

Greenwheel Insights

“Just-in-time” or just-in-trouble? An investor tool on managing human rights risks across supply chains



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Executive Summary

Businesses are facing increasing scrutiny regarding their management of human rights risks across supply chains. With recent regulatory changes in both developed and emerging markets, businesses are now expected to demonstrate how they conduct due diligence to address environmental and social risks and impacts within their supply chains.

There are many solutions available to businesses to address their supply chain risks, from setting up a supplier code of conduct to participating in collaborative industry initiatives. However, academic research, civil society organizations, human rights practitioners, and trade unions have highlighted concerns about the effectiveness of these measures, while also offering recommendations to strengthen supply chain interventions.

Investing in supply chain initiatives that fail to improve human rights performance can be costly to businesses. Additionally, external stakeholders may accuse businesses of “greenwashing”. From an impact perspective, continuing to invest in actions that do not deliver results is a poor allocation of limited resources.

There is good news for investors, as there are best practices and lessons learned drawing from a plethora of sources, including but not limited to international norms, industry guidelines, academic research, and recommendations from civil society, human rights practitioners, and trade unions.

This Greenwheel research paper critically reviews what works and what does not work to address human rights risks and impacts in supply chains. To support investors in carrying out pre- and post-investment due diligence, an investor framework has been developed to assess nine key company actions:

- Ensuring traceability;
- Understanding supplier risks;
- Setting supplier expectations;
- Carrying out social audits;
- Adopting responsible purchasing practices;
- Collaborating in sustainability initiatives; and,
- Establishing grievance mechanisms.

For each company action, investors are provided with a list of investor questions, key performance indicators (disaggregated into beginner and advanced actions), red flags, as well as best practices from companies across sectors and commodities.

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Preface: The Investor Need

"Effective supply chain risk management is critical for preserving long-term portfolio value, especially in Emerging and Frontier markets, which collectively account for over 50% of global manufacturing output in sectors such as apparel, electronics, and raw materials. According to the 2025 WTW Global Supply Chain Risk Survey 63% of businesses report losses exceeding expectations due to disruptions. Robust due diligence covering both social and physical considerations and proactive engagement are essential to mitigating these risks and impacts, strengthen sustainability outcomes, and build resilience." ~ James Johnstone & John Malloy, Co-Heads of Redwheel Emerging and Frontier Markets team*



James Johnstone



John Malloy

"Understanding human rights risks is a hugely important part of assessing a company's overall risk profile. Most companies now have human rights impact assessments together with policies to mitigate risks. The challenge for the analyst is how to discriminate between companies to understand whether risks are indeed being effectively managed, resulting in good outcomes for the local communities impacted." ~ Robert Canepa Anson, Analyst, Redwheel Global Equity Income team



Robert Canepa Anson

This new Greenwheel framework, commissioned by both our Redwheel Emerging and Frontier Markets and Redwheel Global Equity Income strategies, will assist our Redwheel investment teams in identifying which policies are most effective at managing particular risks and provide a basis for constructive engagement with companies in the portfolio.

Human rights and the global supply chain

Participation in the global supply chain^a can generate a range of positive social outcomes, especially in emerging markets. Supply chains can generate formal employment opportunities. For instance, in Southeast Asia, 75 million or approximately 25% of all jobs are attributed to the provision of goods and services as part of the global supply chain.¹

Increased trade and exposure to global supply chains contributed to reducing inequality by raising the relative wages of unskilled workers, promoting gender equality through employment opportunities for women, and reducing child labour by increasing household income.² The most significant employment and income gains occur in manufacturing. According to the World Bank, a 10 % increase in manufacturing exports is associated with a 5.3 % increase in employment. Within manufacturing, the strongest job-creation potential lies in medium- to high-technology industries such as computers and electronics, electrical equipment, and motor vehicles.³

Not all markets benefit equally from integration into the global supply chain. For instance, both Cambodia and Türkiye have textile industries that generate employment, though, their structures differ. Cambodia's sector is dominated by low value-added activities and low-skilled labour, while Türkiye's is more diversified, with outputs supported by managerial and engineering expertise.⁴

Regional disparities are also evident. The value added embodied in exports is lower in Africa than in any other part of the world. In Sub-Saharan Africa, most supply chain employment is in agriculture, often contractual or seasonal work with poor conditions. Meanwhile, manufacturing roles in export processing zones offer wages that are not significantly higher than local alternatives.⁵

Beyond uneven benefits, human rights violations remain widespread. Two-thirds of all forced labour cases worldwide occur within global supply chains. While such abuses appear across many sectors, they are most concentrated in the lower tiers, particularly in raw material extraction and in processing and production stages.⁶

In the World Benchmarking Alliance's assessment of the human rights performance of 244 companies across five high-risk sectors (apparel and footwear, automotive manufacturing, electronics, extractives, and food and agriculture) between 2018 and 2023, there was a total of 870 allegations of severe human rights impact. Of which, 57 % of allegations occur in the supply chain. Apparel and footwear, and food and agriculture have the highest share of allegations found in their supply chains (81 % and 71 % respectively).⁷

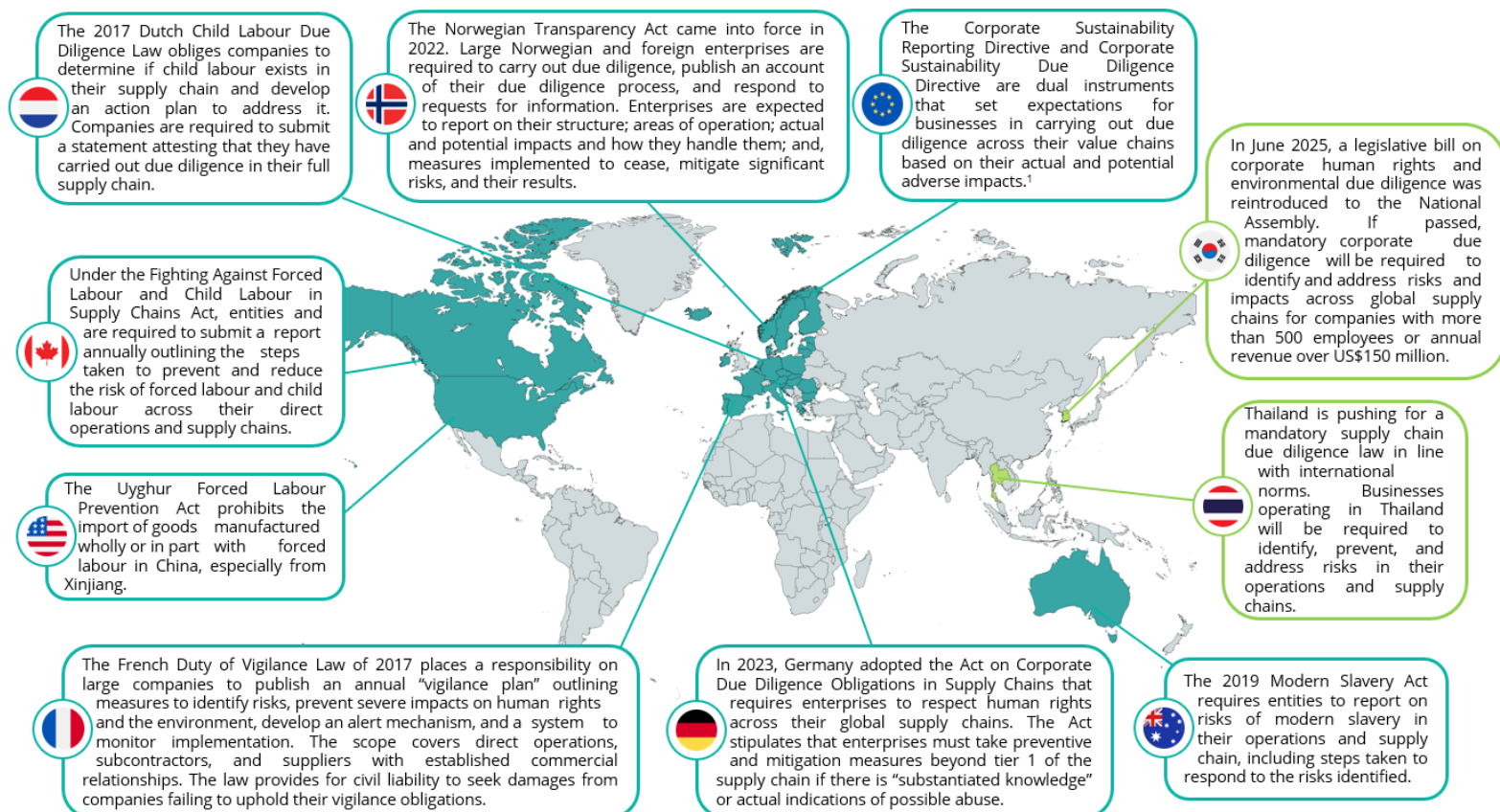
Decent work deficits are also found in the services supply chain. Low-skilled business functions and other digital tasks are offshored to business process outsourcing (BPO) centres, where workers face low wages and long working hours. As a result of the demand for AI and other digital services, the growing market for gig work on crowdwork platforms offers employment opportunities, though often under precarious working conditions.⁸

^a In this paper, we will be using the term global supply chain to specifically refer to the activities needed to provide a final product or service. This typically involves four steps: raw materials, components and parts, final products, and distribution and sales. By contrast, global value chain refers to a broader process of value-addition including but not limited to research and development, design, and marketing. See [World Bank, 2023](#) and [Jones et al., 2019](#).

Regulations on supply chain due diligence

Over the last decade, human rights due diligence norms have transformed into legal requirements.⁹ While the initial wave of regulations are found in developed markets, emerging markets such as South Korea and Thailand are pushing for their own mandatory human rights due diligence regulations (Figure 1).

Figure 1: A snapshot of supply chain due diligence regulations globally



Note: This is not a comprehensive and exhaustive map of all human rights due diligence regulations and proposals.

Source: [BHR, 2025](#), [BMAS, 2025](#), [Business and Human Rights Resource Centre, 2025](#), [European Coalition for Corporate Justice et al., 2025](#), [European Council, 2025](#), [Focus Right, 2025](#), [Government of Canada, 2025](#), [KTNC Watch, 2025](#), [Walk Free, 2025](#), [Business and Human Rights Resource Centre, 2024](#), [Forbrukertilsynet, 2024](#), [US Homeland Security, 2024](#), [MVO Platform, 2017](#); created by Greenwheel.

¹ At the time of writing, the scope of the Corporate Sustainability Due Diligence Directive is under further negotiation regarding its scope.

Although international norms such as the United Nations Guiding Principles on Business and Human Rights (UNGPs) and the OECD Guidelines for Multinational Enterprises (OECD Guidelines) form the basis of the regulatory regimes, obligations and scope can differ. In Australia, Canada, the Netherlands, and United States, the laws explicitly focus on child labour and/or forced labour. In other jurisdictions, the regulations cover all forms of human rights abuses.

Most new regulations require companies to provide evidence on how they are carrying out due diligence (e.g., identify and mitigate risks). Some regulations, such as in France, provides for civil liability in seeking damages for companies failing to uphold their “vigilance” obligations.¹⁰ In Norway, infringement penalties are imposed on companies that fail to uphold their duty to provide information.¹¹

Despite the differences in scope, businesses are increasingly expected to understand their human rights and/or environmental risks beyond their direct operations, including those within their supply chains.

The evolution of business action on human rights risks and impacts in supply chains

Overall, companies have improved their supply chain management practices according to independent assessments carried out by two leading human rights expert organisations: World Benchmarking Alliance and Know The Chain.

According to the World Benchmarking Alliance, 70 % of companies under review are making progress towards their responsibility to respect human rights. By 2023, 38 % of companies reviewed have a commitment on human rights for suppliers. 45 % of companies embed these expectations into their contracts with suppliers. Across 110 of the world’s largest apparel and extractive companies, 85 % of companies factor human rights performance in supplier contracts.¹²

However, only a handful of companies (17 %) are working directly with their suppliers to improve their human rights performance. Even fewer companies (12 %) have processes related to responsible contracting.¹³

Know The Chain also observed similar improvements in the apparel and footwear and electronics sectors. Between 2021 and 2023, apparel and footwear companies have taken significant strides in solidifying their commitment to protect migrant workers.¹⁴ Similarly, in the electronics sector, there is progress across companies in establishing policies, governance, and baseline human rights due diligence processes.¹⁵

Though, progress is not found across all sectors. Food and beverage companies are lagging behind, as they fail to address their human rights risks. Between 2021 and 2023, there were no improvements in tackling forced labour risks in almost a third of companies (29 %).¹⁶

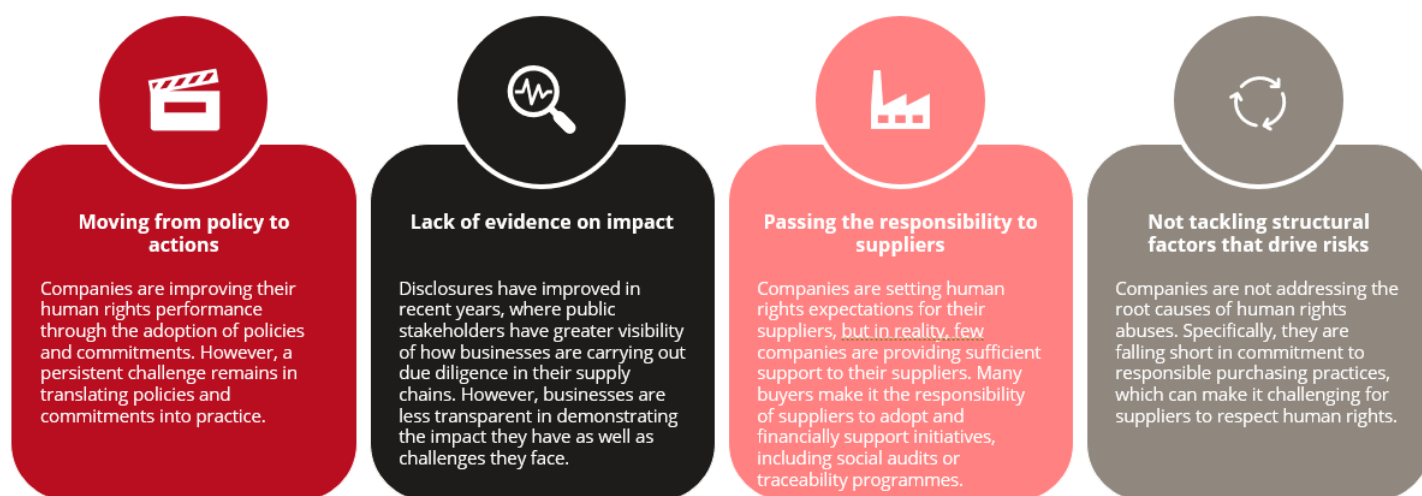
Progress is partially attributed to the regulatory changes globally. Unsurprisingly, companies domiciled in countries with mandatory human rights due diligence regulations (e.g., Europe and Asia) outperform and improve in prevention, mitigation, remediation, and reporting.¹⁷ This is in contrast with the performance of American companies, potentially because of the loss of dedicated resourcing for human rights due diligence or fewer disclosures in response to the “ESG backlash”.¹⁸

Despite the progress made, human rights expert organisations draw attention to four key limitations (Figure 2). Some of the progress observed may be due to the pursuit of “low-hanging fruit” by businesses. Though the adoption of a commitment or policy is a starting point, many businesses fall short of taking the necessary steps for implementation. Companies that have initiatives may not have the mechanisms in place to assess the efficacy of their actions.

A more concerning observation is the delegation of responsibility to suppliers, where suppliers are expected to not only adopt but finance due diligence activities in response to the regulatory changes in their buyers’ markets. Coinciding with the inactions by buyers to tackle some of the

root causes of human rights abuses (e.g., purchasing practices), the approach taken by buyers can further stymie progress in promoting decent work and respecting internationally recognised human rights across supply chains.

Figure 2: Limitations to how companies are managing their supply chain human rights risks



Source: [Know The Chain and Business and Human Rights Resource Centre, 2025b](#), [World Benchmarking Alliance, 2024a](#), and [Human Rights Watch, 2022](#); created by Greenwheel.

Root causes of poor supply chain management

Multiple factors compound the challenge for businesses in managing their human rights risks and impacts across supply chains (Figure 3). Greenwheel has mapped the challenges into three broad categories: the nature of the supply chain, business practices of a given company, and governance and other external enabling factors.

Some supply chains are inherently more complex to manage. For example, a retailer with a large, complex, and diverse supply chain (e.g., department store) may sell a wide range of products from electronics to food products. Because of the number of supply chains, a retailer may face greater difficulties mapping out its suppliers beyond tier 1 due to the sheer volume of intermediaries. The challenge is further compounded by the nature of the raw materials in individual products. For instance, tracing the origin of certain products, from cocoa or minerals, may be impossible to discern after processing. In these cases, the retailer will have to rely on the accurate data collection from their suppliers to track their raw materials.

In managing the sustainability performance of suppliers, a buyer's leverage may be contingent upon the number of suppliers. If a buyer is dependent on a small niche pool of suppliers, it may be unable to exert influence (i.e., there are no alternatives for the buyer). By contrast, if a buyer is "strategic" or buys a significant volume from an individual supplier, the buyer may have more leverage in influencing the human rights performance at the site-level.

There are endogenous factors within a business that can also affect its ability to manage its supply chain risks and impacts. Companies may not allocate the necessary resources to set up a supply chain management programme, especially smaller businesses. In many sectors, to reduce costs, buyers push the costs of carrying out social audits or implementing supply chain initiatives onto suppliers, which can compromise the efficacy of such interventions.¹⁹

While “just-in-time” models keep supply chains responsive and lean (e.g., less waste with tighter inventories), it can further shorten lead times placing significant pressure on suppliers, leading to excessive working hours (e.g., automotive, electronics, apparel and footwear sectors).²⁰ The downward pressure on suppliers is worsened by the approach and strategies adopted by buyers in procuring goods and services (i.e., purchasing practices).

The sourcing destination can also expose buyers to added supply chain risks. The absence or the poor implementation of human rights and labour rights regulations can further shift the responsibility to businesses in mitigating, addressing, and remediating impacts. If a buyer works with suppliers in a sourcing destination with a weak regulatory framework or where human rights norms are not well established, it will have to carry out enhanced due diligence to ensure that internationally recognised human rights are respected at supplier sites.

Finally, some sectors have more mature supply chain management practices, in part, as a result of public scrutiny. A Proxima survey with CEOs found that 69 % of them are concerned about potential for human or labour rights issues in their supply chain. CEOs in companies in retail, fashion, consumer packaged goods, and automotive industries show the highest concern (79 % in retail, 78 % in automotive). This is driven by both the growing regulatory pressures but also increased public scrutiny.²¹ As a result, some sectors such as apparel and footwear, electronics, and toys have decades of experience in addressing supply chain concerns from promoting decent work to traceability. By contrast, businesses in the business-to-business (B2B) markets have been more hidden from public scrutiny and may face greater pressure to catch-up with regulatory requirements.

Figure 3: Drivers of poor supply chain management



Sources: [IEA and OECD, 2025](#), [Novotny, 2025](#), [Sedex, 2025a](#), [Schöneich et al., 2023](#), [Dietrich and Melcher, 2022](#), [ILO, 2021](#), [Weerd, 2021](#); created by Greenwheel.

Addressing human rights risks in supply chain: lessons learned

Companies can employ a range of tools in tackling their human rights risks and impacts across their supply chains (Figure 4). In light of the regulatory changes across both developed and emerging markets, human rights requirements are moving from “nice-to-have” into core business requirements.²²

Figure 4: An overview of supply chain management tools



Source: [Sedex, 2025b](#), [IDH, 2022](#), [OECD, 2022](#), [BIICL and Norton Rose Fulbright, 2018](#), and [Iseal alliance, 2016](#); created by Greenwheel.

Human rights responsibilities are no longer the sole remit of sustainability teams, spanning across multiple business functions. Legal and compliance teams are expected to provide insights into changing regulatory requirements and building expectations into commercial contracts. Communication teams may work closely with internal and/or external human rights experts to strengthen public reporting to meet both regulatory and stakeholder expectations.²³ Given the intersection of purchasing practices and human rights performance, teams including product design, procurement, and quality control may work collaboratively to find ways to ease downward pressure on suppliers.

Generally, it is recommended for companies to employ a combination of the tools listed below, as each intervention has its successes and challenges. However, human rights experts and practitioners in companies point to the shortcomings in some of the more traditional tools used to manage supply chain risks including code of conducts, social audits, and certification schemes.²⁴ As such, it is crucial to critically assess the efficacy of each approach and identify potential shortcomings and best practices to further inform investor due diligence.

Traceability

A key aspect of human rights due diligence is supply chain traceability and transparency. Traceability is the ability to determine a product's origin, the geographical path it has taken, chain of custody, and physical evolution over time.²⁵ Traceability is a key ingredient in preventing, addressing, and remediating human rights risks and impacts, especially for companies that source high-risk commodities. Understanding the origin and locations of entities along a supply chain can help companies inform business decisions and prioritise human rights interventions (e.g., high-risk geographies and/or high-risk commodities).²⁶

Though the terms are sometimes used interchangeably, chain of custody is a means to achieve traceability. This involves establishing a system to track and verify the sequences in a supply chain, from raw materials to a finished product. It tracks the different entities that have had ownership and control over the components and parts.²⁷

Depending on the sector or certification scheme, there are different expectations and requirements on the chain of custody, where different chain of custody models offer varying levels of assurance in the origin of components and raw materials (Figure 5).²⁸ Certification schemes for different commodities from minerals (Initiative for Responsible Mining Assurance or "IRMA") to palm oil (Roundtable on Sustainable Palm Oil or "RSPO") provide clear guidance that allow claims to be made about the delivery of a product according to a given chain of custody model.²⁹

There is no one-size-fits-all approach to the perfect chain of custody model. This is largely dependent on the commodities in a given supply chain. For agricultural inputs, identity preservation and segregation may be preferred over mass balance due to the enhanced traceability (e.g., being able to trace a product to a farm or to guarantee certified inputs). However, for some commodities, there are practical constraints for upstream entities. For commodities such as palm oil, cocoa, orange juice, and coconut oil, mass balance is more commonly used.³⁰

In the context of palm oil, the RSPO sees the benefit of the mass-of-balance approach, especially in cases where smallholders cannot get certification or where facilities do not have capacity to keep certified and non-certified oils separate in storage and transport. Allowing for the mixing of certified and uncertified palm oil in a final product can serve as a steppingstone to more sustainable production over time.³¹

For smallholders, a book and claim system may be their gateway into sustainable production, even though buyers cannot account for physical traceability. Smallholders can sell certified or sustainable credits to buyers virtually (e.g., without a physical supply chain) and use the premium paid to them to reinvest in improvements in their plantations, provide access to education for children, and continue the costs of maintaining sustainable credits through auditing.³²

Given the different models and nuances across various commodities, it is important for investors to understand the claims made by each chain of custody model as well as the most appropriate option depending on the constraints and maturity of different supply chains.

Figure 5: Chain of custody models

Identify Preservation

Certified products are kept separately from other sources. As the strictest form of preservation, certified materials cannot be physically mixed with other certified or non-certified material even if it is the same commodity or ingredient. This allows for the unique tracing through each production process, including production site and batch, to the last point of transformation or labelling of final product.

Example: Diamonds



Segregation ("soft" identify preservation)

Certified products are kept separately from non-certified products across the different stages of the supply chain. Mixing is allowed for certified products from different batches or consignments. However, certified and non-certified products are clearly separated. (E.g., different sources of sustainable palm oil mixed together)

Example: Tea



Mass balance

Certified products are mixed in with non-certified physical product during the production process. The quantities mixed are controlled and reconciliated. This can be carried out at the batch-level, site-level, or group-level.

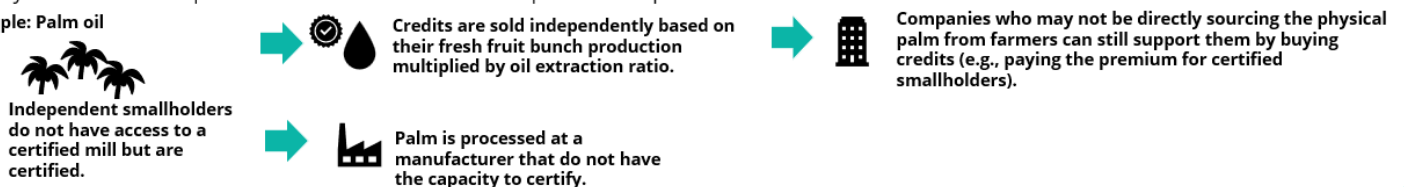
Example: Chocolate



Book and claim

Sustainability certificates or credits are issued at the beginning stages of the supply chain by an independent issuing body. The certificate or credits may be purchased by an intermediary and then further transferred downstream to their buyers. Companies can demonstrate sustainable sourcing even in cases where they do not directly source the materials. This is used in contexts where physical tracing is difficult. However, this approach is not a strict chain of custody model as the end product contains no known certified product or equivalent volume.

Example: Palm oil



Source: [IEA and OECD, 2025](#), [Mehr, 2025](#), [Shipping and Commodity Academy, 2025](#), [RSPO, 2024](#), [Rainforest Alliance, 2023](#), and [ISEAL, 2016](#); created by Greenwheel

Box 1: A shining example of maturing practices in the diamond supply chain

Launched in 2003, the Kimberley Process is a certification scheme that prevents the trade of conflict minerals. The Process involves the participation of more than 86 member governments, civil society observers, and the World Diamond Council (including industry members).³³

Although the Kimberley Process was considered innovative at the time, there are many challenges regarding its efficacy. Firstly, the Process has a narrow definition of conflict. Secondly, the requirements to become certified are set by governments, where countries that are not abiding by the principles of the Process are not disqualified.

A more scathing criticism relates to how the Process approaches traceability. Diamonds are not traced across the entire supply chain. The focus is solely on the origin from where the parcel is exported. Within the diamond supply chain, a diamond is likely to make multiple stops across different geographies before it ends up at a retailer.³⁴ Consequently, a country of origin listed in certificates may not reflect the actual country of origin and the act of processing diamonds can help circumvent the networks of control under the Scheme.³⁵

Other solutions have emerged in the diamond supply chain. In 2010, the Mineral Certification Scheme was established to track diamonds at the mine level through a minimum set of requirements based on inspections and basic information including the mine site and a unique site-specific identification number, the location of the mine, and the type of minerals being mined. There are minimum requirements in order for mines to receive certification (e.g., conflict, child labour). Mines with minor violations are still certified so as long as they rectify violations within six months while mines with grave violations can become uncertified.³⁶

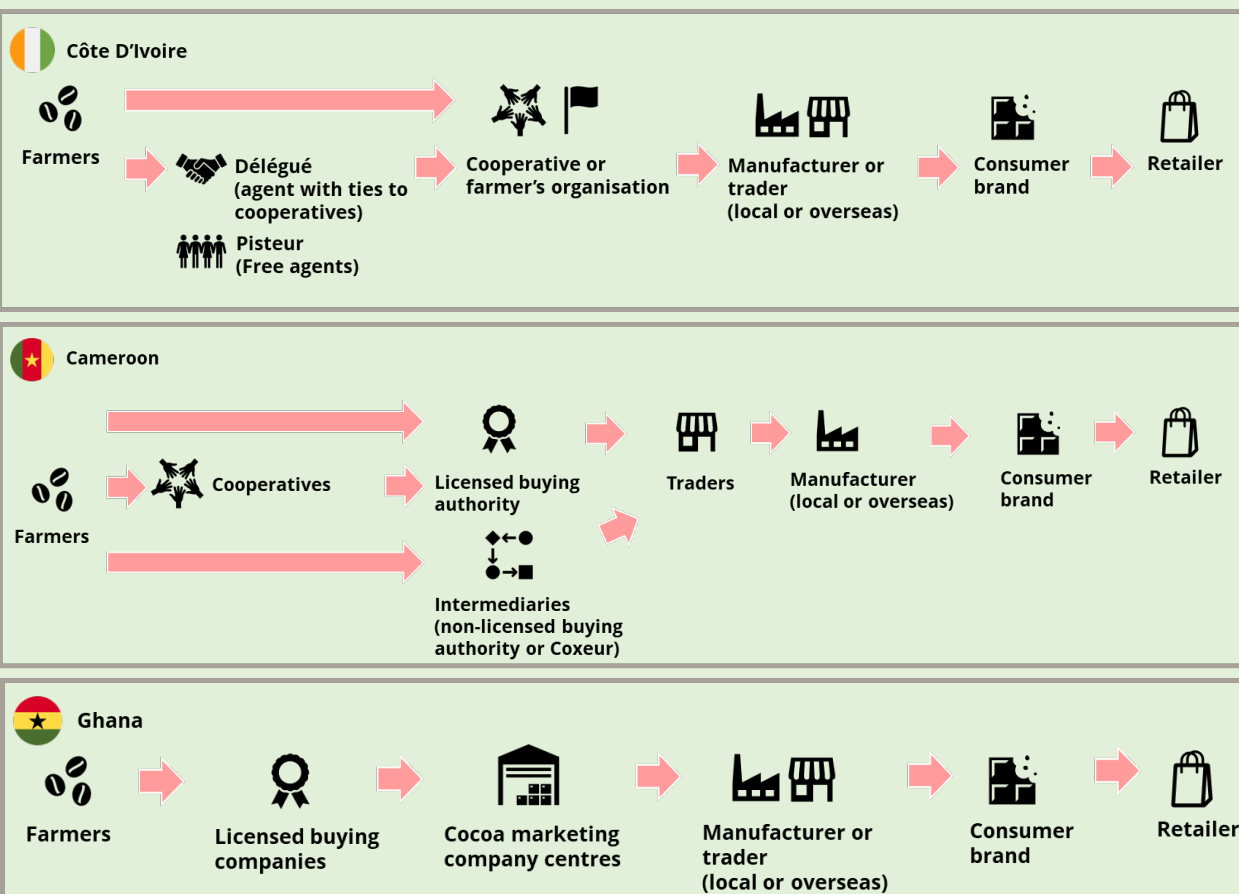
In parallel, companies are developing their own traceability solutions and capabilities. De Beers launched their own tracking programme called Tracr that uses blockchain to trace diamonds from retailers to mines where each diamond is assigned its own identification. Tracr also provides information on the weight of the rough diamond, the manufacturing process from start to finish, as well as pictures and videos. In 2023, Tracr was shared with peers in the industry including Brilliant Earth. Currently, it registers approximately one million diamonds per week. Another solution has been established by Alrosa using non-invasive lasers to mark uncut diamonds, which forms a “fingerprint” that allows the tracking of the origin and manufacturing processes.³⁷

In practice, while buyers are likely to have basic information about their tier 1 suppliers (e.g., location, type of product/commodity procured, spend), they may struggle to obtain information from upstream suppliers. To overcome this challenge, companies may identify the key control points in their supply chain where they may have higher visibility and control. An electronics company may identify and work with smelters to further enhance its visibility of the origins of its raw materials.³⁸ Similarly, for cocoa, coffee, or other agricultural commodities, unless a buyer is going directly to farms, cooperatives or licensed buying boards may serve as the control points to gain greater transparency.

Box 2: Practical challenges to traceability – a closer look at cocoa

The intense scrutiny of the cocoa supply chain has spurred improvements in traceability as part of wider human rights due diligence. Unsurprisingly, cocoa is hard to trace for many reasons. The cocoa supply chain can look different depending on the country of origin (Figure 6).

Figure 6: Select cocoa supply chains across the world



Note: This is a simplified representation of the cocoa supply chain. Source: [Forum Nachhaltiger Kakao et al., 2021](#).

Because of the complexities around the cocoa supply chain, traceability efforts can be limited. According to the Cocoa Barometer, some companies can trace anywhere from 40 to 87 % of their cooperatives. At the farm level, the percentages range from 24 to 76 %. In short, all cocoa companies have exposure to untraceable raw materials.³⁹

Both farmers and cooperatives find the growing expectations to be burdensome. On the ground, farmers, agents, and cooperatives may lack the necessary resources such as electricity, mobile phones, and mobile networks to digitise supply chain data. Consequently, data is still collected via distribution ledgers. This is compounded by the lack of support required to encourage digitisation (i.e., changing a habit). Data is also as good as it is collected by individual persons.⁴⁰

Further downstream, entities (e.g., traders, manufacturers, exporting bodies) may be siloed in their data collection, which can lead to double counting or poor data quality. Moving forward, the cocoa sector is seeking to harmonise an approach to traceability to allow for comparable data, including greater efforts to improve the “first mile” traceability (e.g., from farms to the next upstream entity).⁴¹

Although there are no easy shortcuts to improving traceability, there are nonetheless commodity-agnostic recommendations that can be adopted:

- **Establish data management systems (internal and external):** Companies need to have the technical infrastructure to capture supply chain data, for example, through a reliable and secure data management and storage system. Interoperability is crucial, both for internal data analysis and management as well as sharing with peers and up and downstream entities. However, technological systems are as good as the data inputted.⁴² Capacity-building, technological support, and other incentives may be required to upskill upstream actors.
- **Follow existing governance standards:** Many sectors have access to standards and guidance developed by multistakeholder initiatives. Third-party verification can be provided at the site-level.⁴³ Though, businesses should not solely rely on external parties or initiatives as the sole solution (see section below for additional considerations).
- **Collaborate across the supply chain:** Establish clear roles and responsibilities and guidance on information flow for various entities across the supply chain.⁴⁴ The responsibility should be shared fairly without undue burden on suppliers, especially smaller and less capable actors (e.g., smallholder farmers, small cooperatives).
- **Publish supply chain data:** Civil society and human rights organisations encourage the disclosure of suppliers and intermediaries. The apparel sector is leading on supply chain disclosures since the mid-1990s and early 2000s. Today, 47 % of apparel companies disclose their supply chain.⁴⁵ Disclosures are spreading to other sectors, as increasingly, companies that have minerals supply chain exposure are disclosing the names of their smelters and refineries.⁴⁶

Understandably, there is reluctance from companies to disclose the names of suppliers. For sectors that have disclosed upstream entities, honesty has led to positive results. Legally, disclosure may help defend against legal charge in allowing companies to show that they have demonstrated necessary due diligence, fending off legal claims in the future.⁴⁷ Disclosures also allow civil society, human rights expert organisations, and trade unions to flag any violations they find to allow companies the opportunity to immediately address impacts.⁴⁸

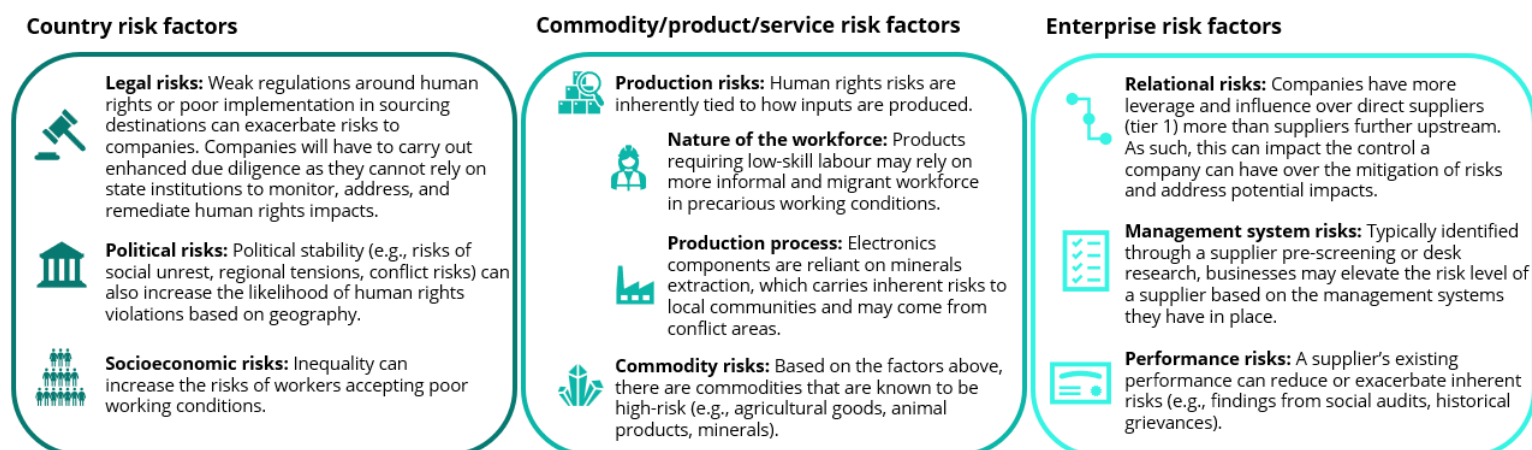
Risk identification

After mapping the supply chain, the next step is for businesses to understand the human rights risks they are exposed to across the various tiers. Since 2018, the percentage of companies identifying supply chain risks increased from 30 to 45 %. By 2023, 41 % of companies conducted some form of human rights assessment.⁴⁹

Most companies begin this process by mapping out their supply chains. It is recommended for businesses to map beyond tier 1 especially if a business is sourcing high-risk commodities or components. As part of this exercise, businesses may clarify the different actors involved in their supply chains and the nature of the business relationships (e.g., tiers, direct versus indirect

relationships). Some companies may have complex supply chains spanning multiple sectors and commodities. In these cases, companies may wish to start by assessing “core” products and/or products known to have high human rights risks.⁵⁰

Figure 7: Factors considered in the categorisation of supply chain risks



Source: [BSR, 2025](#), [Good Corporation, 2025](#), and [OECD, 2018](#); created by Greenwheel.

After mapping the supply chain, businesses can identify their human rights risks using a risk categorisation (Figure 7).⁵¹ Based on these factors, companies may assign a risk level to a given supplier and/or commodities and prioritise action (Figure 8). One way to prioritise is through identifying the most salient human rights risks and impacts based on the severity (i.e., seriousness of impact, number of persons impacted, remediability) and likelihood of the impact.⁵² This type of analysis is typically conducted on an annual basis or in response to real-time events (e.g., conflict or other adverse events).⁵³

Figure 8: Sample actions for low, medium, and high-risk suppliers/commodities

	Low-risk suppliers or commodities	Medium-risk suppliers or commodities	High-risk suppliers or commodities
Pre-screening	- Carry out a light touch self-assessment, checking for policies - Provide high-level recommendations in case of gaps	- Carry out self-assessment and ask for evidence for implementation of policies - Address any gaps in policies and processes, provide capacity-building and support as needed	- Carry out an in-person assessment or work with an expert organisation to assess on-the-ground risks - Ensure that policies and processes are up to a minimum standard or on a corrective plan prior to onboarding
Onboarding	Share code of conduct and supplier expectations	- Share code of conduct and supplier expectations - General training on key human rights issues may be provided	- Share code of conduct and supplier expectations - Conduct a training as part of the onboarding process focusing on high-risk human rights issues
Post-contract	Monitor supplier performance (e.g., virtual audits, self-reporting)	- Monitor supplier performance (e.g., in-person social audit, site visits) - Training and capacity-building for suppliers	- Monitor supplier performance (e.g., in-person social audit, site visits) - Training and capacity-building for suppliers (e.g., support development of grievance mechanism) - Additional interventions through third-parties (e.g., NGOs, working with peer companies)

Source: Greenwheel; created by Greenwheel.

As a best practice, businesses should demonstrate that they have a tiered approach to addressing human rights risks and impacts. From a practical and commercial perspective, it is not feasible for a given business to tackle every single human rights risk, instead, it should prioritise accordingly. From a human rights perspective, businesses are expected to show that they are carrying out enhanced due diligence relative to the risks and impacts to rightsholders. For example, while a company may wish to conduct social audits for all suppliers, they may reduce the frequency for low-risk suppliers or opt for self-assessments (e.g., for suppliers that have demonstrated good performance over time to reduce audit burdens). For high-risk suppliers, a company may invest in on-the-ground expertise and mandate site-visits (e.g., own in-country staff or with human rights expert organisations).

While many companies show evidence of risk identification, companies continue to struggle with translating risk identification into actions, as only 16 % of companies showed that they take actions on their human rights risks.⁵⁴ As such, for investors, it is important to assess the evidence provided by companies especially if they have high-risk supply chains and encourage holding companies to document actions in light of evolving stakeholder expectations.

Box 3: An in-depth human rights risks assessment of its raw materials supply chain

Recognising the inherent risks in its raw materials supply chain, Mercedes-Benz carried out an in-depth human rights assessment of the risks posed by their key raw materials. Mercedes-Benz identified its most salient risks across its supply chains, through which, nine human rights salient risks areas are identified. Saliency was assessed in line with international human rights norms (i.e., severity of risks and likelihood). To find the most appropriate measures to take, Mercedes-Benz evaluated the extent in which it is contributing to the risks and the leverage it has to influence entities that are causing or contributing to a risk.

Mercedes-Benz assessed the risks posed by 24 critical raw materials based on country risk, industrial criticality, and other risk factors such as the prevalence of artisanal small-scale mining. For each raw material, Mercedes-Benz documented their salient risks and their component and parts that rely on each material. Mercedes-Benz showcased how its approach evolved over time. Based on feedback by stakeholders, Mercedes-Benz integrated a Theory of Change method into its raw material assessments to understand the root causes of environmental and human rights risks. This data is used to inform mitigation measures.

In its public report, Mercedes-Benz disclosed the number of suppliers and sub-suppliers from the components and parts to the raw material; the number of audits and other interventions conducted; and, the average due diligence questionnaire rating. Mercedes-Benz provided a detailed overview of how they address the root causes of the human rights impacts (e.g., socioeconomic drivers of children involved in cobalt mining in the Democratic Republic of Congo).⁵⁵

Mercedes-Benz effectively demonstrates how it assesses its risks and that the interventions they adopt correspond with the actual drivers of human rights impacts.

Supplier expectations

Buyers often set supplier expectations to ensure that suppliers are respecting internationally recognised human rights norms and local requirements. Typically, this is done through a code of conduct or by embedding human rights requirements into contracts. Based on the (International Labour Organization) ILO's review of global suppliers^b, 93 % of buyers have some sort of code of conduct.⁵⁶ In comparison, the inclusion of human rights requirements is less commonly used by buyers, as the World Benchmarking Alliance found that almost half of the companies reviewed have included these clauses in their supplier contracts.⁵⁷

Some suppliers are beginning to model the behaviour set by their buyers. Advanced tier 1 suppliers (e.g., Chinese electronics manufacturers) may have their own sustainability departments to monitor the performance of their own upstream suppliers, further cascading buyer expectations to tier 2+ suppliers.⁵⁸

However, there are three significant limitations to the effectiveness of supplier codes of conduct. Firstly, though well-intentioned, buyers may craft codes of conduct that are not reflective of the realities or challenges in the supply chain.⁵⁹ For some companies, they may have a generic code of conduct that fails to capture the actual human rights impacts (e.g., an agricultural supply chain without mention of forced labour or child labour).

Secondly, suppliers are often left to their own devices in implementing the expectations. The ILO found that 49 % of suppliers are expected to follow a code of conduct with no support from buyers.⁶⁰ Beyond tier 1, many buyers assume that expectations are automatically passed down tier 2+ suppliers by their immediate suppliers. This can create an unfair shift in burden onto suppliers, especially smaller suppliers.⁶¹ Even in cases where advanced tier 1 suppliers have their own sustainability capabilities, they may have limited leverage over tier 3+ (i.e., their own tier 2) suppliers.⁶²

Thirdly, suppliers are not incentivised to adhere to a buyer's code of conduct.⁶³ Suppliers shared that only 36 % of buyers used working conditions as a criteria to assign future orders compared with product quality (78 %), price (73 %), speedy delivery (59 %), and existing relationship (58 %).⁶⁴

Though flawed, supplier codes of conduct are a good starting point. They should not be used as a tool in isolation. To improve the efficacy of codes of conduct, researchers and human rights experts recommend taking a "commitment-oriented approach". This requires buyers to work with suppliers to solve problems together, particularly in cases of persistent non-compliance.⁶⁵ One way to ensure that codes of conduct are implemented is through shared responsibility by embedding human rights due diligence into supplier contracts.⁶⁶

Established by the American Bar Association in 2022, the Responsible Contracting Project addresses the shortcomings in existing approaches. As part of responsible contracting, both buyers and suppliers share the responsibility for human rights and environmental due diligence (Figure 9). Because this is done through a purchasing agreement, human rights requirements become part of the wider legal obligations of both contracting partners.⁶⁷

^b Data is based on a survey conducted with 1,454 suppliers across 87 countries covering the following activities: apparel, food manufacturing, crop and animal production, paper products, chemicals and chemical products, rubber and plastic products, textiles, metal products, furniture, leather products and footwear, forestry and logging, beverages, non-metallic mineral products, electrical equipment, printing, and electronics.

Figure 9: Responsible contracting as part of human rights due diligence



Source: [American Bar Association, 2025](#); created by Greenwheel.

Box 4: What is responsible exit?

Sometimes businesses may wish to cease their relationship with a supplier. This could be as a result of a changing business strategy; evolving geopolitical situations; or, as a result of trade negotiations.⁶⁸ In case of a "zero-tolerance" human rights issue, buyers are eager to sever the business relationship as a way to avoid reputational risks. However, abrupt exits can worsen the human rights situation at the site-level and a "buyer vacuum" may appear where replacement buyers will not address concerns.⁶⁹ It can also create a signal to other suppliers to hide infractions from buyers to avoid penalties as opposed to actively tackling human rights impacts.

Responsible exit requires buyers to exhaust possible solutions before choosing to leave. To exhaust options, buyers are encouraged to consult with relevant stakeholders including trade unions and NGOs. If disengagement is unavoidable, buyers should conduct an assessment on the potential impact as a result of their exit. Any outstanding labour or human rights abuses should be remediated before final disengagement.⁷⁰ This process should be documented and publicly disclosed to avoid potential reputational damage.

The phase out should be graduated to help mitigate adverse impacts on workers and communities and to allow for the implementation of support measures.

Social audits

Social audits are used to assess a supplier's adherence to local laws and international norms as well as human rights performance, including but not limited to, recruitment practices, working conditions, and impact on local communities. Audits can be conducted by internal and/or external experts. Typically, an auditor gathers information through reviewing documents, interviews, and/or observations.⁷¹ Information can be gathered independently by auditors and/or submitted by suppliers.

Social audits can be conducted prior to the start of a contractual relationship or on an on-going basis. Audits can be announced or unannounced, with the latter considered as the ideal.⁷² Where non-compliances are identified through a social audit, suppliers would have a specified period of time to address them (i.e. through a corrective action plan). The period of time would be shorter for more serious violations (e.g., child labour, forced labour). Continuous non-compliances may trigger buyers to reassess their continued business relationship with a supplier.

Social audits are often the primary tool used by companies to manage their human rights risks. Audits have proliferated over the last decades as a response to the scrutiny and public pressure on improving working conditions in supply chains.⁷³ The Association for Professional Social Compliance Auditors estimates that auditing firms generate US\$300 million annually conducting social audits for suppliers⁷⁴ Other estimates suggest that companies spend upwards of 80 % of their ethical sourcing budget on social audits.⁷⁵ On average, the cost per audit range from US\$645 to US\$3,700 for suppliers.⁷⁶

During the pandemic, companies have carried out fully remote audits for the first time. Although remote audits served an important function during the pandemic in allowing companies to continue monitoring the social performance of their suppliers, remote audits have significant limitations. Unlike in-person social audits, virtual audits are almost always “announced”, increasing the risks of falsified information. While auditors can ask suppliers to follow a route map for their virtual visit, the supplier can nonetheless plan around the visits to hide non-compliances.⁷⁷ Post-pandemic, companies continue to prefer in-person social audits.⁷⁸ However, there are some benefits in moving components of the social auditing tasks to remote desk work and allocating more in-person time to speak with workers, their representatives, and non-profit organisations.

There are growing concerns surrounding the efficacy of social audits from academics, businesses, human rights experts, and non-profit organisations (Figure 10).⁷⁹ An academic study on 21,041 social audits^c carried out between 2011 and 2017 found that audits are ineffective in identifying human rights violations such as child labour, discrimination, forced labour, freedom of association, and harassment. Of all audits, an average of 0.10 cases of severe labour rights violations are found (e.g., child labour, forced labour) compared to at least one finding per audit for health and safety. Despite the fact that social audits should cover the ILO Fundamental Principles of Rights at Work, more than half of audits do not report on freedom of association.⁸⁰

Due to the limited efficacy of social audits, some human rights experts take the view that money spent on social audits could be reallocated programmes that address root causes of human rights abuses (e.g., working with NGOs or trade unions).⁸¹

Social audits are also a burden for suppliers. To facilitate auditors on a site visit and to provide the necessary documentations, workers and managers have to take time away from productive work. In some sectors, audits are frequent and required by multiple buyers. A supplier may have to undergo multiple audits in quick succession that check for similar or slightly different requirements.⁸²

^c Based on audits conducted in agriculture, apparel, accessories, electronics, food, footwear, furniture, hard goods, jewellery, kitchenware/houseware, soft goods, and toys production.

Figure 10: Why social audits may not be an effective tool

General concerns regarding social audits	
 Lack of impartiality: Suppliers reported having to pay for their own social audits. The ILO's study found that 17 per cent of suppliers share audit costs with buyers while 9 per cent received some form of financial assistance. Auditors reported being asked to delete or transmit serious findings orally or separately in emails rather than in formal reports.	 Perverse incentives: Because non-compliance can lead to the adoption of corrective action plans from buyers or in some cases, punitive measures, brands may inadvertently incentivise suppliers to hide violations or under-report cases. Where suppliers are responsible for paying, they may choose an inferior auditor or a more lenient auditor to avoid negative findings.
 Race to the bottom: Auditing firms are competing to win businesses from buyers and suppliers. They may reduce the days to lower costs at the expense of quality research. When suppliers paying for the audit, they may choose to cut corners to reduce costs.	 Absence of human rights expertise: Many auditors do not have human rights expertise. These auditors may be able to spot obvious violations (e.g., health and safety such as blocked exits) but unable to detail more serious violations (e.g., forced labour).
Concerns regarding the implementation of audits	
 Inconsistent methodology and no transparency: Not all audits are created equally. Social audits, including their methodologies, are rarely published. The findings are often opaque. Expert organisations noted that some audits used in sustainable certifications have little to no human rights components as part of their assessment.	 No consultation with experts: Social audits may exclude important stakeholder groups that can give insights into the true working conditions, for example, workers' representatives or non-profit organisations.
 Falsified data points: Suppliers can falsify data, including giving altered documentations on wages and working time. Suppliers can also pressure workers to avoid discussing working conditions or lie to auditors. This is especially the case if too few workers are interviewed and conversations with auditors can be easily traced back to the worker, if they hold discussions in a non-confidential location, or, suppliers "handpick" the worker sample.	 Non-representative sampling: Given the scope that is covered by an auditor, they may only have time to interview a handful of workers during their visits. Due to the fear or reprisal and the lack of trust, workers may not be open to sharing information on actual working conditions.

Source: [Asia Floor Wage Alliance et al., 2023](#), [Human Rights Watch, 2022](#), [Business and Human Rights Resource Centre, 2021](#), and [ILO, 2021](#); created by Greenwheel.

The evidence suggests that social audits cannot and should not be the only tool used by businesses to address human rights concerns in their supply chain. Audits should be part of a wider set of interventions. Human rights expert organisations provide the following recommendations to make social audits more effective:

- **Enhance quality control:** Audits do not have the same level of quality depending on many contexts from the methodology to the individual auditor. At a minimum, businesses need to demonstrate that audits are conducted by auditors with human rights expertise. Audits should be carried out with independence and unannounced. Audits are more effective if they triangulate different data sources, draw from data points from non-profit organisations, trade unions, and incorporate worker voice.
- **Improve coordination across buyers and data sharing:** To address the issue of audit fatigue, buyers can join collaborative initiatives or share audit findings. Initiatives such as SEDEX or the Social and Labour Convergence Program (SLCP), which aim to reduce audit burdens and redirect resources to programmes to improve working conditions.⁸³

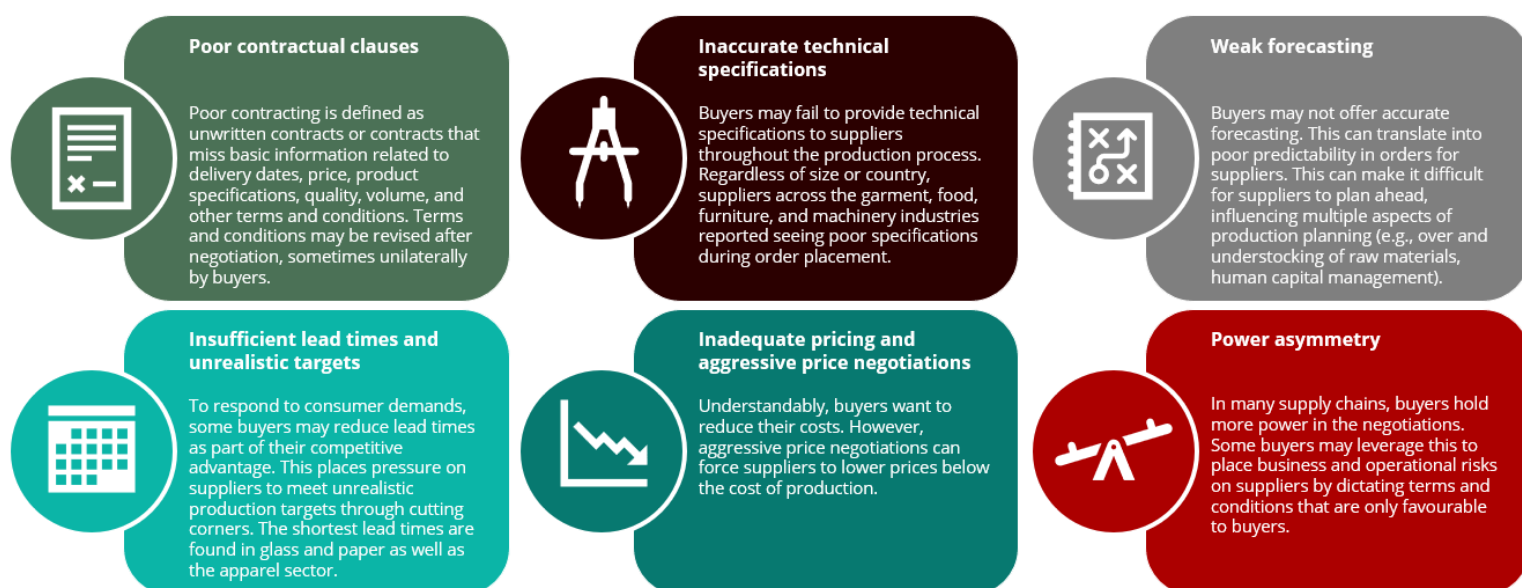
According to the SLCP, it has unlocked a potential of USD 39 million in improving working conditions.⁸⁴

- **Tap into local expertise:** Where possible, buyers should establish a local presence either through internal experts or through established contacts locally. On the ground presence can help build trust with suppliers and provide buyers with greater oversight. While it is not possible to establish local presence in every sourcing destination, buyers may increase local presence strategically (e.g., high-risk countries and/or high-risk commodities). In the case of cocoa, ground presence for some buyers have helped improve the understanding of local context and root causes of violations.⁸⁵
- **Engage with workers:** Worker engagement, including through surveys or apps, show some successes in identifying violations. In Bangladesh, 30 % of participants in a worker sentiment survey reported cases of sexual harassment when compared to only 0.15 % through social audits during the same period. Similarly, in India, 28 % of participants in surveys reported cases of sexual harassment when compared to 0.8 % in social audits.⁸⁶

Purchasing practices

Increasingly, human rights experts highlight the role of buyers' purchasing practices on human rights across supply chains. Poor purchasing practices can undermine efforts to promote human rights and decent work while exacerbating adverse impacts (Figure 11).⁸⁷ According to the World Benchmarking Alliance, 163 or 188 companies assessed have made no progress (or in some cases regressed) on purchasing practices over the last five years.⁸⁸

Figure 11: Signs of poor purchasing practices



Source: [Know The Chain and Business and Human Rights Resource Centre, 2025a](#), [Better Buying, 2021](#), [Better Buying et al., 2021](#), [ILO, 2021](#), [Anner, 2019](#), and [Human Rights Watch, 2019](#); created by Greenwheel.

Some buyers set contracts that place disproportionate business risks onto suppliers. Suppliers may take on financial losses, resulting in poor working conditions for workers (e.g., job security, adequate wages, overtime to meet demands).⁸⁹ 35 % of global suppliers have had some form of

unwritten contract with buyers – the prevalence can vary as high as 46 % in South Africa to 25 % and 23 % in China and India respectively. Only 45 % of supplier contracts specify the responsible party in case of order changes. Large suppliers with more than 500 employees are more likely to benefit from complete contracts with their buyers compared to smaller suppliers with fewer than 100 employees.⁹⁰

Inaccurate specifications from buyers can lead to additional time and costs on sampling and increased production costs for suppliers leading to financial loss. 50 % of suppliers experienced financial loss as a result of poor specifications, where 29 % of suppliers have faced difficulties paying workers' wages and overtime pay because the added costs put the price below overall production costs.⁹¹

Poor specifications can exacerbate the already short lead times in some supply chains. Depending on sector, 30 to 50 % of suppliers have experienced insufficient lead times, compared to 17 % reported having sufficient lead times. The root causes of insufficient lead times include but are not limited to poor communication with buyers, delays in sample approvals, disagreements regarding specifications, and differences in defining lead times (e.g., from order placement or sample approval).⁹²

In some sectors such as apparel or electronics, the inherent business models can further enhance lead time pressures. Especially in the electronics sector, the use of small, frequent orders reduces both lead times and product forecasting, which can exacerbate poor working conditions and limit a supplier's ability to make meaningful improvements.⁹³

Globally, suppliers respond to short lead times or last-minute order changes (which reduces lead time) through overtime (60 % of suppliers), using temporary workers (37 %), and sub-contracting (16 %). The use of temporary workers is highest in the agriculture sector, where 23 % of suppliers reportedly use temporary workers; this figure can increase to 66 % during peak times.⁹⁴

To increase profit margins and remain competitive, buyers may pressure suppliers to lower costs. 39 % of suppliers reported accepting orders below actual production cost. Almost of those suppliers reduced prices to keep competitive while 77 % did so to secure future orders. This practice is commonly found in apparel and footwear suppliers, where 52 % of suppliers accepted orders below production costs, with 81 % of suppliers doing so to secure long term contracts.⁹⁵

To adjust to the pressures placed by buyers such as price squeeze, suppliers may increase the intensity of worker production (e.g., output per hour). In response, some suppliers may reduce headcount in uncertain periods, even though this can translate into excessive overtime or the use of sub-contractors to smaller suppliers with more precarious working conditions.⁹⁶ Even within the same sector, profit margins can vary significantly. While semiconductor companies have an average net profit margin of between 17 and 40 %, the margin is only at 4 % for manufacturers of electronic equipment. Pricing can directly affect the payment of a living wage for workers.⁹⁷

The adverse impact of poor purchasing practices is most evident during the pandemic. In response to the disruptions, buyers cancelled orders, refused to pay for goods shipped or in the process of shipping, and requested a price reduction for orders placed before the start of the pandemic. A survey of 1000 suppliers in Bangladesh revealed that more than 50% of factories experienced one or more of the aforementioned poor practices from buyers during the pandemic. As a consequence, almost one in five factories struggled to pay the national minimum wage for workers, especially smaller factories.⁹⁸

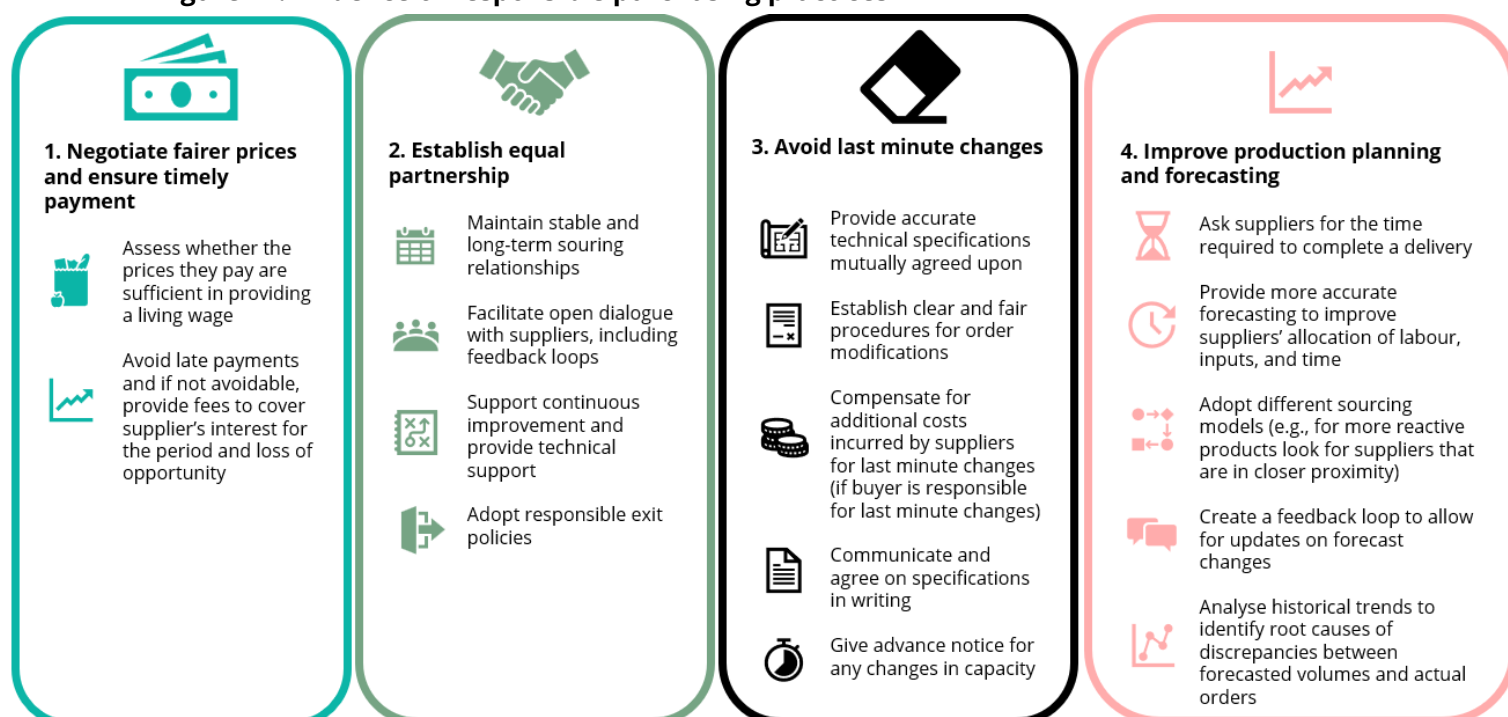
The underlying factor behind poor purchasing practices is power asymmetry between buyers and suppliers. 24 % of suppliers work with a main buyer that is responsible for purchasing half of all production, which exposes suppliers to dependency risks. Dependency risks are highest in the garment and agricultural sectors, where 75 % of all high-risk cases are found.

Buyers may abuse their power by using quality and lead time shortcomings as an excuse to reduce or avoid payments by asking for discounts.⁹⁹ The power asymmetry can also limit the ability of suppliers to negotiate the terms and condition and enforce compliance.¹⁰⁰

Some sectors are seeing incremental improvements in purchasing practices. The Better Buying Partnership Index, which assesses buyer-supplier relationships, shows improvements in soft goods (i.e., apparel, footwear, and household goods). The biggest improvements are in taking inputs from suppliers as part of product and process innovation, maintaining stable relationships with buyers, and having strategic relationships with buyers (e.g., status as a preferred supplier). Suppliers also reported seeing fairer financial practices in terms of fair pricing, timely payments, and honouring contracts.¹⁰¹

Good purchasing practices can have a positive impact on suppliers and workers (Figure 12). Bangladeshi suppliers under a “relational” model (long-term relationships) have an average of 2.5 % higher prices from buyers when compared to a “spot” model (short-term orders favouring lowest bidders).¹⁰² Increasing payment to suppliers has had positive impacts in two sectors. In apparel and footwear, factories receiving a “bonus” improved wages for workers. In cocoa, the Living Income Differential paid by buyers to farmers in Côte d’Ivoire and Ghana show improvements in income^d for farmers.¹⁰³ As well, more stable production planning can shield workers from unpredictable earnings.¹⁰⁴

Figure 12: Evidence of responsible purchasing practices



^d Practitioners caution that an increased in price is not a silver bullet. For sustainable impact for farmers, the differential needs to be accompanied by other mechanisms, such as, reducing the administrative costs of licenses to farmers, fairer government-imposed farm gate prices, and limiting the expansion of market supply.

Source: [Cascadia and Better Buying, 2025](#), [IDH, 2025](#), [Ethical Trading Initiative, 2024](#), [Ethical Trade Norway et al., 2022](#), [Better Buying et al., 2021](#), and [Starmanns, 2017](#); created by Greenwheel.

To ensure that responsible purchasing practices are adopted, businesses will need to embed these commitments into their business processes, for instance, in establishing clear internal responsibilities beyond sustainability functions and considering the potential human rights risks stemming from product design and production planning.

Sustainability initiatives

Companies are increasingly relying on sustainability initiatives to address governance gaps and common challenges. Sustainability initiatives allow businesses to take collective action, avoid duplication of efforts, and promote best practices beyond legal minimum requirements.¹⁰⁵

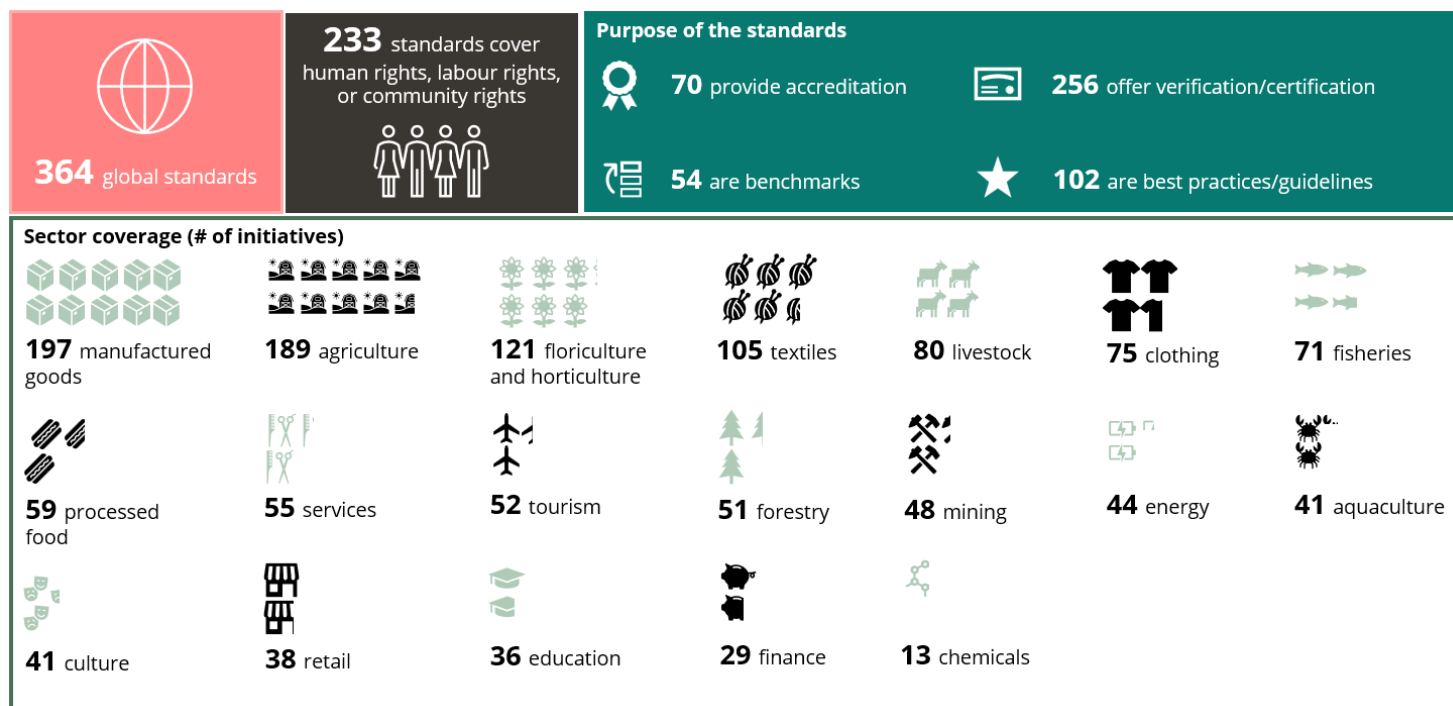
Participation in initiatives is commonly seen as a signal to investors, consumers, and other public stakeholders that a company is committed to sustainability.¹⁰⁶ In an environment where mandatory sustainability standards are evolving, these initiatives will play an important role as a proxy for sustainability performance.

In addition to contributing to meeting regulatory requirements, there is evidence suggesting that consumers reward companies participating in sustainability initiatives. In a joint study from McKinsey and NielsenIQ analysing sales growth in the United States over a five-year period (2017 – 2022), products with ESG-related claims averaged 28 % cumulative growth compared to products without (20 %).^e On average, consumers responded best to products with multiple ESG claims due to the perception of authenticity of claims.¹⁰⁷

There is no estimate on the number of sustainability initiatives. The EcoLabel Index mapped 455 ecolabels and environmental certification schemes in 25 industry sectors across 199 countries.¹⁰⁸ Another estimate by the International Trade Centre counted 362 standards (Figure 13).¹⁰⁹

^e Note that there are differences found across products. Consumers may reward sustainability labelling in food products more than health products. This may be attributed to the fact that in the latter, health benefits and outcomes outweigh sustainability considerations.

Figure 13: An overview of sustainability initiatives



Source: [ITC, 2025](#); created by Greenwheel.

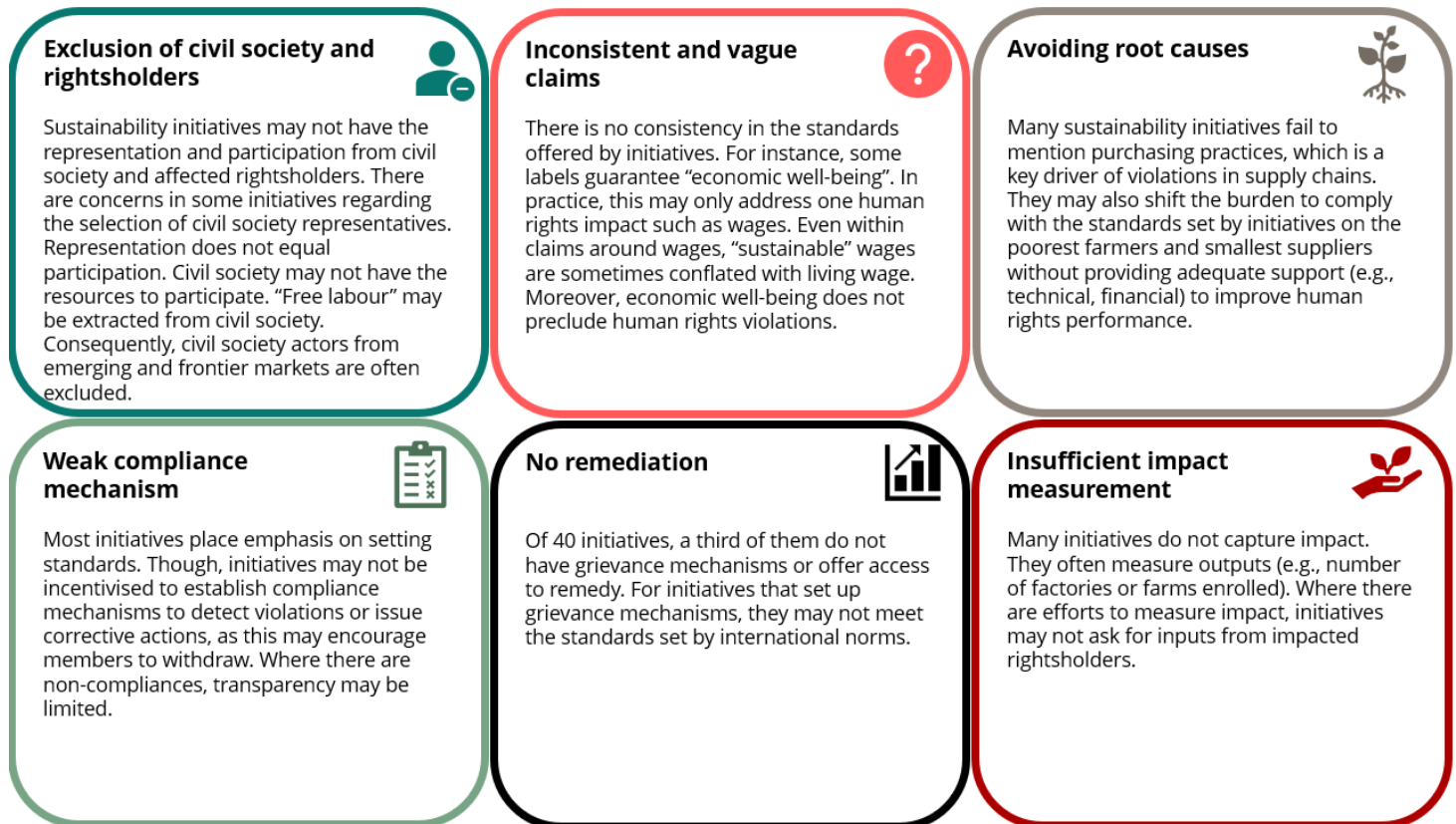
The sustainability initiatives landscape is diverse. Sustainability initiatives can vary based on composition and governance, coverage, and core activities¹¹⁰:

- **Composition and governance:** Initiatives can involve a wide range of stakeholders including academics, companies, government, industry groups, investors, non-profit organisations, and trade unions.
- **Coverage:** Initiatives vary in the industries, sectors, commodities, and/or geographies they cover. They may also focus on different tiers of the supply chain. Some may have broad membership (e.g., sector) while others may focus on a narrow pool of members (e.g., intermediaries or producers only).
- **Core activities:** Initiatives can provide a wide range activities for its participants. On one end of the spectrum, initiatives offer best practices and guidance for its members. On the other end, initiatives monitor the performance of its participants through assurance, verification, or accreditation.

Due to the plethora of sustainability initiatives and the different approaches (e.g., voluntary guidance versus independent verification), participation should not be used as the sole proxy for good company performance.¹¹¹ Some sustainability initiatives are criticised by civil society actors as box-ticking exercises with weak transparency and accountability and limited efficacy.

In a review of 40 international standard-setting initiatives, the Multi-Stakeholder Initiative Integrity project identified six key challenges (Figure 14). Where poorly designed and implemented, civil society actors see sustainability initiatives as greenwashing exercises.¹¹²

Figure 14: Key challenges from civil society and human rights experts on the efficacy of sustainability initiatives



Source: [MSI, Integrity, 2020](#); created by Greenwheel.

Despite the concerns highlighted, there are promising results in initiatives that are binding. Binding agreements have a legal mechanism in place to ensure compliance. In contrast with voluntary initiatives, these agreements are legally binding and have consequences for non-compliance. Three examples demonstrate the potential benefits of binding agreements.

The International Accord for Health and Safety in the Textile and Garment Industry founded as a response to the collapse of Rana Plaza Factory in Bangladesh. The agreement is between garment brands and trade unions where factories are required to participate in the Accord in order to supply to signatories. Non-compliance may lead to the termination of business for suppliers.¹¹³ Since the Accord was founded in 2013, the yearly average of worker injuries has decreased from 738 to 43.¹¹⁴ The Accord also established a grievance mechanism for workers to raise concerns around health and safety (and other human rights issues such as sexual harassment) without retaliation.¹¹⁵

The Fair Food programme requires buyers to implement its worker-informed “Code of Conduct” and provide a premium for tomatoes on top of its regular price. Similar to the Accord, there is an anonymous hotline for workers to file complaints regarding working conditions. Suppliers that fail to comply with the Fair Food Code of Conduct have their purchases suspended by participating buyers.¹¹⁶ Working conditions have improved in participating farms, where workers are paid when they are at work, including waiting time and training. Workers are also directly employed as opposed to being contracted via crew leaders. As a result, workers receive liveable and reliable wages due to the increases in their piece rate or hourly wages.¹¹⁷

In response to egregious cases of gender-based violence in factories, the Dindigul Agreement was developed. As the first legally binding agreement on gender and caste-based violence involving buyers, supplier factory, trade unions, and global labour stakeholders, the Agreement consists of a women worker- and trade union-led prevention and remediation program.¹¹⁸ Within its first year, 182 out of 185 grievances were resolved, of which, 23 were related to gender-based violence. The overwhelming majority (96 %) of grievances were resolved within two weeks. In addition, an external review of the Dindigul Agreement identified a 16 % increase in worker efficiency and attribution decreased by 67 % between 2021 and 2022.¹¹⁹

Given the challenges as well as promising results in sustainability initiatives, investors are advised to review a holding company's participation more critically. Participation in sustainability initiatives could be a proxy for good company performance, but is largely dependent on the type of initiative, the mandatory (or voluntary) requirements, and the level of commitment of individual companies. Investors could check for the green flags identified by human rights expert organisations and civil society as part of successful sustainability initiatives:

- **Bottom-up approach:** Civil society organisations and rightsholders are participants. Logistical support and technical upskilling are provided to promote the participation by civil society actors and rightsholders.¹²⁰ They also play a key role in helping set standards and in identifying the priorities in a given initiative.
- **Worker voice and social dialogue:** Workers can play a positive role in helping resolve workplace issues. In country contexts where freedom of association is respected, businesses can leverage the expertise of trade unions. Even in contexts where freedom of association is limited, businesses can still encourage dialogue at a site level (e.g., worker-management health and safety committee, worker well-being committee).
- **Binding obligations:** Initiatives with binding obligations hold participating companies responsible for improving their performance. This can remove companies that are participating in initiatives as a tick box exercise.
- **Independent verification of compliance:** Compliance with the standards in an initiative should be independently verified. External experts carrying out the verifications should have both industry knowledge as well as human rights and/or labour rights expertise. They should remain independent of buyers and suppliers. Impacted rightsholders (e.g., communities, workers) should be consulted as a mandatory part of verification.
- **Business case for compliance:** Suppliers should receive incentives from their buyers to comply with higher human rights standards. Incentives may include reduced audits, longer term orders, and/or premium pricing.
- **Building in remediation:** A robust sustainability initiative should support participants in establishing grievance mechanisms in line with international norms. Initiatives may build an external and independent grievance mechanism.
- **Continuous monitoring and transparent reporting:** In addition to capturing outputs (e.g., number of suppliers reached), as a best practice, sustainability initiatives should move towards capturing impact. Impact measurement should be carried out by an

independent third-party and should consult impacted rightsholders (e.g., ultimate benefactors). Sustainability initiatives are not expected to solve all human rights challenges, and lessons learned are welcomed for continuous improvement.

Box 5: A critical look at the Roundtable for Sustainable Palm Oil

Palm oil is a versatile vegetable oil used as cooking oil in many parts of the world and is found in numerous product household products, from food to consumer health.¹²¹ However, palm oil production is accompanied by significant environmental and social impacts, which are well documented.¹²²

In response to adverse impacts, the Roundtable for Sustainable Palm Oil (RSPO) was founded to set norms aimed at improving production practices. As of 2025, the RSPO has more than 6,100 members worldwide across 105 countries and territories, covering 640,000 workers. Over the years, RSPO has increased efforts to include smallholder farmers.¹²³ This is crucial, as smallholders account for a sizeable share of palm oil production. For instance, approximately 40 % of palm is produced by smallholders in Indonesia, while in Ghana, 81 % of total palm oil area is comprised of smallholders.¹²⁴

A study on deforestation in Indonesia showed that RSPO has reduced deforestation rates by 33 %.¹²⁵ RSPO has also improved incomes for certified farmers. One study found that independent smallholders experience greater profitability after certification through sustainable premiums, with price improvements of 1 to 4 % above crude palm oil prices. However, the authors note that the full benefits are not yet realised due to a time lag in seeing the results from improved agricultural practices.¹²⁶ Another study found that RSPO certification raised farmer profits 6.4 % to 9 % compared to non-certified farms, largely through improved agrochemical inputs and higher yields compared to non-certified farmers.

Despite the positive impacts of RSPO certification, human rights experts raise concerns regarding its auditing processes. Plantations with rampant labour rights abuses or those operating illegally in productive forests have remained certified.¹²⁷ RSPO can be slow in penalising members who violate their norms.¹²⁸ Critics also highlight that some RSPO members use certified palm oil only in part of their product lines, creating the illusion that all their palm oil is sustainable.¹²⁹ The costs of certification creates barriers to entry for smallholders, as participation costs may outweigh the benefits. Finally, while critics recognise RSPO as more advanced than peer schemes, experts on biodiversity, environment, and human rights have had to advocate for more robust standards.¹³⁰

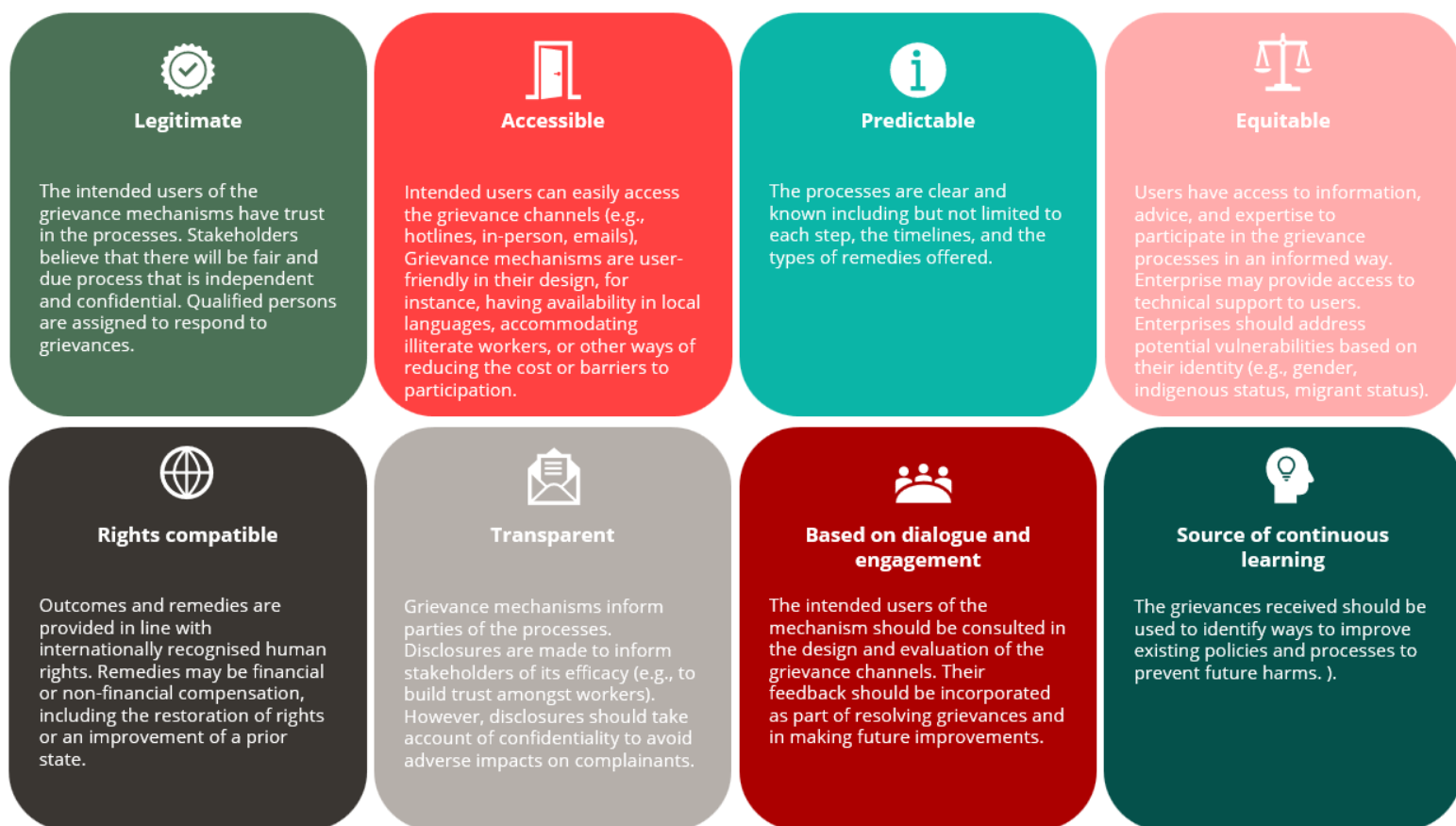
As investors, a company's participation in the RSPO can be viewed as a positive signal, particularly when compared to other palm oil standards. However, investors should critically assess the depth of each company's involvement. For example, they may evaluate the proportion of certified palm oil used across product lines, the level of supply chain traceability (e.g., identity preservation, segregation, mass balance, or book and claim), the support provided to smallholder farmers, and whether the company's sustainability claims align with its actual practices.¹³¹

Remediation

Grievance mechanisms are essential to the access to remedy in case of human rights violations. Under the UN Guiding Principles, all businesses are expected to establish an internal effective and

meaningful operational-level grievance mechanism (Figure 15).¹³² An effective mechanism can prevent the recurrence of violations through a commitment to continuous improvements.

Figure 15: Definition of an effective grievance mechanism



Source: [UNEPFI, 2025](#), [Ardea, 2024](#), [ITUC, 2022](#), and [UNOHCHR, 2011](#); created by Greenwheel.

In the supply chain context, buyers are expected to play a role in reviewing the grievance mechanisms at the supplier level, taking the perspective of workers into account. Buyers are encouraged to assess suppliers' capacities and offer support as needed.¹³³

According to the International Trade Union Confederation's Global Rights Index 2025, workers have no or restricted access to justice in 72 % of countries compared to 65 % in 2024. Although there have been improvements in the respect of workers' rights in the Asia-Pacific region for three consecutive years, other regions of the world see an erosion of rights, particularly in the Americas.¹³⁴ For supply chain workers, who are more likely to face precarious working conditions, violations can go unremedied nationally.¹³⁵ Hence, it is increasingly important for businesses to work with suppliers to establish effective grievance mechanisms.

Companies are enhancing their efforts in promoting access to remedy for supply chain workers. The number of companies ensuring supply chain workers have access to grievance mechanisms increased from 48 to 68 % between 2018 and 2023.¹³⁶

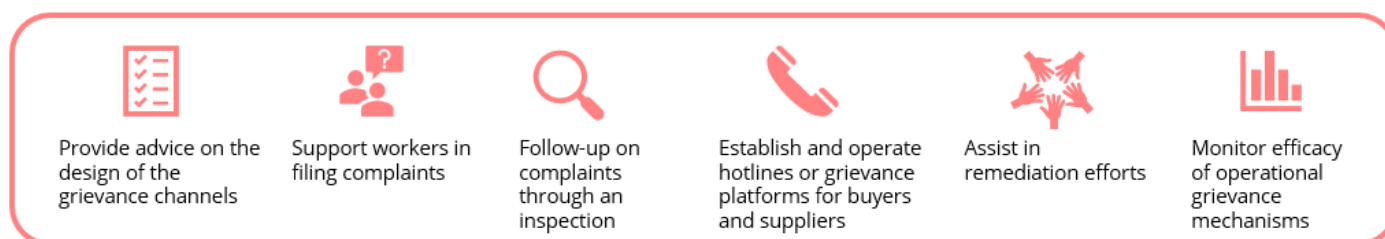
However, the existence of a grievance mechanism does not mean they are necessarily used by workers or can provide access to remedy. In the electronics sector, 56 % of companies have grievance mechanisms for supply chain workers, of which, 18 % of companies disclose data on how the grievance mechanism was used. In interviews, workers reported a lack of trust and fear

of retaliation.¹³⁷ In the food and beverage sector, although 72 % of companies have some form of grievance mechanism for supply chain workers, only 8 % of companies can demonstrate the remedial outcomes for workers.¹³⁸

In addition, while buyers may be eager to support supply chain workers by setting up their own grievance channels (e.g., hotlines), they should not be a replacement of an operational grievance mechanism at the site level as workers need to have access to a locally available channel that is readily accessible. Buyers should avoid undermining producer-level grievance mechanisms.¹³⁹

Instead, buyers should concentrate efforts in helping create and improve site-level or local grievance channels. Buyers may wish to leverage the expertise of NGOs and trade unions (Figure 16). Trade unions and workers' representatives can support buyers in promoting the efficacy of grievance channels by ensuring effective voice from workers. Regular engagement with trade unions and workers' representatives can resolve problems before they become irresolvable. Additionally, trade unions can complement existing remediation processes in helping workers understand their rights, communicate their grievances effectively, and identify solutions collectively with management. Where NGOs and civil society are weak, businesses can rely on trade unions, and vice versa. Where NGOs and trade unions are underdeveloped, businesses may work alongside both international and local experts.

Figure 16: Partnering with NGOs and trade unions for effective remedy



Source: [Hudson and Winters, 2017](#); [McQuade, 2017](#); created by Greenwheel.

Where there are perpetual issues or in difficult contexts, buyers may consider working at a sectoral level or opt for cross-collaboration with peers if human rights challenges cannot be tackled at an individual supplier level.¹⁴⁰

As suppliers make improvements in their grievance mechanisms, they are more likely to see an increase in the number of cases. Buyers should see this as a positive indication that workers have trust and are willing to voice their complaints (whereas a good mechanism on paper and no complaints could suggest the contrary). Instead, buyers should consider reviewing the types of cases and identify possible repetition of cases (e.g., persistent issues, including industry-wide challenges), the timeliness of resolution, types of remedies provided, worker satisfaction with mechanism, and actions taken as part of continuous improvement.

Box 6: There is no one size fits all solution – a new pilot in cocoa

A typical operational grievance mechanism is not a viable option in the context of cocoa, where there are many small producers and given the fact that workers are in remote areas and have low levels of literacy.

In the context of Côte d'Ivoire, based on stakeholder consultation, human rights experts and industry experts see a cross-company grievance mechanism as a possible solution. To address the challenge of remoteness, local focal points should be trained to be able to help workers file a complaint. For instance, workers can share their grievances orally or in written form at the village level then the focal point will help them log the complaint on a centrally managed cross-company grievance platform. For workers that have access to mobile phones, a dedicated number is provided to receive complaints as well as chatbots or SMS.

Remediation could be offered at multiple levels and can be escalated if complaints are not resolved to a satisfactory manner (i.e., village level, sub-prefecture level, and national level). At each level, grievance handlers will be carefully selected and remunerated for their functions. To support the implementation of the grievance mechanisms, external technical experts will be put in charge of case management.¹⁴¹

Building a framework for investors on human rights and supply chain management

Drawing from the stocktaking exercise on what works and what has not worked in managing human rights issues in supply chains, Greenwheel has developed an Investor Framework for Responsible Supply Chains. The Framework is built around nine key company actions to take, and within each action, a list of investor questions is provided alongside key performance indicators (KPIs) from companies and red flags (Figure 17).

Given that companies can differ in maturity across their supply chain management practices, the KPIs will be further disaggregated as “beginner” and “advanced”, where beginner represents the basic supply chain management practices investors should expect, and advanced demonstrating innovative practices. Investors will be provided example policies and practices from companies across sectors and commodities.

This Framework is intended to be sector and commodity agnostic. Greenwheel plans on developing further sector or commodity-based guidance.

Figure 17: Snapshot of the investor framework on supply chain management

Investor Framework on Responsible Supply Chains				
Company actions	Investor questions	KPIs		Red flags
		Beginner	Advanced	
Set supplier expectations	7. Does the company set minimum expectations for suppliers to meet as part of their commercial partnership? 7a. Are there minimum standards set <i>prior to</i> the start of commercial relationships? 7b. Are there commercial initiatives and disincentives for suppliers? 7c. For suppliers that have persistent non-compliances or have serious violations that are not addressed, what is the company's approach to responsible exit? 8. Does the company share the responsibility of managing supply chain human rights risks with suppliers (e.g., through responsible contracting)?	*Supplier code of conduct includes provisions around human rights requirements *Screening for minimum requirements (though, may be a simple self-assessment or attestation)	*Human rights requirements are a pre-requisite prior to starting commercial relationships *Support provided to suppliers to meet minimum requirements *Commercial incentives to suppliers in meeting or exceeding requirements on human rights	No minimum human rights standards set. No review of a new supplier's existing human rights performance.

Source: Greenwheel; created by Greenwheel.

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