



# Accelerating and scaling-up collective action for sustainable supply chains

White Paper, September 2023

# Acknowledgements

This white paper contributes to UNIDO's work on Sustainable Supply Chains and was prepared under the overall guidance of the UNIDO Directorate of SDG Innovation and Economic Transformation (IET). UNIDO's Division for Fair Production, Sustainability Standards and Trade was responsible for the organization of the corresponding [Expert Group Meeting in 6-7 June 2023](#), which brought together supply chain specialists from various private organizations, public and development agencies and academia.

The main contributors to this white paper were UNIDO's Alisa Herrero Cangas, Stefan Kratzsch, Gabor Molnar, Stefan Pahl, and Virpi Stucki. Several other UNIDO colleagues have provided insights to the white paper and peer reviewed the document, including Annika Bachhofer, Ali Badarneh, Raquel Barrios Gayo, Gunther Beger, Elena Cooke, Müge Ulvinur Dolun, Dominika Dor, Rana Ghoneim, Nobuya Haraguchi, Steffen Kaeser, Ivan Kral, Chie Matsumoto, Karin Reiss Haimbala, Natascha Weisert, and Jinjiang Yan. Infographics were designed by Jenny Russmann and the layout by Anna Jordanovsky.

UNIDO extends its appreciation to all those who provided insights during the Expert Group Meeting and to those who provided their feedback on this Paper. UNIDO acknowledges the contribution of the following individuals and organizations: Matthias Altmann, Organization for Economic Co-operation and Development (OECD); Guillaume Bastien, Alteo Alumina; Gregor Binkert, BD Consulting & Investment; Martina Bozzola, the International Trade Centre (ITC); Mario Cerutti, Lavazza Group; Georg Dieners, OEKO-TEX® Association; Guido Dinjens, FSSC Foundation; Ayda Fathi, the Ministry of Industry and Trade of Morocco; Eike Hellen Feddersen, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH; Santiago Fernández de Córdoba, UN Conference on Trade and Development and United Nations Forum on Sustainability Standards (UNCTAD/UNFSS); Samuel Gahigi, Rio Tinto; Ulrich Hoffmann; Guggi Laryea, amfori; Anna Mago, Fairtrade Austria; Franzisca Markschlaeger, (GIZ) GmbH; Escipion Joaquin Oliveira Gómez, the Secretariat of the Organization of African, Caribbean and Pacific States (OACPS); Manish Pande, the Quality Council of India; Kristian Möller, EHI Group; Gerardo Pataconi, the International Coffee Organization; Antti Piispanen, the Ministry for Foreign Affairs of Finland; Angus Rennie, UN Global Compact; Githa Roelans, the International Labor Organization (ILO); Sabine Samarawickrema, denkstatt; Fernando Santiago Cajaraville, Bühler Group; Thierry Rostan, the United Nations Office on Drugs and Crime (UNODC); Daan Van Thiel, the European Commission; Rupal Verma, (UNCTAD/UNFSS); Joshua Wickerham, the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance; and Joseph Wozniak, (ITC).

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Cover photo: Ms. Varoti Pathang undertakes a final check before starting a carding machine for recycled cotton in SIMCO recycling facility in Dhaka, Bangladesh. UNIDO-led Switch to Circular Economy Value Chains project works with selected fashion brands and their supply chains in Bangladesh to achieve a circular transition in the textile and garments sector. Note: After the carding machine starts with operation, in addition to ear plugs and hair covering, a face mask is part of the personal protective equipment.

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# ACRONYMS

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<b>CSDDD</b>	Corporate Sustainability Due Diligence Directive
<b>CBD</b>	Convention on Biological Diversity
<b>CITES</b>	Convention on International Trade in Endangered Species of Wild Fauna and Flora
<b>ESG</b>	Environmental, Social and Governance
<b>EU</b>	European Union
<b>FDI</b>	Foreign Direct Investment
<b>GHG</b>	Greenhouse Gas
<b>GIZ</b>	Deutsche Gesellschaft für Internationale Zusammenarbeit
<b>IET</b>	Directorate of SDG Innovation and Economic Transformation
<b>IFD</b>	Investment Facilitation for Development
<b>ILO</b>	International Labour Organization
<b>ISEAL</b>	International Social and Environmental Accreditation and Labelling
<b>ITC</b>	International Trade Centre
<b>MNEs</b>	Multinational Enterprises
<b>MNE Declaration</b>	ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy
<b>MSIs</b>	Multi-stakeholder initiatives
<b>MSMEs</b>	Micro-, small-, and medium-sized enterprises (MSMEs)
<b>NCPs</b>	National Contact Points
<b>NCPs for RBC</b>	National Contact Points for Responsible Business Conduct
<b>OACPS</b>	Organization of African, Caribbean and Pacific States
<b>OECD</b>	Organization for Economic Co-operation and Development
<b>PPP</b>	Public-private partnerships
<b>PTAs</b>	Preferential Trade Agreements
<b>RBC</b>	Responsible Business Conduct
<b>SDGs</b>	Sustainable Development Goals
<b>SMEs</b>	Small and Medium-sized Enterprises
<b>UN</b>	United Nations
<b>UNCTAD</b>	UN Conference on Trade and Development
<b>UNEP</b>	United Nations Environment Programme
<b>UNFCCC</b>	UN Framework Convention on Climate Change
<b>UNGC</b>	UN Global Compact
<b>UNGPs</b>	UN Guiding Principles on Businesses and Human Rights
<b>UNIDO</b>	United Nations Industrial Development Organization
<b>UNODC</b>	United Nations Office on Drugs and Crime
<b>VSS</b>	Voluntary Sustainability Standards



# FOREWORD

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Global supply chains play a vital role in global trade, fostering economic growth and creating job opportunities for millions worldwide. The pursuit of economic prosperity, however, must not come at the expense of human rights or environmental safeguards. The reality for many workers in the global supply chains of industries, like textiles or food production, remains a far cry from the promise of prosperity. Excessive working hours, unsafe conditions, and inadequate wages are exploitation that undermines the premise of a fair and sustainable global economy.

As the Director General of the United Nations Industrial Development Organization (UNIDO), I firmly believe that it is our collective responsibility to ensure that sustainable practices are at the core of our economic systems. UNIDO has consistently worked with a human-centric approach for inclusive and sustainable industrial development, and this includes championing sustainable supply chains. By partnering with countries, businesses, and workers, we strive to preserve scarce resources, promote social well-being, and protect the environment while fostering economic prosperity. Our goal is to make sure that all voices are heard and that the gains from global trade are more fairly shared.

This report, "Accelerating and Scaling-up Collective Action for Sustainable Supply Chains," collects insights gleaned from both research and real-world experience. Through UNIDO's convening role, we bring diverse perspectives together on the most pressing issues in today's supply chains. It is through such open discourse, backed by rigorous research, that this report identifies four key priorities for achieving sustainable supply chains.

Firstly, we must continue to strengthen multi-stakeholder dialogue at various levels of industry — global, regional, national, and sectoral. Inclusive consultations are paramount to finding effective solutions. Secondly, we must continue facilitating context-specific, tailored assistance to support policymakers in designing a smart policy mix for sustainable supply chains across industries. Cooperation amongst all involved through knowledge and capacity sharing will make a lasting difference in achieving this. Thirdly, we must build a robust evidence base on the impacts of mandatory sustainability regulations and voluntary commitments. This includes unforeseen, potentially negative, consequences. We need to raise awareness about these issues and advocate for adequate support measures. Lastly, we must empower businesses, particularly small and medium-sized enterprises (SMEs) in producer countries, to integrate sustainability into their strategies and be equipped with the resources and skills needed.

This publication is a call to action: a jumping off point for joint efforts towards fair supply chains and particularly for putting an end to the exploitation of people and planet in developing countries. As the Director General of UNIDO, I personally reaffirm our commitment to working hand in hand with our partners and stakeholders at the global, regional, and local levels on this critical task.

**Gerd Müller**  
**Director-General, UNIDO**

# EXECUTIVE SUMMARY

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Supply chains are key to economic life, international production, trade and investments. Under certain conditions, supply chain development and their integration into global supply chains can lead to sharp productivity gains, employment creation, and income premiums as well as social protection, skills development, knowledge and technology transfer, compliance with higher standards and women's economic empowerment. However, global supply chains can also exacerbate inequalities within and across countries and supply chains.

The global governance architecture for sustainable supply chains is a complex web of multiple instruments. It encompasses legally binding multilateral instruments and standards on human rights, labour conditions, environmental protection and climate change and a global normative framework reflecting governments' expectations on sustainable supply chains. Additionally, it includes a myriad of private, voluntary sustainability standards (VSS) and multi-stakeholder initiatives (MSIs), largely aligned to the multilateral legal and normative framework.

Unfortunately, the existing governance architecture has not eradicated human rights abuses, decent work deficits and environmental impacts from supply chains. Many of the supply chains in which abuses occur, are those sourcing raw materials, labour-intensive goods and products from – and within – countries with systemic governance challenges. These countries are also experiencing high levels of informality and working poverty.

Power asymmetries between supply chain actors (e.g. retailers, large first-tier producers and lower-tier suppliers), often result in cost and risk shifting onto the subcontractors, producers and workers further down supply chains. Furthermore, the international commodity market price-fixing regime is strongly leveraged by large buyers and commodity exchanges, making it difficult for commodity producers and farmers to have a level playing field.

National legal frameworks are often unequally aligned to international sustainability standards and principles. The disparity in national legal frameworks, secondary regulations, and enforcement systems also undermines the level playing field. Business voices are becoming increasingly louder in demanding greater legal certainty and coherence of sustainability requirements for global supply chains.

As a result, robust laws, regulations and enforcement mechanisms, may increasingly become key to countries' comparative advantage and a prerequisite to attract sustainable Foreign Direct Investment (FDI) and secure access to export markets.

There is growing interest in how States, through a smart mix of policy instruments, can effectively stimulate private investment and innovation in line with the Sustainable Development Goals (SDGs). Indeed, States can take an active role in encouraging sustainable and responsible business behaviour in supply chains. However, translating public policies into effective practice requires robust institutions and legal frameworks aligned with international standards on responsible business conduct (RBC), as well as institutional capacity to navigate vested interests within supply chains, as some may obstruct transformative policies.

Recent years have seen a wave of mandatory due diligence legislation in multiple countries; this evolution has the potential to decrease the occurrence of extreme abuses and sub-optimal practices, provided that the potential negative impacts of these laws on producers, suppliers and workers are identified, documented, disclosed and mitigated. However, mandatory due diligence legislation may fall short on significantly improving living incomes and rural livelihoods for the majority of producers, without structural changes to the functioning of the international commodity market.

Businesses are increasingly revamping their supply chain strategies to demonstrate a strong sustainability proposition. Consumers, workers, corporate stakeholders and the financial sector, are increasingly socially and environmentally conscious: they demand greater transparency on Environmental, Social and Governance (ESG) performance and reporting, as well as ethical and sustainable products. This is putting pressure on businesses and their supply chains to achieve the triple bottom-line of sustainability: first, to ensure inclusive growth, decent job creation and respect of human rights to protect the people; second, to reduce their carbon footprint and improve circularity to protect the planet; and third, to be economically resilient.

Furthermore, the transition to circular business models is gaining momentum, not only to mitigate risks associated with import dependency and price volatility, but also to save costs, improve financial performance and competitiveness. Lead firms are expected to play a key role in decarbonizing their own production and supply chains, notably by stepping up collaboration with domestic firms and investing in green technology transfer.

Finally, corporate thinking is moving away from a logic of competitive cost to one of competitive risk. Supported by the resurgence of protectionist national policies, accompanied by massive public subsidies and other State support, re-shoring, friend-shoring and far-shoring are increasingly considered as alternatives to the dominant off-shoring model. Firms are also investing in robotics and automation to reduce labour costs. Automation is shifting the global division of labor based on economies of scale, limiting developing countries' strategic entry points into global markets and reducing their relative competitive advantage based on lower labour costs. This highlights the importance for industrializing countries to modernise their national skills' development systems in order to meet industry's needs.

As supply chains become increasingly complex, end-to-end visibility has become a top priority for businesses, both to improve supply chain resilience and to demonstrate ESG performance.

Digital traceability and other technological advancements hold the potential to increase transparency and accountability in sustainability reporting and performance, provided that different tiers in the supply chain overcome a lack of trust and engage in new ways of collaboration and information sharing.

**UNIDO calls on all relevant State and non-State actors to accelerate and facilitate coordinated collective action in identified priority areas across and within supply chains, respecting actors' legitimate roles and responsibilities.** UNIDO also calls on its sister agencies to step-up coordination efforts and to pursue joint action, to leverage the wider United Nations (UN) system capacities in line with the UN "delivering as one" approach.

**Against this backdrop, UNIDO identifies the following priorities to reach sustainable supply chains before 2030:**

**(1) Scale-up collective action.** Continue to further strengthen multi-stakeholder dialogue at the global, regional and national level. Inclusive dialogue is paramount to finding effective solutions. Building on existing evidence, identify and prioritize interventions with potential to facilitate systemic change.

**(2) Deliver systemic, multi-dimensional, country-driven tailored support** to countries around the world, simultaneously addressing the root causes of unsustainable supply chains, while preparing countries to meet new requirements brought about by sustainability-driven international regulations. Establish robust legal frameworks in line with international standards and support effective enforcement systems. Scale-up efforts to strengthen knowledge sharing and capacity building across policymakers and regulators.

**(3) Establish a robust monitoring mechanism designed to document and disclose the impacts of mandatory due diligence laws** in different countries, supply chains and throughout different tiers of the supply chain. This is key to building a strong evidence base for the design and delivery of accompanying support measures. Translate evidence into practical recommendations for legislators, policy makers, development partners and businesses in producer and consumer countries.

**(4) Support businesses in transforming their strategies** to ensure that sustainability is a key driver when shaping business models, products and services, across different tiers of supply chains. Step up efforts to strengthen SME's ESG preparedness, including improved access to finance, knowledge and technology, as well as support in low-carbon transition, value addition, quality infrastructure, and skills development. A differentiated approach in consumer and producer countries is needed.

Harnessing the potential of these opportunities requires moving away from a technocratic perspective, recognising that politics and power is central to achieving sustainable supply chains.





# ABOUT THIS WHITE PAPER

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UNIDO's white paper seeks to inform debates on the systemic change needed for sustainability to become the norm in supply chains. It explores the challenges and opportunities for sustainable and resilient supply chains, against the backdrop of a highly volatile geopolitical and macro-economic context and a fast evolving regulatory landscape. The White Paper adopts a triple lens:

1. governance architecture for sustainable supply chains,
2. public regulation and enforcement required for supply chains to become more sustainable, and
3. business practices that can enhance sustainability within the supply chain.

The white paper seeks to shed light on current thinking and the collective action required to harness the potential of supply chains for sustainable development. Multi-stakeholder dialogue on sustainable supply chains opens a space for actors to discuss shared responsibilities and equitable options that can accelerate action to address systemic challenges and enact meaningful change.

The paper builds on UNIDO's technical knowledge, a literature review, and the insights provided by an [Expert Group Meeting](#) facilitated by UNIDO from 8-9 June 2023 in Vienna.

# 1

## INTRODUCTION

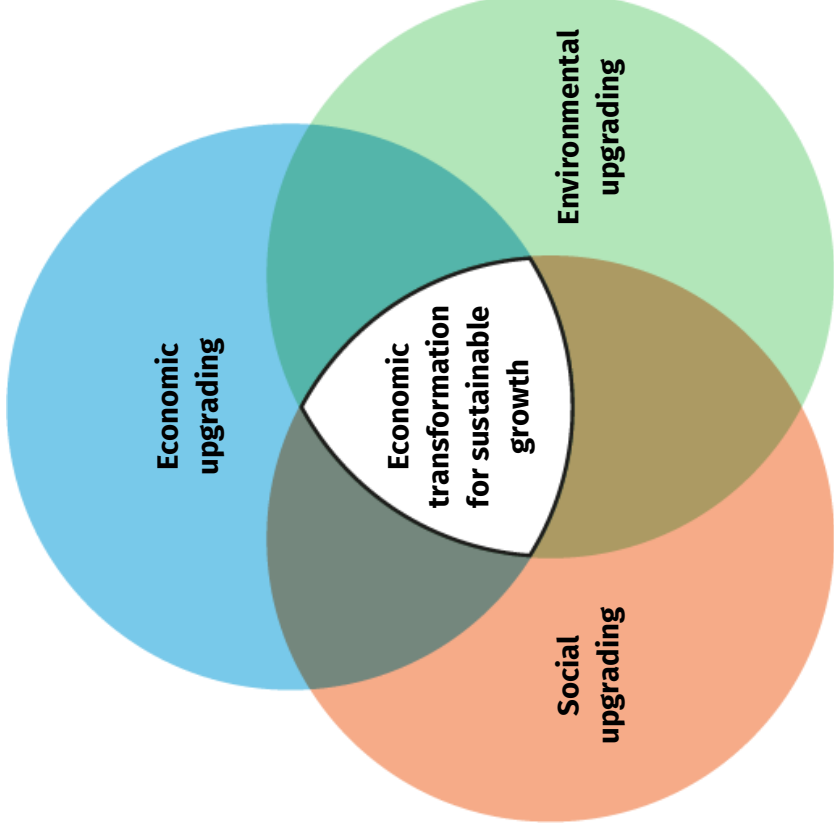
Sustainable supply chains are crucial for people, planet and prosperity

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**Supply chains are essential to the production and delivery of goods and services. They are key to economic life, international production, trade and investments.** 70 percent of trade involves global value chains.<sup>1</sup> The expansion of international trade, powered by the rise of global supply chains in the 1990s, was driven by a labour intensive, trade-led growth model, that prioritised optimisation and cost reduction. Supply chain's processes became increasingly globalised and dispersed, creating a complex network of companies, contractors, and suppliers operating across different productive sectors, within and across borders. As companies sought to maximise efficiencies, raw materials, parts, components, and services, crisscrossed the globe (sometimes multiple times).<sup>2</sup>

**Domestic, regional and global supply chains are associated with economic growth and poverty reduction.**<sup>3</sup> Value chain development, integration in global supply chains, and upgrading has contributed, under certain conditions,<sup>4</sup> to sharp productivity gains, employment creation, and income premiums as well as social protection, skills development, knowledge and technology transfer, compliance with higher standards, and women's economic empowerment.<sup>5,6,7,8</sup> Where employers comply with labour regulations and respect the fundamental principles and rights at work, supply chains can enhance standards of living and decent work<sup>9</sup>. When firms' investment, operational and procurement decisions effectively integrate environmental sustainability concerns, supply chains can also advance the global fight against climate change, reduce Greenhouse Gas (GHG) emissions, support decarbonization in their own production and supply chains,<sup>10</sup> and encourage sustainable consumption.

The global value chain approach<sup>11</sup> highlights the ways in which lead firms coordinate a network of suppliers in an international system of production. It also looks at the implications for value distribution among firms in the chain, as well as how supplier firms can capture value and change their position in the chain to achieve economic, social and environmental upgrading<sup>12</sup> (refer to Figure 1). To achieve structural change and eliminate poverty, economies need to become increasingly diversified and productive, shifting from low to higher, value-added manufacturing.<sup>13</sup>



● **Economic upgrading:** Economic and production system that allows firms/countries to move toward higher value-added activities and increased value capture. Includes:

- Skills development.
- Critical infrastructure (e.g. digital, energy).
- Technology and knowledge transfer.

● **Social upgrading:** Economic and production system that allows decent work and ensures compliance with International Labour standards. Includes:

- Measurable working conditions (e.g. wage levels, working hours, employment type).
- Bargaining processes (e.g. freedom of association).

● **Environmental upgrading:** Economic and production system that avoids or reduces environmental damage, in compliance with international environmental standards. Includes:

- Process (e.g. eco-efficiency).
- Products (e.g. develop new climate-friendly products or services).
- Organisation (e.g. companies meet environmental standards).

Figure 1: Economic, social and environmental upgrading.

**However, unsustainable practices can also exacerbate inequalities within and across countries, and within and across supply chains.**<sup>14</sup> Decent work deficits and human rights violations, including child labour, forced labour and human trafficking in global supply chains have been widely documented<sup>15,16</sup> and prevail in domestic, regional and global supply chains. Pricing and purchasing practices exert a downward pressure on wages which often do not allow for sustaining the basic costs of living of workers and their families.<sup>17</sup> In the Arab States, North Africa and South Asia, gender gaps in labour market indicators are prevalent; in Latin America and the Caribbean, and in sub-Saharan Africa, elevated rates of informality inhibit access to social protection and fundamental rights at work.<sup>18</sup> Even supply chains of zero-carbon technologies can cause harm, with some operators facing allegations of corruption, land and human rights infringements, violence, and deaths from dangerous work conditions, and damage to local ecosystems.<sup>19</sup>

**Power is unequally distributed within global supply chains.** The United Nations Conference on Trade and Development (UNCTAD) highlights the creation of ‘a new form of global rentier capitalism to the detriment of balanced and inclusive growth for the many’, where ‘the winner takes most’.<sup>20</sup> Industrializing countries upgrading to higher value-added sectors have difficulties in retaining value added, as low prices and competition among suppliers squeezes value out of actors engaged in manufacturing and primary production.<sup>21</sup> The risks and costs of complying with sustainability standards have increasingly shifted to producers. This creates entry barriers for SMEs,<sup>22,23</sup> while sustainability initiatives’ value added is appropriated by downstream actors.<sup>24</sup> Furthermore, recent research has found that, often, producers do not obtain a sufficient living income from the prevailing price-fixing mechanism of international commodities and food markets. Producers’ compliance with sustainability standards largely depends on requirements of international buyers, and often relies on external technical and income support, making it an unsustainable practice.<sup>25</sup>

**The global economy remains trapped (with unequal historical and current responsibilities) in unsustainable energy use, land use, lifestyles and patterns of production and consumption.** Global supply chains are major drivers of global GHG emissions. Climate Action 100+ has identified 157 very large multinational enterprises (MNEs) whose supply chains jointly make up 60 per cent of the world’s carbon industrial emissions [1]. Climate Action 100+ suggests that, while 10 per cent of global emissions comes from MNEs’ direct activities, their supply chains (or Scope 3 emissions) [2] account for another 50 per cent.

**Multiple cascading crises have hit the global economy over the past years, creating a state of permacrisis.** Climate change, the Covid-19 pandemic, recessionary pressures, increased competition for energy and raw materials, fossil fuel dependency, and armed conflicts in key commodity producing regions have intertwined. The vulnerabilities and flaws of the traditional supply chain have been exposed by overlapping shock waves (including hyper-inflation, soaring energy, transport and food prices, labour shortages, supply uncertainty and logistical

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[1] The energy sector accounts for 37 per cent of global emissions, followed by industrials (15 per cent), transport (7 per cent) and consumer goods and services (2 per cent).<sup>26</sup>

[2] Scope 3 emissions are those which are not produced by the company itself and are not the result of activities from assets owned or controlled by them, but by those that it's indirectly responsible for up and down its value chain.



bottlenecks).<sup>27,28</sup> While supply chains and food systems have been disrupted in unprecedented ways, employment prospects and job quality have been threatened, pushing millions of people into extreme poverty. This particularly affects those working in the informal economy, especially women and youth.<sup>29</sup>

**Mid-way into the 2030 Agenda on Sustainable Development, the world is off-track in delivering on the SDGs.**



# 2 Governance architecture for sustainable supply chains

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**Over the past two decades, governments and regulators, businesses and civil society organisations, have taken significant steps to tackle environmental and human rights deficits and abuses in supply chains, creating a series of mandatory and voluntary instruments.** The result is a patchwork of legally binding multilateral agreements and international standards, diverse national and regional laws and regulations, international voluntary principles, norms, and implementation guidelines, as well as private codes of conduct, private voluntary sustainability standards and multi-stakeholder initiatives.

**Despite efforts to develop a solid normative foundation and an international baseline of sustainability standards, their inconsistent uptake remains a challenge.** International standards are legally binding only in ratifying States. However, ratification rates vary greatly from one treaty and one country to the other. Ratifying States are legally committed to transposing treaty obligations into enabling domestic legislation. Domestic legislation, in turn, creates legal obligations for companies that operate within their jurisdictions. The extent to which domestic legal frameworks align with international standards depends on the maturity of States' governance and regulatory framework. Furthermore, non-legally binding instruments may become mandatory through transposition in domestic legislation or recognition in international legal instruments. The patchwork shifts towards convergence through private initiatives using international standards as benchmarks and through concerted efforts of international inter-governmental organisations to increase policy coherence and international regulation cooperation.

Figure 2 below visualises the constellation of multiple legally binding and non-binding instruments, currently used to promote sustainable supply chains, due diligence and RBC. It is important to note that the governance architecture for sustainable supply chains is dynamic and evolving, adding to its complexity.



1. International Covenant on Civil and Political Rights, and ILO's 11 core Conventions on fundamental rights. UNEP's multiple environmental multilateral agreements at the global and regional levels, and UN Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Paris Agreement; World Trade Organisation rules-based trade, including sanitary and phytosanitary standards and other barriers to trade; preferential trade agreements; international cooperation agreements; investment agreements.
2. ILO fundamental principles, ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration), UN Guiding Principles on Business and Human Rights (UNGPs), OECD Guidelines for Multinational Enterprises on Responsible Business Conduct, as well as general and sector specific OECD due diligence guidance for Responsible Business Conduct.
3. National frameworks are unequally aligned with international legal and normative framework, undermining the level playing field. Recent wave of new mandatory due diligence legislation in some countries.
4. Plethora of VSS, corporate sustainable sourcing codes, and MSIs (dynamic). Largely aligned to international legal and normative framework. Reflect companies' commitment to ESG.

Figure 2: Governance architecture for sustainable supply chains, including legally binding and non-binding instruments.

## Legally binding multilateral instruments and standards

**The multilateral legal framework, adopted by consensus, defines international standards and creates legally binding commitments** for ratifying States on human rights, labour conditions, environment protection and the fight against climate change. **It rests on three main pillars:**

- The International Covenant on Civil and Political Rights, and the International Labour Organization (ILO)'s 11 Fundamental Conventions on fundamental rights, including: freedom of association, right to organise and collective bargaining, forced labour, child labour, equal remuneration, discrimination, and occupational safety and health.<sup>30</sup>
- The United Nations Environment Programme (UNEP)'s multiple environmental multilateral agreements at the global [3] and regional [4] levels.
- The UN Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Paris Agreement.<sup>31</sup>

**The World Trade Organisation (WTO)'s rules-based trade is also part of the international legal framework shaping supply chains.** The WTO's focus is on ensuring that trade liberalisation does not deteriorate environmental standards nor hinder environmental protection, while also preventing protectionism on environmental conservation grounds. Bilateral and regional Preferential Trade Agreements (PTAs), such as those concluded by the European Union (EU) with developing countries, increasingly condition market access towards compliance with non-trade requirements such as human rights, labour and environmental standards. PTAs between developing countries generally focus on reducing tariffs.<sup>32</sup>

However, WTO trade rules are increasingly challenged by geo-political conflicts and WTO's dispute settlement system is currently sub-optimal.<sup>33</sup> Nations and regions are increasingly adopting protectionist measures on the grounds of national economic, military and energy security interests, and are reshaping supply chains. For example, new policies to protect domestic manufacturers' global competitiveness and secure critical supply chains in the United States of America;<sup>34</sup> EU legislation to strengthen domestic supply in critical industries such as semiconductors<sup>35</sup> and pharma,<sup>36</sup> and to secure access to critical materials.<sup>37</sup> In addition, several African countries have banned exports on raw materials.<sup>38</sup>

**The question of reforming the WTO remains open,** notably with regards to adapting multilateral trade rules to better reflect climate change, the imperative of greening economic production and international trade.<sup>39</sup> Sticky issues include the protection of infant green industries in industrializing countries through selective export subsidies, local content and tariffs for related imports.<sup>40</sup>

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[3] E.g. Convention on Biological Diversity (CBD), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention of Migratory Species of Wild Animals, Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Vienna Convention for the Protection of the Ozone Layer.

[4] Including the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa and the Framework Convention on the Protection and Sustainable Development of the Carpathians, and also covering the regional seas.



As new national standards (e.g. on circular products and services) are created, greater international cooperation will be needed on regulations (e.g. on global waste trade).<sup>41,42</sup> The WTO's Investment Facilitation for Development (IFD) Agreement, which is near finalisation, is expected to have provisions on environmental, social and human rights, within a RBC framework.<sup>43</sup>

## Non-legally binding global norms, voluntary international principles and guidelines

**The multilateral normative framework** reflects governments' expectations on RBC and due diligence, in alignment with the international legal framework. Although they are of a voluntary nature, adhering governments commit to legally enforcing the underlying principles and guidelines, and may transpose non-binding principles into domestic legislation. The multilateral normative framework is framed by three main instruments.

- **The UN Guiding Principles on Businesses and Human Rights (UNGPs).** The UNGPs clarify the roles and responsibilities of States and companies across the entire value chain and provide authoritative guidance for their implementation. The UNGPs introduce the idea of "due diligence" and rest on three pillars: (1) A State's duty to protect against harm when it occurs, by enforcing laws and guaranteeing access to remedy; (2) Companies' duty to ensure due diligence to identify, prevent and address harm; (3) Shared responsibility by States and companies to provide access to effective remedy.
- **The Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration).** The MNE Declaration is the only global instrument that provides specific guidance for governments, enterprises (multinational and national), employers' organisations and workers' organisations on how to apply the ILO Fundamental Principles and Rights at Work and other relevant ILO Conventions and Recommendations in the corporate world. The objectives of the MNE Declaration are to encourage the positive contribution of business to socio-economic development and decent work and to mitigate and resolve potential negative impacts of business operations. The MNE Declaration sets out principles in relation to general policies, as well as in the fields of employment, training, conditions of work and life, and industrial relations. It also addresses both host and home governments' role in creating an enabling environment for responsible business, in consultation with national employers' and workers' organisations. Additionally, it encourages dialogue between home and host governments on issues of mutual concern. Finally, the MNE Declaration also provides follow up tools to support both governments and enterprises.
- **The OECD Guidelines for Multinational Enterprises on Responsible Business Conduct.** These are the most recent and comprehensive set of government-backed recommendations on RBC. They are the only multilaterally agreed instrument on corporate responsibility and risk-

based due diligence<sup>44</sup> [5], and cover all key areas of business responsibility, including human rights, labour rights, environment, bribery, consumer interests, as well as information disclosure, science and technology, competition and taxation. Although they are not legally binding, adhering governments make a binding commitment to promote their uptake by enterprises through a unique mechanism called the National Contact Points for Responsible Business Conduct (NCPs for RBC) that have the twofold mandate of promoting the OECD MNE Guidelines and related due diligence guidance, and to handle cases (referred to as “specific instances”) as a non-judicial grievance mechanism. The latest update in 2023 aligns the OECD MNE Guidelines with internationally agreed goals on climate change and biodiversity, as well as latest developments in technology.

## National laws and regulations

**At the national level, the legal framework is defined by national laws and regulations, which differ from country to country.** States have the duty to implement ratified international legal agreements and to enact and enforce laws in conformity with international commitments and standards. States also have the duty to protect against harms, to enforce legislation, and to provide effective access to remedy.

**However, national legal frameworks are unequally aligned to international standards [6].** Governments are translating the UNGPs into action, but at a slow pace: only 26 States have finalised their National Action Plans, while 21 are in the process of doing so.<sup>45</sup> Indeed, governments’ political commitment and technical capacity to fulfill their international legal obligations varies widely.

**There are different types of gaps across countries’ and regions’ laws and regulations,** including legislative gaps, policy incoherence, and unequal enforcement and access to grievance and remedy. Many of the supply chains with decent work and environmental protection deficits are those sourcing from (and within) countries with systemic challenges to ethical labour market governance, environmental protection, and enforcement. Most of these countries also experience high levels of informality and working poverty.<sup>46</sup>

Companies that operate in a particular jurisdiction need to comply with existing laws and regulations. The disparity in national legal frameworks and enforcement systems undermines the level playing field.<sup>47</sup> **Business voices are becoming increasingly louder in demanding greater legal certainty and legal coherency that allows for better integrated risk management within supply chains.**<sup>48</sup>

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[5] “Risk-based due diligence” means that the measures an enterprise takes to conduct due diligence should be commensurate to the severity and likelihood of the adverse impact. Due diligence should also be adapted to the nature of the adverse impact on RBC issues, such as human rights, the environment and corruption. This involves tailoring approaches for specific risks and taking into account how these risks affect different groups. See [OECD Due Diligence Guidance for RBC](#) and detailed [sectoral due diligence guidance](#) for the minerals, garments and footwear, agriculture and financial sector.

[6] National and regional sustainability standards are increasingly set up to make international standards more applicable and adaptable to local markets. However, many of these national and regional standards lack recognition in international markets.

## Non-legally binding, multi-stakeholder initiatives and voluntary sustainability standards

**Numerous private, MSIs [7], industry-led initiatives [8] and VSS have emerged since the 1990s [9]. They have evolved as key transnational governance instruments<sup>49</sup> for supply chain due diligence, traceability, and certification and for achieving the SDGs [10].**

VSS set social and/or economic requirements for production and processing that can be considered as sustainable. When verified, VSS issue certificates or labels that serve as proof of compliance against their own standards. VSS are increasingly used in market access regulations (e.g. EU regulation on deforestation-free products, where some VSS certifications or third party verified schemes have the potential to provide proof of compliance with the Regulation); Free Trade Agreements (e.g. VSS certified products are assigned lower tariffs); and export promotion (e.g. Gabon's certified forests).<sup>50</sup> VSS can also be used by public regulators to promote sustainable public procurement (e.g. tendering criteria include indirect references to VSS, and bidders can include VSS as proof of compliance). Public regulators can also rely on VSS to inform due diligence regulations' compliance criteria (e.g. companies incorporate VSS in due diligence plans and management systems to comply with legislation).<sup>51</sup>

**MSIs and VSS are largely aligned to the multilateral legal and normative framework.** Several initiatives, including the World Benchmarking Alliance, International Social and Environmental Accreditation and Labelling (ISEAL) Alliance, the Consumer Goods Forum's Sustainable Supply Chain Initiative, and the Institute for Multi-Stakeholders Initiative Integrity have emerged to assess the robustness and integrity of MSIs and VSS. Moreover, the OECD has developed a methodology and assessment tool to evaluate industry and multi-stakeholder initiatives' alignment with OECD recommendations on due diligence. The ILO Helpdesk for Business on International Labour Standards seeks to promote coherence between industry, MSIs and other initiatives, as they concern labour-related human rights, to promote coherence and credibility of local initiatives which build on and seek to align with existing international efforts. International Trade Centre (ITC)'s Standards Map is an online tool offering information on over 300 VSS, codes of conduct and other related initiatives. Finally, the UN Global Compact (UNGC) is the largest voluntary corporate sustainability initiative, where companies commit to aligning their strategies and operations with ten universal principles related to human rights, labour, environment, and anti-corruption, and to take actions that advance the achievement of the SDGs.<sup>52</sup>

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[7] See [MSI database](#)

[8] E.g. amfori, the Business Social Compliance Initiative, the Responsible Business Alliance.

[9] E.g. multi-stakeholder governance, due diligence and industry oversight mechanisms, audits (i.e., certification, verification, surprise and shadow), labelling schemes, guides, capacity building and training. Some private initiatives are industry-focused, others are commodity-related.

[10] VSS generally run in parallel to the International Accreditation Forum's Multilateral Recognition Arrangement (MLA) and the International Laboratory Accreditation Cooperation's Mutual Recognition Arrangement (MRA). VSS have the potential to contribute to the achievement of the SDGs. See Box 1 on page 15 of the [UNCTAD Handbook on VSS in International Trade](#).

**VSS are associated with positive effects on trade**, including enhanced competitiveness, increased demand (through enhanced quality and safety and product differentiation), reduced transaction costs (through harmonisation, mutual recognition, and reduced information asymmetries), and reduced institutional and development gaps between trade partners. There is evidence that if regulators supervise the quality of VSS procedural requirements, voluntary initiatives are more likely to achieve intended goals.<sup>53</sup>

**However, VSS use has also been associated with trade barriers**, due to e.g. cost of compliance, technical barriers and audit fatigue.<sup>54</sup> Recent research also suggests that the main reason why producers fail to use and comply with VSS is that their income base is insufficient, and they can't afford compliance costs, unless they receive sustained external income and technical support. Unless systemic solutions that rebalance power in global supply chains are found, the adoption of VSS by lower tiers in supply chains may not be sustainable.<sup>55, 56</sup>

**There has been a recent emergence of national VSS, both public and private**, for example ECO MARK Africa and Indonesian Sustainable Palm Oil (ISPO) standard. The motivation for the development of national standards might stem from the fact that local stakeholders may prefer national standards that are better adapted to local environmental, economic and social conditions. In addition, national standards can provide a ladder, or intermediary step, for local producers who are unable (or unwilling) to adopt VSS due to language barriers, expensive fees or strict rules. As a national standard follows the criteria and practices of VSS as a model, its criteria are often similar to international standards. However, the degree of similarity varies depending on localization and aspiration for global market access.<sup>57</sup>

**Despite the positive contribution of MSIs and VSS to the governance of supply chains, there is mixed evidence on their impact.** Evidence of the environmental, social and economic impacts of VSS is often incomplete and case-specific. It is also important to note that neither MSIs nor VSS were designed to replace States' duty to protect and therefore cannot be blamed for States' failures.

**VSS integrity has also been questioned.** While VSS rely on audits to ensure compliance with their standards, research suggests that audits can be biased, particularly when auditors overlook process standards that are difficult to measure (e.g. freedom of association, non-discrimination). Other identified problems include the quality of information and data, as well as conflicts of interest between the accredited certification body and the certificate holder, who pays for the audit.<sup>58</sup> Companies are increasingly moving to their own corporate certification schemes,<sup>59</sup> further undermining the value of VSS as recognised instruments for supply chain due diligence, traceability and certification.

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# 3 Challenges and opportunities for sustainable supply chains

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**There are three main opportunities with the potential to maximise sustainability in supply chains.**

- The first one lies at the level of the **global governance** architecture. A smart policy mix combining mandatory and voluntary initiatives is emerging. This is driven by a broad recognition of existing international standards and principles as a global baseline, and their progressive and consistent integration into voluntary and mandatory policy measures at national and company levels.
- The second one lies at the **national level**. Policy makers around the world are rediscovering that public policies can effectively drive businesses' behaviour, aligning countries' economic transformation with sustainable development goals.
- The third opportunity lies **within supply chains** themselves. Supply chain strategies are being revamped to demonstrate a strong ESG value proposition and to move away from traditional linear business models.

## A pivotal moment in supply chain governance

**There is a growing realisation that voluntary initiatives cannot replace public policies,**<sup>60</sup> or companies' individual responsibility to address RBC risks. Alone, they will not deliver systemic change in supply chains.<sup>61</sup>

**Recent years have seen a wave of new mandatory due diligence legislation taking shape,** including sector or issue specific legislative instruments, as well as horizontal legislation that cuts across sectors and RBC risk.<sup>62</sup> A number of national governments have introduced mandatory due diligence laws (e.g. in Australia, Finland, France, Germany, the Netherlands, the United Kingdom, the United States of America), or proposed draft legislation that require companies to comply with due diligence obligations (e.g. to identify, prevent, end or mitigate any adverse impact of their activities on human rights or the environment). Some countries have introduced mandatory ESG reporting frameworks to enhance businesses' transparency and accountability (e.g. India).

At the EU level, Member States and the European Parliament are also taking bold steps to impose mandatory due diligence in global supply chains [11]. The move is expected to level the playing field for companies already implementing the international due diligence standards, particularly as the EU is the world's largest trading block.<sup>63</sup> However, the extent to which this evolution will become a real game-changer<sup>64</sup> has yet to be seen.

**Mandatory corporate due diligence legislation is expected to improve protection of human rights, including labour rights, promote a healthier environment, ensure remediation and access to remedy.**<sup>65</sup> Other benefits include more transparency guiding consumer choices and improved trust in businesses. Companies are also expected to benefit from greater legal certainty, particularly in the EU, where EU directives need to be transposed into national laws and EU regulations have direct application in EU Member States. Additionally, mandatory due diligence legislation is expected to raise awareness on businesses' negative impacts and risk management, leading to greater customer trust and employees' commitment, as well as increasing businesses' ability to attract sustainability-oriented investors and public procurers.

**Industrializing countries and businesses in producer countries are also expected to benefit from mandatory due diligence legislation.** Businesses in scope of these laws are expected to encourage improved private sector behaviour across their supply chains, greater alignment with international standards, ultimately leading to improved living conditions for workers and in turn sustainable investment.<sup>66</sup>

**However, divergent mandatory due diligence laws could create further fragmentation of the governance architecture.**<sup>67</sup> There are gaps in scope e.g. type of enterprises and sectors covered, obligations, civil liability and grievance mechanisms. Furthermore, there are differences in the extent to which a company addresses suppliers beyond tier one, or the quality of private compliance measures that are encouraged.<sup>68</sup> There are also growing concerns that the proliferation of due diligence laws may result in different and multiple reporting requirements, which could overburden businesses<sup>69</sup> and disrupt supply chains.

**Mandatory due diligence legislations raise questions about possible unintended consequences.** There is no clarity yet on how different supply chain actors in consumer, producer and supplier countries will be impacted, or on how different types of businesses will operationalise new requirements. The implementation of due diligence laws is not yet accompanied by a robust monitoring mechanism (based on quantitative and qualitative data), which could help understand, document, disclose and mitigate any possible unintended consequences.

**In particular, mandatory due diligence legislation could have far-reaching impacts on small-scale suppliers, small-holder farmers, workers, and communities in industrializing countries,** mainly<sup>70,71</sup> characterised by commodity dependence, limited market diversity, regulatory gaps and constrained resources.<sup>72</sup> Not all lead companies may be willing to invest in fulfilling compliance requirements throughout the supply chain, particularly beyond tier one suppliers.<sup>73</sup>

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[11] e.g. EU Taxonomy Regulation; Conflict Minerals Regulation; Corporate Sustainability Due Diligence Directive (CSDDD); Critical Raw Materials Act, Deforestation Regulation; Carbon Border Adjustment Mechanism.

To avoid such costs, lead companies may reconsider their supplier decisions (e.g. interact with fewer but larger suppliers).<sup>74</sup> Furthermore, insufficient traceability beyond tier one suppliers may result in lead companies disengaging from high-risk areas to avoid the cost of mitigation and remediation and reduce their liability and reputational damage. This could have a perverse shift in the market, with domestic or regional supply chains absorbing suppliers who do not comply with international sustainability standards.<sup>75</sup> The risk will be particularly high among lower tier-suppliers operating informally in countries where local regulatory enforcement and inspection is weak.

**There is also a risk that larger suppliers may improve their standards and expand their market share at the expense of smaller supplier organisations.** This may amplify trends towards market concentration,<sup>76</sup> exacerbating disparities in value distribution along the supply chain, and potentially contributing to a surge in the re-informalisation of certain sectors, which are unable to operate in stringent regulatory environments [12]. Moreover, mandatory due diligence could also provoke a backlash within governments where industries' vested interests are closely tied to government representatives.<sup>77</sup>

**Finally, the emergence of different national and regional mandatory due diligence legislation across countries is creating widespread unease in countries where the impacts of these legislations will be mostly felt.** Public consultation may not have been sufficiently inclusive, the potential impacts are not yet well understood and the operational and cost implications for producers and lower-tier suppliers are not clear.

### **The crucial role of the State for sustainable supply chains: strong public regulation and enforcement**

**There is a resurgence of interest in the role that States can play, beyond regulating markets and addressing market failures, in shaping markets to address societal challenges, with mission-oriented policies.**<sup>78</sup> The reasons why companies work towards RBC are diverse, but many RBC drivers can be influenced or leveraged by governments.<sup>79,80</sup> States can act as a facilitator, regulator, producer and buyer<sup>81</sup> to influence how businesses behave. By making use of a smart mix of policy instruments [13], such as incentives and regulations, States can create the conditions for “crowding-in” private investment and innovation that would otherwise not happen. They can set expectations on where future growth opportunities may be, anticipating the interests of foreign MNEs and domestic SMEs.<sup>82, 83, 84, 85, 86</sup>

The OECD has recently adopted new Recommendations on the Role of Government in Promoting RBC<sup>87</sup>, that lay out a set of 21 principles and policy recommendations to assist governments, other public authorities, and relevant stakeholders in their efforts to design and implement policies that enable and promote responsible business conduct. A total of 51 countries have adhered to the Recommendation.

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[12] See summary note from UNIDO Expert Group Meeting.

[13] Policy instruments that can exert pressure on businesses include: patrolling (monitoring compliance), prescription (laws and regulations), penalties (fines and taxes), payments (grants and subsidies) and persuasion (corporate commitments).

**States and the international community can play an active role in shaping policies that challenge the status quo within supply chains,** to effectively limit sourcing and commodity input risk and address pervasive asymmetries within supply chains, e.g. producers' inadequate living income. Approaches could include, for instance, the restoration of national supply management (either State or producer organisation driven), enhanced international coordination and supply management (e.g. new international agreements using VSS to encourage and reward far more sustainable production methods), limiting the use of restrictive business and trade practices, strengthening and changing the focus of competition policy, and broadening the scope of due diligence legislation to ban precarious production conditions.<sup>88</sup>

**States can play a lead role in integrating smallholders into supply chains.** Relevant policy instruments include the development of input markets, linking smallholders' access to fiscal incentives, credit and concessional loans, and supporting government-facilitated land tenure clarification, all recognised as barriers for smallholders' certification and integration in international supply chains.<sup>89</sup> Public insurance mechanisms (including investments in weather and yield data), risk financing arrangements, premium subsidies, financial literacy and education are also key.<sup>90</sup> Governments can also take an active role to regulate who bears the additional costs and risks associated with compliance and create incentives for lead firms to strengthen smallholders' capacities required for certification.<sup>91</sup>

**Business environment reform can address informality.** Relevant policy measures include legal and regulatory reform (to reduce the complexity and costs of starting and operating a formal business), fiscal reform (to simplify the tax system)<sup>92</sup>, labour policy reform (to increase employer compliance, including through labour inspection), financial sector reform (to improve access to formal banking services).<sup>93</sup> Other complementary policy measures important to address informality include digitalization, human capital development, and extending social protection to the informal sector. Moreover, business environment reforms can be an effective lever to reduce RBC risks, resulting from e.g. limited protection of human and labour rights, or wages below a living income.

**In mineral-rich countries, local content policies are increasingly used to reform extractive industries to end the resource curse and enclave extractivism.** Governments can catalyse FDI into inclusive resource-based development by ensuring value addition through increased local procurement, diversifying and aiming to achieve more mineral transformation domestically and attracting FDI to critical infrastructure (e.g. energy, transport, and digital), improving mining revenue distribution. Furthermore, robust environmental regulation and enforcement practices on mineral processing are key to avoiding negative externalities on the environment and public health. Governments can also channel private investment into skills development (e.g. supporting public-private partnerships) to create a larger pool of qualified local workers.<sup>94, 95, 96</sup>

**Governments' action can determine MNEs impact on climate change both at home and in third-countries.** Recent research from the World Bank shows that MNEs are particularly sensitive to government pressure when it comes to investing in sustainability measures.<sup>97</sup> By using a combination of policies, governments can support MNE's role in embedding low-carbon technologies in the markets where they operate, pushing their supply chains to adopt sustainability by providing them with access to more advanced, low-carbon technology. States can also proactively take measures that leverage FDI for climate mitigation and adaptation. States can monitor firm level emissions and request transparency in data collection, disclosure and information. Laws and regulations can reduce the cost-burden of complying with standards and facilitate relationships between lead firms and domestic firms to encourage green technology transfer. States can impose environmental taxes and fines to discourage burning of fossil fuels and they can provide tax incentives to encourage green innovation and attract sustainable investment.<sup>98</sup>

**Governments can also create enabling conditions for SMEs to improve their ESG performance.**

The quality of the public procurement system of an economy can have far-reaching effects on the private sector.<sup>99, 100</sup> For instance, States can integrate ESG requirements in public procurement (e.g. procuring from vendors that respect labour standards, gender equality and women empowerment, or excluding vendors who do not comply with certain VSS) to stimulate domestic production and supply of low-carbon, ethical goods and services, and incentivise sustainable consumption. They can also use preferential public procurement (e.g. giving preference to SMEs, women owned enterprises, previously disadvantaged populations, sustainable goods and services, and a range of other more specific social and environmental criteria),<sup>101</sup> thereby actively supporting the structural transformation of their economy in line with the SDGs. States can also accelerate the decarbonization of the economy with subsidies for energy audits to identify bottlenecks<sup>102</sup>; improved access to concessional financing schemes; capacity building for adoption of green technologies<sup>103</sup>; access to green skills training (including upskilling and reskilling); green SMEs incubators; as well as showcasing successful SMEs. Governments can also play a key role by facilitating group purchasing agreements and knowledge sharing for SME clusters, making renewable energy solutions more feasible for SMEs.<sup>104, 105</sup>

**Governments play a key role in creating an enabling environment for the circular economy,** with policies that address energy efficiency, waste reduction and material reuse. They can also promote digital technologies, which gradually separate economic growth from resource consumption. While such policies are distinct from due diligence legislation to date, they concern the lifecycle of a product, and hence may impact companies' due diligence strategies.<sup>106</sup>

**Finally, integrated agrofood parks, eco-industrial parks, and zones for inclusive and sustainable development,<sup>107</sup> as well as trade and investment promotion agencies, export credit agencies, and development financial institutions can be strategic drivers for RBC.** Through these vehicles, States can play a key role in setting coherent policy frameworks with regard to RBC. They can do this by providing information, advice and training; by enabling access to voluntary standards and codes of conduct; by facilitating the alignment



consolidation and benchmarking of existing standards to reduce costs for companies and producers and by supporting the creation of new voluntary standards in relatively unregulated sectors (e.g. plastics). Development partners and development banks can also play a positive role by continuing to include ESG criteria in screening their private partners or creditors. They can also scale-up technical and financial assistance to support suppliers in industrializing countries, with a focus on building their capacity to comply with sustainability-driven international regulations or VSS.<sup>108, 109</sup>

**However, mission-oriented policies are not a silver bullet.** Policy making is a complex process of negotiation, bargaining and contestation.<sup>110</sup> Indeed, government action can be captured by vested interests within supply chains, which may obstruct, challenge or lobby against the changes required by transformative policies.<sup>111</sup> Translating mission-oriented policies into practice requires that States have skills to understand the interests and incentives that drive different supply chain actors, and how their interests overlap or collide with sustainable development goals.<sup>112, 113</sup> Governments need to have sufficient political clout to navigate competing interests, and to build coalitions that advance progressive policies underpinning economic transformation and sustainable growth. They also require institutional capacity to ensure policy coherence across a wide range of policy areas (e.g. macroeconomic policy, export and import regimes, anti-corruption policies, employment and skills development, energy and digital policies, public investment and public procurement). Finally, public actors require robust public institutions with internationally recognised quality infrastructure [14] to ensure verification, testing, and accreditation in support of compliance.

## A paradigm shift in supply chain models, with sustainability at the centre

### Adoption of ESG frameworks

**ESG criteria are increasingly recognised as a driver of competitive advantage for private companies.** On the one hand, demand for ethical and sustainable products and services is on the rise and stakeholders' expectations on ESG performance are higher.<sup>114</sup> As a result, demonstrating robust ESG practices is key to enhancing brand reputation, to securing consumer loyalty, and to expanding the customer base. On the other hand as investors, lenders and insurers increasingly acknowledge that sustainability risks generate financial risks, companies with strong ESG credentials have improved access to capital and potentially lower borrowing costs.<sup>115</sup>

**Research indicates a positive correlation between strong ESG performance and financial outperformance,** showing that companies with a comprehensive ESG strategy tend to deliver superior long-term returns to their shareholders.<sup>116, 117, 118</sup> There is also evidence that

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[14] QI can be defined as the system comprising the Organisations (public and private) together with the policies, relevant legal and regulatory framework, and practices needed to support and enhance the quality, safety, and environmental soundness of goods, services and processes. This includes standardisation, metrology, accreditation, and conformity assessment (testing, inspection, calibration, and certification).

companies with well-established ESG frameworks are better equipped to manage risks, such as regulatory changes and reputational damage, mitigating potential financial losses and ensuring long-term resilience.<sup>119</sup> This also extends to firms' actions within global supply chains. The relationship between lead firms and supplier firms plays a pivotal role in shaping business practices, sustainability efforts, and overall supply chain dynamics.

**Lead firms, typically large MNEs, hold significant market power and influence over their suppliers, which often consist of smaller companies or producers located in various regions.**

As consumers and investors increasingly emphasise sustainability, lead firms are extending their ESG requirements throughout their value chains.<sup>120</sup> This has positive effects for suppliers too. Lead firms often provide training and access to knowledge and technologies to their suppliers<sup>121</sup>, ranging from new production techniques to new green technologies.<sup>122</sup> However, there are concerns that such direct support by lead firms may not lead to a sustainable uptake of ESG considerations by producers, if they do not have access to a sufficient living income.<sup>123</sup>

## Circular economy models

**The circular economy is gaining momentum<sup>124</sup>** as more businesses transition towards circular supply chain models to mitigate the risks associated with import dependency and price volatility. As traditional linear supply chains deplete resources and increase waste production, businesses face higher costs due to resource scarcity and stringent environmental regulations, which make their operations vulnerable to supply disruptions and price fluctuations. The new paradigm encourages innovation to reduce waste, increase resource efficiency and extend product lifespan through improved design and servicing, by relocating waste from the end of the supply chain to the beginning. Circular economy has potential to slow down the use of natural resources and decrease GHG emissions.

**The benefits of adopting circular supply chain models extend beyond environmental and risk mitigation aspects.** Research also shows that businesses adopting circular economy models achieve cost savings through increased resource efficiency and reduced waste disposal expenses, further strengthening their economic competitiveness in the long run.<sup>125</sup> Additionally, circular practices can stimulate innovation and create new economic opportunities, as companies explore novel ways to design products.<sup>126</sup> The ILO estimates that by 2030, a net total of between seven and eight million new jobs could be created by the transition towards a circular economy<sup>127</sup>, provided that the informal sector and micro-, small-, and medium-sized enterprises (MSMEs) are integrated and have access to skills development and financing opportunities.<sup>128</sup>

**The transition towards circular supply chains is hindered by a range of obstacles.** First, the lack of regulation in eco-design requirements, public procurement and waste. Second, the absence of extended producer responsibility and regulated certification systems for re-manufactured products and secondary materials. Third, the lack of differentiated taxation of primary and secondary materials, and tax incentives for repairs. Fourth, high upfront investment costs, a shortage of skilled workers and limited technology access, in a context of rapid techno-

logical advancements. Finally, the challenge of breaking old habits among consumers and producers, such as the ready availability of disposable and low-cost products, further impedes progress towards circular supply chains<sup>129</sup>.

**On an international level, the circular economy introduces standards to secondary raw materials that were previously considered waste.** Improved product characteristics such as extended lifetime, recyclability and serviceability further help ensure that products can be used and sold on the global market. By helping overcome international trade barriers, the circular economy offers new possibilities by which countries can prosper.<sup>130</sup>

**However, industrializing countries may struggle to access the knowledge and new technologies underpinning circular economy,** and therefore may be less able to export their products to markets with increasingly stringent circular economy standards.<sup>131</sup> In this regard, MNE's role in decarbonizing their own production and supply chains plays a key role. Recent research by the World Bank highlights the importance of MNE's collaboration with domestic firms (via partnerships, investment and trade) and sustained investment in green technology transfers (via FDI or licencing) to accelerate the decarbonization of economies in industrializing countries, noting the importance of government incentives.<sup>132</sup> Increasing SME's access to green finance and green skills development opportunities is also crucial.

### From competitive cost to competitive risk

Against the backdrop of an increasingly volatile world, marked by global power trade wars and polycrisis, **a nationalist view on supply chains supported by protectionist policies is challenging international trade rules.** Corporate thinking is moving away from a logic of competitive cost to one of competitive risk. Firms increasingly consider re-shoring, friend-shoring and far-shoring as alternatives to the dominant off-shoring model [15], notably as massive public subsidies are injected in several national economies.<sup>133, 134</sup>

**Firms are also investing in robotics and automation to reduce labour costs.**<sup>135</sup> Automation is shifting the global division of labour based on economies of scale, limiting industrializing countries' strategic entry points into global markets and reducing their relative competitive advantage based on lower labour costs.<sup>136</sup> This highlights the importance for industrializing countries to modernise their national skills development systems in order to meet industry's needs.

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[15] According to the Ernst & Young Industrial Supply Chain Survey, 53 per cent of firms have near or re-shored their operations, while 57 per cent indicate they have established new operations in one or more additional countries to diversify risks. For lead firms in global supply chains, reshoring provides considerable advantages, including lower transport costs and shorter lag times between design, production and final sales, enabling more just-in-time production. According to the same EY survey, over 60 per cent of surveyed companies report the diversification of suppliers, while shifting suppliers' footprint closer to operations and customers.

## Data and digital technologies

**Emerging global multi-local and circular supply chains are considerably more complex than linear supply chain models.** End-to-end visibility has become a top priority for supply chain leaders.<sup>137</sup> To maximise resilience, supply chains need to identify vulnerability factors to anticipate and mitigate disruption risks throughout the supply chain. From a sustainability point of view, to comply with regulators' requirements and address consumers, civil society, employers and investors' strong demands for enhanced ESG performance, businesses need trustworthy data, comparability, credibility and transparency in sustainability reporting.<sup>138, 139, 140</sup>

**Data and digital technologies are paramount to sustainable business transformation.** Supply chains can use digital traceability technologies to gain near-real-time visibility into producers, suppliers, third-party logistics providers, manufacturing plants and customers. However, traceability adds a new element of complexity in supply chains: the need to collaborate closely with a vast ecosystem of supply chain partners. Recent research indicates that businesses are reluctant to share data outside their direct operations.<sup>141</sup> Information is kept within the company boundaries, creating data silos across different tiers of the supply chain, hence reducing traceability, visibility and trust.<sup>142</sup> Although the technology already exists, companies still lack effective traceability systems which can measure suppliers' sustainability performance beyond the first tier.<sup>143</sup> Companies also find it difficult to integrate solutions within their existing systems and therefore struggle to ensure interoperability across the supply chain.

**In order to respond to shifting market conditions, the private sector needs to make a bold move towards new business models, strategies, products and services where sustainability considerations are core to business strategy,** seeking a purposeful impact on society and shared value for stakeholders beyond financial success. This transformation requires that companies scale-up investments in innovative (sometimes unproven) technologies, often with long payback periods. It also requires that they invest in technology transfer to suppliers, including upskilling and reskilling to support their shift to sustainable supply chain business models. Companies will also need to invest in technological advancements that enable greater transparency in ESG performance, overcoming trust issues and scaling-up collaboration with external stakeholders.<sup>144, 145</sup>

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# 4

## UNIDO's proposed way forward to accelerate and scale-up collective action for sustainable supply chains

### Global level

Achieving sustainability in supply chains requires first and foremost the effective implementation of the existing governance architecture.

**States and the international community need to step up efforts to cross-reference the multilateral legal instruments in the non-binding normative global instruments;** this could be done, for example by activating National Contact Points (NCP) under the OECD Guidelines for UNGPs enforcement under emerging corresponding National Action Plans. Limited alignment of national regulation and VSS with existing international standards is seen as a major obstacle to sustainable supply chains.

**There have been recent developments to improve the interoperability of climate-related disclosure standards [16].** However, more efforts are needed to improve the interoperability and alignment of sustainability standards. To achieve this, deeper dialogue between national, multilateral, regional and private industry perspectives on the interoperability of sustainability standards is needed, as well as more guidance and tools that facilitate interoperability and alignment.

**Adapting international standards to local market realities could be a step forward.** This can be achieved, for instance, by establishing industry-driven sustainability standards and compliance schemes that are adapted to national and regional markets, but recognised in international markets. However, this would require significant progress towards mutual recognition and harmonisation of VSS, as well as overcoming vested interests of private standard owners.<sup>146</sup>

The emergence of new mandatory due diligence laws holds potential to improve the level playing field, but highlights the **need to document potential impacts on producer countries with sufficient granularity and timeliness.** Moreover, unforeseen external shocks, such as the outbreak of war in Ukraine, may require looking at due diligence measures dynamically, creating feedback loops and/or an early warning system designed to augment supply chains resilience against such external shocks.

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[16] E.g. the European Commission, the European Financial Reporting Advisory Group (EFRAG) and the International Sustainability Standards Board (ISSB) have recently stepped up efforts to jointly improve the interoperability of their respective climate-related disclosure requirements. See <https://www.ifrs.org/news-and-events/news/2023/07/european-commission-efrag-issb-confirm-high-degree-of-climate-disclosure-alignment/>

**This points to the importance of strengthening and coordinating existing multi-stakeholder dialogue spaces.** These should be specifically tasked to digest documented impacts and to translate findings into practical recommendations for mandatory due diligence legislators and policymakers (e.g. influence revision of legislation, support policy coherence, identify and address gaps between different laws).

There is also a **need to design effective communication strategies and share emerging evidence**, with tailored messaging for different segments of the supply chain, governments and regulators, as well as civil society, to emphasise benefits, and disclose and address any identified negative outcomes of mandatory due diligence legislations.

## Country level

**Countries' economic, social and environmental upgrading potential largely depends on how effectively States encourage responsible business behaviour and attract and retain sustainable investment.** The role of the State is also key to establishing effective public-private partnerships (PPP) that can support innovation and technology transfer, enhance skills development and job creation, and advance critical infrastructure development. Indeed, private funding needs to accelerate if we are to deliver on the 2030 Agenda for Sustainable Development and the Paris Agreement on climate change. UNCTAD has put a price tag on SDGs, with costs ranging from \$5.4 trillion to \$6.4 trillion annually from 2023 to 2030.

**An enabling environment for business also means strong public regulation and enforcement** on international labour and environmental standards. This vitally depends on well-designed and effectively enforced legislation, key to providing clear and strong market signals and a level playing field for competition. Although private regulatory systems remain useful micro-economic instruments for supply chains due diligence, certification and traceability, they are not designed to transform supply chain governance and to achieve systemic change. Domestic standards and regulatory and enforcement mechanisms need to be enhanced.<sup>147, 148, 149</sup>

**Inclusive and sustainable industrial development entails an economic structural transformation**, in which countries balance industrial advancement with climate-resilience, maximise the socio-economic benefits, protect the environment and reduce harms to people and the planet. As higher environmental and social standards are expected by consumers and corporate stakeholders, robust laws, regulations and enforcement mechanisms may increasingly become a prerequisite to attract FDI, access export markets, and are therefore core to countries' value proposition to investors. National Investment Promotion Agencies can play a key role by proactively promoting investments with a strong ESG proposition. It is important to continue supporting collaboration between regulators and MSIs in data-sharing, notably to inform policy making in terms of risk-profiling and benchmarking (e.g. standard-setting processes, living incomes, compliance with due diligence legislation).

Considering the specificities of the economic and industrial landscape of different countries, there is a **need for systemic, country-led, customised support to strengthen governments' capacity to design and implement a wide range of policy and regulatory instruments** that effectively influence private sector behaviour and align economic transformation with the SDGs.

Finally, there is a need to **unpack mandatory due diligence legislation and to step-up efforts to mitigate potential adverse impacts on industrializing countries' exports**. Regulators and businesses need to access timely and systematic information regarding the compliance steps involved by different sustainability-driven international regulations. Specialised working groups need to be tasked to identify compliance challenges and the support measures required among different tiers of the supply chain.

A **common information-sharing platform designed to monitor regulatory developments and track impacts on supply chains is also needed**. Mechanisms to minimise the identified adverse impacts of due diligence legislation on lower-tiers of supply chains need to be devised. Private sector associations, chambers of commerce and cooperatives can play a key role in raising businesses' awareness on how to adapt to international regulatory requirements, provided they are equipped with the right knowledge, skills and technology. In the same vein, SME development agencies can also play a key role by coordinating capacity development efforts to strengthen SME's ESG preparedness and ability to comply with international standards.

## Firm level

**There is a need for political economy and systems analysis to better understand what drives responsible business behaviour**, what are the obstacles for different tiers in supply chains to adopt RBC, who does what, who pays for what and what capacities and incentives are needed to trigger change in different tiers of the supply chain (lead-firms, buyers, suppliers, producers). This information is key to devising effective strategies and to drive private sector's, including SME's, behaviour change.

There is an opportunity for businesses to transform supply chain models, ensuring that sustainability drives business strategy across the entire supply chain. This entails **improving trust and collaboration between different supply chain segments**, scaling up investments in new technologies, and enhancing green skills, including those required for transparent ESG tracking and reporting, at all levels of the supply chain.

There is a **need for effective global coalitions, spearheaded by lead-firms**, to share the costs of complying with sustainability standards equally throughout tiers of the supply chain, with a focus on closing living income gaps for smallholders and workers along supply chains.

**Access to business support services, including green finance, technology and skills, needs to be improved for lower-tier suppliers**. Public and private business support organizations can play a key role in awareness raising, skills development and knowledge transfer with regards to international standards and norms.

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## UNIDO's call for collective action

**UNIDO calls on all relevant State and non-State actors to accelerate and facilitate coordinated collective action in identified priority areas across and within supply chains, respecting actors' legitimate roles and responsibilities.** UNIDO also calls on its sister agencies to step-up coordination efforts and to pursue joint action, to leverage the wider UN system capacities in line with the UN “delivering as one” approach.

**Against this backdrop, UNIDO identifies the following priorities to reach sustainable supply chains before 2030:**

**(1) Scale-up collective action.** Continue to further strengthen multi-stakeholder dialogue at the global, regional and national level. Inclusive dialogue is paramount to finding effective solutions. Building on existing evidence, identify and prioritize interventions with potential to facilitate systemic change.

**(2) Deliver systemic, multi-dimensional, country-driven tailored support** to countries around the world, simultaneously addressing the root causes of unsustainable supply chains, while preparing countries to meet new requirements brought about by sustainability-driven international regulations. Establish robust legal frameworks in line with international standards and support effective enforcement systems. Scale-up efforts to strengthen knowledge sharing and capacity building across policymakers and regulators.

**(3) Establish a robust monitoring mechanism designed to document and disclose the impacts of mandatory due diligence laws** in different countries, supply chains and throughout different tiers of the supply chain. This is key to building a strong evidence base for the design and delivery of accompanying support measures. Translate evidence into practical recommendations for legislators, policy makers, development partners and businesses in producer and consumer countries.

**(4) Support businesses in transforming their strategies** to ensure that sustainability is a key driver when shaping business models, products and services, across different tiers of supply chains. Step up efforts to strengthen SME's ESG preparedness, including improved access to finance, knowledge and technology, as well as support in low-carbon transition, value addition, quality infrastructure, and skills development. A differentiated approach in consumer and producer countries is needed.

Harnessing the potential of these opportunities requires moving away from a technocratic perspective which prioritises financial support and capacity building. It also requires investing time and resources in understanding political economy dynamics and how they shape supply chain actors' behaviour and incentives, recognising that politics and power is central to achieving sustainable supply chains.



# GLOSSARY

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## **Audit fatigue**

Audit fatigue refers to the weariness experienced by companies and their suppliers when they are subjected to multiple audits and assessments related to their sustainability and ESG performance. This term is often used to describe the burden placed on organizations as they are repeatedly audited, assessed, and asked to provide data or evidence to demonstrate their adherence to various sustainability and ESG standards.

## **Capacity sharing**

A capacity sharing approach challenges ways of working that are based on the assumption that local capacities are lacking or need to be built up; puts the diverse strengths and knowledge of local actors and people affected at the center; acknowledges any power imbalance between international, national, and local actors and works to shift power to local actors and communities, and reflects the principles of respect, mutual learning, and equitable partnerships.

## **Conformity assessment**

The process of conformity assessment demonstrates whether a product, service, process, claim, system, or person meets the relevant requirements. Such requirements are stated in standards, regulations, contracts, programmes, or other normative documents.

## **Circular economy**

It is an alternative to the traditional linear economic model where resources are kept in use for as long as possible, the maximum value is extracted from them, and waste is relocated from the end of the supply chain to the beginning, giving the used materials a new life.

## **Digitalization**

Digitalization refers to enabling or improving processes by leveraging digital technologies and digitized data. Therefore, digitalization presumes digitization.

## **Industrializing countries**

Countries that have not achieved a significant degree of industrialization relative to their populations, and have, in most cases, a medium to low standard of living. For this paper, countries that come under the Least Developed Countries (LDCs) and Middle-Income Countries (MICs) categories are grouped under Industrializing countries.

## **Mission-oriented policies**

Mission-oriented policies are a framework for government intervention that focuses on achieving specific societal or economic goals. They involve setting clear objectives and mobilizing resources and innovation to address grand challenges or missions. This approach is often associated with economist Mariana Mazzucato's work.

**Multistakeholder sustainability initiative**

A collaboration among industry, civil society and/or scheme owners, and other stakeholders to address human rights and environmental challenges. These initiatives might entail dialogue among stakeholders, reporting to the public on due diligence requirements or even the use of a voluntary sustainability standard.

**Responsible business conduct**

Making a positive contribution to economic, environmental, and social progress with a view to achieving sustainable development and avoiding and addressing adverse impacts related to an enterprise's direct and indirect operations, products, or services (OECD).

**Re-shoring, friend-shoring, far-shoring, off-shoring**

Re-shoring(or back-shoring) occurs when a company moves its operations back to its home country from another country. Friend-shoring refers to sourcing inputs from suppliers in allied countries in order to secure access to critical production inputs. Far-shoring refers to companies that transfer their business operations to a distant location. Off-shoring takes place when a company relocates its operations from its home country to another country.

**Risk-based due diligence**

Risk-based due diligence” means that the measures an enterprise takes to conduct due diligence should be commensurate to the severity and likelihood of the adverse impact. Due diligence should also be adapted to the nature of the adverse impact on RBC issues, such as human rights, the environment and corruption. This involves tailoring approaches for specific risks and taking into account how these risks affect different groups. See OECD Due Diligence Guidance for RBC and detailed sectoral due diligence guidance for the minerals, garments and footwear, agriculture and financial sector.

**Quality infrastructure**

QI can be defined as the system comprising the Organizations (public and private) together with the policies, relevant legal and regulatory framework, and practices needed to support and enhance the quality, safety and environmental soundness of goods, services and processes. This includes standardization, metrology, accreditation and conformity assessment (testing, inspection, calibration and certification).

**Voluntary sustainability standard**

A private standard that requires a product(s) to meet specific economic, social and environmental sustainability metrics (UNCTAD).

# References

1. OECD, 2020. Trade Policy Implications of Global Value Chains. Trade Policy Brief. [https://issuu.com/oecd.publishing/docs/trade\\_policy\\_implications\\_of\\_global](https://issuu.com/oecd.publishing/docs/trade_policy_implications_of_global)
2. World Bank Group (2022). Trading for Development in the Age of Global Value Chains. <https://openknowledge.worldbank.org/server/api/core/bitstreams/3df67ad2-367c-5718-ba97-edd213723bb3/content>
3. UNCTAD (2023). Technology and Innovation Report 2023. <https://unctad.org/publication/technology-and-innovation-report-2023>
4. United Nations Economic and Social Commission for Asia and the Pacific. (2022). Handbook on Policies, Promotion and the Facilitation of Foreign Direct Investment for Sustainable Development in Asia and the Pacific. <https://repository.unescap.org/bitstream/handle/20.500.12870/4435/ESCAP-2022-MN-Handbook-policies-promotion-facilitation-foreign-direct-investment-sustainable-development-asia-pacific%20.pdf?sequence=1&isAllowed=y>
5. UNIDO (2018). Global Value Chains and Industrial Development: Lessons from China, South-East and South Asia. [https://www.unido.org/sites/default/files/files/2018-06/EBOOK\\_GVC.pdf](https://www.unido.org/sites/default/files/files/2018-06/EBOOK_GVC.pdf)
6. Delera, M. (2021). Is production in global value chains (GVCs) sustainable? A review of the empirical evidence on social and environmental sustainability GVCs. [https://www.sustainablesupplychains.org/wp-content/uploads/2022/04/Discussion\\_Paper\\_1.pdfcontent/uploads/2022/04/Discussion\\_Paper\\_1.pdf](https://www.sustainablesupplychains.org/wp-content/uploads/2022/04/Discussion_Paper_1.pdfcontent/uploads/2022/04/Discussion_Paper_1.pdf)
7. German Development Institute. (2022). Sustainable Global Supply Chains Report 2022. [https://www.ifw-kiel.de/fileadmin/Dateiverwaltung/IfW-Publications/Frauke\\_Steglich/20220407\\_SustainableGlobalSupplyChains-Report2022\\_lowres.pdf](https://www.ifw-kiel.de/fileadmin/Dateiverwaltung/IfW-Publications/Frauke_Steglich/20220407_SustainableGlobalSupplyChains-Report2022_lowres.pdf)
8. Pahl, S. & Timmer P. (2019) Do Global Value chains enhance Economic Upgrading? A Long View. <https://www.tandfonline.com/doi/epdf/10.1080/00220388.2019.1702159?needAccess=true&role=button>
9. UNCTAD. (2019). Promoting value addition and the enhancement of domestic productive capacity through local economic empowerment. [https://unctad.org/system/files/official-document/ciem10d2\\_en.pdf](https://unctad.org/system/files/official-document/ciem10d2_en.pdf)
10. Steenbergen, V., & Saurav, A. (2023). The Effect of Multinational Enterprises on Climate Change. <https://openknowledge.worldbank.org/server/api/core/bitstreams/def956de-eac5-4ede-a366-e01331481c99/content>
11. Jensen, F., & Whitfield, L. (2022). Leveraging participation in apparel global supply chains through green industrialisation strategies: Implications for low-income countries. <https://www.sciencedirect.com/science/article/pii/S0921800921003906>
12. Marchi, D, V., & Alford, M. (2022). State policies and upgrading in global value chains: A systematic literature review. <https://link.springer.com/article/10.1057/s42214-021-00107-8>
13. UNIDO (2017). Structural Change for Inclusive and Sustainable Industrial Development. [https://www.unido.org/sites/default/files/files/2018-06/EBOOK\\_Structural\\_Change.pdf](https://www.unido.org/sites/default/files/files/2018-06/EBOOK_Structural_Change.pdf)
14. United Nations. (2023) Global Sustainable Development Report 2023. <https://sdgs.un.org/sites/default/files/2023-06/Advance%20unedited%20GSDR%2014June2023.pdf>
15. International Labour Organisation. (2019). [https://www.ilo.org/wcmsp5/groups/public/---ed\\_norm/---ipec/documents/publication/wcms\\_716930.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/publication/wcms_716930.pdf)
16. United Nations Economic and Social Commission for Asia and the Pacific. (2022) Handbook on Policies, Promotion, and the Facilitation of Foreign Direct Investment for Sustainable Development in Asian and the Pacific. <https://repository.unescap.org/bitstream/handle/20.500.12870/4435/ESCAP-2022-MN-Handbook-policies-promotion-facilitation-foreign-direct-investment-sustainable-development-asia-pacific%20.pdf?sequence=1&isAllowed=y>
17. United Nations Global Compact. (n.d.). Ensuring a Living Wage is an Essential Aspect of Decent Work. <https://unglobalcompact.org/what-is-gc/our-work/livingwages>
18. ILO (2022). World Employment and Social Outlook Trends 2022. [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_834081.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_834081.pdf)
19. Systems Change Lab. (2023). State of Climate Action 2022. <https://files.wri.org/d8/s3fs-public/2022-10/state-of-climate-action-2022.pdf?VersionId=sfihZTSlzbenOLT565PlXldO2L5jTLg>
20. United Nations. (2017). Trend and Development Report 2017. [https://unctad.org/system/files/official-document/tdr2017ch6\\_en.pdf](https://unctad.org/system/files/official-document/tdr2017ch6_en.pdf)
21. Lang, J., Ponte, S., & Vilakazi, T. (2022). Linking power and inequality in global value chains. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/glob.12411>
22. Lang, J., Ponte, S., & Vilakazi, T. (2022). Linking power and inequality in global value chains. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/glob.12411>
23. Lema, R. (2023). The Green and Digital Transition in Manufacturing Global Value Chains in Latecomer Countries [https://unctad.org/system/files/non-official-document/tir2023\\_background1\\_en.pdf](https://unctad.org/system/files/non-official-document/tir2023_background1_en.pdf)
24. Ponte, S. (2019). Business, power and sustainability in a world of global value chains. Bloomsbury Publishing.
25. Hoffmann, U. and Bhutani A. (2021). Voluntary Sustainability Standards: Illusions of Progress and a Way Forward, Peter Lang, Wien.

26. Delera, M. (2021) Is production in global value chains (GVCs) sustainable? A review of the empirical evidence on social and environmental sustainability in GVCs. [https://www.sustainableupplychains.org/wp-content/uploads/2022/04/Discussion\\_Paper\\_1.pdf](https://www.sustainableupplychains.org/wp-content/uploads/2022/04/Discussion_Paper_1.pdf)
27. United Nations. (2023). World Economic Situation and Prospects. <https://www.un.org/development/desa/dpad/publication/world-economic-situation-and-prospects-2023/>
28. United Nations. (2023). Trade and Development Report 2022. [https://unctad.org/system/files/official-document/tdr2022\\_en.pdf](https://unctad.org/system/files/official-document/tdr2022_en.pdf)
29. International Labour Organisation. (2023). World Employment and Social Outlook Trends 2023. [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms\\_865332.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_865332.pdf)
30. International Labour Organisation. (n.d.). Conventions and Recommendations. <https://www.ilo.org/global/standards/introduction-to-international-labour-standards/conventions-and-recommendations/lang-en/index.htm>
31. United Nations Climate Change. (n.d.). The global Stocktake – A Critical Moment for Climate Action <https://unfccc.int/>
32. World Trade Organisation (2011). World Trade Report, [www.wto.org/english/res\\_e/booksp\\_e/anrep\\_e/wtr11-2c\\_e.pdf](http://www.wto.org/english/res_e/booksp_e/anrep_e/wtr11-2c_e.pdf)
33. Sacerdoti, G., & Borlini, L. (2023). Systemic Changes in the Politicisation of the International Trade Relations and the Decline of the Multilateral Trading System. *German Law Journal*, 24(1), 17-44. doi:10.1017/glj.2023.10
34. The White House. (2022). <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/24/the-biden-harris-plan-to-revitalize-american-manufacturing-and-secure-critical-supply-chains-in-2022/>
35. European Commission. European Chips Act. (n.d.). [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-chips-act\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-chips-act_en)
36. European Commission. (n.d.). A pharmaceutical strategy for Europe. [https://health.ec.europa.eu/medicinal-products/pharmaceutical-strategy-europe\\_en](https://health.ec.europa.eu/medicinal-products/pharmaceutical-strategy-europe_en)
37. European Commission. (n.d.). Critical Raw Material Act. [https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/critical-raw-materials/critical-raw-materials-act\\_en#:~:text=The%20Critical%20Raw%20Materials%20Act%20\(CRM%20Act\)%20will%20ensure%20EU,2030%20climate%20and%20digital%20objectives](https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/critical-raw-materials/critical-raw-materials-act_en#:~:text=The%20Critical%20Raw%20Materials%20Act%20(CRM%20Act)%20will%20ensure%20EU,2030%20climate%20and%20digital%20objectives)
38. Reuters. (2023). Namibia bans export of unprocessed critical minerals. <https://www.reuters.com/markets/commodities/namibia-bans-export-unprocessed-critical-minerals-2023-06-08/>
39. Negi, A. (2020). The World Trade Organisation and Sustainability Standards. [https://link.springer.com/chapter/10.1007/978-981-15-3473-7\\_3](https://link.springer.com/chapter/10.1007/978-981-15-3473-7_3)
40. United Nations. (2023). Technology and Innovation Report. [https://unctad.org/system/files/official-document/tir2023\\_en.pdf](https://unctad.org/system/files/official-document/tir2023_en.pdf)
41. United Nations. (2023). Understanding Voluntary Sustainability Standards. [https://unctad.org/system/files/official-document/ditctab2023d3\\_en.pdf](https://unctad.org/system/files/official-document/ditctab2023d3_en.pdf)
42. World Economic Forum. (2022). Supply Chain Sustainability Policies: State of Play. [https://www3.weforum.org/docs/WEF\\_Supply\\_Chain\\_Sustainability\\_Policies\\_2022.pdf](https://www3.weforum.org/docs/WEF_Supply_Chain_Sustainability_Policies_2022.pdf)
43. World Trade Organisation, (2021). Joint statement on investment facilitation for development, WT-L-1130. <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/L/1130.pdf&Open=True>
44. OECD (2018). OECD Due Diligence Guidelines for Responsible Business Conduct. <https://mneguidelines.oecd.org/OECD-Due-Diligence-Guidance-for-Responsible-Business-Conduct.pdf>
45. United Nations. (n. d.). National action plans on business and human rights. <https://www.ohchr.org/en/special-procedures/wg-business/national-action-plans-business-and-human-rights>
46. International Labour Organisation. (2021). Gap analysis of ILO normative and non-normative measures to ensure decent work in supply chains. [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---ddg\\_p/documents/meetingdocument/wcms\\_829895.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---ddg_p/documents/meetingdocument/wcms_829895.pdf)
47. United Nations Human Rights. (2022). Sustainable Global Supply Chains: G7 Leadership on UNGP Implementation. <https://www.ohchr.org/sites/default/files/2022-05/report-sustainable-global-supply-chains-g7.pdf>
48. World Economic Forum. (2022). Supply Chain Sustainability Policies: State of Play. [https://www3.weforum.org/docs/WEF\\_Supply\\_Chain\\_Sustainability\\_Policies\\_2022.pdf?\\_gl=1\\*mf64mr\\*\\_up\\*MQ.&gclid=Cj0KCQjw7aqkBhDPARIsAKGa0oJu8ZW\\_AEIfpFZfj9aMJeubX6l\\_qp4iRRtApp-oad-grdCiEXSbUAUAaAtYjEALw\\_wcB](https://www3.weforum.org/docs/WEF_Supply_Chain_Sustainability_Policies_2022.pdf?_gl=1*mf64mr*_up*MQ.&gclid=Cj0KCQjw7aqkBhDPARIsAKGa0oJu8ZW_AEIfpFZfj9aMJeubX6l_qp4iRRtApp-oad-grdCiEXSbUAUAaAtYjEALw_wcB)
49. Marx, A., Depoorter, C., & Vanhaecht, R. (2022). Voluntary Sustainability Standards: State of the Art and Future Research. <https://lirias.kuleuven.be/retrieve/646866>
50. United Nations. (2023). Voluntary Sustainability Standards in International Trade. [https://unctad.org/system/files/official-document/ditctab2022d8\\_en.pdf](https://unctad.org/system/files/official-document/ditctab2022d8_en.pdf)
51. Stiftung Wissenschaft und Politik. (2022). Towards a Smart Mix 2.0. [https://www.swp-berlin.org/publications/products/arbeitspapiere/WP04\\_SmartMix2.0\\_Schleifer\\_Fransen.pdf](https://www.swp-berlin.org/publications/products/arbeitspapiere/WP04_SmartMix2.0_Schleifer_Fransen.pdf)
52. United Nations Global Compact. (n. d.). About the UN Global Compact. <https://unglobalcompact.org/about>
53. Marx, A., Depoorter, C., & Vanhaecht, R. (2022). Voluntary Sustainability Standards: State of the Art and Future Research. <https://lirias.kuleuven.be/retrieve/646866>
54. UNCTAD. (2020). The Trade Impact of Voluntary Sustainability Standards: A review of empirical evidence. [https://unctad.org/system/files/official-document/ser-rp-2020d9\\_en.pdf](https://unctad.org/system/files/official-document/ser-rp-2020d9_en.pdf)
55. Hoffman, U. and Bhutani A. (2021). Voluntary Sustainability Standards: Illusions of Progress and a Way Forward, Peter Lang, Wien.
56. Tuttleman, A. (2022). Busting myths to reveal the reality around living incomes. <https://www.idhsustainabletrade.com/news/busting-myths-to-reveal-the-reality-around-living-incomes/>

57. UNFSS (2022). Voluntary Sustainability Standards Sustainability Agenda and Developing Countries: Opportunities and Challenges [https://unfss.org/wp-content/uploads/2022/10/UNFSS-5th-Report\\_14Oct2022\\_rev.pdf](https://unfss.org/wp-content/uploads/2022/10/UNFSS-5th-Report_14Oct2022_rev.pdf)
58. United Nations. (2023). Voluntary Sustainability Standards in International Trade. [https://unctad.org/system/files/official-document/ditctab2022d8\\_en.pdf](https://unctad.org/system/files/official-document/ditctab2022d8_en.pdf)
59. Subramanian, J. (2019). Is fair trade finished? <https://www.theguardian.com/business/2019/jul/23/fairtrade-ethical-certification-supermarkets-sainsburys>
60. ISEAL. (2020). Response to MSI integrity response. <https://www.isealliance.org/sustainability-news/response-msi-integrity-report>
61. MSI Integrity. (2020). Not Fit-for-Purpose [https://www.msi-integrity.org/wp-content/uploads/2020/07/MSI\\_Not\\_Fit\\_For\\_Purpose\\_FORWEBSITE.FINAL\\_.pdf](https://www.msi-integrity.org/wp-content/uploads/2020/07/MSI_Not_Fit_For_Purpose_FORWEBSITE.FINAL_.pdf)
62. The Donor Committee for Enterprise Development. (2022) Promoting Responsible Business Conduct: A scoping paper for donors supporting Private Sector Engagement. [https://www.enterprise-development.org/wp-content/uploads/DCED\\_Promoting-Responsible-Business-Conduct\\_Scoping-Paper-for-Donors-supporting-PSE.pdf](https://www.enterprise-development.org/wp-content/uploads/DCED_Promoting-Responsible-Business-Conduct_Scoping-Paper-for-Donors-supporting-PSE.pdf)
63. European Commission. (n.d.). EU Position in world trade. [https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/eu-position-world-trade\\_en#:~:text=The%20EU%20is%20the%20world's, trading%20partner%20for%2080%20countries.](https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/eu-position-world-trade_en#:~:text=The%20EU%20is%20the%20world's, trading%20partner%20for%2080%20countries.)
64. See Commissioner Reynder's claim in [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_22\\_1145](https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1145)
65. Amnesty International. (2023). EU: European Parliament's vote for new corporate due diligence legislation should strengthen human rights. <https://www.amnesty.org/en/latest/news/2023/06/eu-european-parliaments-vote-for-new-corporate-due-diligence-legislation-should-strengthen-human-rights/#:~:text=The%20Corporate%20Sustainability%20Due%20Diligence%20Directive%20is%20a%20crucial%20piece,law%20is%20a%20welcome%20development.>
66. European Commission. (n.d.). Corporate sustainability due diligence. [https://commission.europa.eu/business-economy-euro/doing-business-eu/corporate-sustainability-due-diligence\\_en](https://commission.europa.eu/business-economy-euro/doing-business-eu/corporate-sustainability-due-diligence_en)
67. ISEAL Alliance. (n.d.). Corporate due diligence, sustainability standards and certification. Due-Diligence-Briefing-Note\_ISEAL\_01-2020\_1.pdf ([isealliance.org](https://www.isealliance.org))
68. International Labor Organisation. (2021). Gap analysis of ILO normative and non-normative measures to ensure decent work in supply chains. [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---ddg\\_p/documents/meetingdocument/wcms\\_829895.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---ddg_p/documents/meetingdocument/wcms_829895.pdf)
69. Global Reporting Initiative. (2023). Corporate sustainability due diligence policies and sustainability reporting. [https://www.globalreporting.org/media/cqho34tm/corporate\\_sustainability-due\\_diligence\\_and\\_sustainability\\_reporting\\_final.pdf](https://www.globalreporting.org/media/cqho34tm/corporate_sustainability-due_diligence_and_sustainability_reporting_final.pdf)
70. Nelson, V., & Ortega, M., O. (2020). Making human rights due diligence work for small farmers and workers in global supply chains. UoG-HRDD-Full-Report-60pp-FINAL-SECURED.pdf ([fairtrade-advocacy.org](https://www.fairtrade-advocacy.org))
71. United Nations Industrial Development Organisation. (2022). Due diligence legislation for sustainability standards adoption. [https://hub.unido.org/sites/default/files/publications/WTO\\_Public\\_Forum\\_Proceedings.pdf](https://hub.unido.org/sites/default/files/publications/WTO_Public_Forum_Proceedings.pdf)
72. OACPS. (2023). OACP-EU private sector development newsletter, No 14.
73. Nelson, V., & Ortega, M., O. (2020). Making human rights due diligence work for small farmers and workers in global supply chains. UoG-HRDD-Full-Report-60pp-FINAL-SECURED.pdf ([fairtrade-advocacy.org](https://www.fairtrade-advocacy.org))
74. Görg, H., Lay, J., Pahl, S., Seric, A., Steglich, F., & Yaroshenko, L. (2021). [https://www.t20italy.org/wp-content/uploads/2021/09/TF3\\_PB09\\_LM04.pdf](https://www.t20italy.org/wp-content/uploads/2021/09/TF3_PB09_LM04.pdf)
75. Nelson, V., & Ortega, M., O. (2020). Making human rights due diligence work for small farmers and workers in global supply chains. UoG-HRDD-Full-Report-60pp-FINAL-SECURED.pdf ([fairtrade-advocacy.org](https://www.fairtrade-advocacy.org))
76. Nelson, V., & Ortega, M., O. (2020). Making human rights due diligence work for small farmers and workers in global supply chains. UoG-HRDD-Full-Report-60pp-FINAL-SECURED.pdf ([fairtrade-advocacy.org](https://www.fairtrade-advocacy.org))
77. Nelson, V., & Ortega, M., O. (2020). Making human rights due diligence work for small farmers and workers in global supply chains. UoG-HRDD-Full-Report-60pp-FINAL-SECURED.pdf ([fairtrade-advocacy.org](https://www.fairtrade-advocacy.org))
78. Kattel, R., & Mazzucato, M. (2018) Mission-oriented innovation policy and dynamic capabilities in the public sector. <https://academic.oup.com/icc/article-abstract/27/5/787/5089909?redirectedFrom=fulltext>
79. The Donor Committee for Enterprise Development. (2022). Promoting Responsible Business Conduct: A scoping paper for donors supporting Private Sector Engagement. [https://www.enterprise-development.org/wp-content/uploads/DCED\\_Promoting-Responsible-Business-Conduct\\_Scoping-Paper-for-Donors-supporting-PSE.pdf](https://www.enterprise-development.org/wp-content/uploads/DCED_Promoting-Responsible-Business-Conduct_Scoping-Paper-for-Donors-supporting-PSE.pdf)
80. OECD. (2020). Mandatory due diligence, taking stock and looking forward. <https://mneguidelines.oecd.org/Session-note-2021-OECD-Garment-Forum-Mandatory-due-diligence-legislation-design-perspectives-from-the-garment-and-footwear-sector.pdf>
81. Marchi, D., V & Alford, M. (2021). State policies and upgrading in global value chains: A systematic literature review. <https://link.springer.com/article/10.1057/s42214-021-00107-8>
82. Mazzucato, M., Kattel, R., & Collins-Ryans, J. (2019). Challenge-Driven Innovation Policy: Towards a New Policy Toolkit <https://link.springer.com/article/10.1007/s10842-019-00329-w>
83. Kattel, R., & Mazzucato, M. (2018) Mission-oriented innovation policy and dynamic capabilities in the public sector. <https://academic.oup.com/icc/article-abstract/27/5/787/5089909?redirectedFrom=fulltext>
84. Steenbergen, V., & Saurav, A. (2023). The Effect of Multinational Enterprises on Climate Change. <https://openknowledge.worldbank.org/server/api/core/bitstreams/def956de-eac5-4ede-a366-e01331481c99/content>
85. United Nations (2022). Handbook of Policies, Promotion, and the Facilitation of Foreign Direct Investment for Sustainable Development in Asia and the Pacific. <https://repository.unescap.org/bitstream/handle/20.500.12870/4435/ESCAP-2022-MN-Handbook-policies-promotion-facilitation-foreign-direct-investment-sustainable-development-asia-pacific%20.pdf?sequence=1&isAllowed=y>



86. United Nations (2022). Handbook of Policies, Promotion, and the Facilitation of Foreign Direct Investment for Sustainable Development in Asia and the Pacific. <https://repository.unescap.org/bitstream/handle/20.500.12870/4435/ESCAP-2022-MN-Handbook-policies-promotion-facilitation-foreign-direct-investment-sustainable-development-asia-pacific%20.pdf?sequence=1&isAllowed=y>
87. OECD Recommendation on the Role of Government in Promoting Responsible Business Conduct (2022). <https://mneguidelines.oecd.org/oecd-recommendation-on-the-role-of-government-in-promoting-rbc.htm>
88. Hoffmann, U. and Bhutani A. (2021). Voluntary Sustainability Standards: Illusions of Progress and a Way Forward, Peter Lang, Wien.
89. Kissinger, G. (n.d.). Fiscal incentives for agricultural commodity production: Options to forge compatibility with REDD+. [https://unfccc.int/files/cooperation\\_and\\_support/financial\\_mechanism/standing\\_committee/application/pdf/fiscal\\_incentives\\_for\\_agri\\_commodities\\_un-redd\\_policy\\_brief\\_final.pdf](https://unfccc.int/files/cooperation_and_support/financial_mechanism/standing_committee/application/pdf/fiscal_incentives_for_agri_commodities_un-redd_policy_brief_final.pdf)
90. World Bank Group. (2019). Working with Smallholders. <https://documents1.worldbank.org/curated/en/769991543589955174/pdf/132580-REVISED-PUB-date-12-3-2018-PUBLIC.pdf>
91. Mazzucato, M., Kattel, R., & Collins-Ryans, J. (2019). Challenge-Driven Innovation Policy: Towards a New Policy Toolkit. <https://link.springer.com/article/10.1007/s10842-019-00329-w>
92. Mehrotra, S. (2020). From Informal to Formal: A Meta-Analysis of What Triggers the Conversion in Asia. ILO Background Paper, (2).
93. Jack, W., & Suri, T. (2014). Risk sharing and transactions costs: Evidence from Kenya's mobile money revolution. *American Economic Review*, 104(1), 183-223.
94. Swart, A., Nel, J., Muller, & T., Wing. The future of work in mining. <https://www2.deloitte.com/us/en/insights/industry/mining-and-metals/future-of-mining-industry.html>
95. Intergovernmental Forum. (2018). Guidance for Governments. <https://www.iisd.org/system/files/publications/igf-guidance-for-governments-local-content.pdf>
96. Wilhelm, C. (2023). "Local Content is politics": An examination of the origins of local content policies in Guinea's mining sector. <https://www.sciencedirect.com/science/article/pii/S2214790X22001289/pdf?md5=47d82381bf91100fca453b42711375c&pid=1-s2.0-S2214790X22001289-main.pdf>
97. Steenbergen, V., & Saurav, A. (2023). The Effect of Multinational Enterprises on Climate Change. <https://openknowledge.worldbank.org/server/api/core/bitstreams/def956de-eac5-4ede-a366-e01331481c99/content>
98. United Nations. (2022). The low-carbon transition and its daunting implications for structural transformation. [https://unctad.org/system/files/official-document/lcd2022\\_en.pdf](https://unctad.org/system/files/official-document/lcd2022_en.pdf)
99. Ghossein, T., Islam, M., A., & Saliola, F. (2018). Public Procurement and the Private Business Sector: Evidence from Firm-Level Data. <https://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-8575>
100. United Nations Industrial Development Organisation. (2017). <https://downloads.unido.org/ot/99/21/9921981/WP8.pdf>
101. The Donor Committee for Enterprise Development. (2017). Technical Report: Policies that Promote SME Participation in Public Procurement. <https://www.enterprise-development.org/wp-content/uploads/DCED-BEWG-SME-Procurement-Report.pdf>
102. Kluczek, A., & Olszewski, P. (2017). Energy audits in industrial processes. <https://www.sciencedirect.com/science/article/abs/pii/S0959652616317541>
103. Zhou, Q., Li, T., & Gong, L. (2022). <https://www.sciencedirect.com/science/article/abs/pii/S014098832200069X>
104. United Nations Industrial Development Organisation. (2019). International Guidelines for Industrial Parks. [https://www.unido.org/sites/default/files/files/2019-11/International\\_Guidelines\\_for\\_Industrial\\_Parks.pdf](https://www.unido.org/sites/default/files/files/2019-11/International_Guidelines_for_Industrial_Parks.pdf)
105. Krieger, B., & Zipperer, V. (2022). Does green public procurement trigger environmental innovations?. *Research Policy*, 51(6), 104516.
106. OECD. (2020). Mandatory due diligence, taking stock and looking forward. <https://mneguidelines.oecd.org/Session-note-2021-OECD-Garment-Forum-Mandatory-due-diligence-legislation-design-perspectives-from-the-garment-and-footwear-sector.pdf>
107. United Nations Industrial Development Organisation. (2023). Guidelines for Planning, Development and Management of Integrated Agro-Food Parks (IAFPs); Leveraging a New Generation of Industrial Parks and Zones for Sustainable and Inclusive Development: strategic framework; International Guidelines for Industrial Parks; A Practitioners' Handbook for Eco-Industrial Parks; Leveraging the Potential of a New Generation of Industrial Parks, Zones and Cities in Azerbaijan, Tajikistan, Turkmenistan and Uzbekistan; an International Framework for Eco-Industrial Parks; accessible in <https://sipp.unido.org/knowledge>
108. Council on Energy, Environment and Water (2023), Sustainability-driven non-tariff measures: assessing risks to India's foreign trade, <https://www.ceew.in/sites/default/files/sustainability-driven-non-tariff-measures-and-assessing-risks-foreign-trade-risks-india.pdf>
109. United Nations (2022). Handbook of Policies, Promotion, and the Facilitation of Foreign Direct Investment for Sustainable Development in Asia and the Pacific. <https://repository.unescap.org/bitstream/handle/20.500.12870/4435/ESCAP-2022-MN-Handbook-policies-promotion-facilitation-foreign-direct-investment-sustainable-development-asia-pacific%20.pdf?sequence=1&isAllowed=y>
110. Unsworth, S. (2015). "It's the politics! Can donors rise to the challenge?", in *A Governance Practitioners' Notebook: Alternative Ideas and Approaches*. OECD. <https://www.oecd.org/dac/accountable-effective-institutions/Governance%20Notebook%201.2%20Unsworth.pdf>
111. Steenberge, V., & Saurav, A. (2023). <https://openknowledge.worldbank.org/bitstreams/def956de-eac5-4ede-a366-e01331481c99/download>
112. Fair Trade Advocacy Office. (2020). Making Human Rights Due Diligence Frameworks Work for Small Farmers and Workers. <https://fairtrade-advocacy.org/ftao-publications/publications-statements/making-human-rights-due-diligence-frameworks-work-for-small-farmers-and-workers/>

113. Mazzucato, M., Kattel, R., & Collins-Ryans, J. (2019). Challenge-Driven Innovation Policy: Towards a New Policy Toolkit <https://link.springer.com/article/10.1007/s10842-019-00329-w>
114. Poter Novelli. (2021). Purpose Perception: Porter Novelli's Implicit Association Study. <https://www.porternovelli.com/findings/purpose-perception-porter-novellis-implicit-association-study/>
115. Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of sustainable finance & investment*, 5(4), 210-233.
116. New York University. (n.d.). ESG and Financial Performance. <https://www.stern.nyu.edu/experience-stern/about/departments-centers-initiatives/centers-of-research/center-sustainable-business/research/research-initiatives/esg-and-financial-performance>
117. Clark, G. L., Feiner, A., & Viehs, M. (2015). From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance. University of Oxford and Arabesque Partners. <https://formafutura.com/assets/documents/2015-University-Oxford-From-the-Stockholder-to-the-Stakeholder.pdf>
118. Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on Organisational processes and performance. *Management science*, 60(11), 2835-2857.
119. Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of accounting and economics*, 40(1-3), 3-73.
120. Lund-Thomsen, P., & Lindgreen, A. (2014). Corporate social responsibility in global value chains: Where are we now and where are we going?. *Journal of Business Ethics*, 123, 11-22
121. Ivarsson, I., & Alvstam, C. G. (2011). Upgrading in global value-chains: a case study of technology-learning among IKEA-suppliers in China and Southeast Asia. *Journal of Economic Geography*, 11(4), 731-752.
122. World Bank. (2019). World development report 2020: Trading for development in the age of global value chains. The World Bank.
123. Hoffman, U. and Bhutani A. (2021), Voluntary Sustainability Standards: Illusions of Progress and a Way Forward, Peter Lang, Wien.
124. United Nations Industrial Development Organisation. (n.d.). [https://www.unido.org/sites/default/files/2017-07/Circular\\_Economy\\_UNIDO\\_0.pdf](https://www.unido.org/sites/default/files/2017-07/Circular_Economy_UNIDO_0.pdf)
125. Geissdoerfer, M., Savaget, P., Bocken, N. M., & Hultink, E. J. (2017). The Circular Economy—A new sustainability paradigm?. *Journal of cleaner production*, 143, 757-768 ; and Lacy, P., & Rutqvist, J. (2015). *Waste to wealth: The circular economy advantage* (Vol. 91). London: Palgrave Macmillan.
126. Ellen Macarthur Foundation. (2014). *Towards the Circular Economy*. <https://emf.thirdlight.com/file/24/cDm30tVcyxPQsxcD10AcOo2GK/Towards%20the%20circular%20economy%20Vol%203%203A%20Accelerating%20the%20scale-up%20across%20global%20supply%20chains.pdf>
127. ILO (2019). Skills for a Greener Future. [https://www.ilo.org/skills/projects/WCMS\\_706922/lang--en/index.htm](https://www.ilo.org/skills/projects/WCMS_706922/lang--en/index.htm)
128. UNIDO (2023). Circular economy for inclusive and sustainable industrial development. Forthcoming.
129. UNIDO (2023). Circular economy for inclusive and sustainable industrial development. Forthcoming.
130. United Nations Industrial Development Organisation. (n.d.). [https://www.unido.org/sites/default/files/2017-07/Circular\\_Economy\\_UNIDO\\_0.pdf](https://www.unido.org/sites/default/files/2017-07/Circular_Economy_UNIDO_0.pdf)
131. United Nations Industrial Development Organisation. (n.d.). [https://www.unido.org/sites/default/files/2017-07/Circular\\_Economy\\_UNIDO\\_0.pdf](https://www.unido.org/sites/default/files/2017-07/Circular_Economy_UNIDO_0.pdf)
132. Steenbergen, V., & Saurav, A. (2023). The Effect of Multinational Enterprises on Climate Change. <https://openknowledge.worldbank.org/server/api/core/bitstreams/def956de-eac5-4ede-a366-e01331481c99/content>
133. IBM. (2021). How sustainable supply chains help businesses and our planet thrive. <https://www.ibm.com/blog/how-sustainable-supply-chains-help-businesses-and-our-planet-thrive/>
134. EY. (n.d.). Why global industrial supply chains are decoupling. [https://www.ey.com/en\\_gl/automotive-transportation/why-global-industrial-supply-chains-are-decoupling#Chapter%202](https://www.ey.com/en_gl/automotive-transportation/why-global-industrial-supply-chains-are-decoupling#Chapter%202)
135. EY. (n.d.). Why global industrial supply chains are decoupling. [https://www.ey.com/en\\_gl/automotive-transportation/why-global-industrial-supply-chains-are-decoupling#Chapter%202](https://www.ey.com/en_gl/automotive-transportation/why-global-industrial-supply-chains-are-decoupling#Chapter%202)
136. Mattos, D., B., F., Dasgupta, S., Jiang, X., Kucera, D., & Schiavone, F., A. (2020). Robotics and reshoring: Employment implications for developing countries. [https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/documents/publication/wcms\\_751599.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_751599.pdf)
137. EY. (2022). Building supply chain sustainability that can drive revenues and reduce operation risks. [https://assets.ey.com/content/dam/ey-sites/ey-com/en\\_gl/topics/supply-chain/ey-supply-chain-sustainability-report-2022-007702-22gbl.pdf?download](https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/supply-chain/ey-supply-chain-sustainability-report-2022-007702-22gbl.pdf?download)
138. Kummer, K., & Lawless, K. (2022). Five priorities to build trust in ESG. [https://www.ey.com/en\\_dk/public-policy/five-priorities-to-build-trust-in-esg](https://www.ey.com/en_dk/public-policy/five-priorities-to-build-trust-in-esg)
139. EY. (2022). Building supply chain sustainability that can drive revenues and reduce operation risks. [https://assets.ey.com/content/dam/ey-sites/ey-com/en\\_gl/topics/supply-chain/ey-supply-chain-sustainability-report-2022-007702-22gbl.pdf?download](https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/supply-chain/ey-supply-chain-sustainability-report-2022-007702-22gbl.pdf?download)
140. Sustaira. (n.d.). Deloitte Survey Shows Younger Generations are Driven by ESG and Climate Concerns. <https://www.sustaira.com/news/deloitte-survey-shows-younger-generations-are-driven-by-esg-and-climate-concerns>
141. Saney, H., Hinke, J., & Byson, T. (2021). Traceability: The Next Supply Chain Revolution. <https://www.bain.com/insights/traceability-the-next-supply-chain-revolution/>
142. Santiago-Cajaraville, F.: The Impact of Blockchain on the visibility and trust of supply chains, in De Vartavan, C. (Ed.), *Blockchain Impact!: Success, Productivity, Innovation*. London: Projectis Publishing, (pp. 81–93).
143. Henrich, J., Li, J., Mazuera, C., & Perez, F. (2022). Future-proofing the supply chain. <https://www.mckinsey.com/capabilities/operations/our-insights/future-proofing-the-supply-chain#/>

144. Kerrigan, S., & Kulasooriya, D. (2020). The sustainability transformation. <https://www2.deloitte.com/us/en/insights/topics/strategy/sustainable-transformation-in-business.html>
145. Marckstadt, F., Dimke, M., Obermann, W., & Zittwitz, V., B. (2022). Demystifying sustainability transformations. <https://www2.deloitte.com/uk/en/insights/environmental-social-governance/transformational-sustainability-demystification.html>
146. OECD (2021). OECD Best Practice Principles on International Regulatory Co-operation. <https://www.oecd.org/gov/regulatory-policy/public-consultation-best-practice-principles-on-international-regulatory-cooperation.pdf>
147. United Nations Economic Commission for Europe. (2016). Promoting People first Public-Private Partnerships (PPPs) for the UN SDGs. [https://www.un.org/esa/ffd/wp-content/uploads/2016/01/Promoting-People-first-Public-Private-Partnerships-PPPs-for-the-UN-SDGs\\_UNECE\\_IATF-Issue-Brief.pdf](https://www.un.org/esa/ffd/wp-content/uploads/2016/01/Promoting-People-first-Public-Private-Partnerships-PPPs-for-the-UN-SDGs_UNECE_IATF-Issue-Brief.pdf)
148. Steenbergen, V., & Saurav, A. (2023). The Effect of Multinational Enterprises on Climate Change. <https://openknowledge.worldbank.org/bitstreams/def956de-eac5-4ede-a366-e01331481c99/download>
149. UNCTAD (2023). The costs of achieving the Sustainable Development Goals, <https://unctad.org/sdg-costing>



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