

Bridging the data divide

Unlocking the power of data to
address modern slavery

Maha Khan and David Wray



Acknowledgements

This report would not have been possible without the generous contributions of knowledge and time from diverse experts across a spectrum of disciplines, geographies and experience who spoke with the authors for this report.

Disclaimer

The views and opinions expressed in this paper do not necessarily reflect the official policy or position of the United Nations University.

ISBN: 978-92-808-6643-8 © United Nations University 2025.

All content (text, visualizations, graphics), except where otherwise specified or attributed, is published under a Creative Commons Attribution-NonCommercial-ShareAlike IGO license (CC BY-NC-SA 3.0 IGO). Using, reposting, and citing this content is allowed without prior permission.

Citation: Maha Khan and David Wray, "Bridging the data divide: Unlocking the power of data to address modern slavery", UNU-CPR Research Report (New York, United Nations University, 2025).

Bridging the data divide

Unlocking the power of data to
address modern slavery

Maha Khan and David Wray

Table of Contents

- Executive summary** **3**

- Introduction** **4**

- Methodology** **7**
- Limitations 7

- Data ecosystem analysis and findings** **7**
- Data quality 8
- Data availability 9
- Defining modern slavery 10
- Data measurement 11
- Engaging with affected communities: addressing an actionable data gap 13
- Data management 13
- Resources and data integration 13

- Recommendations to foster progress** **14**

Executive summary

No country is exempt from the systematic and pervasive issues of modern slavery and human trafficking (MS/HT). Research indicates that [86 per cent](#) of forced labour cases are perpetuated by private actors, highlighting the critical need for collective action to address and end these human rights violations across all sectors.

The finance sector can play a vital role in transforming the global economy to combat the root causes of these crimes. However, a significant challenge cited by investors in addressing MS/HT is the lack of actionable data. This paper aims to identify the perceived data challenges that investors and businesses encounter in effectively addressing MS/HT. It also highlights key stakeholders within the data ecosystem that can help overcome these challenges, and presents recommendations to bridge the data gap.

Interviews with investors and businesses identified several key challenges regarding modern slavery-related data:

- **Data quality/reliability:** Human rights data often relies on self-reported company information, which may be unverifiable due to complex supply chains.
- **Availability:** Social indicators related to modern slavery are perceived as less accessible than environmental data due to the absence of standardized reporting, insufficient engagement with civil society organizations (CSOs) and affected communities, and weak regulatory enforcement.
- **Terminology:** A lack of consensus regarding the definitions of “social” and the absence of harmonized terminology, data standards and reporting frameworks contribute to confusion and gaps in data.
- **Measurement:** Investors and businesses perceive measuring social data, and more specifically MS/HT data, as difficult, which may be because of varied and opaque methodologies among Environmental, Social and Governance (ESG) rating agencies, and more broadly, a lack of common metrics.
- **Resources and capacity:** Limited human and financial resources within supply chain actors and insufficient executive support hinder investors’ efforts to address human rights issues effectively.

Addressing these challenges will significantly enhance investors’ capacity to assess how their investees manage modern slavery risks.

Recommendations

1. **Focus on data that evaluates outcomes:** Investors should prioritize integrating outcome and impact data into their investment strategies, moving beyond compliance and risk management to support proactive company actions that address MS/HT.
2. **Meaningfully and ethically partner with affected communities, CSOs, worker rights organizations and modern slavery experts:** Engaging with these stakeholders will enhance data quality and transparency, leveraging their expertise throughout the investment cycle and ensuring alignment with international norms.
3. **Advocate for data availability and harmonization in the “S” across ESG rating agencies and sustainability reporting standard setters:** Investors can push for greater transparency and uniform definitions of social issues, ensuring that modern slavery data is included in global reporting standards and that voices from the Global South are part of the conversation.
4. **Robust implementation of data governance and management standards:** Establishing strong data governance frameworks will build trust in the information disclosed, ensuring that sustainability and human rights data are captured, managed and reported effectively, guided by industry best practices.
5. **Invest in upskilling, focusing on data capacity and capability:** Enhancing the skills of finance, procurement and supply chain teams in data management will foster a culture of transparency and improve the quality of data, ultimately supporting effective communication about human rights initiatives.

Introduction

Modern slavery and human trafficking (MS/HT) impacts businesses and the finance sector, both within their operations and within their supply chains (up or down). Private sector actors are responsible for [86 per cent](#) of the 27.6 million cases of forced labour globally. Most cases (87 per cent) can be found in [five sectors](#): services (excluding domestic work), manufacturing, construction, agriculture (excluding fishing) and domestic work. Products made using forced labour, such as fast fashion, are potentially sold by publicly-listed companies whose stocks are often major holdings for pension funds and other institutional investors.

The finance sector can play a critical role to address MS/HT by transforming the global economy to address the root causes of these crimes. However, [research](#) conducted by Finance Against Slavery and Trafficking (FAST)¹ and Modern Slavery and Human Rights Policy and Evidence Centre (Modern Slavery PEC) with investors indicates that one of the key challenges to identify, prevent and mitigate MS/HT risks in a meaningful way is the lack of actionable data, an issue also widely recognized by companies required to report on human rights matters within their value chains.

Specifically, investors voiced concerns about the lack of data, measuring social data accurately and obtaining reliable data. This finding reflects a [2020 consultation](#) undertaken by the United Nations Principles for Responsible Investment (PRI) which highlighted data as the primary challenge in understanding how portfolio companies are addressing human rights within their operations and value chains, especially where the number of companies exceed hundreds or even thousands.

FAST and Modern Slavery PEC research concurrently showed that while some investors recognize the significance of collaborating with Civil Society Organizations (CSOs) to access firsthand data, thereby identifying potential issues, most do not prioritize such engagement. At the same time, notwithstanding the lack of actionable data, investors recognize the increasing need to address modern slavery risks by conducting human rights due diligence (HRDD), due to regulatory requirements and reputation risks. Understanding the most salient risks that company operations pose to workers and local communities requires accessible and reliable data.

The objective of this paper is to identify the perceived data challenges that investors and businesses face in effectively addressing MS/HT and conducting HRDD; namely data quality and availability, lack of a universal understanding of MS/HT and difficulties measuring, governing and managing data. This paper also identifies the key stakeholders within the MS/HT data ecosystem with the potential to help investors overcome their perceived challenges. Lastly, it offers recommendations to investors and businesses aimed at bridging the perceived data gap and enabling them to effectively address MS/HT.

While providing accessible and high-quality data will not address all the challenges financial sector stakeholders face in tackling MS/HT, it can help to identify risks and actual incidents, the remedial steps (if any) taken by companies and the levers that stakeholders can utilize to help eradicate modern slavery. Capturing this data and digitally reporting and/or disclosing MS/HT data flows requires a multi-stakeholder solution and a clear understanding of data challenges, the data landscape and the root causes of modern slavery. Key stakeholders need to collaborate under a common objective: a harmonized baseline of digitally reported data and disclosures (quantitative and qualitative) on MS/HT. This should be treated with the same controls, governance, transparency, and ultimately, assurances as those used for financial disclosures so that stakeholders can start identifying where these risks lie within value chains, and by extension, investments.

Before delving into data and the findings of this study, it is useful to visualize and anchor the key actors and their connections and impacts within the MS/HT ecosystem (Figure 1), to identify the possible levers for change in the data landscape and contextualize the recommendations. Figure 1 can help investors (and businesses) to identify new sources of data and stakeholders they may not be engaging with that can help them improve their efforts to address modern slavery. Further, Figure 1 helps visualize the relationships, influence points and potential data opportunities that can be further exploited to meaningfully identify MS/HT supply chain risks and subsequently manage, prevent and eradicate them.

As an example of utilizing the landscape figure, ecosystem stakeholders can actively interact with sustainability reporting standards to raise human

¹ The FAST initiative, previously hosted by UNU-CPR, transitioned to the United Nations Development Programme in 2024.

rights as a focus topic for inclusion in future standards, given the current gap on this topic. Indeed, this was an outcome following the strategic plan consultation of the [International Sustainability Standards Board](#) where human capital is a focus area, and human rights are monitored. In turn, regulators can be influenced to adopt these reporting standards, which can improve data availability, data measurement and the reliability of data, as well as its comparability.

Understanding the data ecosystem dynamic is essential – but our understanding remains only partial given that most relevant data remains inaccessible and is not in the public domain. Given that 86 per cent of forced labour occurs within the private sector, it suggests that addressing this issue requires collaboration with private companies to unlock and improve access to the data they collect and manage.

Box 1: The drivers that can help address modern slavery

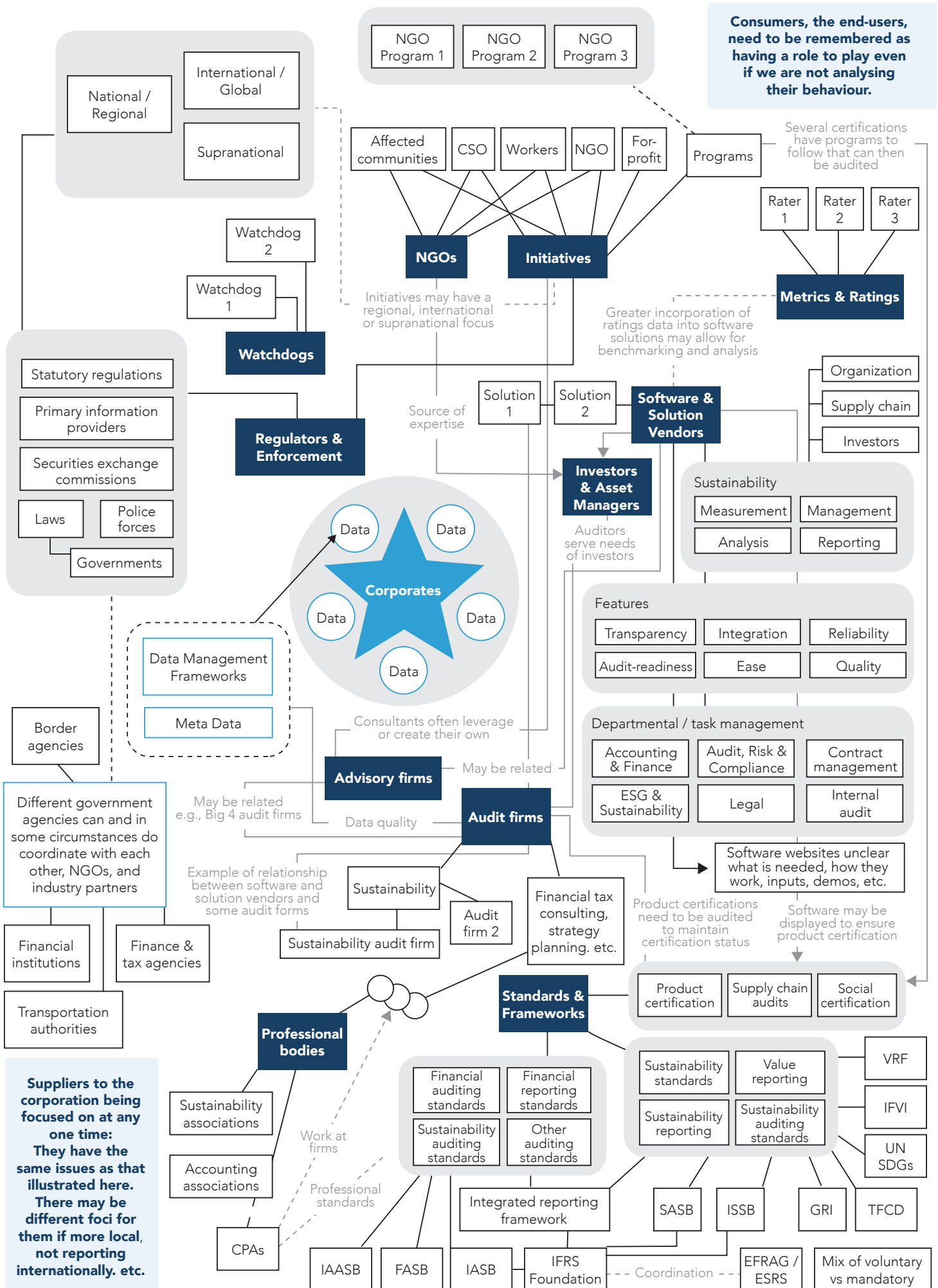
A 2016 [study](#) by the Ethical Trading Initiative and Hult Business School found that 77 per cent of surveyed companies believed modern slavery was likely in their supply chains. While data is crucial for identifying and mitigating human rights risks, investors must prioritize addressing these risks. FAST and Modern Slavery PEC research identified three key drivers that compel investors to address modern slavery: financial returns (including legal obligations), reputational risks and regulatory obligations. These findings align with [PRI's 2023 reporting cycle](#), which revealed that investors are increasingly concerned with financial risks – legal, reputational and operational – while also recognizing opportunities tied to human rights and social performance.

Human rights violations can adversely impact company performance, leading to increased legal and operational costs. For example, company [conflicts](#) with Indigenous peoples have caused financial losses for investors, such as in the Dakota Access Pipeline case, while forced labour incidents in the extractive industry have led to similar outcomes. Companies involved in modern slavery face high employee turnover, supply chain disruptions, contract losses and consumer boycotts. Regulatory developments like the European Union (EU) [Corporate Sustainability Due Diligence Directive](#) (CSDDD) and [forced labor import bans](#) in North America increasingly require businesses to address human rights issues or risk legal liabilities. Companies engaging in modern slavery often face high employee turnover, supply chain disruptions, contract losses and consumer boycotts, all of which damage long-term business prospects.

A 2002 [article](#) by Harvard Business Review argued that businesses cannot be judged solely on economic criteria. It emphasized that companies often fail when managers focus only on producing goods and services, neglecting to understand that organizations are also communities of people. It argues that for capitalism to address its criticisms and restore its reputation, businesses must embrace sustainability and social responsibility, protecting employee well-being and integrating social concerns into strategy. Coalitions such as the World Business Council for Sustainable Development are already working to ensure businesses play a vital role in shaping a sustainable future.

Figure 1: MS/HT data ecosystem

Modern Slavery, Human Trafficking, Forced Labour: The ecosystem from the corporate perspective²



² Derived from the MSHT Ecosystem Map created by David Wray and Remi Strauss under CC-BY-NC-SA 4.0

Methodology

This brief is a mixed method study employing quantitative and qualitative data analysis which was developed through desktop research, analysis of corporate human rights' policies and statements, and 18 key informant interviews with individuals in private equity investment, asset managers, asset owners (pension funds), individuals working in agriculture, construction, mining, retail (food and apparel) and technology, international standard setters (including data management standards and reporting standards), regulators (on HRDD legislation requirements) and academics. FAST conducted a stakeholder mapping process to identify key stakeholders to engage with across the full spectrum, and to help determine the basis for data driven engagement strategies regarding MS/HT. The stakeholder map is a living document and is not intended to be exhaustive. It was informed by the following questions:

- Which types of stakeholders exist within the context of the MS/HT data nexus from a financial lens perspective?
- Who/what is active within each stakeholder category?
- What are the key stakeholder categories that influence decisions, standards or policies around MS/HT data standards and reporting/disclosures that impact the financial sector, and vice versa?

- Who are the important stakeholders who may, or may not, favour co-developed actions and innovations around the development of MS/HT data, particularly relating to the financial sector?
- What are the needs, barriers and drivers for engaging these stakeholders?
- What are the principal stakeholder activities actively underway?

Limitations

It is important to note that the analysis and classification processes are subjective. However, the process was validated with half a dozen industry experts from the agriculture, construction, mining, retail (food and apparel) and technology sectors. These sectors were chosen due to the prevalence of modern slavery within them, access (and time constraints), language (interviews were conducted in English and French) and business operations based in multiple jurisdictions.

The companies interviewed are primarily headquartered in the Global North with operations in the Global South. Stakeholders headquartered in the Global South will need further assessment to identify MS/HT data differences which, if present, may influence or extend some of the recommendations presented.

Data ecosystem analysis and findings

To conduct a thorough analysis, investors require reliable, verifiable data throughout the lifecycle of an investment. However, data gaps often hinder accessibility and scalability of their efforts, and this study finds that investors' perceived data challenges are:

- **Data quality/reliability:** Human rights data quality often falls short of what is needed due to a variety of issues, such as relying on self-reported company data which may not be verifiable, or the existence of opaque and complex supply chains, which may make it more challenging for companies to proactively obtain human rights data.
- **Availability:** There is a common misperception that "Social" indicators related to modern slavery are less accessible and harder to measure than environmental data. This challenge is compounded

by the lack of standardized human rights reporting in supply chains, not engaging with CSOs and affected communities, poor regulatory enforcement and weak multi-stakeholder pressure, leading to data gaps.

- **Terminology:** There is no universal consensus on how "social" is defined, coupled with a lack of harmonized human rights and MS/HT terminology, data standards and reporting frameworks.
- **Measurement:** Quantification of human rights violations lacks standardized modelling, resulting in inconsistent impact measures, a lack of economic normalization (allowing for country to country comparison) or quantification of non-compliance to human rights laws.

- **Resources and capacity (system integration and capacity readiness):** FAST research found that limited human and financial resources, along with a lack of executive buy-in, hinders investors’ ability to address human rights issues effectively.

These data gaps, once overcome, can help investors more effectively assess how their investees are managing modern slavery risks.

Data quality

The quality of reported human rights-related data falls short of what is needed, and the data that investors can access tend to be focused on company policies rather than on the outcomes of the policies. For instance, approximately 85 per cent of the companies assessed in this rapid study have a modern slavery statement in place (Table 1); however only 25 per cent of those transparently disclose the results of their human rights impact assessments, including remedial action plans and progress against those plans. Similarly, Walk Free, Future Society and Wikirate’s 2020 [analysis](#) of modern slavery statements revealed that most statements emphasize policies rather than outcomes, making it difficult to extract meaningful information. This suggests a disconnect between organizational intent and execution and can make it challenging for investors and other actors to adequately assess investment and portfolio risks, or identify which companies are meaningfully addressing human rights.

Opaque supply chains make it challenging to obtain high-quality data

Interviews with businesses and investors further indicate that there is limited awareness of MS/HT risks outside of their own operations (typically extending only to Tier 1 suppliers: direct suppliers that provide inputs such as raw materials, software or services that are required for a company’s final product). This is coupled with the perceived high costs of HRDD beyond Tier 1 suppliers in supply chains. In fact, a [2022 study](#) conducted with German companies required to disclose under the German Supply Chain Act found that more than 60 per cent of companies faced challenges in obtaining accurate and reliable data on their supply chain activities and mapping their “complex” supply chain. Interviewed businesses tended to rely on supply chain audits, whose quality cannot be assured due to:

- [Emerging evidence](#) on the failures of traditional social audits
- An inability to verify third-party assessment findings (in some countries)
- Difficulty performing unannounced audits (in some countries)
- Lack of digital infrastructure (for transparent data collection and reporting)
- An inability to access robust data in some Global South countries (due to a lack of required infrastructure or capacity/resources).

Table 1: Analysis of companies’ MS/HT policies (2022)

	Number	Percentage
Entities with no MS/HT policy found or those with MS/HT policies indirectly covered with supplier policy statements	3	15%
Entities with a clear MS/HT statement	17	85%
Entities with detailed MS/HT findings and corrective action plans	5	25%
Entities with no specific inclusion of human rights topics within their disclosure	3	15%
Entities with MS/HT disclosure statements but limited ability to verify or contextualize	7	35%
Entities citing they had no forced labour or child labour in their operations or supply chains	2	10%

Note: The study’s authors conducted this analysis by reviewing 20 companies’ statements in the following sectors: agriculture/food (3), consumer goods (1), construction (4), technology (4), retailer (3), mining (4) and energy (1).

At the same time, technologies like blockchain and artificial intelligence (AI), are helping to [improve](#) supply chain transparency and traceability beyond Tier 1 suppliers. AI is also being used in [worker voice tools](#) that can help investors and businesses hear independently from workers on their working conditions, which can help address data quality concerns as well as enhance the reliability of self-reported company data, discussed in the next section. Nevertheless, it is important to understand the ethical and legal limitations that AI can pose, making it critical to have safeguarding mechanisms in place that protect data privacy and vulnerable populations, among other issues.

Self-reported company data can be unreliable

Often the data that investors receive from businesses is self-reported, which may not be verified by external parties, like CSOs, including worker organizations. However, FAST [research](#) found that most interviewed investors do not engage with CSOs that can help investors obtain on-the-ground information to verify company data and help identify red flags throughout the investment lifecycle. This triangulation of data would greatly improve the quality and indeed reliability of data.

Moreover, data is often trapped in qualitative formats in non-machine-readable formats (meaning natural language processing and data analysis technologies become necessary), which makes it difficult, time consuming and expensive for financial sector stakeholders to extrapolate the key information they need. [Analysis](#) led by the Alan Turing Institute and the Bingham Centre for the Rule of Law found that investors face inaccessible, unstructured and incomplete data. Machine learning technology, a field of study in AI, is starting to help investors and businesses extract and synthesize this information, such as the aforementioned tool that Walk Free, WikiRate and the Future Society have developed to review and analyse modern slavery statements. This is a first step towards increasing transparency for consumers and businesses.

The implication of poor data quality is that investors do not receive essential information or actionable insights that can help guide their decision-making and capital

allocations. It would be prudent for investors to start developing guidance for investees on the indicators they expect from investees. This would be coupled with data collection and reporting frameworks and efforts to build the capacity of suppliers so they can more effectively report on core indicators related to working conditions.

Furthermore, Figure 1 demonstrates the different stakeholders that investors can engage with to help them triangulate or verify data they receive. For instance, certification bodies, CSOs and international and multilateral organizations can help them verify company data and/or obtain external data on key indicators such as working conditions, as well as help them move beyond Tier 1 using AI and other tools, existing and new ones.

Data availability

FAST research found that there is often a misperception among investors and businesses that “Social” indicators relevant to modern slavery are not as easily accessible and/or are not possible to measure, as compared to environmental data. The Environmental, Social and Governance (ESG) Working Group, featured in Figure 1, [conducted a mapping exercise](#) that offers an initial overview of indicators linked to the effects of company operations and identifies existing data sets as a starting point for stakeholders. Their analysis highlights a significant data gap due to the lack of standardized supply chain reporting requirements, coupled with a lack of multi-stakeholder pressures and lack of regulatory enforcement, all of which contribute to the absence of quality data.

Additionally, there is a wide range of contextual, sectoral and modern slavery data publicly available (i.e. macro-level data sets developed by the United Nations, International Labour Organization, International Organization for Migration and Walk Free), as well as data sets that can be found in the [catalogue of data resources](#) for investors developed by the Alan Turing Institute and the Bingham Centre. These data sets can help businesses and investors identify macro-level risks at the country and sector level. Additionally, stakeholders are highlighted in Figure 1 as well as the publicly-available annex ([link here](#)).

Box 2: Case Study: Eye in the sky, bricks on the ground

The Zooniverse project, at the University of Nottingham's [Rights Lab](#) is a pioneering initiative where volunteers engage in marking the precise locations of brick kilns in India through the analysis of satellite imagery. This vital data collection forms the foundation for the project's overarching mission: to ascertain the comprehensive count of brick kilns and subsequently disseminate this invaluable information to on-the-ground non-governmental organizations (NGOs) operating in India. The project plans to scale by employing machine learning attributes to expedite the identification of precise kiln locations which are readily identifiable from satellite images due to their distinct spectral and spatial form, and within which forced labour is known to be prevalent. This information helps to focus the efforts of NGOs more effectively to curb forced labour.

The [Global Fishing Watch](#), a partnership between Oceana, Google and SkyTruth, employs machine learning and big data to identify when fishing boats disable their automatic identification system (AIS). AIS provides location data to authorities and nearby ships, and turning off location data may indicate unregulated activity such as illegal fishing and the use of forced labour. Moreover, Global Fishing Watch is employing satellite imagery and big data to monitor industrial sea activity, including fishing vessels and small-scale fishing boats, and makes this knowledge available in the public domain via the [Open Ocean Project](#).

The availability of data is closely linked to the issues of data quality, along with recommendations to overcome this perceived challenge. The issue is not necessarily a lack of data but the ineffective use of existing expert knowledge gathered from affected communities, CSOs and international organizations. Investors can refer to Figure 1 to map the actors that can help them obtain, streamline and integrate the large volumes of data received. Figure 1 also provides new sources of data that go beyond the Tier 1 supply chain. Additionally, working alongside affected communities in the pre-investment or company engagement cycles, often helps prevent incidents of modern slavery and achieves positive impact as well as long-term value creation.

Defining modern slavery

The perception that social-related data is not available may be linked to the lack of consensus on how "social" is defined. However, Figure 1 illustrates that there are publicly available sources of data, and it also identifies which stakeholders can provide this data.

The lack of harmonized human rights and MS/HT terminology, data standards and reporting frameworks, combined with a company's freedom to develop and report on its own key performance indicators can add to this complexity. For instance, discussions with African-based investors suggest that the term "modern slavery"

is interpreted very differently in comparison to investors in South-East Asia, requiring different indicators. Moreover, the "S" in ESG is contextualized to a country's socioeconomic characteristics and priorities; for example diversity, equity and inclusion in South Africa versus gender equality in Kenya. Regulation that is focused on addressing and preventing human rights risks and violations, such as the EU's forthcoming CSDDD, can help alleviate the absence of clear terminologies and standards. Regulation can also provide businesses with guidance on which human rights topics they should focus on, and help define adverse human rights impacts, among other clarifications and parameters.

Interviews with businesses for this study indicate that they are mostly focusing on environmental considerations, and the focus on "social" considerations is typically limited to:

- Gender equality within diversity, equity and inclusion initiatives (DEI, in management and on boards)
- The pay scale/wage gap, and
- Occupational health and safety (such as workplace injury rates).

Materiality assessments support sustainable business strategies, identifying areas of risk and opportunity and guiding companies to respond appropriately to achieve

the best course of action for their organization. These materiality assessments are visually reflected via risk matrices in sustainability reports, which when they are created and disclosed, consistently rank human rights in the middle of their material risks landscape, both from a stakeholder importance and a corporate impact perspective. In all entities reviewed, the matrices lacked disaggregation into the specific human rights topics (such as forced labour, child labour, collective bargaining, health and safety, etc.) which added to terminology misunderstandings. FAST [research](#) demonstrates that it's important to distinguish human rights violations like forced labour from other violations like discrimination which have very specific consequences and remedial actions.

However, there is good news for preparers and users. The increasing convergence between materiality and salience (discussed in the following section), through the EU Corporate Sustainability Reporting Directive and the CSDDD, among other regulations, can harmonize terminology and facilitate data collection, analysis and disclosure; a significant step forward in addressing data challenges.

Data measurement

Another key challenge for businesses and investors alike was two pronged: meaningful metrics and clear guidance on human rights standards (including implementation guidance and illustrations). FAST and Modern Slavery PEC [research](#) demonstrates that investors understood modern slavery data to be more qualitative, which is not necessarily the case, and thus indicated the difficulty of measuring social data, especially specific issues such as modern slavery (within the umbrella of human rights). This section will cover the role that ESG rating agencies and standard setters play in measuring human rights-related data.

ESG rating agencies

ESG rating agencies offer indicators to assess a company's performance regarding modern slavery risks, such as location risk, supply chain risk and controversy exposure. While some agencies provide more comprehensive assessments, investors and businesses [note](#) that the data does not measure "real world" outcomes and

implementation of policies, making it challenging to hold companies accountable. It is also worth noting that ESG topics do not easily lend themselves to be aggregated. Moreover, companies are not necessarily incentivized to disclose modern slavery incidents in the current ecosystem, given reputational harm. Reflecting these complexities, Modern Slavery PEC's 2023 [evidence review](#) found that inconsistent measures of social indicators by third-party ESG rating agencies pose interpretation and comparative challenges for investors.

This inconsistency is very different to the climate space, where, for instance, the scope and classification of emission reporting for greenhouse gas emission requirements for Scopes 1, 2 and 3³ are clearly defined. However, the UK Financial Conduct Authority intends to [address](#) potential misinterpretations of social-related data (such as diversity, inclusion and social impact metrics) in their Sustainability Disclosure Requirements and Investment Labels. This is in response to growing concerns that firms may be making exaggerated, misleading or unsubstantiated sustainability-related claims (environmental or social) about their products; claims that don't stand up to closer scrutiny (so-called "greenwashing").

The opacity of data ratings from data providers risk capital market inefficiency because the [correlation of ESG ratings](#) across agencies is weak at 45 per cent; contrasted with [credit ratings correlation](#) which typically exceeds 90 per cent. [Differences](#) among data providers' methodologies and sources arise due to diverse topical methodologies, inconsistent weightings and differing ratings, reliance on media controversies and the general lack of consistent sustainability information within the public domain. Differences can also be due to data providers' [strategic focus](#), ranging from commercial to open-source approaches.

Moreover, data ratings processes and agencies are generally commercially driven and unregulated (explaining the lack of transparency or the potentially high price points for investors and businesses) which increases price risks and capital allocation issues, and undermines trust in capital market transparency and efficiency (see figure below on the market share of ESG data providers). Encouragingly, in 2024, the Government of the United Kingdom noted that it intends to regulate ESG rating agencies (although not those that provide data), following the launch of a voluntary code for ESG ratings and data

³ Scope 1 is a direct emission created by the reporting entity, and Scopes 2 and 3 are indirect emissions which are created by other entities and impact the reporting entity (such as purchased electricity under Scope 2)

products providers by the International Capital Market Association and the International Regulatory Strategy Group in December 2023. Additionally, in April 2024, the EU [proposed](#) regulating the transparency and integrity of ESG ratings agencies.

This landscape may change given disclosure laws and transparency regulations, which may see a shift in redefining sustainability data, and a move towards technical knowledge, risk assessment and impact to align with practice. Additionally, the reliance on ratings agencies as a sole source for comparative information will naturally diminish as information consistency and accessibility improves. Nevertheless, a [report](#) by Opimas expects that spending on ESG data will exceed \$2 billion in 2024, up from nearly half that amount in 2021, indicating a growing demand for this data, despite known rating agencies' limitations.

Standard setters

Standard setting, in this report (as defined in Figure 1), focuses primarily on international standard setters as their global baseline approach should dramatically improve information access, consistency, comparability, context and trust. Reporting and disclosure is an important "report card" for holding corporations accountable for their judgements, decisions and activities. Without rigorous reporting standards, information reported is often inconsistent, can lack meaningful context and reliability/verifiability can be far from assured. Further, the lack of standards means that regulatory or statutory bodies develop their own requirements, adding to the ecosystem complexity on a global scale. Inconsistent "S" reporting approaches have made MS/HT data comparability quite challenging, according to desk research.

Establishing clear baselines are essential for investors to assess the ESG risks and performance of their portfolio companies, compare performance at the fund level and pinpoint avenues to enhance portfolio value (value creation) and position outcomes. Without harmonization, benchmarking and comparisons are challenging. It is evident from the financial reporting standards experience, which stabilized and improved the efficiency of capital markets, that standard setting has a crucial role to play in sustainability reporting, and consequently in a regulatory context; once standards are

adopted locally, users have access to assured data that is comparable, high quality and trusted.

Sustainability reporting frameworks are beginning to rationalize into consistent baseline reporting requirements, whether through international alignment or consolidation, and development is increasingly focused on interoperability. As previously mentioned, forthcoming EU regulation on HRDD can help harmonize data on business' impact on human rights and the planet in the real economy. FAST, in collaboration with the United Nations Inter-Agency Coordination Group Against Trafficking in Persons (ICAT), has developed recommended metrics that identify trafficking for forced labour exploitation. The metrics are organized according to whether they are an "input" (management of human trafficking risk) or an "output" metric (quantitative measurement of concrete outcomes resulting from policies and processes).

The International Sustainability Standards Board (ISSB)⁴ previously prioritized developing disclosure standards on [biodiversity and human capital](#) and not human rights. However, in response to a public consultation in 2023, the ISSB now intends to explore risks and opportunities relating to a company's own workforce and workers in its value chain, or integrate this information in its reporting. They have also agreed to monitor developments in human rights and may consider including them in a future agenda consultation – an important step that would greatly clarify to businesses and investors what they could and should report.

Moreover, the recently formed [Taskforce on Inequality and Social Related Financial Disclosures](#) (TISFD) will develop recommendations and guidance for businesses and financial institutions to understand and report on impacts, dependencies, risks and opportunities related to people. Creating guidance using already existing data and frameworks can help steer businesses towards standardizing human rights related data.

Major standard setters in different disciplines, from reporting and disclosure through to ethics and assurance (i.e. ISSB, US Security and Exchange Commission, the International Auditing and Assurance Standards Board, the International Ethics Standards Board for Accountants and the European Financial Reporting Advisory Group) should influence change, in the public interest, by developing specific MS/HT reporting guidance and providing illustrative examples and implementation

⁴ The ISSB is part of the International Financial Reporting Standards (IFRS) Foundation that established the globally used IFRS Accounting Standards, through the ISSB's sister Board, the International Accounting Standards Board.

guidance. It is important for financial sector stakeholders, United Nations Member States and civil society actors to highlight to all standard setters the importance of context-based materiality and sustainability.

Engaging with affected communities: addressing an actionable data gap

While investors [acknowledge](#) the importance of understanding the needs and experiences of affected communities, this research identified a critical gap in investor and corporate engagement with civil society, particularly with affected communities (such as worker organizations and survivors of modern slavery). The challenge is not data scarcity but effectively leveraging existing knowledge. Affected communities, with the ability to identify red flags beyond the capabilities of AI tools and quantitative data, remain inadequately connected to investors and businesses, thereby hindering progress and achieving better outcomes and effectiveness.

Data management

Data management and governance best practices have a role to play in securing, processing and disclosing high-quality information. To ensure high-quality data is readily accessible and trusted, information flows depend on metadata standards. Metadata is information that describes and explains data. It provides detailed context such as the data source, type, creator, owner, date of creation and its relationship(s) to other data sets, which provide an understanding of the relevance of specific sets of data and guidance on their usage. A metadata standard is an approach which establishes a consistent way of structuring and understanding data. It ensures clear, concise and relevant information outputs.

In the context of MS/HT, contextualizing data is extremely important and offers answers to key user questions, such as:

- When was data collected? Was on-site workforce demographic data collected on a day when new recruits were known not to be at the location? Or was it only collected during the day shift, rather than both the day and evening shifts?
- How was data collected? Was it collected using trusted and transparent mechanisms for research participants?
- What underlying assumptions were made during the data collection process (or method)?

Providing underlying context is only possible when the data itself has the underlying data management and governance processes to support it. This also links to a company's resource capabilities and how they are collecting, integrating and reporting data to provide actionable insights (discussed in more detail below).

Resources and data integration

FAST [research](#) found that interviewed investors have limited resources – human and financial – which impacts on their ability to address social issues. This study found a lack of executive buy-in at the corporate level for dedicating resources to managing human rights issues, including financial and human resources. [Research](#) with Chief Sustainability Officers confirmed that while the challenges facing sustainability teams are evolving and their internal visibility is increasing, the size of these teams has generally remained unchanged over the past decade.

The lack of resources can lead to not having the ESG data management systems and processes needed to embed, collect and effectively report on data. Indeed, interviews with Chief Sustainability Officers [indicated](#) that ESG data collection was extremely time-intensive and this limited a sustainability team's ability to provide actionable insights, and for an organization to make meaningful change or progress to act on the insights. Additionally, many industry practitioners still [rely](#) on manual processes for ESG data collection and analysis, and transitioning to a centralized and standardized data platform [needed significant](#) coordination, management and financial resources.

Moreover, the lack of a centralized data system or software platform may deter businesses from aligning their suppliers to provide actionable ESG disclosure data. [Interviews](#) with Chief Sustainability Officers noted that some are trying to streamline data collection whereby suppliers could input their ESG data quarterly into a data repository, enabling companies to review the data as needed. Linking this back to the ecosystem landscape (Figure 1), there is an opportunity to influence change via regulators and enforcement (the traditional go-to) but also standard setters and professional bodies – both of which offer effective levers for change in data disclosure accessibility (digital, discoverable, accessible, etc.) and ethical professional responsibilities around the integrity and quality of those disclosures.

Box 3: Recommendations to bridge the data divide

1. Focus on data that evaluates outcomes
2. Meaningfully and ethically partner with affected communities, CSOs, worker rights organizations and modern slavery experts
3. Advocate for data availability and harmonization in the “S” across ESG rating agencies and sustainability reporting standard setters
4. Implement robust data governance and management standards
5. Invest in upskilling, focusing on data capacity and capability.

Recommendations to foster progress

The following recommendations can help investors and businesses better address social considerations in their value chains. Awareness followed by commitment is the starting point for investors (and businesses alike) to [intentionally address](#) modern slavery in their policies and translate those policies into practice (screening, due diligence, corporate engagement and stewardship). An intentional policy helps to create executive level buy in, and can help galvanize the resources – human and financial – needed to address modern slavery. This is also closely tied to ecosystem stakeholders recognizing that addressing modern slavery is a governance issue in addition to a social or financial issue.⁵

Recommendation 1: Focus on data that evaluates outcomes

It is prudent for investors to go beyond compliance and risk management standards to also integrate outcome and impact data (i.e. metrics that focus on the outcomes of policies and processes and positive actions that companies proactively take). This approach can not only protect investments but can also support companies that proactively address climate, nature and social inequality

crises. Focusing on outcomes can address the perceived challenges of data quality and availability and help investors monitor investees’ progress (including in real time). This recommendation complements a 2022 [PRI study](#) with asset managers, asset owners and commercial data providers, which highlights that investors require quantitative information about positive human rights outcomes to which companies have contributed, and an understanding of companies’ inherent human rights risks in order to assess how investees manage their impacts on people.

Table 2 highlights several resources that investors can refer to that can help provide frameworks, human rights impact standards and outcome metrics as a starting point. For instance, the Cornell University’s Global Labor Institute Metrics – Measuring Supply Chain Due Diligence – [tracks](#) labour outcomes and actual impacts on workers, which allows companies and investors to assess company efforts to reduce risks or remediate harms. The metrics also enable comparisons of performance across companies, suppliers, countries and tiers over time.

⁵ It may be helpful to contextualize the issue of addressing human rights risks using the conversations around Net Zero commitments and climate, where standards and data availability are more developed and mature than human rights. A 2020 [report](#) by the Climate Disclosure Standards Board analysed disclosures from Europe’s 50 largest listed companies, totalling \$4.3 trillion in market capitalization, and highlighted significant challenges in data quality, comparability, coherence and accessibility across environmental and climate-related disclosures. Although the report focused on climate-related reporting, the challenges highlighted are amplified in human rights-related company disclosures, where information is perceived to be scarcer.

Table 2: Resources for practical guidance

Modern slavery checklists, due diligence toolkits and financial instruments

- **FAST and Modern Slavery PEC.** [Accelerating Change: The Potential of Capital Market Actors to Address Modern Slavery](#). This report provides comprehensive practical resources for investors on a range of topics, from indicators and checklists to the interrelation between the “E” and “S” in ESG, due diligence toolkits, innovative modern slavery financial instruments and case studies highlighting investors meaningfully addressing modern slavery.

Human rights impact standards and outcome metrics

- **United Nations Development Programme.** [Sustainable Development Goal \(SDG\) Impact Standards](#) provide businesses and investors with a clear framework to integrate sustainability and the SDGs into management and decision-making processes, helping prioritize sustainability in decision-making.
- **Cornell University’s Global Labour Institute.** [Measuring Supply Chain Due Diligence](#) provides labour outcome metrics, including impacts on workers in supply chains.
- **ICAT.** The [Sustainable Finance and Trafficking in Persons](#) impact brief offers guidance for investors and businesses to measure both “input” and “output” metrics covering forced labour exploitation.
- **Investors Against Slavery and Trafficking Asia Pacific (IAST-APAC).** [Core metrics](#) for modern slavery action, disclosure, collection and publication provide investors with a scalable starting point for analysing company performance, fostering discussions on modern slavery risks and driving positive outcomes.

Data governance and management

- **Enterprise Data Management Council.** [The Data Management Capability Assessment Model](#) provides a structured framework across the data supply chain to the application of analytics.
- **The Committee of Sponsoring Organizations of the Treadway Commission.** [Internal Controls over Sustainability Reporting](#) is designed to help organizations “integrate systems of internal control over their material or decision-useful sustainable (business) information”.

**The landscape figure and accompanying document provides investors and companies with a comprehensive overview of the types of stakeholders in the modern slavery data ecosystem.*

Recommendation 2: Meaningfully and ethically partner with affected communities, CSOs, worker rights organizations and modern slavery experts

Affected communities and CSOs – some of whom are illustrated in Figure 1 – have the required expertise to help build investors’ knowledge, expand data sources and collaborate on remediation efforts. Investors can incorporate their expertise in all stages of their investment cycle – from screening companies to due diligence and corporate stewardship. Engagement with affected communities can help investors and businesses overcome perceived challenges with data quality, availability and measurement. For instance, engagement with affected communities can improve supply chain transparency, especially where AI supply chain mapping

tools cannot get data from informal markets, for example, in the mining sector. Engagement also helps align a company’s policy with international norms like the United Nations Guiding Principles on Business and Human Rights and the Organisation for Economic Co-operation and Development’s *Guidelines for Multinational Entities on Responsible Business Conduct*.

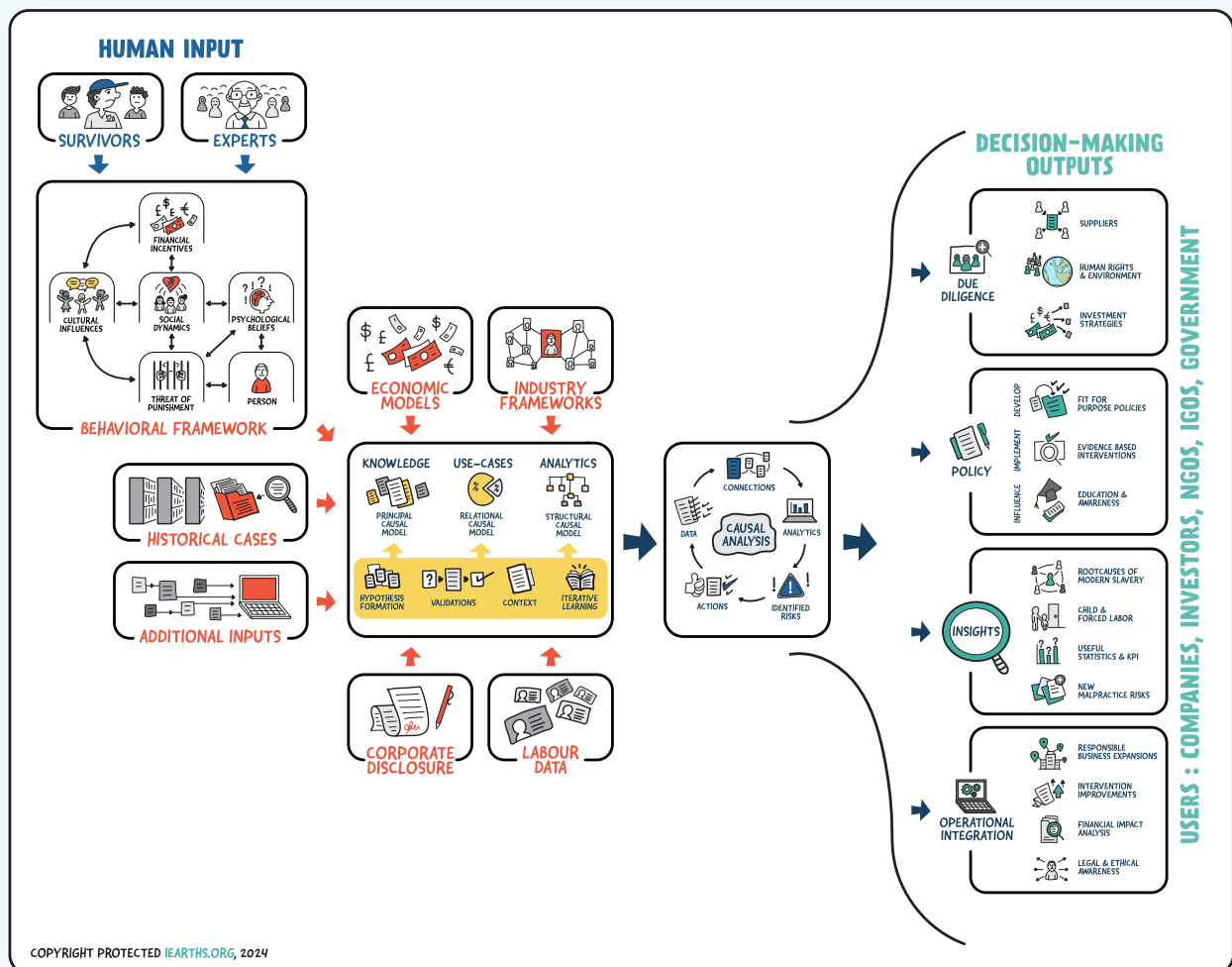
Workers and CSOs are critical partners in addressing the perceived data challenges that investors and businesses face. Data scarcity is not necessarily the challenge; the challenge is more effectively leveraging existing knowledge and expertise that is held within affected communities. For instance, the [Worker-Driven Social Responsibility Network’s](#) Fair Food Program, has transformed the tomato industry in Florida. Previously

described by the US Department of Justice as “ground zero for modern-day slavery”, workers in the industry now earn a fair wage and no longer fear for their safety. Additionally, investors can seek out organizations that meaningfully engage with affected communities to

obtain real-time data on human rights risks and realities. [Equidem](#), for example, combines grassroots partnerships and real-time data from field investigations to uncover human rights violations, inform strategic action and influence global and local policies.

Box 4: iEARTHS: Employing AI, lived experience and behavioral economics to address modern slavery

An example of how to address modern slavery and human trafficking through international public interest consortia is the [iEARTHS](#) project, a digital due diligence causal AI solution that combines technologies, domain expertise and best practices in identifying, preventing and remediating modern slavery within international supply chains. This initiative is notable for its inclusion of a multidisciplinary team that incorporates survivor groups (see Figure below). By integrating expertise from these often overlooked communities, the iEARTHS project is gaining valuable insights, leading to more effective recommendations for identifying, managing and ultimately preventing forced and child labour in global supply chains.



Recommendation 3: Advocate for data availability and harmonization in the “S” across ESG rating agencies and sustainability reporting standard setters

Investor coalitions, like IAST-APAC and CCLA’s Find It Fix It Prevent It, are encouraging ESG rating agencies to improve transparency in their methodologies around “social” data. Investors and international organizations have also expressed interest that data should be available to all ecosystem users and have called for harmonization among agencies on the definitions of social issues and its data. Investors can play an important role in demanding specific data on modern slavery from ESG data providers, one which goes beyond policies by looking at the effects of those policies – such as the IAST-APAC and ICAT metrics. These advocacy efforts can also be focused on reporting standard setters like ISSB and the new global social disclosure framework initiative, [TISFD](#), to embed modern slavery outcome data into reporting and disclosure standards.

Additionally, it will be prudent for investors to include Global South stakeholders in conversations on data. This research finds that standard setting is weighted towards the [Global North](#) and that existing and proposed standards are conceived from the lens of high-income, industrialized countries where [informal economies](#) are not as pervasive, thus making data availability more challenging in Global South regions. The active inclusion of multi-stakeholder voices in developing economies is therefore essential. Social issues like economic inequality and diversity, equity and inclusion are all impacted by Global South capital market actors’ investments, and these social considerations are not always included in global standard setting initiatives.

The digital divide remains a further key challenge to creating global equality, inclusion and adoption of international reporting standards, and also prevents a level playing field within international capital markets. Figure 1 identifies areas and stakeholders that can potentially be targeted to collect relevant data for all ecosystem actors.

Recommendation 4: Implement robust data governance and management standards

Data management is important because it sets the basis from which trust in the information disclosed (which is based on its underlying data) is created or broken. If any value chain entity lacks appropriate governance and management principles and processes, it erodes trust across the entire value chain. Data management is underpinned with how data is governed, structured, identified, secured and managed. While there are no

mandatory data standards applicable to corporate information reports and disclosures, there are industry best practice data frameworks widely used in practice (and with longstanding use for financial reporting). Implementation of a data governance model is required to establish trust and transparency on all sustainability matters, including human rights.

Table 2 lists resources which investors can use and encourage their investees to use for guidance.

Recommendation 5: Invest in upskilling, focusing on data capacity and capability

Effective data governance and management require four key competence areas: data generation, data processing, data analysis and data usage; and within those several additional domains of competence emerge. These additional domains include, amongst others, data management planning, collection, cleansing, validation, verification, transformation, analysis, interpretation, integration, reporting and decision-making.

It is essential that companies have the required buy-in from senior leadership to prioritize capacity-building and upskilling. Indeed, PRI’s 2022 [study](#) suggests that greater attention is needed on the role of boards and leadership in embedding these commitments into company culture and practices, as well as the company’s HRDD.

Moreover, it’s prudent that ecosystem actors minimally upskill finance, procurement, supply chain, operational and internal control (internal audit) teams to build data management and governance as a core organizational skill, or to understand how to communicate with external data providers, should this function be outsourced. It would be prudent for investors and businesses to work together to build the capacity of their suppliers and partners on whom they depend for data to also develop these competencies. This is a co-creation process rather than the sole responsibility of smaller suppliers that often lack the financial or human resources necessary to respond to large supplier information demands.

Upskilling an organization to understand the integrity of its data and how data is managed can help accelerate the realization of higher quality data that is accessible, comparable and trustworthy (the latter through assurance and organizational commitment to trust and transparency). Additionally, these data skills will underpin an organization’s ability to clearly convey how it’s addressing human rights using high quality and transparent data. The ability to communicate one’s story supports capital market efficiency, and conversely, erodes it when done poorly or absent trusted data.

About UNU-CPR

United Nations University Centre for Policy Research (UNU-CPR) is a think tank that carries out policy-focused research on issues of strategic interest and importance to the United Nations and its Member States. The Centre prioritizes urgent policy needs requiring innovative, practical solutions oriented toward immediate implementation.

UNU-CPR offers deep knowledge of the multilateral system and an extensive network of partners within and outside of the United Nations. The United Nations University Charter, formally adopted by the General Assembly in 1973, endows the Centre with academic independence, which ensures that its research is impartial and grounded in an objective assessment of policy and practice.

cpr.unu.edu

New York (Headquarters)
767 Third Avenue 35B
New York, NY 10017
United States
Tel: +1-646-905-5225
Email: comms-cpr@unu.edu

Geneva
Maison de la Paix
Chemin Eugène-Rigot 2E
Geneva, Switzerland.
Tel: +1-917-225-0199
Email: comms-cpr@unu.edu