suppliers, but many did not provide details about their resolution processes

A robust process by which companies can identify and effectively respond to supplier non-compliance is essential for resolving environmental and human rights abuses in forest-risk supply chains. As described in the preceding section, companies can identify instances of supplier non-compliance through monitoring and verification processes. With control systems, such as risk assessments and grievance mechanisms, companies can identify high-deforestation risk in their operations and prioritize risk mitigation efforts among suppliers.

When suppliers are out of compliance, it is essential for companies to have criteria to determine the appropriate course of action. SC found that almost two-thirds of companies (82/125) had a policy for how it would respond to supplier non-compliance. Such policies often establish a consultation process to understand the extent of the reported issues and degree of supplier culpability, while controlling for the intensity, scale, and persistence of environmental and social risks.<sup>24</sup>



## BOX 5: COMPANY SPOTLIGHT

### OLAM INTERNATIONAL'S NON-COMPLIANCE POLICY<sup>26</sup>

"We will assess the extent and nature of non-compliance and establish a time-bound plan internally and/or with our suppliers to address the issue and where necessary remediate material negative impacts of non-compliance. As a last resort we will disengage from suppliers who are unable to demonstrate positive steps to address the cause or remediate the impacts of admissible grievances, in a time-bound manner."

-Olam International,  
*Grievance Procedure*

Based on these findings, companies then must determine whether to retain, suspend, or exclude suppliers. In instances of non-compliance the company considers serious (e.g., inadequate Free, Prior, and Informed Consent\* processes) companies may choose to temporarily suspend suppliers, and in the most severe cases (e.g., forced labor, violence against human rights defenders, and persistent instances of deforestation) terminate the relationship and end all purchasing indefinitely. Overall, SC found that 82 percent (67/82) of companies with non-compliance policies outlined the conditions that trigger the suspension or expulsion of suppliers, suggesting that most are implementing best practices.

Time-bound action plans with corrective actions and progress milestones can be valuable tools for companies to bring suppliers into compliance and should include criteria for exclusion in the event suppliers fail to improve (Box 5). SC found that only 37 percent (30/82) of companies with non-compliance policies required the use of a time-bound action plan. Addressing this gap will be essential for these companies to meaningfully address non-compliance. According to best practices established by the AFI, companies can address instances of supplier non-compliance through time-bound action plans. Through these action plans, companies can retain their suppliers, provide criteria for bringing them back into compliance, and incentivize their continued improvements.<sup>25</sup>

In the absence of time-bound action plans, companies may struggle to confirm whether suppliers are successfully addressing compliance issues, which over time may undermine the fulfilment of their sustainability commitments and leave all parties exposed to deforestation.

Effective compliance policies also need to account for the diversity of suppliers in forest-risk supply chains. In instances where the scope of corporate policies is unclear or only extends to direct suppliers, it may be difficult for companies to determine whether their supply chain is fully compliant with corporate environmental and social standards. This can be an especially pervasive issue for companies with an extensive network of indirect suppliers and/or smallholder farmers,\* and these supply chain actors are often overlooked in corporate engagement strategies. SC found that only half of companies (67/125) reported engaging with smallholders to help them comply with their commitments. Although corporate engagement has increased over the last decade, it is essential that companies continue to include provisions to monitor and verify potential supplier non-compliance at all levels of operations. Companies are also encouraged to publicly report their strategies for engaging with suppliers in the case of non-compliance to ensure transparency for investors and customers.

\* Please see [Glossary](#) for definition of Free, Prior, and Informed Consent (FPIC) and smallholder farmers.



## KEY FINDING 5

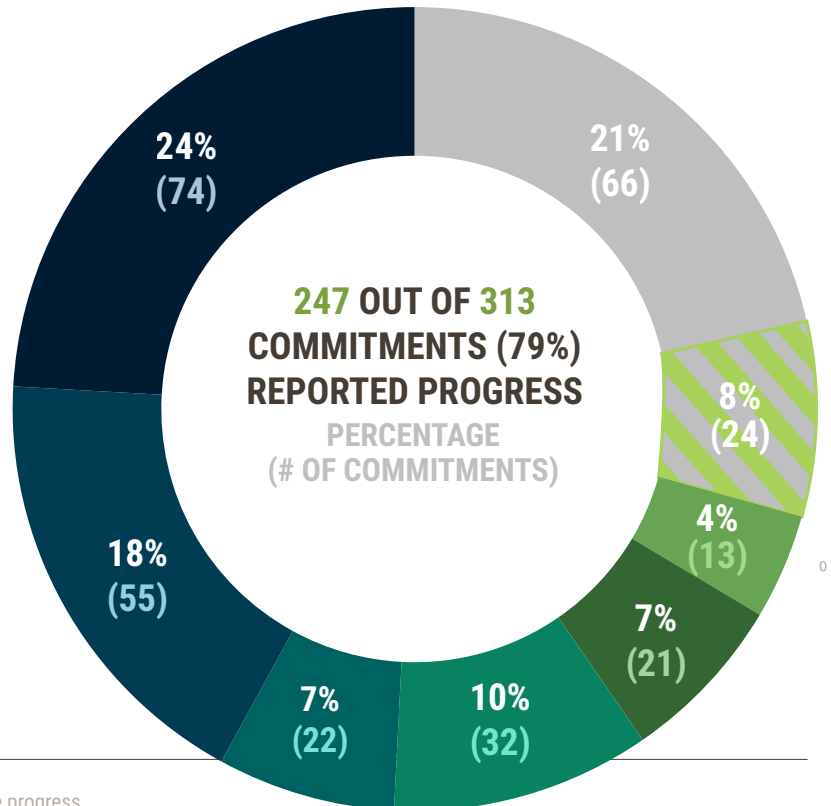
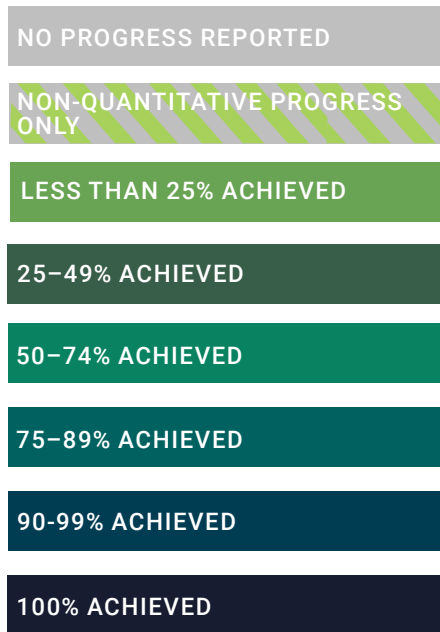
# Many companies disclosed progress made towards their commitments, but some struggled to quantify progress for all commitment types and forest-risk commodities.

Regular and consistent disclosure of progress made towards commitments is essential for companies to demonstrate transparency to investors and other interested parties. Most of the companies researched by SC embraced this practice, with over three-quarters of companies with commitments (98/112) disclosing quantitative progress made toward at least one commitment. Seven companies did not disclose

quantitative progress but did provide other information demonstrating progress.\* Collectively, 112 companies made 313 commitments, and almost three-fourths (223) of commitments had progress reported. Of those with progress reported, over two-thirds (151) were at least 75 percent achieved, and over half (127) were at least 90 percent achieved (Figure 11).

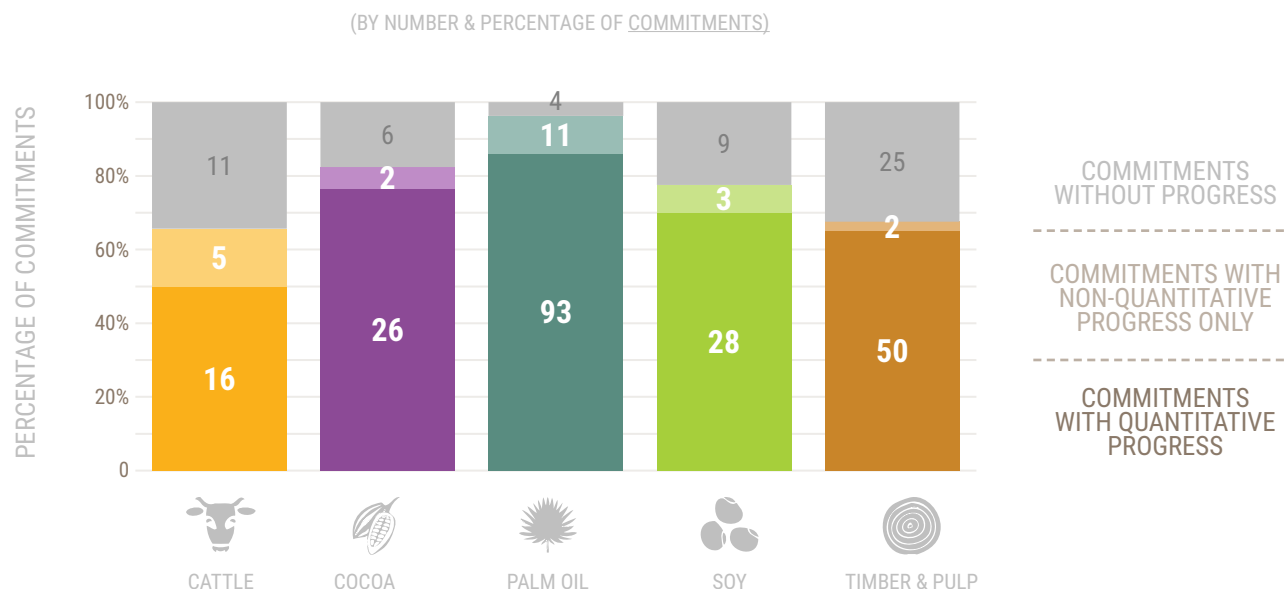


**FIGURE 11: COMMITMENTS WITH PROGRESS BY PERCENT ACHIEVEMENT**



\* Please see [Glossary](#) for definitions of quantitative and non-quantitative progress.

## FIGURE 12: COMMITMENTS WITH PROGRESS, BY FOREST-RISK COMMODITY



Progress disclosure was not consistent for all forest-risk commodities. A greater proportion of companies disclosed the percentage achieved for palm oil commitments (almost 90 percent, or 80/90) than for commitments for other forest-risk commodities. Only half (15/30) of companies with cattle commitments reported progress and disclosure was between 70 and 82 percent for companies with commitments for cocoa (18/22), soy (27/38), and timber and pulp (47/67) (Figure 12). This finding reflects the availability of resources for implementation and reporting across commodities. For example, companies may be prompted to disclose commodity-specific achievements on an annual basis for certain certification standards (e.g., RSPO's Annual Communications of Progress for palm oil, Roundtable for Responsible Soy (RTRS)'s Annual Reports for soy) or for certain commodity-specific initiatives (e.g., CFI for cocoa – see Box 3).

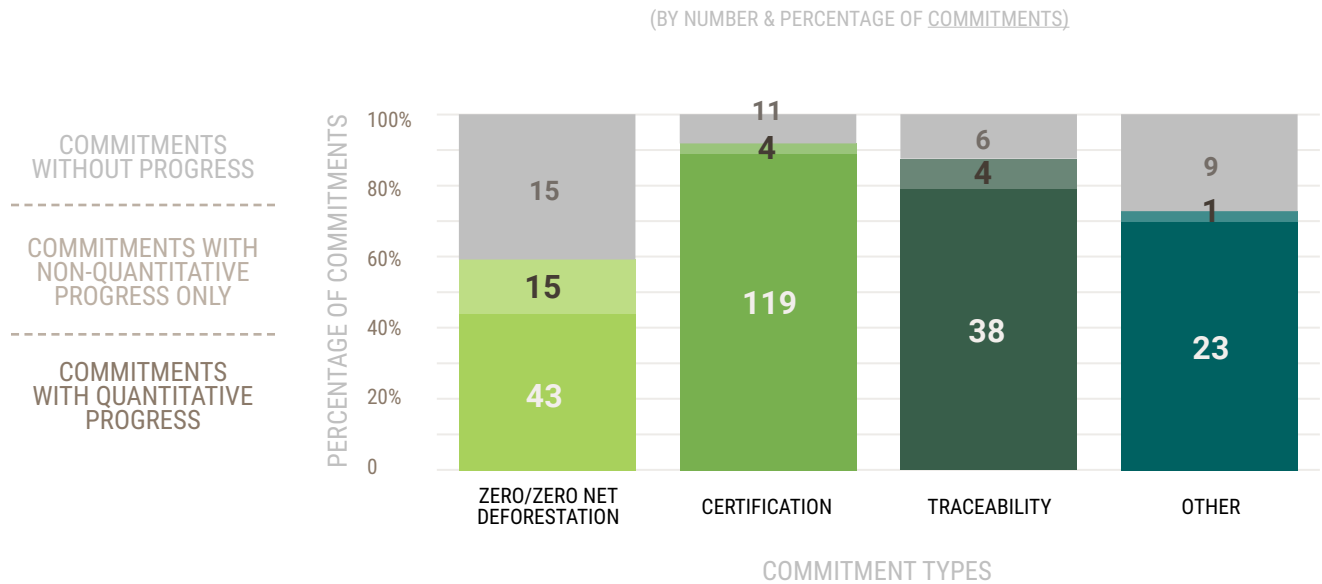
Progress disclosure was also not consistent for all commitment types. For instance, twice as many certification-oriented

commitments as zero-/zero net-deforestation commitments reported quantitative progress (about 90 percent (119/134) versus 44 percent (43/98), respectively).<sup>\*</sup> However, more zero-/zero net-deforestation-oriented commitments (15/98) had reported non-quantified progress (e.g., progress towards an intermediate milestone) than other types of commitments (Figure 13), which may suggest that companies are struggling to quantify the percent volume of a commodity that is deforestation-free. Determining the quantitative progress towards a certification-based commitment is comparatively simple, often requiring no more than the volumes of certified materials compared to all commodity material volumes sourced by the company.

<sup>\*</sup> Other commitment types are Traceability (79% – 38 out of 48 traceability commitments – had quantitative progress) and Other (70% – 23/33), which are commitments that cannot be classified as Zero/Zero Net -Deforestation, Traceability, or Certification.



**FIGURE 13: COMMITMENTS WITH PROGRESS, BY COMMITMENT TYPE**



**BOX 6: TRENDS IN DISCLOSURE OF QUANTITATIVE PROGRESS OVER TIME<sup>27</sup>**

In the 2017 report, *Tracking Corporate Commitments to Deforestation-Free Supply Chains*, SC predicted that quantitative reporting would become more commonplace as companies benefitted from greater access to reporting structures and methods for calculation and disclosure. Additionally, SC predicted that “quantitative reporting on the implementation of ZD commitments will become increasingly common as satellite monitoring becomes more available and a comprehensive system of ZD metrics emerges.” These predictions, based on SC’s 2021 research and analysis, were largely accurate, as over three-quarters of companies (98/112) with commitments had disclosed progress for at least one commitment.



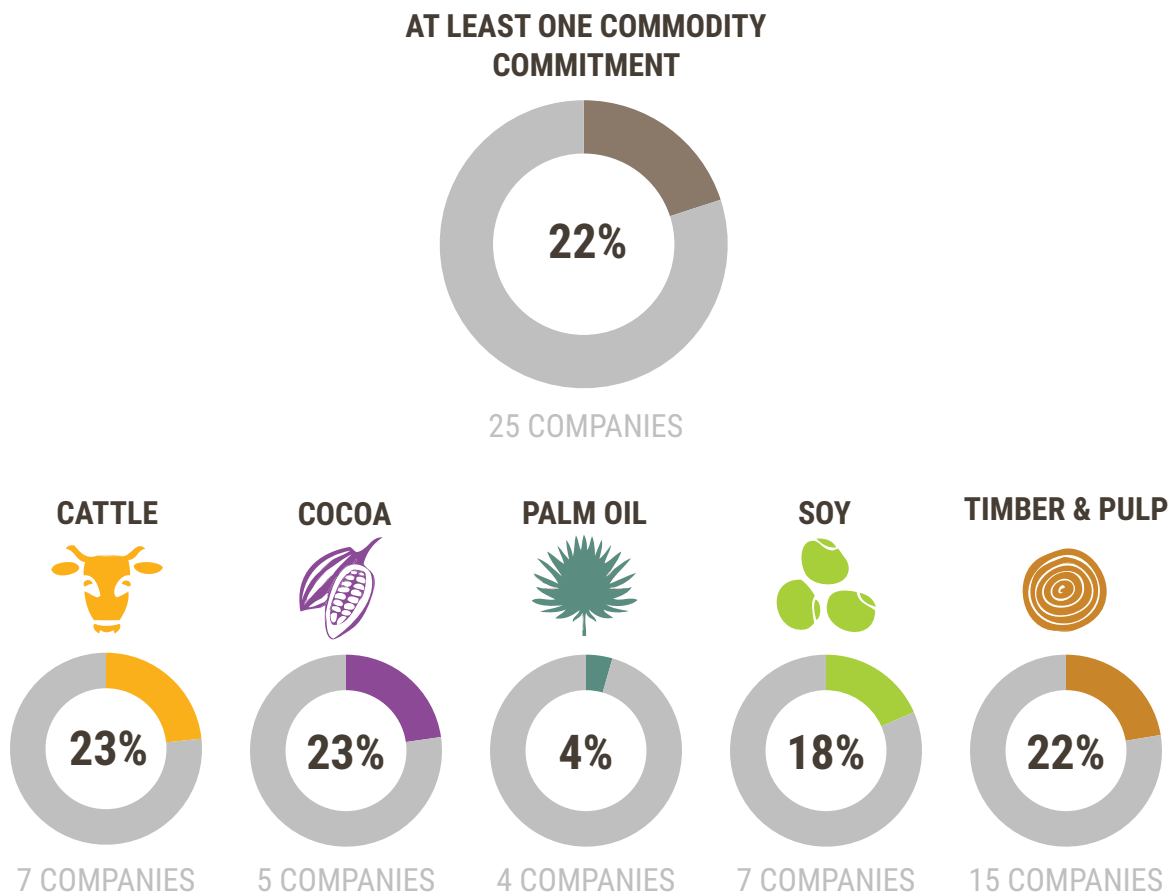
## KEY FINDING 6

# Nearly one-quarter of companies have at least one commitment to which they have never reported progress

Most companies had relatively few dormant commitments, though there was some variation by commodity. Over twenty percent of companies (25 out of 112 companies with at least one commitment) had at least one dormant commitment across all five commodities. By commodity, the percentage of companies with a dormant commitment was lowest for palm oil. Only four percent of companies (4/90) with a palm

oil commitment allowed the commitment to become dormant, while this was between 18 and 23 percent of companies for the other four commodities (Figure 14). SC has observed this trend since 2017 (Boxes 6 & 7), indicating that this is a persistent issue and remains an area of improvement for some companies.

**FIGURE 14: ACTIVE & DORMANT COMMITMENTS, BY FOREST-RISK COMMODITY** (COMPANIES WITH A DORMANT COMMITMENT OUT OF COMPANIES WITH A COMMITMENT)





The presence of a dormant commitment may indicate that a company is unable to demonstrate progress towards its commitment, either because there has not been any progress, or the company was not able to describe and publish information about its progress. Companies and their investors should be concerned about dormant commitments because it could indicate ineffective risk management of deforestation-linked supply chains. In this case, reputational risks could increase and negatively affect business over time, jeopardizing profits, financial stability, long-term growth prospects, and return on investment, not to mention the adverse impacts on forests, and the implications this has for local communities, biodiversity, and climate change.

Regardless of the forest-risk commodity, companies may allow their commitments to go dormant for a variety of reasons. Depending on their position in the supply chain, some companies may struggle to quantify their outcomes or demonstrate the full extent of their progress towards their commitments.

Other internal challenges, such as changes in management or shifting sustainability priorities, may undermine companies' ability to report their commitment progress over time. Findings from Part 1, [Corporate Progress on No Deforestation and "Nature Positive" Post 2020](#), also suggest that companies struggled to make progress in 2020 and 2021 due to the extreme upheaval caused by the COVID-19 pandemic. These issues may be especially difficult to overcome for companies that lack resources or robust sustainability programs with substantial funding.

Over the last decade, initiatives related to standardized metrics, such as Global Reporting Initiative<sup>28</sup> have provided companies with access to a range of tools, which help normalize consistent reporting of impacts over time, in ways that allow company actions and impacts to be compared to those in previous years, and even those of other companies.

Additional new tools may help companies address remaining gaps and obstacles for reporting. For example, Proforest is developing a framework for commodity volumes reporting at different stages of progress towards commitments.<sup>29</sup> Overall, many companies are closer to meeting their commitments thanks to increasingly normalized and standardized reporting practices compared to previous years (Box 7).

In addition to tools, Reporting frameworks and sector initiatives can have an important role in ensuring effective corporate reporting and preventing dormant commitments. The Roundtable for Sustainable Palm Oil (RSPO) certification standard is the largest voluntary sustainability standard for palm oil by area and volume, accounting for almost one-fifth of global palm oil volumes in 2021.<sup>31</sup> The RSPO requests annual disclosures from its member companies on the amount of palm oil and its derivatives that a company used and the amount from each of the RSPO's four certification models (Mass Balance, Segregated, Identity Preserved, or covered by Book & Claim credits), which may facilitate more consistent progress disclosure.<sup>31</sup> Almost 90 percent of companies with palm oil exposure (94/107) were members of the RSPO, which may explain why dormant commitments are especially low for palm oil compared to other forest-risk commodities.

By reporting regularly, companies can consistently demonstrate due diligence and progress towards commitments, reassuring investors of their sustainability performance, risk management strategies, and opportunities for growth. In instances where companies are unable to provide qualitative reporting, they should still publicly disclose publicly any achievements made towards their commitments, even if they are not quantitative and be candid about any barriers to fulfilling their commitments and the steps required to overcome them. Investors can encourage companies to publish information about their achievements on a regular (at least annual) basis and guide them towards available tools and resources to improve disclosure practices, such as reporting guidance documents and multi-stakeholder groups like the AFI.

## BOX 7: TRENDS IN DORMANT COMMITMENTS SINCE 2017<sup>30</sup>

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Back in the [2017](#), SC found that 20% of commitments were dormant and 30% of companies with at least one commitment had one or more dormant commitments. In 2021, the percentage of commitments that were dormant – 14% (43/313) – and companies with at least one dormant commitment – 22% (25/112) – was slightly lower than in 2017. The change is small, but may indicate that companies are increasingly succeeding at following through with reporting progress on the commitments they made in 2021 compared to 2017, or that the subset of 125 companies featured in SC's 2021 research and analysis (see [Methodology](#) for details on the company selection process) is slightly more active in aggregate than SC's full dataset.

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## KEY FINDING 7

# Disclosure of greenhouse gas emissions is on the rise, but reporting on emissions from deforestation is lagging

The production of agricultural and forest-based commodities is a major source of greenhouse gas (GHG) emissions, the driver of climate change; roughly one-quarter of anthropogenic global GHG emissions are generated by agriculture, forestry, and other land uses, and of that, around five percent is generated by commodity-driven deforestation in the tropics.<sup>32</sup> GHG emissions and land-use change are a major systemic risks for businesses in all sectors and are expected to generate global economic instability. The more immediate financial risks stemming from the physical impacts of climate change might include extreme weather conditions and fluctuations in rainfall that affect agricultural outputs and supply chain delays, which can lead to commodity shortages and price fluctuations. The costs and revenue losses associated with failing to act to address climate change can be just as high.

Companies that struggle to transition away from carbon-intensive activities may also be exposing themselves to financial risks associated with negative publicity, costs of complying with government climate regulations (e.g., carbon pricing, carbon taxes, fines, etc.), stranded assets, loss of contracts and lowered credit ratings, and legal action from parties affected by a company's inaction on climate change.<sup>33</sup> Over the last five years, the number of companies reporting their GHG emissions has grown substantially.<sup>34</sup> Despite the proven link between deforestation and climate change, some companies do not disclose the emissions embedded in their supply chains ("Scope 3 emissions"—see Box 9) and even fewer are able to report emissions produced from land-use change.

For companies that buy, make, and sell consumer goods, it is estimated that 90 percent<sup>35</sup> of their carbon footprints are generated from Scope 3 emissions, particularly emissions embedded in their supply chains from purchased goods and services. However, less than half of companies (61/125) evaluated for this report disclosed emissions under Scope 3, while about 60 percent disclosed emissions under Scope 1 (83/125) and Scope 2 (79/125). The level of detail among Scope 3 emissions disclosures varied, with some companies

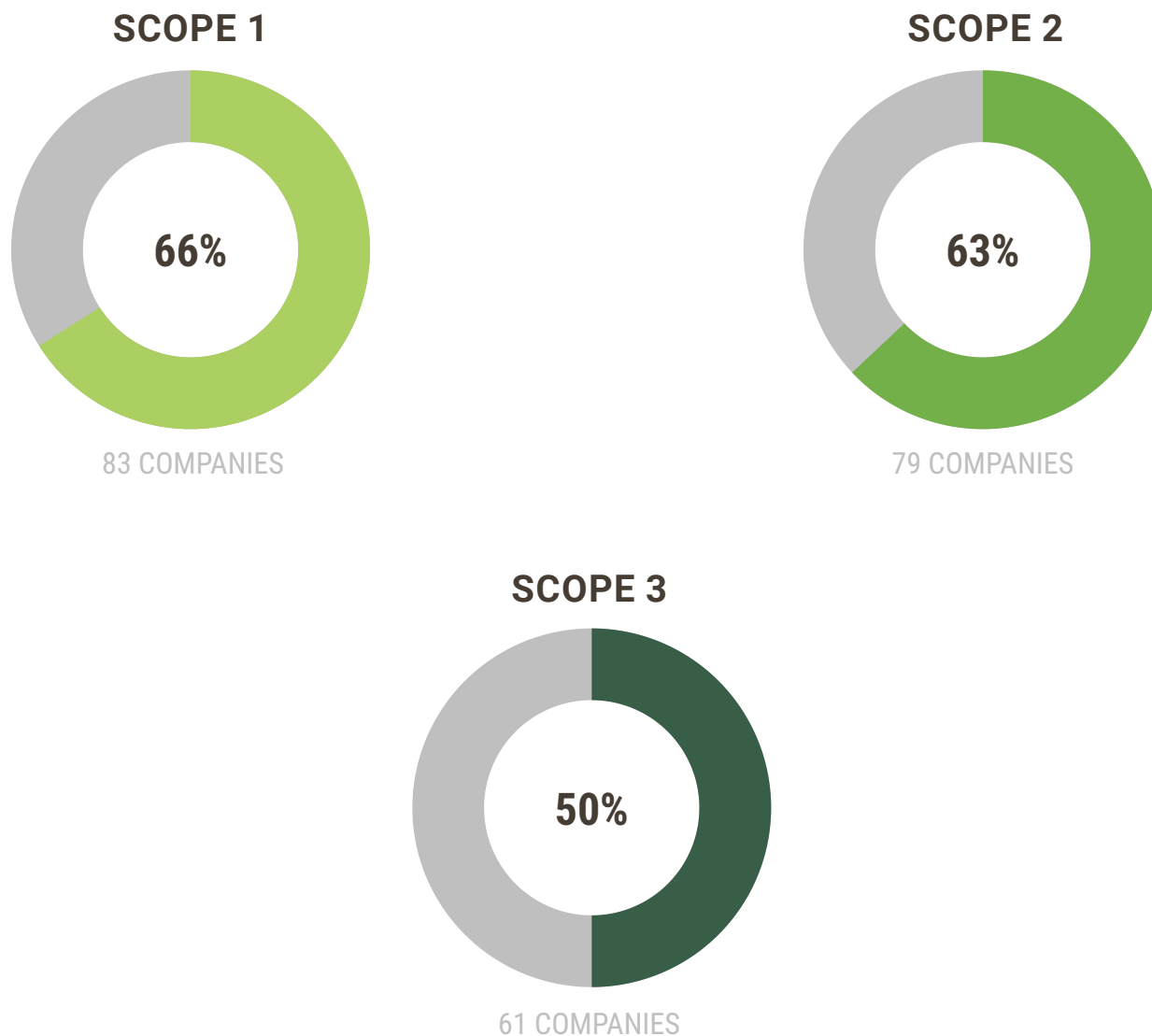
providing only aggregated emissions data, and others providing data for each sub-category within Scope 3, such as emissions from land-use change, transportation or purchased goods and services, which is information requested by CDP in their Climate Disclosure Platform. Of the companies that reported Scope 3 emissions, almost 85 percent (51/61) indicated that the data for Scope 3 included emissions from land-use change. Generally, companies did not provide (and were not asked) further detail on their Scope 3 emissions calculations, such as emissions attributed to deforestation in commodity supply chains. Encouragement from investors and other entities could drive greater transparency in this area.

Failure to report on Scope 3 emissions and/or excluding land-use change emissions from those calculations, should be concerning for investors, as it may signal that companies are either unaware of or ignoring the risk posed by emissions embedded in their commodity supply chains. These findings suggest that some major consumer goods companies are still lagging, despite slow progress in the right direction. These findings also mirror SC's findings on GHG reduction targets from Part 1 of this series, Corporate Progress on No Deforestation and "Nature Positive" Post 2020; fewer companies had GHG reduction targets that covered Scope 3 emissions than companies that had reduction targets for emissions in Scopes 1 and 2. Setting GHG reduction targets and reporting emissions often went hand-in-hand: about 70 percent of companies with a time-bound Scope 3 emissions reduction target (42/60) disclosed their emissions footprint for Scope 3 annually (Figure 15).

Effective compliance policies also need to account for the diversity of suppliers in forest-risk supply chains. In instances where the scope of corporate policies is unclear or only extend to direct suppliers, it may be difficult for companies to determine whether their supply chain is fully compliant with corporate environmental and social standards. This can be an especially pervasive issue for companies with an extensive network of indirect suppliers or smallholder farmers. In the palm oil industry, smallholders help produce massive quantities for global suppliers but are often overlooked in corporate engagement strategies. SC found that only half of companies

(67/125) reported engaging with smallholders to help them comply with their commitments. Although corporate engagement has increased over the last decade, it is essential that companies continue to include provisions to monitor and verify potential supplier non-compliance at all levels of operations. Companies are also encouraged to publicly report their strategies for engaging with suppliers in the case of non-compliance to ensure transparency for investors and customers.

 **FIGURE 15: COMPANY GHG EMISSIONS REPORTING BY SCOPE**



Over 70 percent (88/125) of companies disclosed the amount of GHG emissions generated by their operations on an annual basis, but most failed to specify their sub-indicators, which can help investors understand corporate performance and where to prioritize sustainability efforts. Companies typically reported their climate data through first-party reporting (e.g., corporate sustainability reports, commodity specific policy statements, and their websites), or third-party disclosures (e.g., CDP, Dow Jones Sustainability Index). For example, L'Oréal published a two-page document disclosing their emissions for each Scope and their sub-indicators (e.g., purchased goods and services, transportation, etc.).<sup>36</sup> Without transparency around annual GHG emissions, investors will struggle to assess how companies are progressing against their corporate climate goals and compare their performance to regional, country, and global-level climate goals (and even future regulations).

Increased pressure from reporting initiatives may help drive companies to disclose annual climate data, including Scope 3 emissions from upstream commodity-driven deforestation and land-use change. SC found that many corporate emissions disclosures heavily relied upon the methodologies developed by the Greenhouse Gas Protocol (Box 9). For example, 70 percent (88/125) disclosed the volume of GHG emissions generated by their direct or indirect operations on an annual basis and categorized their emissions using categories outlined in the GHG Protocol, highlighting its emerging importance as best practice guidance. Eight companies provided emissions data in aggregate without specifying under GHG Protocol categories. Other initiatives, such as CDP's Climate Disclosure Platform, direct companies to the GHG Protocol to inventory their emissions and apply scoring methodologies to incentivize companies to measure and manage environmental impacts. In its climate disclosures, CDP requests that companies provide data on the emissions in the company's footprint for all three Scopes, including sub-categories of Scope 3 like Purchased Goods and Services that incorporate land-use change emissions from raw material supply chains. These initiatives, among others, are encouraging alignment on best practices for climate data reporting and greater transparency.\*



## BOX 9: GREENHOUSE GAS (GHG) PROTOCOL:

ENCOURAGING CORPORATE TRANSPARENCY IN CLIMATE DISCLOSURES

The [GHG Protocol](#) was developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development in 2001 to help public and private sector entities measure and manage GHG emissions from their direct operations and in their supply chains.

The GHG Protocol categorizes emissions in a company's total footprint into three scopes: Scope 1, Scope 2, and Scope 3. Scope 1 covers direct emissions from owned or controlled services, Scope 2 covers indirect emissions from the generation of purchased energy, and Scope 3 covers all other indirect emissions. In addition to sources like employee travel, transportation of goods, and waste disposal, Scope 3 also includes emissions in the company's value chain – including upstream (entities they sell to) and downstream (entities they buy from – this subcategory is often described as "purchased goods and services") emissions.

\* Note that *Supply Change* generally did not consult CDP Climate disclosures during the company research, except when the Climate disclosure was released by the company on their own website





Investors are also encouraging greater corporate action to reduce GHG emissions, including emissions from deforestation embedded in their supply chains. The Task Force on Climate-Related Financial Disclosures (TCFD), a coalition of 31 major financial institutions that prepare and use financial disclosures, recommends that companies conduct a climate scenario analysis to determine risks and opportunities from climate change impacts and mitigation and establish a path to reduce company emissions consistent with a 2-degree Celsius (or less) warming scenario.<sup>37</sup> The TCFD also recommends that companies disclose their GHG emissions for each Scope in addition to the targets and metrics the company is using to assess its progress.<sup>38</sup> Regular corporate disclosures on GHG emissions are essential for demonstrating quantitative progress (or lack thereof) to investors and for their ability to minimize financial and reputational risks connected to climate change.

External pressure and encouragement from investors, governments, consumers, and civil society, and perhaps the increasingly evident impacts of climate change around the

globe (e.g., super storms, catastrophic wildfires, extreme heatwaves, etc.), could all be driving this growing corporate awareness and action. Companies demonstrating ambitious action and transparency on their climate and sustainability commitments can position themselves as more attractive to investors and their long-term financial wellbeing. Investors have an important role to play in driving a trend of increased engagement by expecting such disclosure and directing companies towards resources like CDP and the GHG Protocol.

## CONCLUSION

Despite growing corporate ambition to address commodity-driven deforestation and human rights abuses, *SC* findings underline the need for more effective implementation and reporting to drive meaningful results in forest-risk supply chains.

*SC* found that a growing number of companies have policies to implement supply chain traceability, supplier management, and monitoring. Although most companies are committed to tracing the origin of forest-risk commodities, supply chain complexities are still a major challenge in achieving adequate visibility. Similarly, many companies have a policy for addressing supplier non-compliance and grievances in their supply chain but most failed to publicly disclose key details in their process. Many companies are also disclosing monitoring and verification systems for attaining deforestation-free supply chains, mostly through audits.

To drive progress, companies can utilize resources such as the Accountability Framework, Science Based Targets Initiative, and GHG Protocol, which provide definitions and best practices to address deforestation, climate change, and human rights risks in forest-risk supply chains. New legislative requirements<sup>39</sup> can also help drive more sustainable practices among companies sourcing forest-risk commodities from the tropics.

### Recommendations for Companies

- Demonstrate effective traceability systems to ensure the origins of forest-risk commodities are known and controlled (see Accountability Framework operational guidance).
- Establish monitoring and verification systems that can provide credible information on corporate performance to investors (see Accountability Framework operational guidance).
- Set non-compliance policies and processes to inform decisions for engaging with suppliers and to resolve instances of land conversion and/or human rights abuses (see Accountability Framework operational guidance).
- Facilitate pathways for assessing grievances and adequate contact information for raising negative impacts regarding the environment and/or human rights (see Accountability Framework operational guidance).
- Release consistent reporting to measure performance and progress over time (see Accountability Framework operational guidance).
- In addition to setting a validated Science-based target that covers Scope 1, 2, and 3 emissions, publish annual data to demonstrate progress on climate commitments.



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# METHODOLOGY

For this report, Supply Change selected 125 prominent retailers, manufacturers, and traders purchasing key forest-risk commodities. The research followed SC's rigorous methodology and collected data for 300 metrics related to companies' actions, policies, and statements on commodity-driven deforestation. Over the course of the research process, SC reviewed publicly accessible data from early 2019 to mid-2021, including global trade reports, investment briefs, industry assessments, and third-party scorecards specializing in commodity-driven deforestation.

To identify the most prominent companies operating supply chains with exposure to commodity-driven deforestation, SC based the company selection on several key indicators, including top producing or sourcing countries, commodity volumes, sector classification, and global market share. Detailed below are the central components of the analysis as well as the sources consulted throughout the research process.

## Importing and Exporting Countries

For this report, SC identified the most prominent countries with deforestation embedded in the production or trade of palm oil, timber, soy, cattle, and cocoa. To understand trade flows between different countries, SC consulted the Observatory of Economic Complexity (OEC), Food and Agriculture Organization (FAO), and The United States Department of Agriculture (USDA). To ensure comprehensive coverage of trading companies, SC selected the top three to five countries for each forest-risk commodity, then weighted values by overall trade.

## Sector Classification

In collaboration with Ceres, SC also evaluated companies based on sectors and corresponding industries with significant exposure to commodity driven deforestation. SC prioritized the inclusion of companies according to the Global Industry Classification Standard (GICS): those operating in the Consumer Discretionary and Consumer Staples sectors and corresponding industries, including Food Products, Beverages, Textiles, Apparel, and Luxury Goods and Hotels, Restaurants, and Leisure. The selection of companies also featured a small number of companies operating in the Materials, Health Care and Industrials sectors. To ensure comprehensive coverage of the most influential companies, researchers weighed

selection by annual revenue and market capitalization. Overall, SC found that the dataset represented approximately 60 percent of the holdings in the Consumer Discretionary sector and encompasses up to 70 percent of the holdings in the Consumer Staples sector listed in the S&P 500.

## Commodity Volumes

To determine the most prominent companies importing and exporting forest-risk commodities, SC also examined global trade volumes. To calculate commodity volumes, SC consulted TRASE, which is currently mapping 70 percent of the total traded volume of major forest-risk commodities in the tropics. Additionally, researchers evaluated publicly available forest-related disclosures from CDP as well as disclosures from commodity-specific associations, including the Annual Communication of Progress (ACOP) from the Roundtable on Sustainable Palm Oil (RSPO). For this indicator, forest-risk commodity volumes were prioritized based on the resources available; some forest-risk commodities, such as palm oil, were found to have more widely available data compared to others.

## Global Market Share

Lastly, to determine companies with substantial market share, SC examined companies' annual revenue and market capitalization. To evaluate companies' overall global standing within key industries, SC consulted publicly available corporate documentation and financial reporting, such as the S&P 500 Sector Primer Series. To understand global market share by forest-risk commodities, SC also consulted several additional resources, including Chain Reaction Research and the World Resources Institute (WRI). SC found the dataset represents over \$4 trillion USD in global sales across key industries for each forest-risk commodity evaluated in the report.

**APPENDIX 1.****Forest-risk Commodities Profiled by SC**

COMMODITY	COMPANY INFORMATION
<b>PALM OIL</b>	The featured companies for palm oil were identified as sourcing over 22 million tons and operating on over 3 million hectares. The companies primarily operated in top producing countries, including Indonesia and Malaysia, which collectively export over 80 percent of global palm oil trades. <sup>40</sup> Many companies were also major signatories of the RSPO and collectively accounted for over \$4 trillion USD in annual revenue.
<b>TIMBER &amp; PULP</b>	For timber, pulp, and paper, the featured companies were identified as sourcing 5 million tons and operating on over 3 million hectares. The companies operated in top producing countries with exposure to deforestation, including Brazil and Malaysia, which export over 30 percent of global sawn wood trades. <sup>41</sup> Many companies were also major signatories of the FSC and collectively accounted for over \$4 trillion USD in annual revenue.
<b>CATTLE</b>	For cattle, the companies were identified as sourcing over 1 million tons. The companies operated in top countries, including Brazil, Argentina, Paraguay, and Uruguay, which export over 40 percent of global beef trade. <sup>42</sup> In particular, the dataset featured major processors, including JBS, Minerva, and Marfrig, which represent up to 70 percent processing capacity in Brazil alone and over \$70 billion USD in annual revenue.
<b>SOY</b>	For soy, the companies in the dataset were identified as sourcing over 6 million tons exported from top producing countries, including Argentina, Brazil, and Paraguay, which export over 50 percent of global soybean trades. <sup>43</sup> Many companies were major signatories of the Roundtable for Responsible Soy (RTRS) and collectively accounted for over \$4 trillion USD in annual revenue.
<b>COCOA</b>	For cocoa, the dataset featured prominent members of the Cocoa and Forests Initiative, whose signatories trade or source up to 85 percent of cocoa globally. <sup>44</sup> The companies primarily operated in the largest cocoa producing regions in the world, Côte D'Ivoire and Ghana, which export over 56 percent of global cocoa bean trades. <sup>45</sup> Many of the companies prescribed to best practices promoted by the Rainforest Alliance and collectively are worth over \$3 trillion USD in annual revenue.



## APPENDIX 2.

# Companies Researched and Analyzed by SC for This Report

COMPANY NAME	COMPANY NAME	COMPANY NAME
AAK AB	GENERAL MILLS	NEW BRITAIN PALM OIL
ADIDAS	GLENCORE PLC	NIKE
AHOLD DELHAIZE	GOLDEN AGRI-RESOURCES	OJI HOLDINGS CORPORATION
ALBERTSONS	GRUPO BIMBO	OLAM INTERNATIONAL
ALDI SUD	H&M	PEPSICO
AMAGGI AGRO	HENKEL	POST HOLDINGS
AMAZON	HERSHEY COMPANY	PROCTER & GAMBLE
APICAL GROUP	HOME DEPOT	RECKITT BENCKISER
ARAMARK	HORMEL FOODS	RESTAURANT BRANDS INTERNATIONAL
ARCHER DANIELS MIDLAND	ICA GRUPPEN	REWE GROUP
ARLA FOODS	IKEA GROUP	ROYAL FRIESLAND CAMPINA
ASIA PACIFIC RESOURCES INT'L. LTD.	INDITEX	ROYAL GOLDEN EAGLE
ASIA PULP AND PAPER	INSPIRE BRANDS	SAINSBURY'S
ASIAN AGRI	IOI GROUP	SAMPOERNA AGRO
ASSOCIATED BRITISH FOODS	J.M. SMUCKER COMPANY	SC JOHNSON AND SON
ASTRA AGRO LESTARI	JBS	SEVEN & I HOLDINGS CO.
AUCHAN GROUP	JERONIMO MARTINS	SIME DARBY
BARRY CALLEBAUT GROUP	JOHNSON & JOHNSON	SINAR MAS GROUP
BASF	KELLOGG COMPANY	SOCFIN GROUP
BRF BRASIL FOODS	KENCANA AGRI	SODEXO
BUNGE	KERING	SPAR INTERNATIONAL
CAMPBELL'S	KINGFISHER	STARBUCKS COFFEE COMPANY
CARGILL	KORINDO	SUBWAY
CARREFOUR	KRAFT HEINZ	SUZANO PULP & PAPER
CASINO	KROGER	SYSCO
CENCOSUD	KUALA LUMPUR KEPONG BERHAD	TARGET
CHIPOTLE MEXICAN GRILL	LACTALIS GROUP	TESCO
CLARIANT	LINDT & SPRÜNGLI	TJX
CLOROX COMPANY	L'ORÉAL	TYSON FOODS
COCA-COLA	LOTTE CO.	UNILEVER PLC
COFCO INTERNATIONAL	LOUIS DREYFUS COMPANY	VF CORPORATION
COLGATE-PALMOLIVE COMPANY	LOWE'S COMPANIES	WAITROSE
CONAGRA FOODS	LVMH - MOËT HENNESSY LOUIS VUITTON	WALGREENS BOOTS ALLIANCE
CVS HEALTH	MARFRIG	WALMART
DANISH CROWN	MARKS & SPENCER	WENDY'S
DANONE	MARS	WILMAR INTERNATIONAL
DARDEN RESTAURANT, INC.	MCDONALD'S	WM MORRISON SUPERMARKETS
DOMINO'S	METRO AG	WOOLWORTHS GROUP
DUPONT	MINERVA	YUM! BRANDS
ESTEE LAUDER COMPANIES	MONDELEZ	YILDIZ HOLDING
FELDA GLOBAL VENTURES	MUSIM MAS	
FERRERO TRADING	NESTLÉ	

## About Supply Change

*Supply Change*, an initiative of the nonprofit organization Forest Trends, is a transformational resource for businesses and the various stakeholders that hold them accountable, including investors, governments, industry groups, not-for-profits, and the public, on the extent and value of corporate commitments related to commodity-driven deforestation. SC continuously researches and aggregates available data, providing it via a centralized, free, and publicly available web platform ([www.supply-change.org](http://www.supply-change.org)) that tracks companies, their commitments, corresponding implementation policies, and progress towards their commitments over time. More information on data sources is available in SC's full methodology: <http://www.supply-change.org/pages/full-methodology>.

Forest Trends works to conserve forests and other ecosystems through the creation and wide adoption of a broad range of environmental finance, markets, and other payment and incentive mechanisms. Forest Trends does so by i) providing transparent information on ecosystem values, finance, and markets through knowledge acquisition, analysis, and dissemination; ii) convening diverse coalitions, partners, and communities of practice to promote environmental values and advance development of new markets and payment mechanisms; and iii) demonstrating successful tools, standards, and models of innovative finance for conservation.

For more information about this report, please contact [info@supplychange.org](mailto:info@supplychange.org).

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# Pioneering Finance for Conservation

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## **Biodiversity Initiative**

Promoting development of sound, science-based, and economically sustainable mitigation and no net loss of biodiversity impacts

## **Coastal and Marine Initiative**

Demonstrating the value of coastal and marine ecosystem services

## **Communities Initiative**

Strengthening local communities' capacity to secure their rights, manage and conserve their forests, and improve their livelihoods

## **Ecosystem Marketplace**

A global platform for transparent information on environmental finance and markets, and payments for ecosystem services

## **Forest Policy, Trade, and Finance Initiative**

Supporting the transformation toward legal and sustainable markets for timber and agricultural commodities

## **Public-Private Finance Initiative**

Creating mechanisms that increase the amount of public and private capital for practices that reduce emissions from forests, agriculture, and other land uses

## **Supply Change**

Tracking corporate commitments, implementation policies, and progress on reducing deforestation in commodity supply chains

## **Water Initiative**

Promoting the use of incentives and market-based instruments to protect and sustainably manage watershed services

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