

NAVIGATING SUSTAINABILITY IN AGRI-FOOD SUPPLY CHAINS

A REVIEW OF SUSTAINABLE SUPPLY
CHAIN BUSINESS GUIDELINES FOR
THE AGRI-FOOD SECTOR





CITATION AND ACKNOWLEDGEMENTS

This brief reviews and analyzes guidelines available for sustainable agri-food sector supply chains. The aim is to offer a catalogue of existing resources and to provide guidance on their applicability, enabling companies to navigate their sustainability journey within supply chains with clarity and confidence.

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1. INTRODUCTION

The agri-food sector plays a vital role in global food production and supply, serving as a cornerstone for human well-being worldwide. As the global demand for food grows, so too does the need for sustainable agricultural practices. There is a notable imbalance between the Global South and the Global North in the food system. This imbalance manifests in various ways, including economic disparities, trade dynamics, resource allocation, and food security. While progress has been made in certain areas, there are still many issues that need to be addressed to ensure the long-term viability of the food system.

Recognizing the potential environmental and human rights problems caused by unsustainable agricultural practices — such as deforestation, soil degradation, water pollution, and adverse impacts on the right of (including of local people) to enjoy a clean, healthy and sustainable environment — agri-food sector businesses are increasingly driven to adopt practices that mitigate these negative outcomes. A growing number of companies are responding to the demands of informed consumers and voluntarily committing to sustainability initiatives and targets, showcasing their dedication to sustainable practices. In addition, sustainability reporting obligations are becoming mandatory for companies in Europe. Investors and financiers are also increasingly considering environmental, social and governance (ESG) risks in their decisions, demanding tangible results from sustainability commitments. The adoption of responsible policies and practices is moving from voluntary to imperative for companies seeking success.

In today's landscape, adhering to sustainable practices is more than just an ethical commitment. As articulated in the UN Guiding Principles on Business and Human Rights,¹ businesses have the responsibility to respect human rights. As well as human rights articulated in the International Bill of Human Rights,² and core ILO documents,³ this responsibility extends to rights that are relevant to the context of business operations, such as the right to a clean, healthy and sustainable environment. This entails safeguarding the environment and livelihoods in sourcing landscapes, particularly for women, smallholders, Indigenous Peoples, as well as for

local communities and other groups considered vulnerable who are more likely to be negatively affected by environmental harm and human rights impacts.

Integrating sustainability into sourcing practices is also a strategic move that helps companies meet stakeholder expectations and investor confidence, mitigate supply chain risks, secure their position in the market, and gain a competitive edge. However, embracing sustainable development requires collaboration among diverse stakeholders across sectors to address root causes effectively. Agri-food sector companies aiming for resilience and sustainability must engage with actors from various sectors, including governments, consumers, and civil society. Addressing complex interdependencies between environmental, social and economic questions requires dialogue to take place beyond those directly involved in supply chains.

Guidelines for sustainable agri-food supply chains are crucial for guiding industry practices with environmental responsibility, social equity, human rights principles and long-term viability. Despite the wealth of guidance available, many valuable resources tend to be forgotten once their associated projects conclude. Companies also often struggle to identify the most suitable resources for their needs due to the diverse approaches and focus areas of different guidelines. This business brief reviews and analyses existing guidelines available for sustainable agri-food sector supply chains. The purpose of this is to offer a catalogue of existing resources and provide guidance on their applicability. This will help companies to navigate their sustainability journey within supply chains with clarity and confidence.

2. SCOPE OF THE REVIEW

There are many websites listing different sustainability standards, frameworks and tools that are not guidelines per se. The Standards Map⁴ by the International Trade Centre has listed 300+ sustainability standards, codes of conduct, audit protocols, reporting frameworks and company programmes on sustainability. It is a free tool for identifying and comparing existing standards using different filters. Ecolabel Index⁵ is the largest

global directory of ecolabels, with plenty of labels for agricultural commodities. The Trade Tools Navigator⁶ by the GCRF Trade, Development and the Environment Hub (TRADE Hub) project is another catalogue of existing initiatives, platforms, portals and certifications. The Navigator synthesizes the tools that are currently available and relevant to trade and supply chains.

Figure 1 provides an overview of the various types of resources in the sustainable agriculture supply chain space. These resources include 1. ESG standards, target-setting and disclosure frameworks that include upstream requirements, some of which have or are developing agriculture-specific requirements,⁷ 2. voluntary supply chain standards and certification schemes that relate to agricultural commodities, 3. supply chain ESG tools and commercial platforms for the agri-food sector. 4. Supply chain-related ESG tools, that are often also accompanied by some guidance.

However, as highlighted in Figure 1, we have focused this review on guidelines that fall outside these categories and yet provide detailed guidance that is written for agri-food sector businesses and which discusses sustainability of the value chain rather than the companies in general. We have included guidelines that are available online for free, i.e., those that are not commercial.

These resources differ in their coverage and have been categorized as follows (Figure 1): Those that cover the entire supply chain and are applicable to any agricultural commodity (blue category); Approaches to capital assessment that provide guidance specifically for the agri-food sector (in red); guidelines that focus either on a special question within the broader topic of sustainable agriculture supply chains (yellow) or on a specific commodity such as soy, beef, palm oil, timber (grey). For the latter two categories we have included a few examples, but many more likely exist and these lists are not exhaustive.



FIGURE 1. AN OVERVIEW OF THE TYPES OF RESOURCES AVAILABLE FOR SUSTAINABLE AGRICULTURE SUPPLY CHAINS, HIGHLIGHTING GUIDANCE THAT ARE THE FOCUS OF THIS REVIEW.

The top row of the figure contains the types of resources that were not included in the scope of this review. They provide relevant guidance on sustainability questions, but are already well known to the public, commercial resources, or are not guidance documents per se. The bottom row presents the resources included in the review. They are guideline documents that are available free of charge. These resources are presented in the next chapter.

ESG STANDARDS AND TARGET SETTING AND DISCLOSURE FRAMEWORKS A. CDP B. GRI C. ISO D. ISSB E. SASB F. SBTN G. SBTi-FLAG H. TNFD	SUPPLY CHAIN STANDARDS AND CERTIFICATION SCHEMES A. Bonsucro B. Rainforest Alliance C. Roundtable on Sustainable Palm Oil (RSPO) D. Round Table on Responsible Soy (RTRS)	ESG TOOLS FOR THE AGRICULTURAL SECTOR A. Forest 500 B. LandGriffon C. SPOTT D. Trase	OTHER COMMERCIAL PLATFORMS A. Agriplace B. Cool Farm Tool C. The LandScale methodology D. Preferred by Nature Sustainability Framework
FRAMEWORKS FOR SUSTAINABLE AGRICULTURAL SUPPLY CHAINS A. The accountability framework B. Sustainability assessment of food and agriculture systems (SAFA) C. Farm sustainability assessment (SAI Platform) D. OECD-FAO guidance for responsible agricultural supply chains	GUIDELINES ON SPECIFIC ISSUES RELATED TO SUSTAINABLE AGRICULTURAL SUPPLY CHAINS A. Value beyond value chains: guidance note for the private sector B. A step-by-step guide for successful implementation of traceability systems in agricultural supply chains C. Landscape scale action for forests, people and sustainable production. A practical guide for companies	APPROACHES TO CAPITAL ASSESSMENT WITH SPECIFIC GUIDANCE FOR THE AGRICULTURAL SECTOR A. TEEB for Agriculture and Food: operational guidelines for business B. Natural capital protocol: food and beverage sector guide	REPOSITORIES OF COMMODITY-SPECIFIC SUPPLY CHAIN GUIDELINES A. Responsible sourcing toolkits B. The CGF forest positive coalition roadmaps and implementation guidance C. THESIS product finder



3. OVERVIEW OF THE GUIDELINES

We have conducted a high-level review to understand how the existing guidance can be used to inform certain actions and decisions. This is not an assessment of the robustness of the guidance. The aim is to highlight some commonly discussed themes and understand similarities and differences among them. The results are presented in Tables 1-4.

We have assessed the **COVERAGE** of the guidelines throughout the supply chain and analysed whether the guidance helps in the following steps of a company's supply chain sustainability work. The steps are adapted from the ACT-D High level business actions on nature (Assess, Commit, Transform and Disclose).⁸

1. **MATERIALITY.** Identifying relevant sustainability topics and helping companies to choose what topics to focus on.
2. **TARGETS.** Supporting companies as they set commitments and targets.
3. **MEASURING.** Providing concrete guidance on data collection and the measurement of environmental impacts and/or human rights and social considerations.
4. **ACTION.** Proposing concrete actions and practices for supply chain management.
5. **DISCLOSURE.** Suggesting concrete ways to measure, report and disclose performance to stakeholders.

In addition, we have applied keyword search methodologies to identify the **SCOPE** of the guidance and the relative weight to addressing impacts on different aspects of nature as well as social considerations. The topics scanned by the keyword search were:

1. **NATURE IMPACTS** (*circularity, planetary boundaries, ecosystem services, land use, conversion, sea use, land ecosystems, water ecosystems, food loss, freshwater use, resource efficiency, climate change, eutrophication, waste, pollution*) to determine whether the guidance is looking at forest ecosystems and deforestation or also other types of land and sea conversion. The types of environmental impacts included in the guidance, like carbon emissions and pollution, are also considered.
2. **SOCIAL IMPACTS** (*income, health, nutrition, education, living standards, cultural value, freedom of choice, security, social relations, women, indigenous peoples, human rights*) to determine whether human rights and social considerations are included.

Most of the resources are outputs of timebound projects and therefore no updates are expected. Whether the resource is a static or a living document with expected updates has been reflected in the Format column (Tables 1-4). The **PURPOSE** and intended **AUDIENCE** are also stated in the tables (summarized based on what the guidance says).

TABLE 1. FRAMEWORKS FOR SUSTAINABLE AGRI-FOOD SUPPLY CHAINS.

SECTION COVERAGE:

PRIORITIZATION. Identifying relevant sustainability topics and helping companies to choose what topics to focus on.

TARGETS. Supporting companies as they set commitments and goals.

MEASURING. Providing concrete guidance on data collection efforts and the measurement of environmental impacts and human rights and social considerations.

ACTION. Proposing concrete actions and practices for supply chain management.

DISCLOSURE. Suggesting concrete ways to measure performance, monitor and report about them to stakeholders.

FRAMEWORKS FOR SUSTAINABLE AGRICULTURAL SUPPLY CHAINS	SPECIFICITY		SCOPE		COVERAGE					PURPOSE AND AUDIENCE	FORMAT
	AGRI SECTOR	SUPPLY CHAINS	NATURE IMPACTS	SOCIAL IMPACTS	PRIORITIZATION	TARGETS	MEASURING	ACTION	DISCLOSURE	FOR WHAT AND TO WHOM	IS IT A LIVING DOCUMENT?
The accountability framework	X	X	Deforestation and conversion of other natural ecosystems	Social impacts discussed through the human rights lens		X		X	X	Framework for ethical production and trade with operational guidance on special topics such as smallholder inclusion. Deforestation and human rights focused. For companies procuring agri/forestry products.	"Browser-based living platform, downloadable resources"
Sustainability assessment of food and agriculture systems (SAFA)	X	X	Broad set of environmental indicators from energy, water, and pollution, to biodiversity, soil health etc	Broad set of social indicators mainly focusing on employees and suppliers but also at the community level	X		X		X	A holistic global framework for the assessment of sustainability along food and agriculture value chains. Focus mainly at site level. For companies or all sizes, from production to marketing.	SAFA Guidelines, Indicators and Tools as PDFs
Farm sustainability assessment (SAI Platform)	X	X	Topic areas include soil, nutrients, waste, water, biodiversity and air emissions	Labour conditions included. The Self-Assessment also covers 'Farm Management & Community'.	X	X	X	X	X	A farm-level sustainability assessment system. It can be applied to all cultivated crop farms, of any size, in any place. It can and be used for verification, benchmarking, or as a tool to track progress.	A resource center with videos and downloadable resources. Regularly updated.
OECD-FAO guidance for responsible agricultural supply chains	X	X	Discusses environmental protection and sustainable use of natural resources at high level	Covers human rights, labour rights, health and safety, food security, tenure rights	X			X		A due diligence framework and practical guide for enterprises and investors in agri-business supply chains, to support the implementation of the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct. The framework guides enterprises in establishing a system to identify and respond to outward-facing risks and report on supply chain due diligence.	A static PDF document

REFERENCED GUIDELINES: *The accountability framework (The Accountability Framework Initiative 2024);⁹ Sustainability assessment of food and agriculture systems (SAFA) (FAO 2014);¹⁰ Farm sustainability assessment (SAI Platform 2024);¹¹ OECD-FAO guidance for responsible agricultural supply chains (OECD and FAO 2016)¹². The OECD-FAO agri-food sector guidance can be used collectively with the OECD guidelines for multinational enterprises on responsible business conduct (2023) and the OECD due diligence guidance for responsible business conduct (2018).*

TABLE 2. GUIDELINES ON SPECIFIC ISSUES RELATED TO SUSTAINABLE AGRI-FOOD SUPPLY CHAINS.

SECTION COVERAGE:

PRIORITIZATION. Identifying relevant sustainability topics and helping companies to choose what topics to focus on.

TARGETS. Supporting companies as they set commitments and goals.

MEASURING. Providing concrete guidance on data collection efforts and the measurement of environmental impacts and human rights and social considerations.

ACTION. Proposing concrete actions and practices for supply chain management.

DISCLOSURE. Suggesting concrete ways to measure performance, monitor and report about them to stakeholders.

GUIDELINES ON SPECIFIC ISSUES RELATED TO SUSTAINABLE AGRI-FOOD SUPPLY CHAINS	SPECIFICITY		SCOPE		COVERAGE					PURPOSE AND AUDIENCE	FORMAT
	AGRI SECTOR	SUPPLY CHAINS	NATURE IMPACTS	SOCIAL IMPACTS	PRIORITIZATION	TARGETS	MEASURING	ACTION	DISCLOSURE	FOR WHAT AND TO WHOM	IS IT A LIVING DOCUMENT?
Value beyond value chains: guidance note for the private sector	X	X	Talks about systemic risks from climate change, land degradation, biodiversity loss and water shortages	Talks about social and economic development at the level of communities and landscapes, not specifically about human rights				X		Guidance on multi-stakeholder collaboration with governments in producer countries. For large agribusinesses and buyers of agri commodities, particularly from tropical forest countries.	A static PDF document
A step-by-step guide for successful implementation of traceability systems in agricultural supply chains	X	X	Focus is on traceability	Focus is on traceability				X	X	Entry level introduction to traceability systems: The guideline focuses on small and medium sized companies, points out benefits of traceability, helps to select a suitable system (checklist) and guides through the following implementation steps; For practitioners working on agri-food supply chains.	A static PDF document
Landscape scale action for forests, people and sustainable production. A practical guide for companies	X	X	Focus is on landscape/ jurisdictional planning	Focus is on landscape/ jurisdictional planning				X		20 intervention case studies to explain what companies can do in to advance sustainable landscape initiatives. For companies willing to engage in landscape / jurisdictional planning.	The Guidance is a PDF document. Online interactive version available.

REFERENCED GUIDELINES: *Value beyond value chains: guidance note for the private sector* (United Nations Development Programme 2019);¹³ *A step-by-step guide for successful implementation of traceability systems in agricultural supply chains* (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH 2022);¹⁴ *Landscape scale action for forests, people and sustainable production. A practical guide for companies* (WWF and Proforest 2020)¹⁵.

TABLE 3. APPROACHES TO CAPITAL ASSESSMENT WITH SPECIFIC GUIDANCE FOR THE AGRI-FOOD SECTOR.

SECTION COVERAGE:

PRIORITIZATION. Identifying relevant sustainability topics and helping companies to choose what topics to focus on.

TARGETS. Supporting companies as they set commitments and goals.

MEASURING. Providing concrete guidance on data collection efforts and the measurement of environmental impacts and human rights and social considerations.

ACTION. Proposing concrete actions and practices for supply chain management.

DISCLOSURE. Suggesting concrete ways to measure performance, monitor and report about them to stakeholders.

APPROACHES TO CAPITAL ASSESSMENT WITH SPECIFIC GUIDANCE FOR THE AGRI-FOOD SECTOR	SPECIFICITY		SCOPE		COVERAGE					PURPOSE AND AUDIENCE	FORMAT
	AGRI SECTOR	SUPPLY CHAINS	NATURE IMPACTS	SOCIAL IMPACTS	PRIORITIZATION	TARGETS	MEASURING	ACTION	DISCLOSURE	FOR WHAT AND TO WHOM	IS IT A LIVING DOCUMENT?
TEEB for Agriculture and Food: operational guidelines for business	X		Through the concept of natural capital impacts and dependencies	Through the concept of human and social capital impacts and dependencies	X		X		X	Practical guidelines for understanding and acting upon impact and dependency on natural, human, social, and produced capital. For businesses to implement the TEEBAgriFood Evaluation Framework.	Several PDF documents
Natural capital protocol: food and beverage sector guide	X		Through the concept of natural capital impacts and dependencies	Focus is on natural capital	X		X		X	Annex to the Natural Capital Protocol: additional guidance and sector-specific business insights. Company-level approach. For farmers, traders, wholesalers, food manufacturing companies.	A static PDF document

REFERENCED GUIDELINES: *TEEB for agriculture and food: operational guidelines for business* (Capitals Coalition 2023);¹⁶ *Natural capital protocol: food and beverage sector guide* (Natural Capital Coalition 2016)¹⁷.

TABLE 4. REPOSITORIES OF COMMODITY-SPECIFIC SUPPLY CHAIN GUIDELINES.

SECTION COVERAGE:

PRIORITIZATION. Identifying relevant sustainability topics and helping companies to choose what topics to focus on.

TARGETS. Supporting companies as they set commitments and goals.

MEASURING. Providing concrete guidance on data collection efforts and the measurement of environmental impacts and human rights and social considerations.

ACTION. Proposing concrete actions and practices for supply chain management.

DISCLOSURE. Suggesting concrete ways to measure performance, monitor and report about them to stakeholders.

REPOSITORIES OF COMMODITY-SPECIFIC SUPPLY CHAIN GUIDELINES	SPECIFICITY		SCOPE		COVERAGE					PURPOSE AND AUDIENCE	FORMAT
	AGRI SECTOR	SUPPLY CHAINS	NATURE IMPACTS	SOCIAL IMPACTS	PRIORITIZATION	TARGETS	MEASURING	ACTION	DISCLOSURE	FOR WHAT AND TO WHOM	IS IT A LIVING DOCUMENT?
Responsible sourcing toolkits	X	X	Commodity-relevant environmental issues raised	Commodity-relevant social issues raised	X	X	X	X	X	An approach for developing company strategy and policies supporting sustainability commitments. For businesses procuring soy, palm oil, and beef. Has guidance for within and beyond supply chain actions.	A browser-based living platform, downloadable resources, e-learning materials
The CGF forest positive coalition roadmaps and implementation guidance	X	X	Focus is on forest protection	Focus is on forest positive but the Roadmap will increasingly integrate IPLC rights		X	X	X	X	Roadmaps with proposed commitments, an action plan, and a set of KPIs. Supporting implementation guidance available. For businesses procuring soy, beef, paper, pulp, and fibre-based packaging. Guidance for palm oil is under development.	A browser-based living platform, downloadable resources, e-learning materials
THESIS product finder	X	X	Commodity-relevant environmental issues raised	Commodity-relevant social issues raised	X			X		Sustainability Snapshots for 100+ agriculture commodities provide information about sustainability issues present in the supply chains of the different commodities. For companies and consumers.	A commercial platform, free PDF Snapshots

REFERENCED GUIDELINES: *Responsible sourcing toolkits* (Proforest 2023);¹⁸ *The CGF forest positive coalition roadmaps and implementation guidance* (The Consumer Goods Forum 2023);¹⁹ *THESIS product finder* (The Sustainability Consortium 2024)²⁰.

4. ANALYSIS

Rationale for action is a combination of moral responsibility and risk management

Most agri-food sector supply chain guidelines are targeted to a wide audience, such as “companies in the agriculture and forestry sectors” or to “decision makers in large agribusinesses” and “buyers of agricultural commodities”. They typically aim to serve all sizes of companies at different supply chain stages. The guidelines do not state that they are specifically aimed at corporate sustainability or sourcing teams although these are the most likely readers of sustainable supply chain resources.

In the guidelines, there are two different rationales for why companies should take action:

1. **Moral responsibility:** There is an increasing understanding of environmental, human rights and social impacts that threaten the long-term viability of the sourcing landscapes and the livelihoods of smallholders producing raw materials for agri-food sector companies. Some guidelines mainly emphasize the moral responsibility for companies to act, stating that current approaches to reach sustainable agriculture are not sufficient. To achieve long-term change, they call for multi-stakeholder cooperation that goes beyond actions in companies’ own direct supply chains.
2. **Business risk:** Over-exploitation of natural resources is a physical risk for businesses themselves as they are dependent on natural capital for their raw materials, energy, water and protection from extreme weather. Some guidelines try to make the value of nature visible in economic terms through mechanisms like capital assessment so that it can be mainstreamed into business decision-making. They are, effectively, creating a business case for considering nature.

The two rationales are interlinked. Raising awareness of environmental matters and human rights and social considerations in value chains is driving increasing regulatory and customer pressure. Companies overlooking these stakeholder requirements may face transition risks related to reputation, market shifts and compliance with regulations, leading to financial consequences.

Guidelines for business strategy, supply chain management and sustainable production

Some of the guidelines focus more on the strategic level of supply chain processes (such as systems for monitoring and disclosure). Others provide practical guidance for management actions (for instance, by proposing good practices). In this respect, there are three levels on which the guidelines can be found:

1. **CORPORATE STRATEGY RELATED TO SUPPLY CHAINS: GUIDELINES FOR INTEGRATION OF SUPPLY CHAIN SUSTAINABILITY ISSUES INTO COMPANY POLICIES AND PROCESSES.**
These provide company policies and processes that account for supply chain impacts, speaking to the increasing recognition of companies being responsible for impacts in their supply chains. These guidelines do not necessarily address supply chain issues at a practical level but are rather general business-level process frameworks. If a company aims to build strong policies for environmental and social responsibility, strategy level guidance is a good place to start.
2. **SUPPLY CHAIN MANAGEMENT PROCESSES: GUIDELINES FOR CONCRETE MEASURES TO PROMOTE THE SUSTAINABILITY OF PRODUCTION SYSTEMS.**
These include guidance and recommendations on issues such as developing traceability systems, complying with standards, or conducting impact assessment at the site level. These tend to provide commodity specific best practices on supply chain management and are not fully applicable to other raw materials. NGOs and business-derived working groups have released specialized guidance on commodities that are most strongly associated with the risk of deforestation, such as soy, beef, palm oil, cocoa, timber and wood pulp.
3. **SUSTAINABLE PRODUCTION PRACTICES: GUIDELINES FOR TACKLING SUSTAINABILITY ISSUES IN THE SOURCING LANDSCAPES, INCLUDING THE LIVELIHOODS OF PRODUCERS.**
These guidelines describe changes that should take place to enable people in the sourcing landscapes to live decent lives. They often include the aspect of long-term multi-

stakeholder action that is needed to drive change in sourcing landscapes. If a company already has an advanced policy on supply chain sustainability management and established reporting practices, it could benefit from guidance on multi-stakeholder efforts that are needed to drive long term change.

Many guidelines take a process-orientated approach

Although the guidelines differ in terms of precise terminology and sequence of steps, most follow a somewhat similar structure. This involves presenting sustainable supply chain management as a cycle that starts with identifying material topics and setting objectives, followed by conducting assessments and measurements. After analyzing the results, supply chain management actions are taken. The loop is closed with monitoring progress, reviewing objectives and reporting results. After which, the cycle starts again to support continuous improvement. As seen in Tables 1–4, guidelines cover these steps in varying levels of detail.

Alignment across key themes

LAND USE CHANGE AND LAND MANAGEMENT

Most guidelines address land use and land use change as the main cause of environmental issues in agricultural production. However, most focus on deforestation and conversion of other types of terrestrial ecosystems are rarely covered. Aquatic ecosystems are not included in the scope of the guidance that was reviewed. Guidance at the site level does not always take land use change into account, as the focus is on managing land that is already in use. Similarly, guidelines that focus on preventing conversion on a large scale do not necessarily provide guidance on management practices for land already in use.

HUMAN RIGHTS AND SOCIAL CONSIDERATIONS

Human rights and social considerations in agricultural production and procurement are discussed in one way or another in almost all the guidelines. The approach to social considerations is variable, with some referring to social risk and some referring to human rights. However, the human rights references are often limited to



those associated with direct workforce, rather than considering adverse impacts on all rights holders including small-scale producers who may be affected by the supply chain operations and practices. Some guidelines also include issues related to the rights of Indigenous Peoples and local communities (IPLCs), such as tenure rights or access to natural resources. Gender equality considerations are most often mentioned in the context of anti-discrimination policies and less in the context of women's empowerment.

THE ROLE OF SUSTAINABILITY STANDARDS

When it comes to tools for sustainable supply chain management, sustainability standards are mentioned in all the guidelines. These refer to a set of guidelines, criteria or specifications that define what is considered sustainable in various aspects of agricultural production and supply chain management. Standards can be mandatory or voluntary. There are mandatory national standards such as The Indonesian Sustainable Palm Oil standard (ISPO), which all palm oil producers in Indonesia must comply with. There are also international standards such as the OECD Guidelines. They are not legally binding on companies, but impose obligations on governments, which in turn regulate activities of businesses. Industry associations, NGO's, certification bodies, and individual enterprises also develop standards. The most discussed standards in the guidelines are voluntary certification standards such as Roundtable on Sustainable Palm Oil (RSPO), Bonsucro and Rainforest Alliance. These standards include a certification programme to validate and verify compliance with the standards through audits and assessments. In the guidelines, certification is presented as one possible tool among others. Certification schemes do not exist for all commodities. Examples of alternative measures include supply chain mapping, risk assessments, public commitments, supplier audits, traceability data, satellite or farm-level monitoring, company sustainability programs and landscape initiatives.

IMPROVING TRACEABILITY

Improving traceability in supply chains is a hot topic that often comes up in the current debate on supply chain sustainability. Traceability refers to the ability to follow a product or its components through the supply chain at a batch level. Most

guidelines highlight the importance of increasing traceability but the recommended tools for it vary. Some instruct that traceability can be achieved by tracing products to the original production units or to an intermediary supplier that has effective control mechanisms to ensure traceability at the level of production units. A certification scheme can be seen as a means of a third-party ensuring traceability. Guidelines focusing on a landscape approach generally encourage the establishment of co-funded open-source monitoring systems, developed in partnership with stakeholders in commodity-producing geographical areas. An independent third party is needed to oversee the system and collect data from stakeholders, such as satellite imagery and information on commodity movements within the landscape.

MEASURING PERFORMANCE

Monitoring, measuring and reporting supply chain sustainability is often mentioned in the guidelines, but guidance on what exactly needs to be measured and where to get the data remains an open question. Most of the guidelines in the scope of the review differentiate themselves from reporting and monitoring frameworks. When it comes to data and metrics, the guidelines often refer to external platforms and data sources such as Supply Change, Forest 500, Trase, Preferred by Nature Sourcing Hub and CDP Forests.

There are site-level guidelines that provide clear indicators for how to measure on-farm sustainability, but they are not the focus of this supply chain guideline review. Site-level measurement methods may not be suitable for looking at the whole supply chain, as collecting detailed data from each production site for the whole supply chain may be too burdensome or even impossible due to lack of traceability. Supply chain-focused guidelines often rely on monitoring the level of traceability or compliance with standards instead of providing unambiguous indicators or metrics to measure the actual environmental or social impacts of sourcing. This infers that there is a challenge around combining site level and corporate metrics for disclosure as companies need comparable metrics and data that can be aggregated and reported at a company level. The supply chain guidelines provide some comparable information, but a way to aggregate site-level data is still needed to provide a more complete picture of performance at a company level.

THE IMPORTANCE OF A LANDSCAPE-LEVEL, MULTI-STAKEHOLDER APPROACH

Some of the guidelines have taken a broader perspective to address systemic sustainability challenges. This kind of approach is called a landscape approach or, more specifically, a jurisdictional approach (if government entities are involved).²¹ The key idea is to drive transformation beyond individual value chains working together with the people in the sourcing landscapes as well as with local governments and civil society organizations. It includes building a shared understanding of the issues in producing landscapes and engaging with suppliers and traders. It also includes investing in landscape initiatives that aim to tackle the challenges at a broader level. There are several landscape or jurisdictional initiatives in place and in development in which businesses can invest and with which they can collaborate. While a landscape approach may not be familiar to all businesses, it is increasingly recognized that systemic supply chain challenges cannot be solved in isolation but require cross-sector and multi-stakeholder collaboration at the landscape level.

The need for collaboration between stakeholders and value chain actors is a cross-cutting topic in almost all the guidelines. However, the term “stakeholder collaboration” has a slightly different emphasis in different contexts. The business-oriented guidelines tend to emphasize relationships with direct stakeholders such as suppliers, clients, other businesses and investors. Some guidelines also mention affected local communities, including Indigenous Peoples and local communities, consumers and environmental and social NGOs as relevant stakeholder groups.

5. MOVING TO TRANSFORMATION

Despite the remarkable investments many multinational companies have made in supply chain management and the impressive sustainability programmes that they have developed, more will be needed to achieve sustainable food systems. This suggests that the current efforts may lack the necessary ambition or

scale required to instigate lasting change. While long term transformation of the agri-food sector is highlighted by many of the guidelines, practical guidance is still mostly focused on measuring risks and managing direct impacts.

Defining the role of businesses in making a holistic transformation of food systems happen requires a lot of new thinking. Transformation will require all the elements mentioned in the supply chain guidelines from increasing traceability to involving affected communities in the decision-making. Transformation can also mean rethinking traditional business models and product design, as well as pre-competitive cooperation with other companies beyond their own, direct value chains. It will require system-level, holistic change at scale. Here cross-sectoral collaboration with the public sector, financial institutions and civil society will play a key role. Demand-side measures such as supporting a shift to sustainable consumption will also be needed.²²

While guidelines commonly discuss topics such as land use and conversion and human rights, pathways to transformative action across value chains and beyond them are still quite nascent. The landscape or jurisdictional approach is proposed as a solution for achieving long-term impacts, and efforts to mainstream this across business practice and link to supply chain design and management would be needed to achieve transformational effects. The different guidance available therefore plays a role, but its differing applicability to different business types needs to be understood to embed it in the re-design of businesses to achieve transformation of food systems.

It would be ground-breaking for guidance to be developed on how to integrate a landscape approach into current supply chain management thinking and how to identify the best applications of these approaches in different contexts of agri-food value chains. At the same time, companies are encouraged to start looking into the application of the landscape-level approach in their own business context, as it will not be possible to develop comprehensive guidelines that apply to every situation. A good starting point is for businesses to familiarize themselves with the guidelines set out in this brief, where applicable. It would also be good to become familiar with the other work of the organizations behind the guidelines.



REFERENCES

- ¹UN (2011) Guiding principles on business and human rights: implementing the United Nations “Protect, respect and remedy” Framework. UN Doc. A/HRC/17/31
- ²The International Bill of Rights refers to (1) Universal Declaration of Human Rights (adopted 10 Dec. 1948), U.N.G.A. Res. 217 A (III) (1948); (2) International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR); (3) International Covenant on Economic, Social and Cultural Rights, New York, (adopted 16 December 1966, entered into force on 3 January 1976, 993 UNTS (ICESCR). Available at: <https://www.ohchr.org/en/what-are-human-rights/international-bill-human-rights> (Accessed: 1 March 2024).
- ³International Labour Organization (ILO), ILO Declaration on Fundamental Principles and Rights at Work, adopted June 1988 [as amended] and International Labour Organisation, *Conventions and recommendations*. Available at: <https://www.ilo.org/global/standards/introduction-to-international-labour-standards/conventions-and-recommendations/lang-en/index.htm> (Accessed: 1 March 2024).
- ⁴UN Environment Programme World Conservation Monitoring Centre, United Nations Environment Programme Finance Initiative (2024) *Accountability for nature: comparison of nature-related assessment and disclosure frameworks and standards*. Available at: <https://www.unepfi.org/publications/accountability-for-nature-comparison-of-nature-related-assessment-and-disclosure-frameworks-and-standards/> (Accessed: 1 March 2024).
- ⁵International Trade Centre (2023) *The standards map*. Available at: <https://standardsmap.org/en/home> (Accessed: 1 March 2024).
- ⁶Big Room Inc. (2024) *Ecolabel index*. Available at: <https://www.ecolabelindex.com/> (Accessed: 1 March 2024).
- ⁷UN Environment Programme World Conservation Monitoring Centre and GCRF Trade Development and the Environment Hub (2019) *Trade tools navigator*. Available at: <https://tradehub.earth/data/> (Accessed: 1 March 2024).
- ⁸Capitals Coalition, Business for Nature, WBCSD, TNFD, Science Based Targets Network, WEF and WWF (2022) *ACT-D: high level business actions on nature*. Available at: <https://capitalscoalition.org/business-actions/> (Accessed: 1 March 2024).
- ⁹Accountability Framework Initiative (2024) *The accountability framework*. Available at <https://accountability-framework.org> (Accessed: 1 March 2024).
- ¹⁰FAO (2014) *Sustainability assessment of food and agriculture systems (SAFA). Guidelines version 3.0*. Available at: <https://www.fao.org/nr/sustainability/sustainability-assessments-safa/en/> (Accessed: 1 March 2024).
- ¹¹SAI Platform (2024) *Farm sustainability assessment*. Available at: <https://saipatform.org/resource-centre/fsa/> (Accessed: 1 March 2024).
- ¹²OECD and FAO (2016) *OECD-FAO guidance for responsible agricultural supply chains*. OECD Publishing, Paris. Available at: <http://dx.doi.org/10.1787/9789264251052-en> (Accessed: 1 March 2024).
- ¹³United Nations Development Programme (2019) *Value beyond value chains: guidance note for the private sector*. One United Nations Plaza, New York, NY 10017, USA. Available at: <https://www.undp.org/publications/value-beyond-value-chains> (Accessed: 1 March 2024).
- ¹⁴Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (2022). *A step-by-step guide for successful implementation of traceability systems in agricultural supply chains*. Available at: <https://www.nachhaltige-agrarlieferketten.org/en/news/how-to-new-guide-to-traceability-in-agricultural-supply-chains> (Accessed: 1 March 2024).
- ¹⁵TFA, WWF and Proforest (2020) *Landscape scale action for forests, people and sustainable production. A practical guide for companies*. Available at: <https://jare-sourcehub.org/resources/guidance-for-companies/interventions/> (Accessed: 1 March 2024).
- ¹⁶Capitals Coalition (2023) *TEEB for agriculture and food: operational guidelines for business*. Available at: <https://capitalscoalition.org/publication/teebagri-food-operational-guidelines-for-business>. (Accessed: 1 March 2024).
- ¹⁷Natural Capital Coalition (2016) *Natural capital protocol: food & beverage sector guide*. Available at: https://capitalscoalition.org/guide_supplement/food-beverage-sector-guide/ (Accessed: 1 March 2024).
- ¹⁸Proforest (2023) *Responsible sourcing toolkits*. Available at: <https://www.proforest.net/what-we-do/supporting-companies/our-toolkits/> (Accessed: 1 March 2024).
- ¹⁹The Consumer Goods Forum (2023) *The CGF forest positive coalition roadmaps and implementation guidance*. Available at: <https://www.theconsumergoodsforum.com/environmental-sustainability/forest-positive/key-projects/commodity-specific-roadmaps-and-reporting/> (Accessed: 1 March 2024).
- ²⁰The Sustainability Consortium (2024) *THEISIS product finder*. Available at: <https://sustainabilityconsortium.org/product-finder-food-beverage-agriculture/> (Accessed: 1 March 2024).
- ²¹Partnerships for Forests (2023) *Landscape approaches lessons from P4F’s portfolio on designing sustainable, integrated, and responsible practices*. Available at: <https://landscapesfuture.org/landscape-approaches/> (Accessed: 1 March 2024).
- ²²World Business Council for Sustainable Development (2023) *Roadmap to nature positive: foundations for the agri-food system. row crop commodities subsector*. Available at: <https://www.wbcsd.org/Imperatives/Nature-Action/Nature-Positive/Roadmaps-to-Nature-Positive/Resources/Roadmap-to-Nature-Positive-Foundations-for-the-agri-food-system-landscape-deep-dives> (Accessed: 1 March 2024).

ANNEX 1 - FULL LIST OF ALL GUIDELINES INCLUDED IN THE REVIEW

TABLE 5. LISTED IN ORDER OF APPEARANCE IN THE TABLE.

	SPEC-IFICITY		SCOPE		COVERAGE					PURPOSE AND AUDIENCE	FORMAT
	AGRI SECTOR	SUPPLY CHAINS	NATURE IMPACTS	SOCIAL IMPACTS	PRIORITIZATION	TARGETS	MEASURING	ACTION	DISCLOSURE	FOR WHAT AND TO WHOM	IS IT A LIVING DOCUMENT?
FRAMEWORKS FOR SUSTAINABLE AGRICULTURAL SUPPLY CHAINS											
The accountability framework	X	X	Deforestation and conversion of other natural ecosystems	Social impacts discussed through the human rights lense		X		X	X	Framework for ethical production and trade with operational guidance on special topics such as smallholder inclusion. Deforestation and human rights focused. For companies procuring agri/forestry products.	“Browser-based living platform, downloadable resources”
Sustainability assessment of food and agriculture systems (SAFA)	X	X	Broad set of environmental indicators from energy, water, and pollution, to biodiversity, soil health etc	Broad set of social indicators mainly focusing on employees and suppliers but also at the community level	X		X		X	A holistic global framework for the assessment of sustainability along food and agriculture value chains. Focus mainly at site level. For companies or all sizes, from production to marketing.	SAFA Guidelines, Indicators and Tools as PDFs
Farm sustainability assessment (SAI Platform)	X	X	Topic areas include soil, nutrients, waste, water, biodiversity and air emissions	Labour conditions included. The Self-Assessment also covers ‘Farm Management & Community’.	X	X	X	X	X	A farm-level sustainability assessment system. It can be applied to all cultivated crop farms, of any size, in any place. It can and be used for verification, benchmarking, or as a tool to track progress.	A resource center with videos and downloadable resources. Regularly updated.
OECD-FAO guidance for responsible agricultural supply chains	X	X	Discusses environmental protection and sustainable use of natural resources at high level	Covers human rights, labour rights, health and safety, food security, tenure rights	X				X	A due diligence framework and practical guide for enterprises and investors in agri-business supply chains, to support the implementation of the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct. The framework guides enterprises in establishing a system to identify and respond to outward-facing risks and report on supply chain due diligence.	A static PDF document
GUIDELINES ON SPECIFIC ISSUES RELATED TO SUSTAINABLE AGRI-FOOD SUPPLY CHAINS											
Value beyond value chains: guidance note for the private sector	X	X	Talks about systemic risks from climate change, land degradation, biodiversity loss and water shortages	Talks about social and economic development at the level of communities and landscapes, not specifically about human rights					X	Guidance on multi-stakeholder collaboration with governments in producer countries. For large agribusinesses and buyers of agri commodities, particularly from tropical forest countries.	A static PDF document
A step-by-step guide for successful implementation of traceability systems in agricultural supply chains	X	X	Focus is on traceability	Focus is on traceability					X X	Entry level introduction to traceability systems: The guideline focuses on small and medium sized companies, points out benefits of traceability, helps to select a suitable system (checklist) and guides through the following implementation steps; For practitioners working on agri-food supply chains.	A static PDF document
Landscape scale action for forests, people and sustainable production. A practical guide for companies	X	X	Focus is on landscape/ jurisdictional planning	Focus is on landscape/ jurisdictional planning					X	20 intervention case studies to explain what companies can do in to advance sustainable landscape initiatives. For companies willing to engage in landscape / jurisdictional planning.	The Guidance is a PDF document. Online interactive version available.
APPROACHES TO CAPITAL ASSESSMENT WITH SPECIFIC GUIDANCE FOR THE AGRI-FOOD SECTOR											
TEEB for Agriculture and Food: operational guidelines for business	X		Through the concept of natural capital impacts and dependencies	Through the concept of human and social capital impacts and dependencies	X		X		X	Practical guidelines for understanding and acting upon impact and dependency on natural, human, social, and produced capital. For businesses to implement the TEEBAgriFood Evaluation Framework.	Several PDF documents
Natural capital protocol: food and beverage sector guide	X		Through the concept of natural capital impacts and dependencies	Focus is on natural capital	X		X		X	Annex to the Natural Capital Protocol: additional guidance and sector-specific business insights. Company-level approach. For farmers, traders, wholesalers, food manufacturing companies.	A static PDF document
REPOSITORIES OF COMMODITY-SPECIFIC SUPPLY CHAIN GUIDELINES											
Responsible sourcing toolkits	X	X	Commodity-relevant environmental issues raised	Commodity-relevant social issues raised	X	X	X	X	X	An approach for developing company strategy and policies supporting sustainability commitments. For businesses procuring soy, palm oil, and beef. Has guidance for within and beyond supply chain actions.	A browser-based living platform, downloadable resources, e-learning materials
The CGF forest positive coalition roadmaps and implementation guidance	X	X	Focus is on forest protection	Focus is on forest positive but the Roadmap will increasinly integrate IPLC rights		X	X	X	X	Roadmaps with proposed commitments, an action plan, and a set of KPIs. Supporting implementation guidance available. For businesses procuring soy, beef, paper, pulp, and fibre-based packaging. Guidance for palm oil is under development.	A browser-based living platform, downloadable resources, e-learning materials
THESIS product finder	X	X	Commodity-relevant environmental issues raised	Commodity-relevant social issues raised	X				X	Sustainability Snapshots for 100+ agriculture commodities provide information about sustainability issues present in the supply chains of the different commodities. For companies and consumers.	A commercial platform, free PDF Snapshots

REFERENCED GUIDELINES: *The accountability framework* (The Accountability Framework Initiative 2024);⁹ *Sustainability assessment of food and agriculture systems (SAFA)* (FAO 2014);¹⁰ *Farm sustainability assessment (SAI Platform 2024)*;¹¹ *OECD-FAO guidance for responsible agricultural supply chains* (OECD and FAO 2016);¹² *Value beyond value chains: guidance note for the private sector* (United Nations Development Programme 2019);¹³ *A step-by-step guide for successful implementation of traceability systems in agricultural supply chains* (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH 2022);¹⁴ *Landscape scale action for forests, people and sustainable production. A practical guide for companies* (WWF and Proforest 2020);¹⁵ *TEEB for agriculture and food: operational guidelines for business* (Capitals Coalition 2023);¹⁶ *Natural capital protocol: food and beverage sector guide* (Natural Capital Coalition 2016);¹⁷ *Responsible sourcing toolkits* (Proforest 2023);¹⁸ *The CGF forest positive coalition roadmaps and implementation guidance* (The Consumer Goods Forum 2023);¹⁹ *THESIS product finder* (The Sustainability Consortium 2024)²⁰.

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