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Executive summary

Various international guidelines, treaties and national policies affect supply chain sustainability. This paper takes stock of new developments alongside deepening corporate action.

Supply chain sustainability can mean different things to different people. In general, however, it implies the shaping of a company's investment, operational and procurement decisions to achieve positive environmental, social and governance outcomes and the reduction of harm. That can cover many issues from climate action to labour standards. Corporate action on sustainable supply chains has accelerated in recent years, and policy-maker attention is also deepening. This white paper charts major policy developments and gathers business views on what is needed.

The paper seeks to build bridges between corporate operational efforts and policy discussions in a general manner rather than advocating for one particular interest. It is published against a complex backdrop for trade and supply chains. Russia's invasion of Ukraine in February 2022 has led to devastating suffering as well as widespread supply challenges. Impacts on global and regional food value chains could be particularly severe and set back sustainable development.

Explicit policies on supply chain due diligence have evolved in the past two decades from voluntary international guidelines and sectoral efforts towards more mandatory requirements. The European Union is at the forefront of many efforts, though subnational initiatives in the United States are notable. Other policies such as product trade bans, product sustainability regulations, non-financial disclosure requirements, plus various taxes and rules on plastic pollution also have supply chain sustainability effects. Trade and investment talks increasingly focus, too, on sustainable trade. There is, of course, no perfect classification for supply chain sustainability policies.

Companies are setting more aggressive targets for supply chain sustainability than before, recognizing the effects on competitiveness and linking sustainability targets to senior executive pay performance. Many are working with suppliers in strategic ways, including on issues such as emissions reduction and socioeconomic inclusion. Industry alliances have long been important; some firms are now also looking to bring in entrepreneurship through incubator programmes that deliver place-based supply chain sustainability solutions. Many challenges still exist, not least in mainstreaming supply chain sustainability across organizations, deploying the right combination of technologies and getting the price signals right.

Interviewees for this paper felt the shift to mandatory supply chain sustainability disclosure was broadly positive, since it creates a level playing field. Others cautioned, however, against proliferating diverse systems that could generate paperwork without much market influence. Binding rules require clarity and balance; supply chain sustainability is a constant work in progress for many firms. Other policy approaches can complement disclosure requirements, such as market-creating government sustainability targets, fiscal measures, development assistance and sustainable government procurement, among others. Trade policies need to encourage regulatory coherence.

Supply chains are a powerful lever for sustainability, given that they shape so much economic output and impact. The world is currently on course for significant unsustainable production and consumption patterns – despite the list of 17 United Nations Sustainable Development Goals (SDGs) agreed in 2015. Systemic change is required, and policies must urgently send the right signals.

Introduction

Sustainable supply chains are increasingly a focus of businesses, governments, consumers and civil society organizations, but are not yet the norm.

Interest in supply chain sustainability is growing among many stakeholders. For the purpose of this paper, supply chain sustainability means the shaping of a company's investment, operational and procurement decisions to achieve positive environmental, social and governance (ESG) outcomes and the reduction of harm. That can cover a wide range of topics, depending on their materiality to the business, ranging from emissions reduction and climate resilience to fair labour standards, eliminating child labour and advancing supplier diversity. However, there is no single definition of supply chain sustainability, with companies, governments and non-profit groups defining it in different ways.

The CDP (formerly the Carbon Disclosure Project), a non-profit environmental impact framework, reports a 41% increase in supplier responses to lead firm environmental disclosure requests in 2021 compared to the previous year.¹ According to a recent MIT survey, end consumers and investors ranked third and fourth as the parties placing pressure on firms to deliver supply chain sustainability.² Respondents indicated that the top source of pressure, however, comes from governments and international bodies. As such, the primary focus of this paper is how the supply chain sustainability policy landscape is evolving, and how that intersects with corporate trends.

Policy-maker action has accelerated on various fronts, from product and import bans to new financial regulation and supply chain due diligence requirements. Important guidelines exist, or are in development, at the international level – such as the United Nations Guiding Principles on Business and Human Rights, the Organisation for Economic

Co-operation and Development (OECD) Guidelines for Multinational Enterprises (the Guidelines) and the related OECD Due Diligence Guidance for Responsible Business Conduct (See Annex 1).³ National rules often follow these frameworks to an extent, but they have their own specificities and exist alongside a network of voluntary sustainability initiatives and standards.

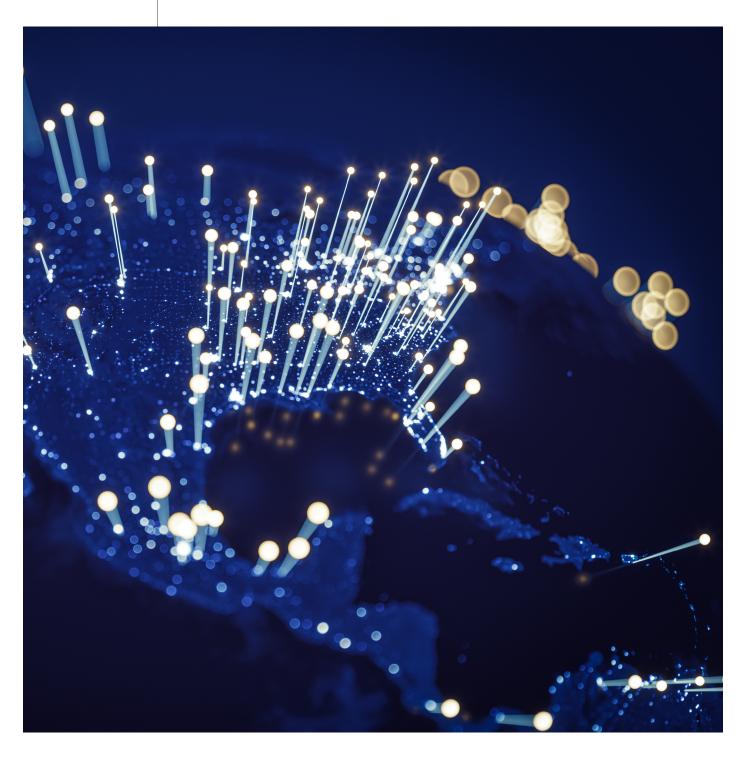
Despite this enthusiasm, the world remains on course for unsustainable production and consumption patterns, according to data on climate change, pollution and biodiversity. Social harms such as child labour and pay inequality remain significant, too. International trade and investment are powerful levers in this regard. Trade constitutes more than 50% of global GDP,⁴ and 70% of it occurs through global value chains.⁵ Supply chain sustainability needs to become the norm.

World Economic Forum communities have been working to implement supply chain sustainability across different industries and issues for more than a decade. The Forum is home to a large community of chief supply chain officers with growing enthusiasm for the topic. Other Forum communities have been at the forefront of aligning and promoting ESG reporting - including the concept of Measuring Stakeholder Capitalism,6 and now the work of the International Sustainability Standards Board (ISSB) on developing a baseline for sustainability disclosures for capital markets7 – and in pushing for greater sustainability in trade and investment frameworks. This white paper seeks to inform discussions on the policies and international cooperation needed to further incentivize supply chain sustainability as well as address harms where they occur.



Regulatory frameworks and developments

International guidelines, free trade agreements and national and subnational legislation make up an evolving regulatory landscape for supply chain sustainability.



International guidance developed

Government policies on supply chain sustainability have evolved over time as the topics in their focus have expanded. OECD governments agreed to guidance for global firms on beneficial investment flows, known as the OECD Guidelines for Multinational Enterprises (MNE Guidelines), as far back as 1976. These have been revised several times since, most recently in 2011, to focus on responsible business conduct, providing voluntary principles for global firms on a variety of topics from employment to the environment and taxation. Debates during this period led to the development of the OECD Due Diligence Guidance for Responsible Business Conduct, adopted in 2018, which provides practical explanations to help firms implement the MNE Guidelines in their operations and supply chains.8 In the same period, additional sector-specific due diligence for supply chains was developed for child labour in minerals, garment and footwear, agriculture, extractives and the finance industry (see Annex 1).

Similarly, work throughout the 2000s led to the development of the United Nations Guiding Principles on Business and Human Rights (UNGPs)

under the stewardship of the late Harvard professor and Special Representative of the Secretary-General, John Ruggie. A process of more than 50 consultations concluded with the endorsement of the UNGPs in 2011.9 The text is built around three pillars: the duty of the state to protect; the responsibility of the corporate to respect; and access to effective remedy for victims. The UNGPs include the concept of human rights due diligence across the value chain. The reference to the latter, rather than to the supply chain, is meant to indicate coverage of the entire life cycle of a product or service and includes other business partners beyond suppliers.¹⁰ In defining the labour and human rights that businesses must respect, the UNGPs refer to the International Labour Organization (ILO)'s Declaration on Fundamental Principles and Rights at Work and the International Bill of Human Rights.11 Facilitative programmes help stakeholders realize these commitments. These include the ILO's International Programme on the Elimination of Child Labour (IPEC)¹² and the ILO and International Finance Corporation's Better Work initiative, which brings together public and private actors in the garment sector to improve working conditions.¹³

Market access restrictions

The above developments largely involve non-binding guidelines. While the texts do refer to international standards that in many cases have been enshrined in law, securing legal redress for harm caused through supply chain activity can be a lengthy process. Alternatively, some countries have opted for product trade bans, which have a strong legal effect. The United States passed the Lacey Act in 1900 for protecting plants and wildlife, including a ban on illegal wildlife trade. The Act makes it an offence to trade in wildlife,

fish and plants that have been illegally possessed, transported or sold. It was expanded in 2008 to cover plant and plant products such as timber. The European Union, meanwhile, in 2010 brought in regulation to tackle illegal, unreported and unregulated (IUU) fishing, which can result in fisheries products from "red-listed" countries being banned from the EU market. In 2015 the US tightened rules, banning US imports of goods made with forced labour, 14 with recent legislation specific to one region. 15



If done properly, EU due diligence rules will be a game changer, establishing binding obligations for responsible business conduct not just for European companies, but globally for companies selling into the EU market.

Lara Wolters, Member of the European Parliament and Rapporteur on the EU Due Diligence Directive

Towards mandatory due diligence

Over the past decade, calls for more mandatory sustainable supply chain due diligence have grown. In 2012, the US state of California imposed legal requirements on large retail sellers and manufacturers to disclose efforts to address slavery and human trafficking in their direct supply chains but stopped short of requiring specific actions.¹⁶ A greater policy emphasis on action came in 2017,

when France introduced a Duty of Vigilance law, which requires large companies to develop and publish a due diligence plan containing measures that identify and prevent impacts on human rights, health and safety and the environment – including across subsidiaries and suppliers. The law applies to large companies based on a set of thresholds. These vigilance plans must include a risk map,

a regular evaluation of procedures, actions to mitigate risks, an alert mechanism and a system for monitoring measures implemented. Company reports on implementation must be made public.¹⁷

The trend towards expecting action on supply chain sustainability, and not just mapping, has picked up pace. The US state of New York is currently considering a Fashion Sustainability and Social Accountability Act that would require environmental and social disclosures deep into fashion retailers'

and manufacturers' supply chains. Disclosures would need to include information on how companies prioritize risk, actions taken to mitigate these risks and measures to track implementation and results. At the EU level, the Commission in February 2022 proposed a directive on corporate sustainability due diligence, involving binding obligations for large firms to identify, prevent and minimize adverse human rights and environmental impacts in supply chains (see Box 1).

BOX 1 European Commission corporate sustainability due diligence proposal

The proposed directive creates obligations for companies with respect to adverse environmental and human rights impacts from their own operations, their subsidiaries' operations and their value chain operations carried out by companies with which they have lasting direct or indirect business relationships.

Scope: The directive applies to EU companies with more than 500 employees and a net worldwide turnover of €150 million (\$160 million) and to non-EU companies with a net turnover of more than €50 million in the EU. For companies with 50% of their net turnover generated in a listed high-risk sector, the thresholds are lower: 250 employees and a net worldwide turnover of more than €40 million for EU companies and a net EU turnover of more than €40 million for non-EU companies. High-risk sectors include textiles, clothing, agriculture, forestry, fisheries and extractives.

Obligations: Companies would be required to:

- Integrate due diligence into their policies
- Identify and prevent potential adverse impacts and identify and stop actual adverse impacts, including through the development and implementation of action plans, contractual

assurances from business partners, investments, small and medium-sized enterprise (SME) support and collaboration with other entities

- Suspend or terminate business relations with partners connected with adverse effects where these could not be addressed
- Maintain a complaints procedure, monitor through yearly assessments and publicly communicate on due diligence
- Adopt a plan to ensure that the company is in line with the Paris Agreement commitment to limiting global warming to 1.5 °C

Sanctions and liability: Member states would lay down rules on sanctions applicable to companies found in violation of the directive and ensure that they are liable to pay damages where an adverse impact has occurred as a result of their failure to comply with the relevant requirements. Companies applying for government support must certify that no sanctions have been imposed on them.

Directors: Directors of in-scope EU companies must consider the sustainability consequences of their decisions.

An expanding list of topics

Policy-makers are now paying attention to a wider array of issues, such as supply chain emissions and supplier diversity. Financial disclosure requirements have expanded as a result (See Annex 2). For example, the implementation guidance from the Financial Stability Board (FSB)-led Task Force on Climate-Related Financial Disclosures (TCFD) was revised in October 2021 to encourage the disclosure of Scope 3 emissions – those stemming from a company's value chain – subject to materiality. TCFD recommendations are the basis for corporate climate reporting requirements in several jurisdictions. Meanwhile, EU efforts to develop a taxonomy for sustainable investments

from an environmental perspective are now prompting discussion on a social investment taxonomy, including topics such as human rights and how value chain workers are treated.²¹

Furthermore, in addition to the supply chain sustainability-specific legislation mentioned above, international frameworks such as the Paris Agreement on Climate Change, negotiations under the Convention on Biological Diversity (CBD), talks regarding the UN Binding Treaty on Business and Human Rights²² and on a binding plastic pollution treaty²³ will influence how national legislation on these issues evolves down the line.

Source: European
Commission, Proposal for
a Directive of the European
Parliament and of the
Council on Corporate
Sustainability Due Diligence
and amending Directive (EU)
2019/1937, 23 February
2022.

Sustainable trade policy development

Some free trade agreements (FTAs) have sustainability provisions. For instance, since its 2009 FTA with South Korea, the EU has included trade and sustainable development chapters in its FTAs that cover environmental protection, climate change, labour rights and so on.²⁴ Signatories typically commit to uphold international treaties and agree not to lower standards to gain a competitive advantage. Commitments are also made to cooperate on regulatory matters and standards. US FTAs tend to include separate labour and environmental chapters. The former typically contain commitments to respect certain fundamental labour rights, enforce labour laws in accordance with due process and establish dispute settlement procedures and consultation systems.²⁵ The latter tend to require parties to enforce domestic environmental laws, comply with certain multilateral environmental agreements, submit to enforceable dispute settlement processes and undertake cooperation and capacity-building activities.26

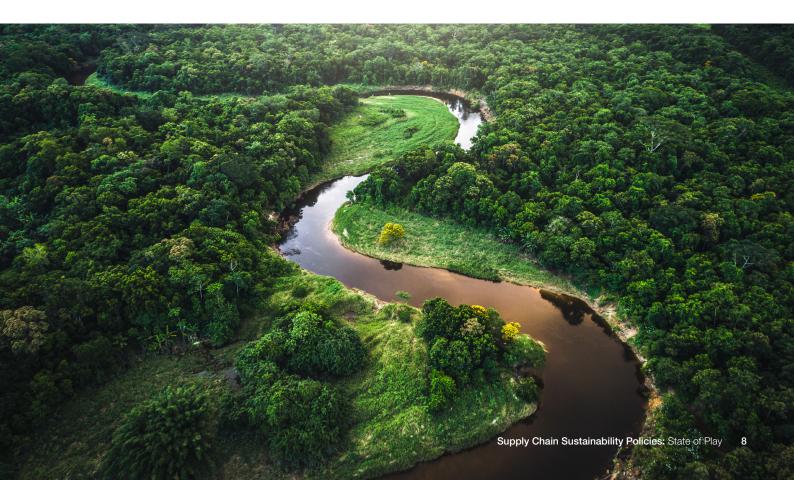
In theory, these frameworks can create a good regulatory environment for supply chain sustainability by creating a level playing field, reducing regulatory fragmentation and aligning market signals. They also follow long-running trade preference programmes, such as the US's Generalized System of Preferences or the EU's Generalised Scheme of Preferences, which provide non-reciprocal tariff-free (or low-tariff) access to developed country markets for certain exports from specified least-developed and developing countries, subject to human rights, labour rights, environmental protection and good governance.

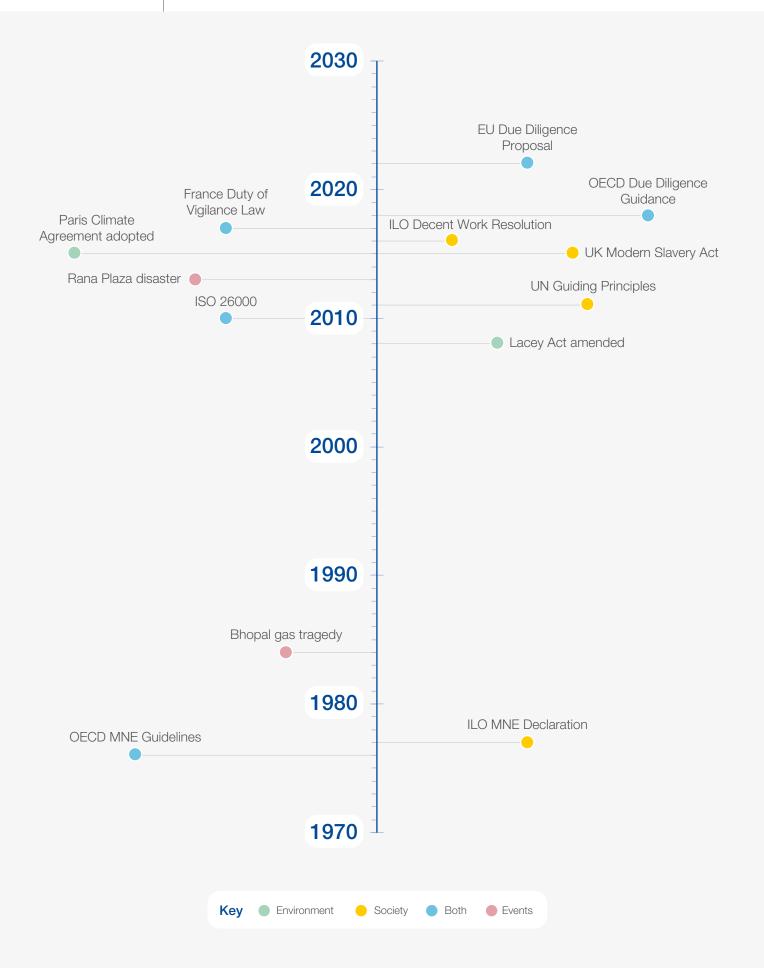
More recently, a statement by trade ministers from 71 WTO members in December 2021 on trade and environmental sustainability commits to compiling effective methodologies on ways to promote sustainable supply chains and links this discussion to the proliferation of sustainability standards. Weanwhile, in Europe, concerns that trade could undercut climate ambition have led the EU to propose the Carbon Border Adjustment Mechanism (CBAM), which would impose a carbon price on imports across six sectors equivalent to the level paid within the single market. BAM would send a strong market signal on the cost of carbon for certain inputs in supply chains.

Voluntary initiatives

Alongside governmental and intergovernmental initiatives, non-profit, multistakeholder voluntary sustainability initiatives have played an important role in supply chain sustainability, becoming de facto standards in some cases where a sufficient number of companies have adopted them,

and helping to guide policy-maker attention. These include Fairtrade International, the Marine Stewardship Council, the Forest Stewardship Council, the Tropical Forest Alliance and the Fair Labor Association.







Corporate trends and perspectives

Corporate approaches to supply chain sustainability have matured among front runners over the past few decades, spurred by governments, consumers, NGOs and investors.



The following insights are gathered from 17 interviews with firms running supply chains spanning the globe or entire regions. Sectors represented range from healthcare to manufacturing, food and beverage. Exchanges with service providers, such as legal, software and logistics, also offered insights on the broader value chain ecosystem. While challenges vary

between different supply chains, the interviews surfaced some general trends in the way these firms are approaching supply chain sustainability, and how this has changed over time. Interviewees approached are all leaders on sustainability. As such, these insights reflect the perspective of highambition companies looking for systemic change.

Sustainable supply chains are a core aspect of business and require a coordinated approach

All interviewees confirmed that supply chain sustainability was more niche and public-relations focused 10-15 years ago, but it has since become a core business and global competitiveness concern, notably in the past three to four years. More corporates are reporting on supply chain effects, undertaking a "value balancing" between economic, social and environmental factors, setting aggressive targets, moving beyond tier 1 supplier work only, and aiming to use their purchasing power for impact. Many interviewees linked supply chain sustainability to long-term financial success, either due to operational gains – such as reducing material wastage, improving energy efficiency and streamlining processes - or shifting investor interests (see Annex 2). Some firms reported that this has remained the case even with the supply chain resilience challenges of the past couple of years. Further, a growing number of companies are linking sustainability targets to senior executive pay performance, or ensuring that corporate sustainability governance is overseen at the board level. In 2021, 45% of FTSE 100 companies were found to tie an ESG measure to executive pay.²⁹

Other firms said that cost factors can still be a challenge. That was particularly the case when

sustainability targets are set but procurement teams are not given the appropriate guidance, tools or expectations. Some interviewees shared that procurement professionals face a lot of pressure but are not always clear on how to achieve their targets. Internal training and awareness raising on the sustainability impacts of each team's decisions was considered essential, as were bottom-up initiatives such as the Sustainable Procurement Pledge (SPP), which brings together procurement professionals and individuals from government, civil society and academia to share knowledge. The SPP has more than 6,700 "ambassadors", procurement professionals supportive of sustainability, from 142 countries.30

Divisions within companies will also have different perspectives on supply chain sustainability, which have to be reconciled. For instance, a responsible sourcing department or legal team may come at the issue from a compliance angle, whereas a corporate affairs team may consider government, community and investor relations. Meanwhile, the sustainability team may be focused on setting targets and reporting. Many interviewees recognized that communication among different departments is key.

Companies are setting climate and circular economy targets for their supply chains

By August 2021, a third of the 1,000-plus listed European companies had set a target for reaching net-zero greenhouse gas emissions by 2050, including Scope 3 emissions.31

One clear change in the past few years has been increased corporate engagement with supply chain emissions. Interviews confirmed a growing understanding of the need to reduce their emissions across operations and along supply chains. Many of those interviewed noted efforts to track Scope 3 emissions, though they acknowledged difficulties in data collection and standardization and suggested that much greater collaboration is needed. The complexity of calculating supplier emissions will depend on the complexity of the supply chain. Since many companies have complex supply chains, where suppliers' suppliers do not necessarily have the capacity to report or do so in different formats, accurate and complete accounting remains elusive. A more systemic flow of information will be needed in the future to monitor reduction efforts. This will also be needed

if companies are to manage any reputational risks in relation to public supply chain decarbonization targets if challenged.

Some interviewees pointed to other practical challenges in terms of supply chain decarbonization, such as putting in place programmes that meet the needs of different suppliers. Where companies have numerous suppliers and ambitious supply chain decarbonization commitments, transformation will not happen overnight. Suppliers need to be supported in understanding their footprints and carbon economics and putting in place climate action governance. In some cases, this is a process across hundreds if not thousands of entities. Initiatives such as the 1.5°C Supplier Engagement Guide provide guidance to companies on how to work with suppliers to this end.32

Paying attention to the circular economy is another relatively new aspect of supply chain sustainability. Some companies are setting targets for recycled and sustainable use of materials. When a large company does so, it can send a powerful demand signal to markets – such as recycled plastics. For example, a Global Commitment led by the Ellen MacArthur Foundation and the United Nations Environment Programme unites more

than 500 signatories on a common vision of a circular economy for plastics, including companies representing 20% of all plastic packaging.33 Through the Platform for Accelerating the Circular Economy – a public-private partnership – calls are made for a global commitment to double circularity every 10 years, and efforts are under way to benchmark corporate targets.³⁴



Diversity and inclusion concerns have expanded

Similarly, the growth of social justice movements in the past few years has led to greater corporate focus on supplier diversity and inclusion. Corporate spending on diverse suppliers rose on average by 54% between 2017 and 2020, according to analysis by Bain & Company of the procurement spend of 350 companies across global industries.35 Many companies have extensive supplier diversity programmes that help identify, train and grow diverse suppliers, some more long-standing than others. For example, Apple had already established a supplier diversity programme in 1993, which engages diverse suppliers and chooses minorityowned banks as underwriters in the company's debt offerings. It also requires law firms to include staff from traditionally under-represented groups in the company's projects.36

Supplier diversity has a long history in the US, going back to the civil rights movement in the 1950s

and 1960s,37 a 1969 executive order creating a national programme for minority business enterprise (MBE),³⁸ government procurement policies favouring MBEs and the creation of the National Minority Supplier Development Council (NMSDC) in 1972. In the US today, diverse businesses are those that are at least 51% owned by US citizens who are ethnic minorities, women, veterans, LGBTQ or persons with disabilities. Clear definitions and certification programmes, as well as recognition, such as the Billion Dollar Roundtable, which admits US companies that spend more than \$1 billion of procurement spend on minority and women-owned suppliers, have helped drive progress. The UK, Australia and Canada also have definitions that companies can work with and trusted certification providers, such as Minority Supplier Development UK (MSDUK), but this is lacking in most countries, making expanding supplier diversity programmes globally very challenging.

COVID-19 has prompted different supply chain sustainability interventions

The COVID-19 pandemic has also demonstrated the importance of improving supply chain resilience as part of sustainability initiatives. Several companies mentioned that they were able to use their supply chains to intervene on new sustainability concerns linked to COVID-19. For instance, the UPS Foundation and UPS Healthcare have provided transport solutions using UPS's cold chain technology and lent internal logistics expertise to enable equitable vaccine distribution.39

Other firms noted that the Russian invasion of Ukraine has prompted fresh internal analysis on their responsibility for suppliers' safety in conflict zones. COVID-19 has highlighted the importance of collaborative, deep relationships with suppliers for supply chain resilience more generally. Some firms highlighted the importance of building platforms that enable the sharing of sensitive supply chain information for critical goods, such as healthcare products, across sectors and industries.

Some companies are moving beyond monitoring to direct interventions

Approaches to supply chain sustainability have evolved over time, from monitoring to direct interventions and working collaboratively with suppliers. Most companies have a supplier code of conduct, developed based on the UNGPs or the industry-led Responsible Business Alliance (RBA) Code of Conduct.⁴⁰ Many then also identify their most important suppliers by spend (or their risk) and conduct third-party assessments and audits. Some firms choose to work closely with certain suppliers, helping them to set and achieve targets, such as emissions reductions.

Several companies reported that capacity-building with suppliers has become more strategic; supply chain risks are assessed and approached in a pre-emptive, structured way. One interviewee characterized this evolution as going from "being the sustainability policeman to the sustainability doctor" as companies now try to understand impacts in their supply chain and develop mutual commitments with suppliers to address challenges. Philips has developed its Supplier

Sustainability Performance (SSP) programme, involving collaboration with suppliers to identify where sustainability can be improved. The programme assesses suppliers against a baseline, differentiates the engagement approach according to their level of maturity and then co-creates specific proposals for improvement.⁴¹ Philips has also set a target of having 50% of its supply base committed to science-based CO₂ reduction targets by 2025, supporting supplier growth through capacity-building, branding opportunities and financial incentives.42

Companies may incentivize good practices by placing the supplier on a "preferred supplier" list. Furthermore, suppliers are often able to use the fact that they have been approved by a rigorous vetting programme to increase business elsewhere. Companies are also increasingly partnering with local entrepreneurs, social enterprises, 43 NGOs and communities to provide the knowledge, networks and solutions to de-risk their value chains and create positive impacts.

Demand signals are not always obvious or implementable

Third-party certification is an important tool, but voluntary standards on many facets of supply chain sustainability have grown and smaller suppliers struggle to comply with multiple requirements. Without adequate monitoring systems to ensure that voluntary supplier standards are adhered to, confidence will be lost. Certifications also have the limitation of being a snapshot in time rather than offering continuous oversight.

More generally, some interviewees confirmed that sustainable demand signals were not always being passed along the supply chain. Companies may not be rewarded for aspects of supply chain sustainability that are not visible to consumers. That could be the case, for example, with green transport services where consumers are not aware of the products' journey. Interventions with suppliers also need to consider different end-brands' price points and margins.

Remediation of harms is the most challenging to navigate

Supply chain remediation, where harms have occurred, tends to be the most difficult aspect for companies to address. It requires significant investment in time and effort with suppliers to

address the root causes leading to environmental and/or social harms. Some firms are working with governments and local actors in countries of concern to create a better enforcement

environment. These actions may involve removing environmental pollution and contaminants or working with suppliers to return passports and documents that have been withheld from workers and refund recruitment fees that have been charged. Recognizing that poverty is the

root cause of child labour, modern slavery and deforestation in cocoa supply chains, Dutch confectionery company Tony's Chocolonely pays cocoa farmers in Ghana and Côte d'Ivoire a "living income", which it calculates with Fairtrade, and invests in local cooperatives.44

A combination of technologies will be necessary, as there is no silver bullet

Technology plays an important role in supply chain visibility and traceability,45 as well as risk identification and prediction. Companies are now better equipped to accurately map supply chains and understand who they work with. GPS tracking is used to monitor deforestation; blockchain to trace commodities – such as the GreenToken blockchain solution by SAP that increases traceability and transparency in Unilever's palm oil supply chain;46 smart sensors and early identification systems for supplier environmental challenges; information on waste generation to improve circularity; and artificial intelligence (AI) to look for potential human rights abuses or assess suppliers. A growing number of start-ups are offering services in these areas, such as risk identification, assessment and prediction.

Data-driven approaches can help predict where challenges are most likely to come from, zoom in on specific issues and inform the design of targeted programmes. Interviewees noted that this must be guided by due diligence legislation that tells companies what to track. Investment in datadriven transparency can also help with capturing results and understanding if supplier programmes are working. Public policies can help push for more data sharing across the supply chain, too, since this does not happen organically or in a standardized format. Some interviewees cautioned, however, that technology alone is not a fix. It is no replacement for working on the ground to improve supplier practices, but it can help to make these interventions more effective.

Corporate philanthropy is complementing supply chain sustainability efforts

A growing number of companies are setting up corporate foundations, 47 some of which work on supply chain sustainability issues from a broader perspective. Corporate foundations may complement and extend the work of a company by addressing gaps in the way the system functions. Foundation activities do not benefit the parent company's bottom line. Rather, they address topics such as poverty, digital connectivity, education and skills, which can

have a ripple effect on supply chain sustainability. For example, the Walmart Foundation works with the Institute for Climate and Society to assist in creating land-use maps, tracking deforestation, developing a reforestation methodology and working with authorities to prevent the destruction of forests. This MapBiomas programme will help restore the natural ecosystems of Brazil and contribute to creating more sustainable and transparent supply chains.48

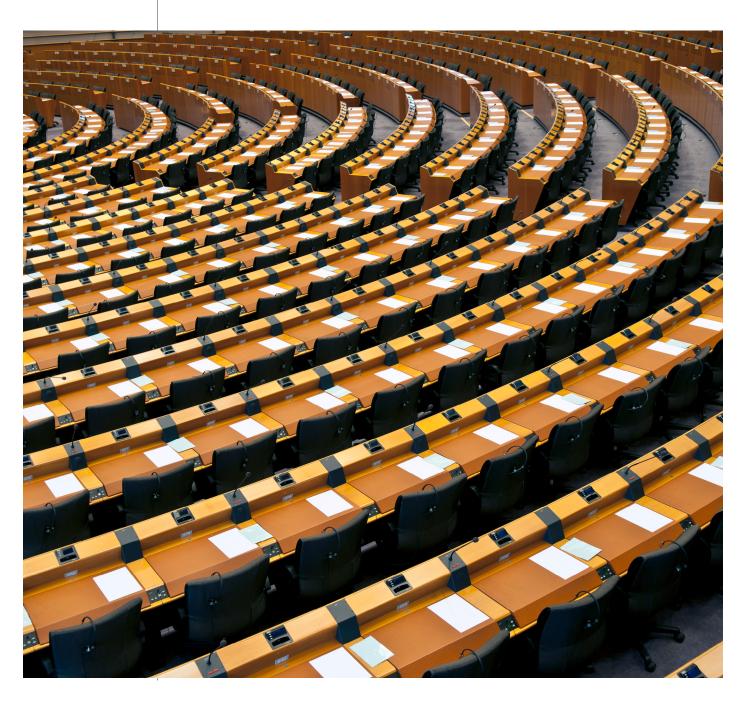
Industry alliances have played an important role and are likely to grow

Companies have found it useful to work with peers in their industries on pre-competitive sustainability concerns. For instance, where companies find they constitute a relatively small portion of their suppliers' orders, they have worked in alliances to require improved sustainability standards and reporting. Suppliers are then subject to one collective set of requirements. This was the case with Action for Sustainable Derivatives, for instance, which is an industry-led initiative for the responsible production and sourcing of palm oil derivatives. 49 Similarly, the Responsible Minerals Initiative has developed assurance processes and reporting templates and maintains a list of conformant smelters and refiners.50

Having a consistent set of metrics across an industry can also help all of the players in the supply chain measure and report efficiently. Together for Sustainability is developing a Scope 3 greenhouse gas (GHG) emissions product carbon footprint calculator for manufacturing in the chemicals sector.51 The Consumer Goods Forum has a number of projects, including the Sustainable Supply Chain Initiative, which benchmarks social compliance schemes in select sectors.⁵² The overall need for convergence on sustainability metrics is evidenced by the momentum behind the ISSB's work, though this relates to the disclosure of sustainability-related financial information rather than to product-level insights.

Corporate views on government policies and actions

Governments must take a coherent, holistic approach to supply chain sustainability, using legislation, guidance, incentives and their own supply chains.



The policy landscape for supply chain sustainability is moving rapidly, yet it is complex because it is affected by many regulatory areas. The European Union's proposal for a directive on corporate sustainability due diligence is on the radar of many firms. In the United States, new rules proposed by the Securities and Exchange Commission (SEC) on climate-related financial disclosures by US-listed companies are prompting debate

on supply chain emissions coverage. Investor disclosure requirements on environment, social and governance (ESG), while not always specific to supply chains, do have an effect on firms' strategies. Specific regulations are also in sight for various industries that will affect supply chain decisions and operations, such as the EU's CBAM, the UK's plastic packaging tax and the EU's work on the circular economy.

Supply chain sustainability policies can create a level playing field

For many interviewees, moving towards mandatory supply chain sustainability disclosure and due diligence is broadly positive as it brings along laggards and helps to raise standards across the board, creating a level playing field. Companies also welcome the trend for these regimes to go beyond disclosure alone. In some sectors and for some sustainability challenges, voluntary initiatives and commitments have not been effective, and regulation is needed to ensure the whole system changes.

However, a more binding approach on corporate responsibility to supply chains needs to be carefully written and coordinated, so as to avoid total disengagement from communities that could exacerbate environmental and social harms. If global firms do leave a country, their operations are often sold to local firms that may have less of an incentive to raise standards. For instance, might a "curable breach" approach to enforcement for a first offence be preferable to a "strict compliance" approach in qualified situations? In private contracts, curable breaches are those where the party in breach is notified and

allowed an opportunity to comply. Equally, could a process be set up to audit a company's supply chain sustainability approach, providing a timebound process of feedback prior to reaching legal recourse for non-compliance? One interviewee commented that supply chain sustainability policy implementation tended to move from limited oversight to court cases without an interim step.

Clarity on scope and coverage is critical for any mandatory rules because this helps to minimize questions in an already challenging space around legal liability and relatively "grey zones" on the extent of supplier responsibility. Even among ambitious companies, this type of clarity as well as audit-type approaches could help to reduce risk concerns on engagement, which hold back action with more challenging suppliers. Mandatory policies must be flexible enough to account for SME capacity to meet requirements or consider differentiated treatment. Mandatory obligations on firms' supply chain behaviour need to be complemented by other policy signals – as discussed in more detail below.

Uncoordinated legislation can weaken the supply chain lever for sustainability

To the largest extent possible, governments should use existing international guidelines as a starting point for supply chain sustainability policies. Firms often base their frameworks on the UN Guiding Principles and other international guidelines in the expectation that this will ensure compliance with different national requirements. In some areas, firms adopt the strictest requirements and apply them to operations in other regions. Significant variation will create a patchwork of compliance requirements that

generates excessive paperwork without necessarily leading to system improvements. Interviewees recommended sticking to horizontal frameworks such as the OECD Due Diligence Guidelines and then developing more specific vertical commitments for sectors as needed. Some amount of flexibility also needs to be built into policies to ensure that small and developing country companies are not locked out of markets unreasonably or subject to excessive costs.

Trade-restrictive policies can be couched in environmental and social justifications

Where legislation is politicized, protectionist, geopolitically motivated or not driven by the issue it purports to address, alignment across markets becomes challenging. Some emerging supply chain sustainability legislation is at risk of colliding

with geopolitical agendas. Lack of clarity in requirements, or thresholds on burden of proof that will be difficult for any company to meet on potential supply chain harms, also mean that goods can get stuck at the border.

The new EU legislation could set a high standard, but details are needed

The new EU legislation will set a baseline for supply chain sustainability due diligence given the significance of the market. Interviewees find the proposal useful insofar as it will require large companies to have relevant policies and approaches. Some called for the turnover thresholds to be lowered to expand the coverage of companies, on the basis that smaller participants are nonetheless important players in aggregate.

Many interviewees reserved judgement pending aspects of the proposal that will need to be clarified either in the EU's negotiation process, via guidelines from the Commission or by implementation at the member-state level. For example, it is unclear how far into the supply chain obligations extend namely, what constitutes an established business relationship with an indirect supplier? Guidance on what constitutes due diligence and how to fulfil those requirements is needed. The adverse environmental and human rights effects to be prevented or ended are loosely defined through an extensive list of international treaties in the Annex to the proposal. Further, the extent of penalties and remedies has not been set out.

Ambitious due diligence legislation needs enforcement, and alignment of incentives

The onus placed on companies in corporate sustainable supply chain due diligence needs to be complemented by government actions. The enabling policy environment in which businesses operate should be aligned to sustainability goals. Strong government targets, such as on diversity or on climate action, help reinforce supply chain signals and action. Clear, enforced regulation and systems for recycling and waste are essential if companies are to design circular products. Supplier sustainability challenges are also exacerbated when governments do not enforce laws – such as those protecting labour rights - as this allows a culture of abuse to develop.

Governments must also use a suite of fiscal measures to incentivize the transition to sustainable supply chains. For example, grants or investment in research and development relating to lowcarbon technologies de-risks and encourages corporate emissions reduction strategies. Equally, perverse incentives, such as subsidies for fossil fuels or harmful fishing, must be phased out, while supporting the most vulnerable in the process.



Capacity-building in developing countries is an important complement

Supply chain sustainability legislation must be complemented by a proactive, solutions-oriented agenda. State-to-state cooperation must play a role here – for instance, in helping developing countries enforce labour, human rights and environmental laws in line with international commitments. Trade agreements are an important tool for alignment, but continued development assistance is needed to go from commitments to implementation. Publicprivate projects and technical assistance are also a critical countervailing force to the information asymmetry among developing country suppliers who might otherwise lose out due to lack of knowledge on supply chain standards.

The underlying causes of social and environmental abuses in developing countries, such as poverty, informal employment and low commodity prices must be addressed. For instance, the ILO reports that more than 60% of employed people globally are in the informal sector,53 making tracking their working conditions and seeking redress for labour violations more difficult. Efforts to work collaboratively with source-country governments can also help allay concerns that sustainability legislation is protectionist.

Government procurement and state-owned enterprises can send strong supply chain signals

Many interviewees emphasized the importance of governments in setting a positive example through their own procurement of goods and services. This would send a strong signal to the market and suppliers, given that public procurement is estimated at 12% of GDP in OECD countries. ⁵⁴ It would also help put in place the systems required to enable sustainable procurement more broadly. One challenge to address is the different sustainability definitions and requirements for public procurement across jurisdictions.

In addition, state-owned enterprises (SOEs) must be involved in supply chain sustainability initiatives. The IMF reports that SOEs have grown in number as well as size in recent years, with their assets now worth \$45 trillion (half of global GDP). Following the pledge by President Xi in September 2020 that China's CO₂ emissions would peak by 2030 and turn carbon neutral by 2060, China's 14th Five-Year Plan (2021–2025) set legally binding targets. The State-Owned Assets Supervision and Administration Commission of the State Council (SASAC) is reported to have set development plans for SOEs to meet China's targets, urging them to "play demonstrative and leading roles in promoting carbon peaking and carbon-neutrality". This recognizes the important and sizeable commercial role that governments play in the economy.

Data-sharing mechanisms are important

Some interviewees flagged that public policies can encourage consistent data collection and sharing along the value chain at a product level. The EU REACH Regulation on chemical substances provides a system for data sharing between manufacturers and importers. The Similarly, the EU Waste Framework Directive has requirements for companies to submit information to a database on "substances of concern in articles as such or in complex objects (products)" (SCIP). Doing so is already helpful for the circular economy; more work along these lines may be needed. The new

EU proposal for a Regulation on the Ecodesign for Sustainable Products, with its requirement that regulated products have a digital passport, is also an interesting development in this regard (See Annex 1).⁵⁹ These product requirements enable sustainable supply chains in specific ways, complementing broader corporate ESG disclosures. Data-sharing policies can learn from private-sector initiatives – for example, the World Economic Forum's advanced manufacturing community has developed a tool to identify opportunities for data excellence and partnerships among value chain networks.⁶⁰

Trade frameworks need to catch up, particularly for circular supply chains

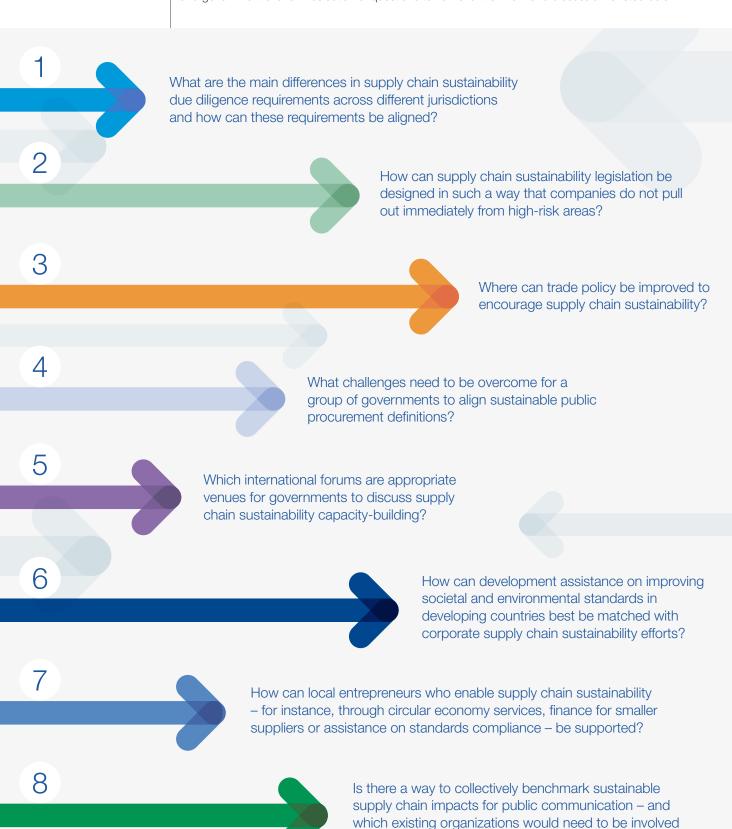
Trade policy innovation is needed to encourage corporate supply chain sustainability more generally and to encourage regulatory coherence as policies develop across markets. Further, trade agreements have been developed for a linear not a circular economy. That means waste material is not always easy to move. Many countries are developing

standards on circular products and services, but slight differences will make it difficult for companies to decide on design. Greater regulatory cooperation is needed. A growing number of policy-makers are aware of this, but work with industry and non-profit partners is needed now to test alternative policy approaches.



Questions for discussion

Supply chain sustainability demands a transformation of business models and economic systems. Expertise from business, government and civil society organizations needs to be deployed. Within and across companies, dialogue and coordination are required among officers responsible for procurement, supply chains, sustainability and government affairs. A selection of questions to frame further work and discussion is listed below.



for such a tool?

Annexes

Annex 1: Sample guidelines and regulations

Framework	Date	Jurisdiction	Nature	SCS coverage		
International						
OECD Guidelines for Multinational Enterprises	1976; updated in 2011	50 adhering governments ⁶¹	Non-binding principles and standards	Guidance for global firms operating in or from adhering countries on disclosure, human rights, employment and environment, among others		
OECD Due Diligence Guidance for Responsible Business Conduct	2018	50 adhering governments ⁶²	Guidance and explanations	Support for implementing the OECD Guidelines by explaining their due diligence recommendations		
OECD sectoral due diligence	Various processes have led to specific, non-binding due diligence guidance for the following supply chains: conflict minerals (2011, subsequent revisions); child labour in minerals (2017); garment and footwear (2017); agriculture (2016); extractives (2017); and the financial sector (2019)					
International Organization for Standardization (ISO) 26000 standard on Social Responsibility	2010	Global	Voluntary standard	Clarifies what social responsibility is, helping business and organizations translate principles into effective actions, including by sharing methodologies; includes expectations regarding due diligence on their activities or those significantly linked to the organization		
ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (ILO MNE declaration)	1977; most recent update in 2017	Global	Non-binding principles and standards	Provides guidance to firms on social policy and responsible workplace practices. The principles build on international labour standards		
United Nations Guiding Principles on Business and Human Rights (UNGPs)	2011	Global	Guidelines, refer to and derive from states' existing obligations	Set out state and corporate responsibilities to protect human rights, including across the value chain		

Proposal for a directive on corporate sustainability due diligence	Proposed in February 2022	EU	Binding EU- wide legislation, adapted into national law	Obligations on large firms headquartered or generating revenues in the EU to adopt due diligence policies and prevent or end adverse environmental and human rights impacts in their operations and supply chains. Fines and legal actions are possible in the case of non-compliance (for more, see Box 1)
France, Duty of Vigilance Law	2017	France	Binding legislation	Requires large companies to develop and publish a due diligence plan, including in relation to human rights and environmental risks
German Due Diligence Act	2021, entry into force 2023	Germany	Binding legislation	Sets binding standards for large companies with a head office in the country and their value chains on human rights and the environment. Fines, legal actions and temporary exclusion from public procurement for non-compliance are possible
Revised EU Non-Financial Reporting Directive (NFRD) (corporate sustainability reporting)	2014 (applicable from 2018)	EU	EU-wide legislation, adapted into national law	The NFRD sets out sustainability reporting requirements; the revised proposals (published in 2021) will align these requirements with broader sustainable finance legal developments (including the Sustainable Finance Disclosure Regulation and taxonomy regulation, and will aim for consistency with due diligence disclosure requirements)
Section 135 of Companies Act 2013	2014	India	Binding legislation	Requires large companies to spend 2% of average net profits on listed corporate social responsibility activities every year
EU Circular Economy Action Plan	Adopted 2020, action ongoing	EU	Legislative and non-legislative measures	35 listed actions to ensure products sold in the EU are better designed for circularity and that waste is prevented. Focus sectors include electronics, batteries and vehicles, packaging, plastics, textiles, construction and buildings, food, water and nutrients. A recent proposal includes a Regulation on Ecodesign for Sustainable Products that would outline requirements for products to be easier to reuse, refurbish, repair and recycle. Regulated products will need to have digital product passports to track substances of concern across the supply chain

Regulation to minimize EU-driven deforestation and forest degradation	Proposed in November 2021	EU	Binding EU-wide legislation	Mandatory due diligence rules for businesses that deal in specific commodities in the EU (soy, beef, palm oil, wood, cacao and coffee, as well as some derived products); obligations will vary based on the country or region of production
Japan guide on environmental due diligence	2020	Japan	Guidance	Provides guidance for environmental due diligence along the value chain, aligned with OECD standards
UK Plastic Packaging Tax	2021, in effect from 1 April 2022	UK	Tax	A tax of £200 per tonne on plastic packaging manufactured in or imported into the UK containing less than 30% recycled plastic. Manufacturers and importers of less than 10 tonnes of plastic packaging per year are exempted
Lacey Act	1900, amended in 2008	US	Binding legislation	Ban on trafficking illegal wildlife; the 2008 amendments extended scope to cover plant and plant products such as timber and paper. It was the world's first ban on trade in illegally sourced wood and products
Australia Modern Slavery Act	2018	Australia	Binding legislation	Entities based or operating in the country with annual revenues above AUS\$100 million (\$75 million) must report on modern slavery risks in their operations and supply chains and on
				actions taken
EU Conflict Minerals Regulation	2017 signed into law, 2021 full entry into force	EU	Binding regulation	
	into law, 2021 full entry into	EU	Binding regulation Binding legislation	Requires EU importers of tin, tungsten, tantalum and gold (3TG) above set thresholds to meet OECD conflict

UK Modern Slavery Act	2015	UK	Binding legislation	Certain commercial organizations must publish an annual statement on steps taken to prevent modern slavery in their business and supply chains
Section 307, US Tariff Act	1930, 2015, subsequent developments	US	Binding legislation	Bans US imports of goods made with forced labour; provides the basis for recent forced labour legislation that requires "clear and convincing evidence" that imports from certain regions are not made with forced labour
Subnational				

Subnational					
California Transparency in Supply Chains Act	2012	California	Binding state legislation	Large retailers and manufacturers are required to disclose via websites their efforts to eradicate slavery and human trafficking from their direct supply chain. The law applies to any company doing business in California that has annual worldwide gross receipts of more than \$100 million	
Fashion Sustainability and Social Accountability Act	Proposed, 2021	New York	Binding state legislation	Proposal to require fashion retail sellers and manufacturers doing business in New York and with more than \$100 million in annual worldwide receipts to make sustainability and social disclosures. It introduces specific requirements on mapping suppliers across all tiers of production, as well as information to be disclosed, including on actions to mitigate supply chain risks	

Source: Authors' compilation.

Note: This table captures major developments over the years, but it is not exhaustive. Blue: environmental and social; green: environmental; and yellow: social.

Annex 2: Related financial disclosure instruments

Framework	Date	Jurisdiction	Nature	SCS coverage		
International						
Task Force on Climate- Related Financial Disclosures (TCFD)	2015, 2017	Global	Recommendations	Established in 2015, comprises representatives from large organizations, banks, financial market players, accounting and consulting firms, etc. and issued a first set of recommendations in 2017 (since updated). Jurisdictions such as Switzerland, the UK, EU, Chile, Brazil, New Zealand and Singapore are introducing legislation based on the TCFD and many others are discussing doing so ⁶³		
		Nati	ional			
EU Sustainable Finance Disclosure Regulation (SFDR)	2019 (applicable from 2021)	EU	Binding EU-wide legislation	Requires financial institutions to disclose the impacts on and risks to society and the environment and report on adherence to internationally recognized due diligence standards. Draft "Regulatory Technical Standards" have been developed by the European Supervisory Authorities (ESAs) for sustainability-related disclosures under the SFDR		
EU Regulation on the Establishment of a Framework to Facilitate Sustainable Investment ("Taxonomy Regulation")	2020; ongoing	EU	Binding EU-wide legislation	The Taxonomy Regulation establishes an EU-wide classification system for evaluating whether economic activities are environmentally sustainable; it is a significant tool for asset managers. Further "technical screening criteria" are being developed, with agreement in 2021 on those for climate change mitigation and adaptation, and work is ongoing for water, the circular economy, pollution and biodiversity criteria. Additional negotiations are ongoing in terms of the status of specific gas and nuclear activities		
Securities and Exchange Commission (SEC) Enhancement and Standardization of Climate-Related Disclosures	21 March 2022, proposed	US	Binding rules	The proposed rules would require US-listed companies to include information on climate-related risks to their businesses and climate-related financial statement metrics. Companies are also required to disclose their Scope 1 and Scope 2 GHG emissions, as well as Scope 3 emissions if material or if emissions targets have been set. Safe harbour for liability and an exemption for smaller companies apply in the case of Scope 3 disclosures		

Section 1502, Dodd-Frank Wall Street Reform and Consumer Act of 2010	2010	US	Binding legislation	US-listed companies that use tin, tungsten, tantalum or gold are required to disclose whether any of those conflict minerals originated in the Democratic Republic of the Congo or adjoining countries. If so, a due diligence report must be submitted to the Securities and Exchange Commission
Slave-Free Business Certification Act of 2022	3 February 2022, (re) introduced in US Senate	US	Binding legislation	Requires mining and manufacturing businesses with annual worldwide receipts of more than \$500 million to audit their supply chains for forced labour and report the findings

Source: Authors' compilation.

Note: This table captures major developments over the years, but it is not exhaustive. Blue: environmental and social; green: environmental; and yellow: social.

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