

Time for Transparency

Deforestation- and conversion-free supply chains

May 2024



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Important Notice

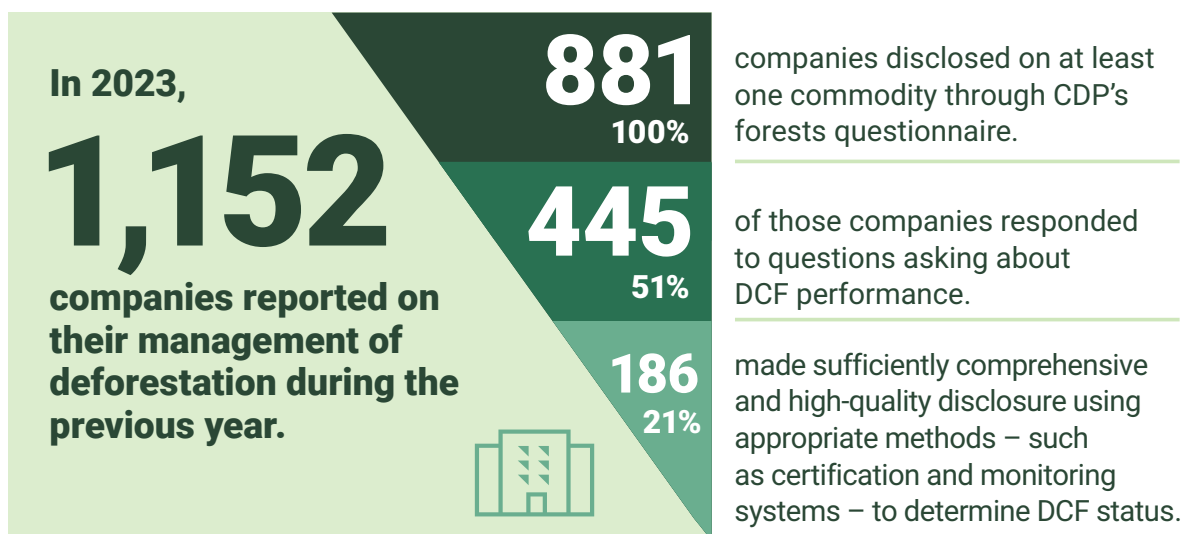
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Executive summary

Companies that produce or source agricultural or forestry commodities must eliminate deforestation and conversion of other ecosystems from their supply chains to meet near-term climate and nature targets as well as comply with emerging regulatory requirements. CDP's forests questionnaire has been tracking companies' progress toward eliminating commodity-driven deforestation for over a decade. In 2023, CDP introduced new indicators developed in partnership with the Accountability Framework initiative (AFi) to facilitate clearer disclosure of performance and progress towards deforestation- and conversion-free (DCF) supply chains.

Standardized DCF indicators allow companies' progress toward deforestation- and conversion-free production and sourcing to be assessed in a comparable and easy to interpret way by stakeholders, including buyers, investors, financiers and civil society. The data provides those stakeholders with information they need to make informed decisions about their purchasing, financing and advocacy.

This report provides a detailed examination of the responses provided in 2023 by companies to those DCF indicators. It provides a baseline view of companies' current capacity to understand and control deforestation and ecosystem conversion associated with their operations and supply chains, and provides recommendations for how companies and others can support improved reporting.










These figures indicate that many companies are working to meet these new disclosure expectations while others are not yet able or willing to provide this information.

64

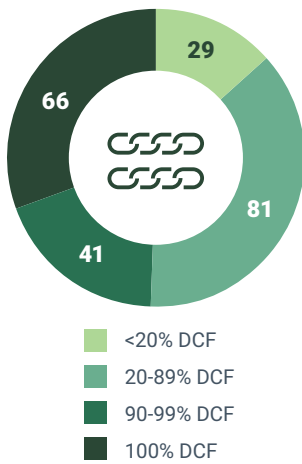
companies made a high-quality disclosure and reported that at least one commodity supply chain was 100% deforestation- or conversion-free.

This represents 7% of disclosing companies, demonstrating both that achievement and disclosure of DCF supply chains is possible but that it is still uncommon.

High-quality disclosures indicating 100% DCF supply chains:

- 31** Timber products 
- 15** Palm oil 
- 9** Soy 
- 6** Cattle products 
- 3** Cocoa 
- 1** Coffee 
- 1** Rubber 

217 high-quality disclosures of DCF progress made by 186 companies



98 companies made a high-quality disclosure and reported that at least one commodity supply chain was less than 90% DCF.

Of those, 27 companies reported that less than 20% of their volumes were DCF for at least one commodity. While these disclosures show that achieving DCF supply chains may still take time, it is encouraging to see companies' willingness to publicly disclose their performance to stakeholders. This information can help stakeholders both support company improvement and make informed decisions about their own sourcing or investments.

Companies that disclosed on DCF supply chains tended to have no-deforestation or no-conversion policies or commitments, and to report engaging their suppliers. Of 445 companies that responded to the DCF question for at least one commodity:

- ▼ **69%** had a DCF policy or commitment, compared to 33% of companies that did not disclose DCF progress;
- ▼ **82%** reported engaging their suppliers, compared to 49% of companies that did not disclose DCF progress; and
- ▼ **50%** reported engaging in landscape and jurisdictional initiatives¹, compared to 19% that did not disclose DCF progress.

This suggests that having policies in place can lay the groundwork for disclosing on DCF performance, and that supplier or landscape engagement may support supply chain monitoring and management. It may also indicate that DCF disclosure via CDP's forests questionnaire is at this time limited largely to companies that have greater maturity on forest and supply chain action.

¹ 187 out of 370 companies disclosing through the full-tier questionnaire



The most common issue with DCF disclosure was the use of certification models that do not provide sufficient DCF assurance. Of the 445 companies that disclosed on DCF progress:

- ▼ **44%** relied on certification models that do not provide sufficient assurance of deforestation- and conversion-free volumes, including mass balance chain-of-custody models;
- ▼ **36%** were missing key information, or information was not consistently disclosed; and
- ▼ **12%** excluded significant volumes, products, activities, suppliers, or regions from their total production or sourcing, and therefore DCF volumes reported were not representative of the total commodities produced or sourced.

In addition, many responses indicated a poor or incomplete understanding of the capabilities of risk assessment and monitoring tools with regard to both level of rigor regarding DCF assurance and the ecosystem types included in analyses.

To better account for and communicate deforestation- and conversion-free production and sourcing, companies should:

- ▼ Respond comprehensively and accurately to CDP and other disclosure requests, regardless of the amount of progress that has been made.
- ▼ Communicate intentions to achieve deforestation- and conversion-free supply chains, both publicly via policies and commitments, and to suppliers via engagement and support.
- ▼ Fully understand the capabilities of different certification schemes and chain-of-custody models and how they can be applied to demonstrate DCF status.
- ▼ Consider impacts on all natural ecosystems, not only forests, when setting, monitoring and disclosing on DCF commitments.
- ▼ Adopt an informed approach to selecting and using risk assessment systems to determine if they can effectively ensure that materials produced in specified sourcing areas are free of both deforestation and ecosystem conversion.
- ▼ Understand and disclose on highly transformed commodities in their supply chains, especially soy embedded in animal product supply chains.

Introduction: A time of rapid action for deforestation- and conversion-free supply chains



Comprehensive disclosure is now a minimum expectation for companies that produce or source agricultural and forestry commodities.

Introduction: A time of rapid action for deforestation- and conversion-free supply chains

Deforestation and ecosystem conversion are the most significant impacts of agricultural commodity and forestry production on our planet. Land clearance for agriculture accounts for more than 10% of human-caused greenhouse gas emissions² and is associated with at least a third of global biodiversity loss³. Expanding agricultural commodity and forestry production also impacts the rights of Indigenous Peoples and local communities, including land rights and access to resources.

Companies that produce or source agricultural or forestry commodities are receiving ever-clearer mandates from their buyers, investors and regulators to eliminate deforestation, ecosystem conversion, and associated human rights abuses from their supply chains – and to be transparent about their progress.

Emergence of near-term targets and regulations

In recent years, sustainability goals related to supply chain impacts have transformed into the need for immediate action to meet near-term targets for climate and nature, as well as emerging regulatory demands. These include:



- Eliminating deforestation from key commodities by 2025 and eliminating all land use change from supply chains by 2030 to achieve emissions reduction targets in line with a 1.5°C pathway, as required by the Science Based Targets initiative (SBTi).



- Eliminating deforestation and ecosystem conversion associated with commodity production, to meet conservation goals laid out in the Convention on Biological Diversity and implemented through the Science Based Targets Network's (SBTN) Land Targets.



- Requirements that companies that sell agricultural commodities into the EU market demonstrate deforestation-free origins to meet the European Union's Deforestation Regulation, which goes into effect in 2025.

These targets and deadlines mean that buyers, investors and other stakeholders need information about company progress toward eliminating deforestation and ecosystem conversion from their supply chains, with little time left before key milestones are in the rearview mirror. Comprehensive disclosure is now a minimum expectation for companies that produce or source agricultural and forestry commodities, and reporting platforms and standards are now available to capture and organize that information.

² [IPCC Sixth Assessment Report, 2023](#)

³ [IBPES Global Assessment Report on Biodiversity and Ecosystem Services, 2019](#)

These metrics provide a consistent and comprehensive way for companies to disclose performance and progress towards DCF supply chains.



A standardized approach to deforestation- and conversion-free disclosure

In 2023, for the first time, companies were able to disclose comprehensively on deforestation- and conversion-free (DCF) commodity volumes (see Box 1) through CDP using a set of [standardized metrics](#) developed through a collaborative process led by the Accountability Framework initiative (AFi). This same set of metrics has also been incorporated into other reporting standards such as the Global Reporting Initiative, industry association protocols such as the Consumer Goods Forum's Forest Positive Coalition KPIs, and other assessment tools.

These metrics provide a consistent and comprehensive way for companies to disclose performance and progress towards DCF supply chains. Using them to guide disclosure allows companies to disclose the DCF status of 100% of the agricultural or forestry commodity volumes that they produce or source, broken down by the method used to assess or verify DCF status. These indicators are complemented by indicators related to engagement with suppliers and in sourcing regions to eliminate deforestation, conversion, and human rights abuses.

Disclosure using these metrics enables companies to communicate performance and progress to their buyers, investors and stakeholders in a clear and credible way. It also demonstrates leadership necessary to support and enable sector-wide change.

Box 1: What are deforestation- and conversion-free commodity volumes?

Agricultural and forestry commodities are considered **deforestation- and conversion-free (DCF)** when they can be shown to originate on production units (such as farms, ranches or forests) on which conversion from forests or other natural ecosystems to cropping systems, pastures or plantations has not occurred after a specified cutoff date.



Deforestation: Loss of natural forest as a result of: (i) conversion to agriculture or other non-forest land use; (ii) conversion to a tree plantation; or (iii) severe and sustained degradation.



Conversion: Loss of a natural ecosystem as a result of its replacement with agriculture or another land use, or due to a profound and sustained change in a natural ecosystem's species composition, structure, or function.

2023 CDP forests disclosure

A large, bold white number '2' is positioned in the lower right quadrant of the page. The background of the entire page is a dark green-tinted photograph of a log pile. The top portion shows vertical logs, while the bottom portion shows a dense stack of horizontal log ends, creating a textured, circular pattern. The lighting is dramatic, highlighting the textures of the wood.

2023 CDP forests disclosure

881

companies disclosed on at least one of the seven high-risk commodities responsible for most agriculture-related deforestation and conversion, for a total of 1,498 commodity-specific disclosures.



CDP’s data provides a yardstick to measure achievement against the consensus-based principles and guidance set out in the Accountability Framework. In 2023, the number of companies disclosing on sustainable commodity production and sourcing through CDP increased for the seventh consecutive year, providing valuable insights on company policies, practices and performance.

In 2023, 1,152 companies reported through CDP on their management of deforestation, conversion and restoration during the previous year. Of these, 232 companies reported that they did not produce, source or use any of the seven high-risk commodities identified by CDP in the reporting year, and 39 companies made disclosures associated with mining projects.

The remaining 881 companies disclosed on at least one of the seven high-risk commodities responsible for most agriculture-related deforestation and conversion, for a total of 1,498 commodity-specific disclosures (Figure 1). The most reported commodities in 2023 were timber products, followed by palm oil, soy, cattle products, natural rubber, cocoa, and coffee (Figure 1; Table 1). These proportions have been consistent over recent years.

Figure 1. Commodity disclosures by companies through CDP’s forests questionnaire in 2020 to 2023

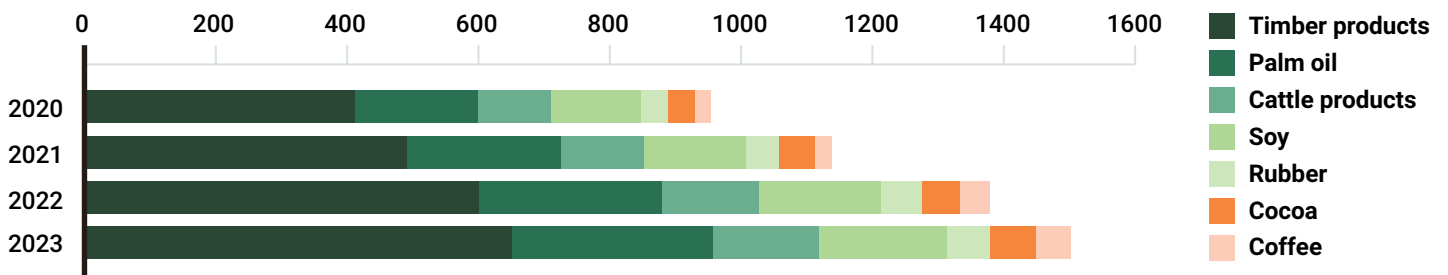
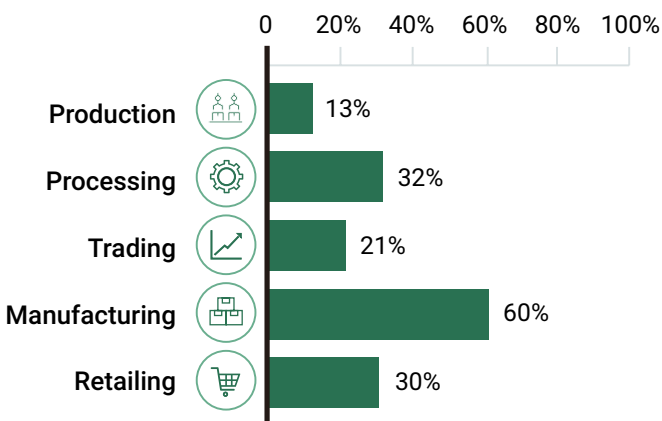


Table 1. Commodity disclosures and companies disclosing on each commodity

	Timber products	Palm oil	Soy	Cattle products	Cocoa	Rubber	Coffee
# of disclosures	650	304	194	162	71	64	53
% of disclosures	43.4%	20.3%	13.0%	10.8%	4.7%	4.3%	3.5%
% of companies disclosing on each commodity	73.8%	34.5%	22.0%	18.4%	8.1%	7.3%	6.0%

The largest share (60%) of disclosing companies engaged in manufacturing, while fewer than 13% produced raw commodities (Figure 2), with many companies operating in more than one capacity. This data therefore presents more information about companies further downstream in the supply chain, and less inference can be drawn about those further upstream.





Figure 2. Proportion of disclosing companies by value chain stage (n = 881).



Reporting companies included 349 organizations based in Europe, 303 from Asia, 285 from the US and Canada, 191 from Latin America, 13 from Oceania and 11 from Africa. There was a decrease in reporting from North American companies in 2023, while disclosures from Latin America increased by almost a third on recent years. Disclosures from Oceania and Africa remained low.

Companies disclosing through CDP in 2023 produced or sourced significant amounts of the global production of four key commodities (Table 2). Consumption data refers to volumes of commodity that were sourced or purchased by the company in raw or processed forms. With most disclosers coming from value chain stages further downstream, most of the coverage is accounted for under consumption. The exception to this is in palm oil, where both production (volumes produced on land owned or managed by the company) and consumption are well represented. This is largely due to a relatively high proportion of Indonesian and Malaysian palm oil refiners disclosing through CDP.

Table 2. Global commodity production and volumes reported through CDP

Commodity	Commodity volume produced globally in 2022 ⁴ (millions of tons)	Disclosed production volumes (millions of tons)	Disclosed consumption volumes (millions of tons)
 Cattle products	100.3	4.2	24.4
 Palm oil	88.8 ⁵	29.1	49.4
 Soy	384.5	2.1	103.6
 Timber products	4,415.0	256.6	537.8

⁴ Food and Agriculture Organization of the United Nations – timber, crop and livestock production 2022.

⁵ Latest available data for global palm production covering 2021.

Disclosure of progress toward DCF goals



3

Disclosure of progress toward DCF goals

In 2023, companies were requested to report the proportion of volumes in their operations and supply chains that they considered to be deforestation- and/or conversion-free (DCF) during the previous reporting year. To be able to consider commodity volumes as DCF, companies must have been able to determine that materials did not originate from production units where conversion from forests or other natural ecosystems occurred after a specified cut-off date (see Box 1).

Metrics for DCF disclosure and assessment of responses




Companies were asked to disclose the **percentage of reported volumes verified as deforestation- and/or conversion-free (DCF)**, in relation to the full volume of each commodity that the company produced or sourced in the reporting period.

Companies were given the option of identifying one or more approaches to assessing or verifying DCF volumes, including:

1. **Volumes demonstrated as DCF based on origination from areas with no or negligible risk of deforestation or conversion.**
2. **Volumes demonstrated as DCF based on monitoring of the location where the commodity originated.**
3. **Volumes demonstrated as DCF through physical certification.**

Responses to questions about DCF production and sourcing were assessed to determine whether information was disclosed in line with guidance published by CDP and AFi, and whether the company provided appropriate evidence to substantiate the status of volumes reported as DCF. Table 3 provides a summary of the criteria used to distinguish high-quality DCF responses; the full set of criteria can be found in [Annex 1](#).

Table 3. Criteria for determining high-quality responses to questions on DCF progress

Criteria for high-quality response	Details
 DCF disclosure was credible and well explained	<p>The company used one or more tools or methodologies to support its DCF disclosure and:</p> <ul style="list-style-type: none"> ▼ described the process; and/or ▼ described how it resulted in credible/consistent characterizations of risk; and/or ▼ the methodology or outcomes were verified.
 DCF disclosure was comprehensive	<p>The company reported no significant exclusions from its disclosure. The exclusions that were accepted in this year's analysis were:</p> <ul style="list-style-type: none"> ▼ volumes less than 5% of the commodity total; ▼ reporting limited to own-brand products; ▼ embedded soy; or ▼ mergers or acquisitions in 2022.
 Certifications used to substantiate DCF status were suited to this purpose	<p>DCF claims were made based on certification schemes with robust DCF criteria and chain-of-custody models that provide physically certified volumes.</p>

Response rates to questions on DCF volumes

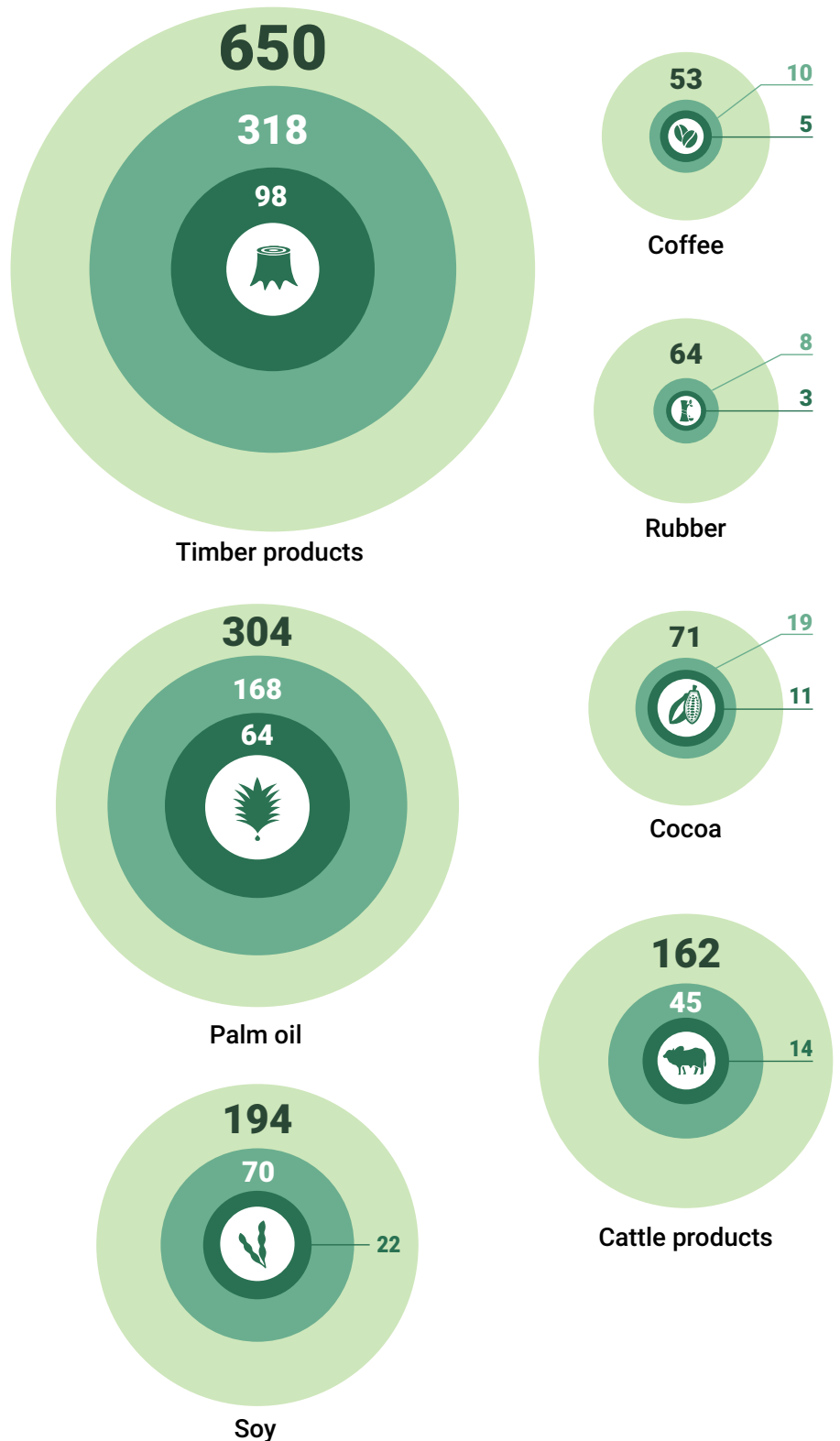
Half of disclosing companies (445/881) responded to questions about their deforestation- and conversion-free commodity production or sourcing for at least one commodity. These DCF responses were included in 43% (638/1,498) of commodity disclosures submitted (Figure 3).

Response rates for the DCF portion of the questionnaire were the highest for palm oil – 55% of palm oil disclosures included DCF responses (168/304) – followed by 49% of timber disclosures (318/650).

Response rates to DCF questions were the lowest for rubber, with only 8 of 64 companies (13%) disclosing DCF progress (Figure 3).

- Commodity disclosures ●
- DCF responses ●
- High-quality DCF responses ●

Figure 3. Total disclosures, disclosures to questions on progress toward deforestation- and/or conversion free supply chains, and high-quality DCF disclosures





Quality of responses to questions on DCF volumes

While half of companies responded to questions about their DCF commodity production or sourcing, only 21% (186/881) presented information that was clear and comprehensive enough to be considered high-quality for at least one commodity (see Table 4 and [Annex 1](#) for criteria for high-quality responses).

Overall

1/3 

of responses to DCF questions (217/638) were considered to be high-quality DCF disclosures, representing 14% of total commodity disclosures (217/1,498).

While companies disclosing on cocoa and coffee had the lowest response rates to the DCF questions, the DCF responses that were disclosed were the most likely to be high-quality, with 58% of cocoa (11/19) and 50% of coffee (5/10) responses being high-quality (Figure 3).

Palm oil saw the highest proportion of high-quality disclosures in relation to total disclosures (21%, 64/304). 38% of DCF responses related to palm oil were categorized as high-quality (64/168), a higher proportion than for timber, soy, and cattle disclosures.

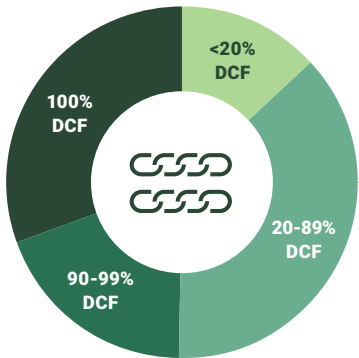
Two-thirds of responses to DCF questions were determined to have serious issues that undermined the reliability or interpretability of the information disclosed (421/638). The most common problems related to the use of certification systems; nearly 200 companies had at least one response to DCF questions rated as not high-quality because the certification models disclosed did not provide sufficient assurance of DCF status.

Another common concern with the DCF responses involved companies claiming that materials were DCF due to sourcing from a broad geographic region – such as the US, UK, or EU – without further information about the methodologies used to make those determinations or the types of ecosystems threatened in those regions. In addition, more than a quarter of DCF responses (181/638) included missing or inconsistent information across different response fields. Finally, 10% of DCF responses (63/638) had significant exclusions in the scope of disclosures relative to the company's total production or sourcing.

Degree of progress disclosed

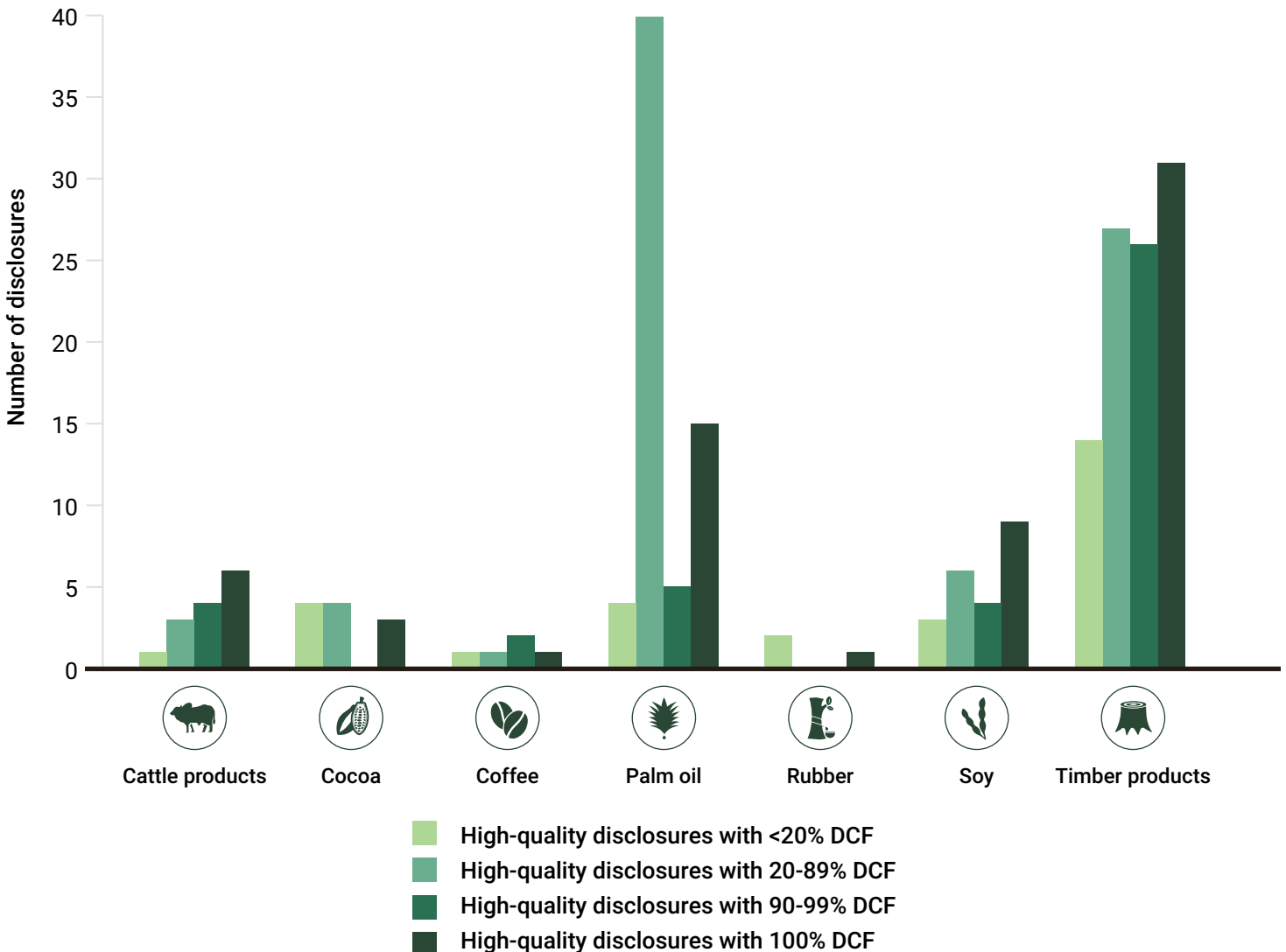
Responding companies were at many different stages of maturity in achieving DCF supply chains (Figure 4).

Of the 217 high-quality disclosures of DCF progress made by 186 companies:



- 13% indicated that the relevant supply chain was less than 20% DCF.
- 37% indicated that it was between 20-89% DCF.
- 19% indicated that it was between 90-99% DCF.
- 30% indicated that the company had achieved 100% deforestation-free and/or conversion-free production or sourcing for that supply chain.

Figure 4. Number of high-quality DCF disclosures indicating progress toward DCF supply chains



64



companies reported at least one commodity supply chain as 100% deforestation- or conversion-free via a high-quality DCF disclosure.

High-quality disclosures indicating 100% DCF supply chains:

31 Timber products 

15 Palm oil 

9 Soy 

6 Cattle products 

3 Cocoa 

1 Coffee  **1 Rubber** 

Half of the companies disclosing 100% DCF supply chains (32/64) identified as retailers or manufacturers only. Fifteen producers disclosed 100% DCF production, nine of which were for timber.

Companies were encouraged to disclose the volumes they had determined to be DCF even if the percent they reported as deforestation- and/or conversion-free was low, with a focus on transparency rather than performance. **Of 186 companies making a high quality DCF disclosure, 98 reported that at least one commodity supply chain was less than 90% DCF.** Of those, 27 companies reported that less than 20% of their volumes were DCF. Cocoa, palm oil and rubber companies were the most likely to disclose data for supply chains for which the proportion of DCF material was lower.

Of high-quality palm oil disclosures, 69% (44/64) indicated that supply chains were less than 90% DCF. Far fewer cocoa and rubber companies disclosed through CDP and responded to DCF questions, but 73% of high-quality cocoa disclosures (8/11), and 67% of high-quality rubber disclosures (2/3) indicated less than 90% DCF supply chains.

Conversely, nearly 60% of high-quality soy (13/22) and timber (57/98) disclosures, and 71% of high-quality cattle disclosures (10/14), indicated supply chains that were at least 90% DCF. While in some cases this indicates strong progress, in others it may be evidence of continued reluctance by many companies to disclose in advance of significant progress in these sectors.

Paths to DCF supply chains

4

Paths to DCF supply chains

Responses indicate that few companies use only one method of DCF monitoring and assurance for all of their supply chain volumes. Rather, companies use a collection of approaches, resulting in a diverse set of contextualized or overlapping supply chain control mechanisms (see Box 2 for examples).

Diverse approaches to achieve DCF volumes

As a result of these overlapping approaches to assessing DCF volumes as well as the structure of the 2023 questionnaire, there was a great deal of variability in the way this information was reported, and therefore a high level of uncertainty in the data. However, some broad patterns can be seen. Refinements being made in CDP's 2024 questionnaire are intended to support companies in disclosing more clearly (see Box 4 for more information).

Of 551 commodity-level DCF responses that provided sufficiently interpretable information:



▼ At least **half** indicated the use of certification for at least some amount of DCF volumes;



▼ At least a **third** indicated DCF volumes arising from sourcing areas with no or negligible deforestation risk; and



▼ At least a **quarter** indicated that DCF volumes were verified through direct monitoring of production units.

Disclosures on cattle had the most homogenous approach; at least 70% of DCF disclosures on cattle claimed DCF volumes based on sourcing from jurisdictions without deforestation/conversion risk. Cattle supply chains were also the least likely to use certification to determine DCF volumes, with fewer than 10% of disclosures indicating the use of certification for this purpose.

At least

70% 

of DCF disclosures on cattle claimed DCF volumes based on sourcing from jurisdictions without deforestation/conversion risk.

Box 2

Examples from disclosures using a range of approaches to DCF assessment

This text is taken or adapted from public CDP disclosures. It is drawn from self-reported information and has not been verified by CDP or AFi. Anonymised responses in this section have been selected as examples of clear DCF disclosure, they are not an endorsement of a company's overall performance.

Company 1: 100% DCF Soy



Methodology: Certification + negligible risk sourcing

53% of soybeans used by the company in Europe are grown in France or Italy, and the remaining 47% come from Canada. 100% of these soybeans are ProTerra Segregated certified. Soybeans used by the company in North America are grown in the United States, with a very small percentage from Canada. 90.5% is Proterra Segregated certified and the remaining 9.5% is with non-GMO Project verified or organic certifications providing chain-of-custody guarantee.

In December 2022, a third-party verification process was set up: with the support of an external commodities consultancy, the company put in place a new traceability process for key forest-risk commodities including soy. The purpose of this traceability process is to track, monitor and verify the volumes, origin, certification status, and deforestation and conversion risk of these key commodities provided to the company by its suppliers.

Company 2: 75% DCF Leather



Methodology: Direct monitoring + negligible risk sourcing

The company maintains a list of low-, medium- and high-risk countries for leather sourcing, which includes information on deforestation and conversion risk, alongside other environmental, human rights and animal welfare criteria. The company does not source leather from high-risk countries. For leather coming from low- or medium-risk countries they use the following approaches:

1. Traceability to the slaughterhouse in a low-risk subnational area and alignment with the company's Standards requirements on supply chain transparency & traceability; OR
2. Traceability to the slaughterhouse (geo-referenced boundaries) and to direct and indirect farms that the slaughterhouse has purchased from (geo-referenced boundaries), and a verification of no deforestation or conversion after a cut-off date of January 1, 2020; OR
3. Traceability to the slaughterhouse (geo-referenced boundaries) and audit of DCF safeguards to verify DCF compliance within their entire supply chain (direct and indirect farms). This may include a combination of traceability systems with segregated certification ensuring DCF compliance.

Company 3: 96% DCF Palm oil



Methodology: Direct monitoring + negligible risk sourcing

The company's cut-off date is December 31, 2015. Raw materials are assessed as deforestation-free when they can be traced either to low-risk origins or have been assessed as deforestation-free either from the sky or from the ground.

- ▼ 'Assessed from the sky' means that volumes have been assessed through satellite monitoring of production sites in our supply chain identified through traceability (89% of volumes in 2022).
- ▼ 'Assessed on the ground' means that volumes have been assessed through on-the-ground assessments, including by High Carbon Stock Approach and High Conservation Value assessments, by our partners (eg Earthworm Foundation, Proforest, SGS) and/or through certification such as the RSPO. Only segregated volumes are accepted as deforestation-free (6% of volumes in 2022).
- ▼ 'Traceable to low-risk origin' means that volumes have been traced back to regions classified as at low risk of deforestation, using tools such as Maplecroft (1% of volumes in 2022).

Company 4: 99% DCF Timber products



Methodology: Certification

2021 ● In 2021, the company achieved a significant milestone by attaining 100% availability of FSC-certified forests and other controlled sources. This means that all products delivered to customers were accompanied by FSC CoC third-party certification, ensuring compliance with the FSC's requirement of zero harvesting from areas undergoing conversion to plantations or non-forest use.

2022 ● In 2022, 1% was sourced from Russia during a period when FSC certificates were suspended.

- ▼ Company policies require all our paper suppliers to comply with either the FSC Controlled Wood Standard or the FSC Forest Management Standards, assessed by third-party independent auditing and verification.



Many tools for identifying DCF sourcing areas

Claims about DCF sourcing arising from jurisdictions or other spatially defined sourcing origins with negligible deforestation or conversion risk were common across many commodities. However, only 88 disclosures identified classification systems that were used to determine negligible risk of deforestation and/or conversion. Generally little information was provided about how these systems were used, but responses show that companies are getting information about deforestation and conversion risk from a wide variety of sources.

Of those 88 companies:

29 ●

disclosed using certification for this process, primarily for timber products, with FSC and PEFC the most common.

24 ●

reported using publicly available tools.



12 Global Forest Watch Pro

9 Preferred by Nature risk tools

14 ●

used international indexes, including FSC's National Risk Assessment and Transparency International's Corruption Perceptions Index.

12 ●

used commercial tools, with Maplecroft the most common.

To support future high-quality and consistent disclosure, CDP's 2024 corporate questionnaire will request additional detail on criteria used for area-level DCF determinations.

For the purposes of this report, a number of those disclosures were considered to be high quality, provided that they sufficiently detailed the sourcing locations in open text responses, even if they did not provide detailed disclosure on the classification system or process used to determine low or negligible risk. As scrutiny of these disclosures increases, companies will need to provide greater detail about the methodologies used and the assurance that these tools provide (see Section 6 for further recommendations).

To support future high-quality and consistent disclosure, CDP's 2024 corporate questionnaire will request additional detail on criteria used for area-level DCF determinations. Companies will be expected to provide both the classification methodology used and the specific origins classed as having negligible risk.

Policy and practices lay the groundwork for DCF disclosure

5

Policy and practices lay the groundwork for DCF disclosure

The findings in this report show that leading companies can add and are adding DCF disclosure to an existing set of good practices to address deforestation and conversion in their supply chains (see Box 3). Companies that disclosed on progress toward achieving deforestation- and conversion-free supply chains were more likely to have policies and practices in place that communicated and advanced those goals.

This suggests that strong policies and practices can support and enable companies to determine and report their DCF performance. In the coming year, the expectation would be that companies engaging in these good practices will see – and disclose – significant improvements in their DCF sourcing figures.

These findings may also indicate that DCF disclosure via CDP forests was limited largely to companies that have greater maturity on forest and supply chain action. Therefore, the information gathered this year about DCF performance and approaches is likely not representative of all disclosing companies, but rather reflects the more advanced subset of disclosers that chose to respond to questions on DCF performance.

Box 3: DCF disclosure as part of a suite of good practices

Of the 217 high-quality disclosures of DCF progress made by 186 companies:



94% indicated having a traceability system in place for at least some of their supply chain.



92% included using third-party certification for at least some of their volumes. The only commodities for which this number was not at least 90% were soy (68% used certification) and cattle (57%).



62% indicated use of a risk classification system.

DCF policies tend to precede DCF disclosure

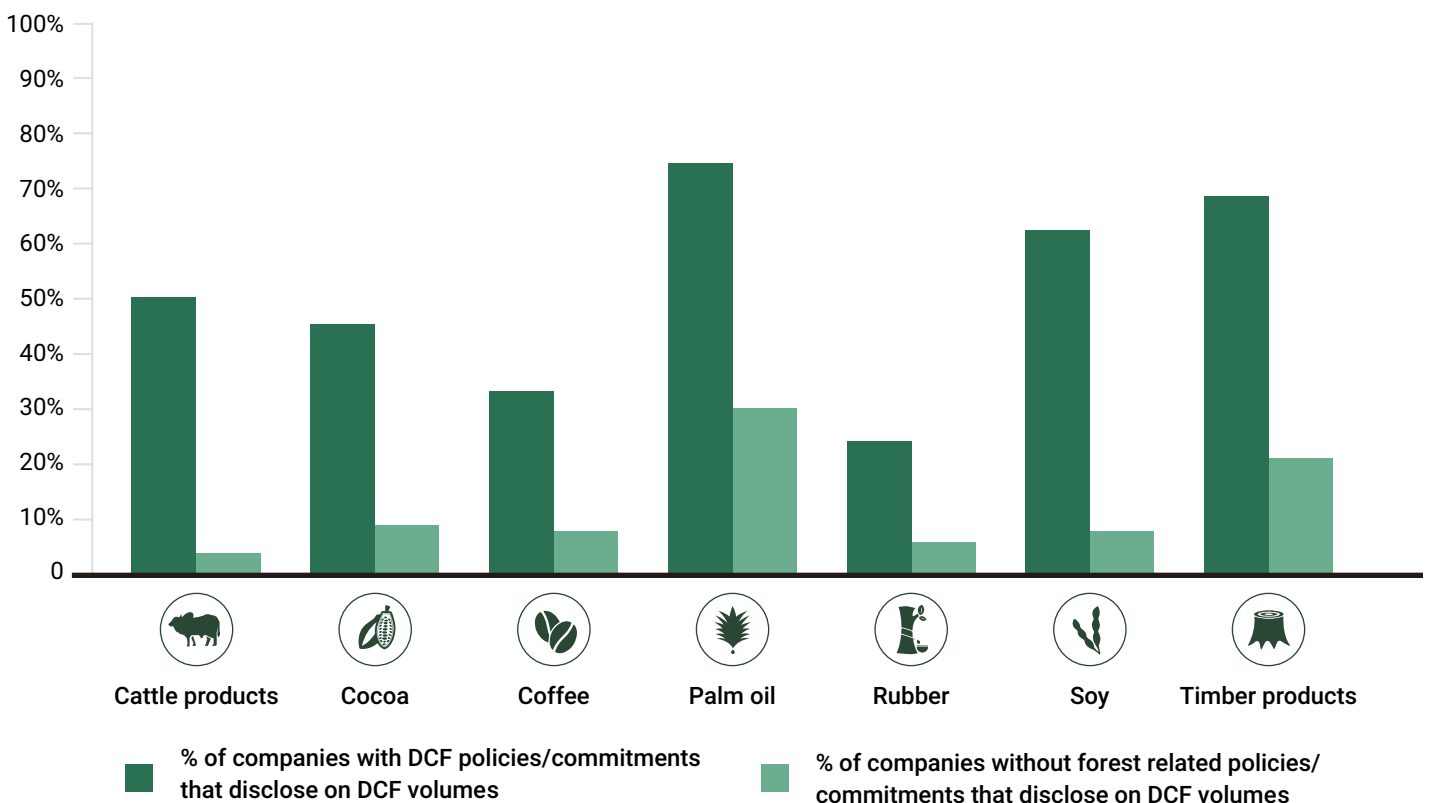
Overall, half of companies disclosed having a no-deforestation or no-conversion policy or commitment (437/881). A further quarter did not have DCF policies or commitments but had other types of forests-related policies or commitments, for example commitments to legality with regard to commodity production (211/881).

Companies that disclosed on DCF progress for a given commodity were more than twice as likely to have a no-deforestation or no-conversion policy for that commodity than companies that did not disclose on DCF progress. Of companies that disclosed on DCF progress, 69% had no-deforestation or no-conversion policies or commitments for the given commodity (308/445), compared to only 33% of companies that did not disclose on DCF progress (172/516).

Similarly, companies with DCF policies and commitments were far more likely to disclose their DCF progress and to disclose it in a high-quality way (Figure 5). **Of companies with a DCF policy or commitment, 70% responded to the DCF questions for at least one commodity (308/437), compared to 23% of companies without DCF policies or commitments (65/286).** Nearly one third of companies with DCF policies or commitments had high-quality DCF responses for at least one commodity (132/437), compared to only 9% of those without forest-related policies (27/286). This trend was consistent across all commodities, indicating that **strong no-deforestation and no-conversion policies are closely associated with robust transparency on supply chain progress.**

In addition, of 126 disclosures that contained a timebound public DCF commitment and high-quality DCF disclosure, 99 of them (79%) had a cutoff date of 2020 or earlier associated with that commitment, indicating that these commitments are in line with good practice.

Figure 5. Response rate to DCF questions by companies with and without DCF commitments or policies



Companies that disclose on DCF progress are more likely to disclose supplier engagement

Overall, 65% of companies (575/881) report conducting some form of supplier engagement, either with smallholders or with direct or indirect suppliers. This is highest for palm oil disclosures (65% of disclosures; 198/304) and timber disclosures (62%; 402/650) and lowest for rubber (31%; 20/64) and cocoa (39%; 28/71).

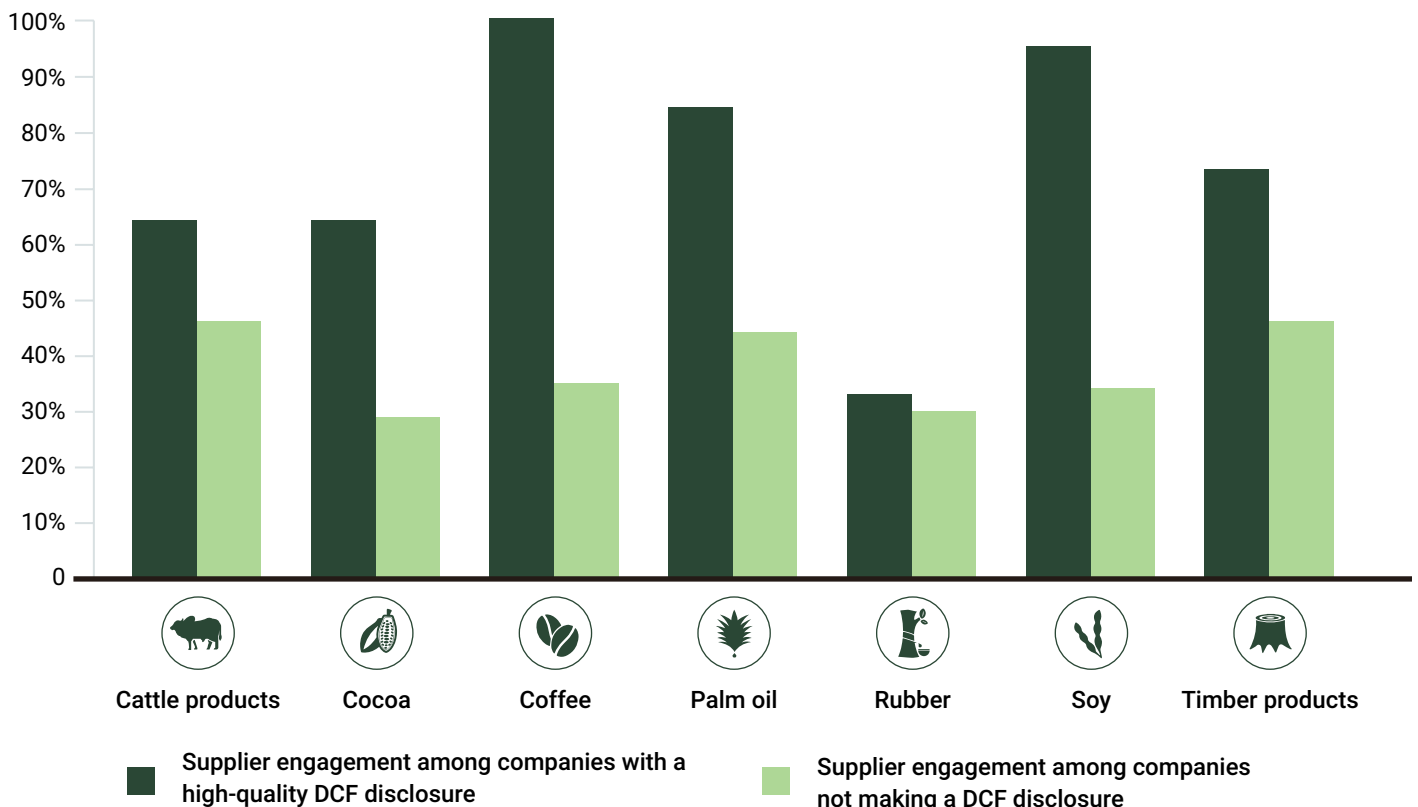
Across commodities, companies that disclose on DCF progress are more likely to disclose some form of supplier engagement (Figure 6). **Of the companies that disclosed DCF progress for a commodity, 82% (363/445) reported supplier engagement associated with that commodity, compared to 49% among the companies that did not disclose DCF progress (252/516).** Of companies with high-quality DCF

disclosure, all five companies disclosing on coffee and all but one of 22 companies disclosing on soy report supplier engagement.

In addition, 23% of companies responding to CDP’s full-tier forests questionnaire (122/542) reported engaging non-compliant suppliers. **This proportion was nearly three times higher for companies that disclosed on their DCF progress (29%) than those that did not (11%).**

Finally, 50% of full-tier companies disclosing their DCF progress reported engaging in landscape and jurisdictional initiatives, compared to 19% of companies that did not disclose DCF progress.

Figure 6. Supplier engagement disclosed by companies that did or did not respond to DCF questions



Recommendations for improved DCF disclosure

6

Recommendations for improved DCF disclosure

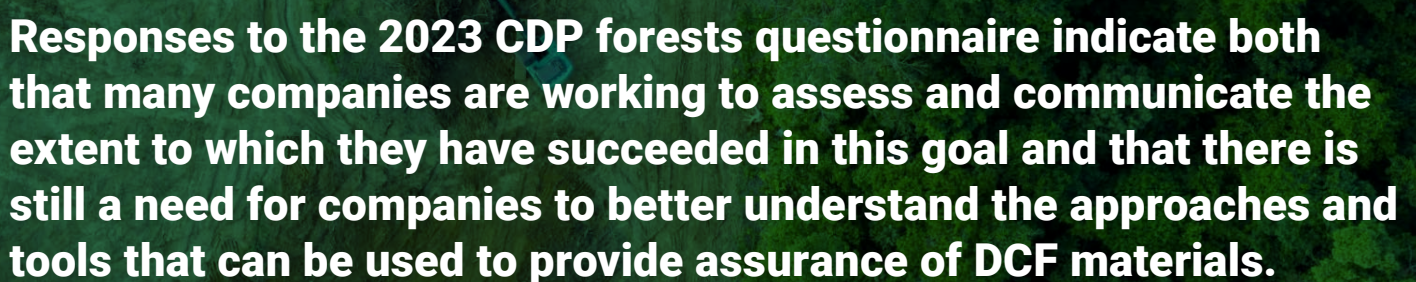
For most companies, disclosure of progress toward eliminating deforestation and ecosystem conversion from their operations and supply chains is a relatively new expectation. Responses to the 2023 CDP forests questionnaire indicate both that many companies are working to assess and communicate the extent to which they have succeeded in this goal and that there is still a need for companies to better understand the approaches and tools that can be used to provide assurance of DCF materials.



Companies should respond comprehensively and accurately to CDP and other disclosure requests, regardless of the amount of progress that has been made.

Indicators developed by the [Accountability Framework initiative](#) are now available across several leading reporting and assessment platforms, including CDP, providing a clear and consistent way for companies to disclose performance and progress towards DCF supply chains. Company disclosures following these indicators will enable stakeholders to understand and recognize progress as companies advance towards a range of climate and nature goals. All companies that produce or source agricultural or forestry commodities should disclose this information, regardless of their position in the supply chain or level of progress towards DCF supply chains.

To prepare for effective disclosures, companies should review new and existing guidance on these topics. That includes materials from the AFI and CDP as well as other relevant sources. Companies should attend CDP's introductory and questionnaire change webinars in 2024 so that they can be aware of new questionnaire content and structure and disclose effectively in the coming year.



Responses to the 2023 CDP forests questionnaire indicate both that many companies are working to assess and communicate the extent to which they have succeeded in this goal and that there is still a need for companies to better understand the approaches and tools that can be used to provide assurance of DCF materials.

Box 4: A new format for the CDP questionnaire

In 2024, CDP has combined the three existing questionnaires into one CDP Corporate Questionnaire, so that companies asked to respond across multiple environmental issues can do so in a single place. Integration of the questionnaires follows the latest science, aligns with new high-quality disclosure frameworks and standards, and includes incremental changes to the data points in previous climate change, forests and water security questionnaires.

CDP's integrated corporate questionnaire structure



For 2024, the updated forests module will focus on disclosures relevant to the company's production and use of commodities, their commitments towards eradicating deforestation and natural ecosystem conversion, the DCF status of the total commodity volumes they handle, and the actions that they are taking to progress towards sustainable sourcing and restoration within and beyond their supply chains. All companies disclosing on soy, timber, palm or cattle will receive a single forests score, while coffee, rubber and cocoa will continue not to be scored in 2024.

The updated question structure will distinguish between the methods that support DCF claims and those that indicate companies are still working towards DCF. The questionnaire and scoring have been adapted to better accommodate DCF disclosures where overlapping risk, certification and monitoring methods have been used - acknowledging that overlapping methods may be needed to provide DCF assurance.

For the latest information about the integrated questionnaire, please visit the [CDP website](#).

Corporate policies and commitments to eliminate deforestation and ecosystem conversion from commodity supply chains communicate a company's intentions and approaches to buyers, investors, civil society and the public.



2

Companies should communicate intentions to achieve deforestation- and conversion-free supply chains, both publicly via policies and commitments and to suppliers via engagement and support.

Corporate policies and commitments to eliminate deforestation and ecosystem conversion from commodity supply chains provide an essential baseline for action and progress toward achieving these goals. They communicate a company's intentions and approaches to buyers, investors, civil society and the public. They also support internal buy-in to take action to manage supply chains to reduce deforestation and conversion, and enable disclosure of progress. Companies should therefore set or strengthen policies and commitments in alignment with the [Accountability Framework](#).

In addition, managing supply chains to both monitor and address deforestation and conversion requires engagement with suppliers, including communication of policies and procurement criteria and support to enable suppliers to achieve compliance with the policies. Companies that disclose DCF progress are far more likely to engage their suppliers on deforestation and conversion, indicating that implementation and transparency are complementary actions.



3

Companies should better understand the capabilities of certification programs

The most common cause of DCF responses not meeting the quality criteria set out in this report was reliance on certification models that do not provide assurance of DCF status. Only certification systems that have robust deforestation- and/or conversion-free criteria can be used to support DCF claims. In addition, only chain-of-custody models that allow products to be physically traced to certified product units – such as segregated or identity-preserved models – can be used to claim volumes as DCF. Other forms of certification, such as mass balance, require additional monitoring and due diligence processes to ensure products are DCF⁵. While CDP will provide clearer guidance on this in the 2024 questionnaire (see [Annex 2](#)), companies should familiarize themselves with the capabilities and shortcomings of the certification programs with which they work. This may entail researching the principles, criteria and chain-of-custody models of various certification schemes, or directly contacting the organizations that administer these schemes to gather more information.

⁵ Note that the FSC Controlled Wood standard ensures that even non-certified materials are deforestation-free, providing this additional due diligence and supporting DCF claims.



4

Companies should consider additional ecosystems besides forests when monitoring and disclosing on DCF commitments

Current CDP disclosures indicate that companies have commitments and policies that represent a mix of deforestation-free and DCF goals. Companies that have or are moving towards more comprehensive DCF targets should ensure that systems for monitoring compliance with those targets at both the level of the production unit and the level of the sourcing area are suitable to assess conversion of grasslands, savannahs and wetlands, in addition to forests.

Certification systems identified by CDP as providing DCF assurance already include assessment of non-forest ecosystem conversion (see [Annex 2](#)). In some key commodity origins, such as many countries in South America, data and tools are already available for monitoring compliance with DCF commitments. In other regions, effective risk assessment and monitoring tools may still be in development, and companies should work to identify tools and methodologies that are available in their sourcing regions.



5

Companies should adopt a more informed approach to selecting and using risk assessment systems and indices

Risk assessment tools and indices are used for many purposes, including identifying the most significant impacts of company activities, prioritizing action where most needed, and determining appropriate levels of due diligence. The use of risk-based approaches to determine whether sourcing areas, such as jurisdictions, can be considered deforestation- and/or conversion-free requires a higher level of scrutiny than other uses of risk assessments. Companies should therefore ensure they are selecting and using risk assessment systems that can effectively ensure that materials produced in specified sourcing areas are free of both deforestation and ecosystem conversion. Some tools consider deforestation only, without including risk of conversion of other ecosystems such as grasslands or wetlands. For example, indices that show that the US is deforestation-free for cattle may not consider other ecosystem types, such as grasslands; therefore cattle sourced from the US could not be shown to be DCF.

Companies using this approach to DCF assessments should therefore gather further information about the methodologies used to make those determinations and the types of ecosystems threatened in those regions before using them as the basis for determining DCF status of sourcing areas or commodity volumes.



6

Companies should understand and disclose on highly transformed commodities in their supply chains, especially soy embedded in animal products

For companies that purchase or source animal products or manufactured goods, comprehensive disclosure should include commodity products that are highly transformed, including soy and palm derivatives and soy fed to animals. Beginning in 2024, the CDP corporate questionnaire will place specific focus on soy embedded within animal products to ensure impacts are transparently disclosed. New questions about embedded soy volumes will allow companies to detail the actions they are taking and progress they are making against those volumes, in addition to direct commodity sourcing.

Embedded soy enters a company's supply chain indirectly as animal feed used in the production of animal products such as meat, farmed fish, dairy, eggs or other animal products that a company sources or uses as an ingredient. Companies can estimate the amount of embedded soy in their supply chain using published methodologies such as [those recommended by the Consumer Goods Forum](#). They can also estimate potential soy origins and DCF status using trade data or supply chain mapping tools as they work to achieve further traceability. Clear disclosure of the level of traceability and DCF progress for embedded volumes will provide company stakeholders with more information about company exposure to soy-related risks.



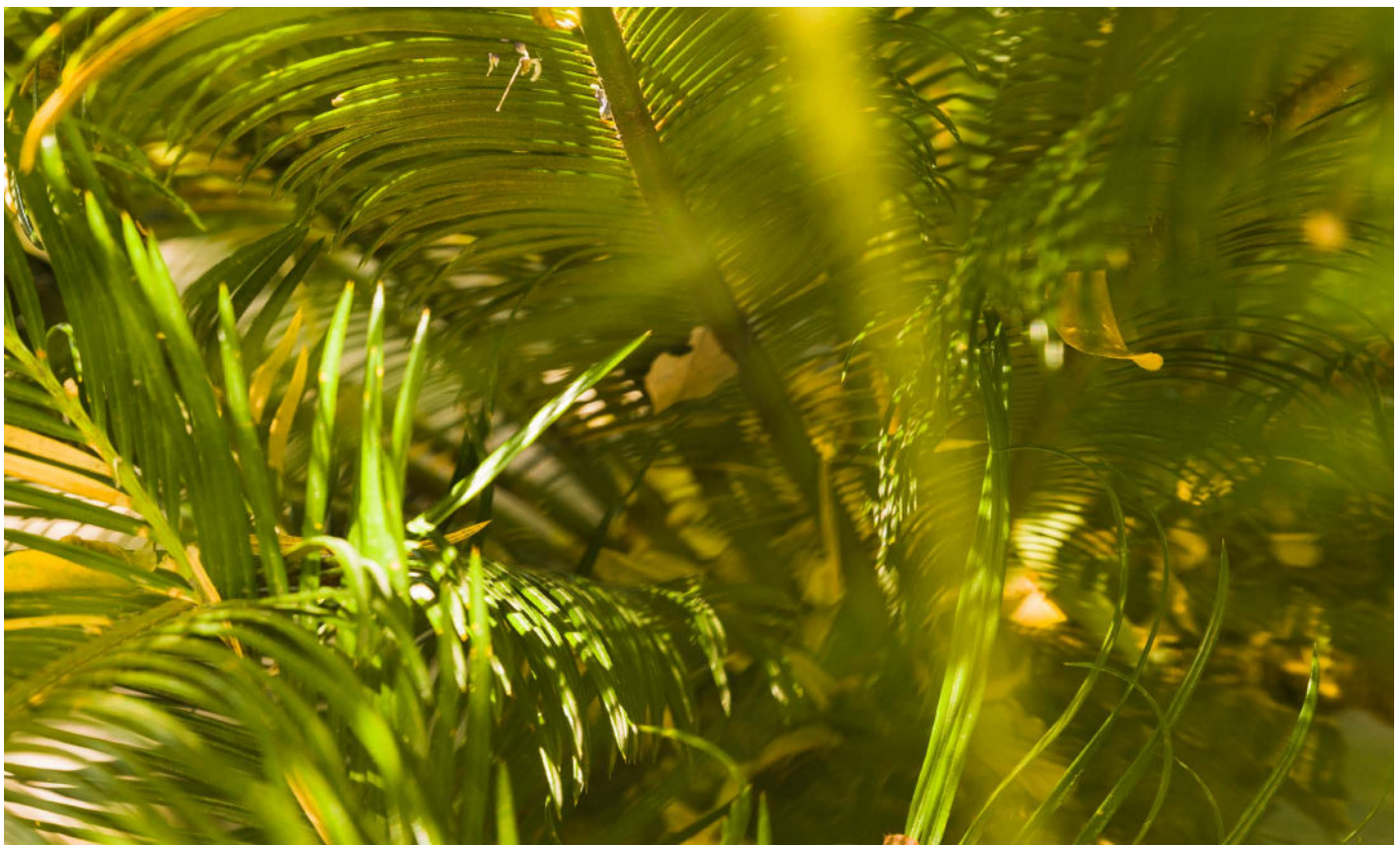
Annexes



Annex 1: Criteria for high-quality DCF responses

	High-quality DCF disclosure Complete and consistent with deforestation free guidance	Not high-quality DCF disclosure Incomplete or inconsistent with guidance
Description	<p>Generally clear, comprehensive, with a plausibly robust methodology to ensure at a minimum no-deforestation.</p> <p>Company has used one or more tools or methodologies and:</p> <ul style="list-style-type: none"> ▼ Describes the process and how it results in credible / consistent characterization of risk. ▼ Methodology / outcomes were verified. ▼ Only recycled materials were used. 	<p>Unclear or not comprehensive including any of the following issues:</p> <ul style="list-style-type: none"> ▼ Significant exclusions. ▼ Methodological issues. ▼ Incomplete disclosure.
Coverage	<p>Only negligible or small exclusions reported (<5%), or exclusions of:</p> <ul style="list-style-type: none"> ▼ Retailers reporting on own-brand only. ▼ Exclusion of embedded products. ▼ Only no-deforestation not no-conversion. ▼ Recent mergers or acquisitions in 2022. 	<p>Reports significant exclusions in general commodity disclosure (>=5%), or:</p> <ul style="list-style-type: none"> ▼ Specific products. ▼ DCF volumes exclude or are limited to certain tiers of the supply chain. ▼ Certain geographies or products are excluded.
Determination – risk	<ul style="list-style-type: none"> ▼ States risk tool or method used and describes process and/or results. ▼ Method or outcomes were verified, including certification. ▼ Sourcing cattle or soy from EU, US, CAN or NZ. 	<ul style="list-style-type: none"> ▼ Reports volumes as negligible risk but does not use a tool or classification system, explain method or detail outcome including listing sourcing areas determined to be of negligible risk. ▼ Only assesses risk in tropical forest countries (classing temperate/boreal forests as low risk).
Determination – certification	<p>States certification providing assurance of no deforestation or no conversion status via physical certification (see list in Annex B) or addresses limitations with certifications in one or more of the following ways:</p> <ul style="list-style-type: none"> ▼ Sourcing mass balance certified product for which the mix is a known percentage, and claiming that minimum percentage as DCF. ▼ Use of additional tools such as NDPE / IRF profiles in the 'delivering' category to verify DCF volume. ▼ Use of complimentary monitoring to assure DCF status of mass balance volumes eg monitoring mill sourcing radius. 	<ul style="list-style-type: none"> ▼ Certification does not have robust DCF criteria or volumes are not physically certified – eg credit/offset or mass balance certifications and no additional traceability and verification undertaken.

	High-quality DCF disclosure Complete and consistent with deforestation free guidance	Not high-quality DCF disclosure Incomplete or inconsistent with guidance
Determination – monitoring	<p>States verification method or tool used and:</p> <ul style="list-style-type: none"> ▼ Describes process and or results. ▼ Method or outcomes were verified. ▼ Monitoring direct suppliers and engaging in LA/JAs. ▼ Uses third party monitoring method that assures deforestation or conversion free eg FSC Controlled Wood methodology used and verified to monitor non-certified timber volumes. 	<ul style="list-style-type: none"> ▼ Reports volumes as verified but does not explain tool or process used (eg satellite monitoring, farm-level monitoring). ▼ Does not report independent verification.
Data quality	<ul style="list-style-type: none"> ▼ Percentages in “please explain” are consistent with the % of reported volume verified as deforestation- and/or conversion-free data disclosed and with certification and monitoring data points. ▼ Describes a clear or plausible methodology for identifying or verifying deforestation- or conversion-free status. 	<ul style="list-style-type: none"> ▼ Missing or inconsistent information, response is not clear enough to make an assessment of exclusion or methodological validity. ▼ Information provided is not consistent between fields. ▼ Information reported in question F1.5 is not consistent with certification or monitoring data provided in F6.



Annex 2: Allowable certification schemes providing DCF assurance

Annex 2 summarizes the certification schemes that were judged to provide credible deforestation- or conversion-free assurance. The list has been produced using desk-based research and consultation.

Certification scheme	Accepted chain of custody model	Assurance	Timber	Palm oil	Cattle products	Soy	Coffee	Cocoa	Rubber
									
Biosuisse organic	Identity preserved / segregated	DF		✓	✓	✓	✓	✓	
Donau Soja	Segregated	DCF				✓			
Europe Soja	Segregated	DCF				✓			
FSC	All models	DCF	✓						✓
ISCC	Identity preserved / segregated	DF	✓	✓	✓	✓			✓
Naturland	Segregated	DCF			✓	✓	✓	✓	
ProTerra certification	Identity preserved / segregated	DF				✓	✓		
Rainforest Alliance Sustainable Agriculture Standard	Identity preserved / segregated	DCF					✓	✓	
RSB Global Fuels	Identity preserved / segregated	DF	✓	✓	✓	✓			
RSPO	Identity preserved / segregated	DF		✓					
RTRS	Segregated	DCF				✓			
Soil Association Organic Farming & Growing (GB and Northern Ireland)	Segregated	DCF			✓	✓			
Sustainable Biomass Program	Segregated	DF	✓						

Annex 3: Data table

Note: data on non-compliant supplier engagement and jurisdictional or landscape engagement were collected for only a subset of companies, and those datapoints are not included here.

Number of companies	Cattle products	Cocoa	Coffee	Palm oil	Rubber	Soy	Timber products	Total companies disclosing on at least one commodity	Total commodity-level disclosures
Disclosing on a commodity	162	71	53	304	64	194	650	881	1498
Disclosing as producers	10	3	5	14	7	11	76	113	126
Disclosing as processors	48	12	11	50	12	44	167	280	344
Disclosing as traders	22	6	6	41	9	24	124	188	232
Disclosing as manufacturers	79	42	18	207	37	116	356	533	855
Disclosing as retailers	82	24	34	65	20	45	219	262	489
Responding to DCF questions	45	19	10	168	8	70	318	445	638
Not responding to DCF questions	117	52	43	136	56	124	332	516	860
With high-quality DCF disclosure	14	11	5	64	3	22	98	186	217
With high-quality DCF disclosure reporting DCF volumes <20%	1	4	1	4	2	3	14	27	29
With high-quality DCF disclosure reporting DCF volumes between 20-89%	3	4	1	40	0	6	27	77	81
With high-quality DCF disclosure reporting DCF volumes between 90-99%	4	0	2	5	0	4	26	40	41
With high-quality DCF disclosure reporting DCF volumes of 100%	6	3	1	15	1	9	31	64	66
That have no-deforestation or no-conversion policies or commitments	72	33	24	165	21	92	322	437	729
That have other forest-related (non-DCF) policies or commitments	21	5	5	59	9	26	150	211	275
That have no-deforestation or no-conversion policies or commitments and respond to DCF questions	36	15	8	122	5	57	219	308	462
That do not have no-deforestation or no-conversion policies or commitments and respond to DCF questions	3	3	2	24	2	6	38	65	78
That have no-deforestation or no-conversion policies or commitments and make a high-quality DCF disclosure	11	9	4	54	2	18	59	132	157
Reporting supplier engagement	93	28	24	198	20	99	402	575	864
Responding to DCF questions and reporting supplier engagement	39	13	9	138	3	57	250	363	509
With high-quality DCF disclosure and reporting supplier engagement	9	7	5	54	1	21	72	147	169
Not responding to DCF questions and reporting supplier engagement	54	15	15	60	17	42	152	252	355
With non-high-quality DCF disclosures	31	8	5	104	5	48	220	330	421
With non-high-quality DCF disclosures and issues with certifications used	6	3	3	74		21	111	198	218
With non-high-quality DCF disclosures and missing, inconsistent or unclear information	18	6	3	29	4	27	94	161	181
With non-high-quality DCF disclosures and large exclusions	4	2		10	1	7	39	52	63
Disclosing DCF production/consumption volume from areas with no or negligible risk of deforestation/conversion	30	1		15	3	35	93	142	177
Disclosing DCF production/consumption volume verified through monitoring systems	12	6	1	45		23	67	133	154
Disclosing DCF production/consumption volume physically certified	3	10	5	81	4	33	165	227	301
With high-quality DCF disclosures that use certification	8	10	5	63	3	15	95	176	199
With high-quality DCF disclosures that use a classification system to determine sourcing area risk	9	6	2	43	2	15	34	88	111
With high-quality DCF disclosures that have a traceability system in place	14	10	5	59	3	20	92	175	203

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About the Accountability Framework initiative

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The Accountability Framework initiative (AFi) is a collaborative programme to protect forests, other natural ecosystems, and human rights by making ethical production and trade the new normal. To achieve this critical transformation, the AFi promotes and supports implementation of the Accountability Framework, a detailed roadmap for setting goals, taking action, and reporting progress towards ethical supply chains. The initiative is led by the AFi Coalition: a diverse group of environmental and human rights organisations from around the world that developed the Accountability Framework and work to drive positive impact in the agriculture and forestry sectors.

Visit accountability-framework.org or email contact@accountability-framework.org to find out more.

About CDP

CDP is a global non-profit that runs the world's environmental disclosure system for companies, cities, states, and regions. Founded in 2000 and working with over 700 financial institutions representing more than US\$142 trillion in assets. CDP pioneered using capital markets and corporate procurement to motivate companies to disclose their environmental impacts, and to reduce greenhouse gas emissions, safeguard water resources and protect forests. Over 24,000 organizations around the world disclosed data through CDP in 2023, including more than 23,000 companies worth two thirds global market capitalization, and over 1,100 cities, states, and regions. Fully TCFD aligned, CDP holds the largest environmental database in the world, and CDP scores are widely used to drive investment and procurement decisions towards a zero carbon, sustainable and resilient economy. CDP is a founding member of the Science Based Targets initiative, We Mean Business Coalition, The Investor Agenda, and the Net Zero Asset Managers initiative.

Visit cdp.net or follow us @CDP to find out more.