Food and Agriculture Organization of the United Nations

Responsible business conduct in the pineapple industry: a guide for producers and exporters

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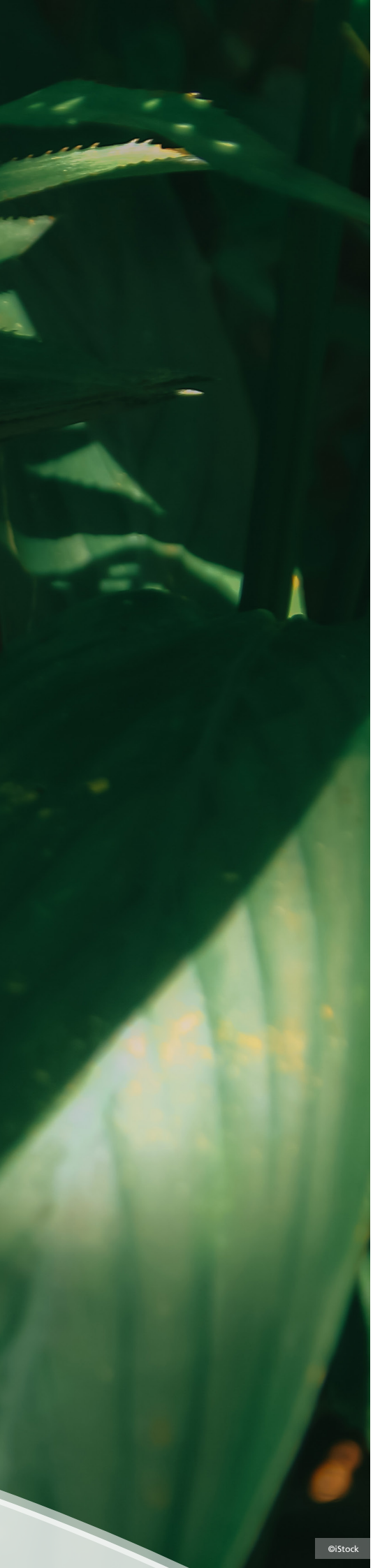
Abbreviations

OECD	Organization for Economic Cooperation and Development
CSDDD	European Union's Corporate Sustainability Due Diligence Directive
CSRD	European Union's Corporate Sustainability Reporting Directive
DD	due diligence
ESG	environmental, social and governance
ESRS	European Sustainability Reporting Standards
FLO	Fairtrade Labelling Organizations International
FPIC	free, prior and informed consent
GBVH	gender-based violence and harassment
GCFP	Global Coalition of Fresh Produce
GHG	greenhouse gas
GRI	Global Reporting Initiative
HREDD	Fairtrade International's models of commitment policies on Human Rights and Environmental Due Diligence
IFC	International Finance Corporation
ILO	International Labour Organization
MEL	monitoring, evaluation and learning
MRLs	maximum residue limits
OHCHR	Office of the High Commissioner for Human Rights
OHS	occupational health and safety
RBC	responsible business conduct
SDG	sustainable development goals
VSS	voluntary sustainability standards



Chapter 1.

Introduction

This guide aims to support pineapple businesses operating in the global pineapple industry in their efforts to implement responsible business conduct practices to improve the sustainability of their operations. See Box 1 to learn more about what this guide is about and if it is for you.

Box 1 Is this guide for you?

Who?

Are you a pineapple producer or a business operating in the pineapple industry for export? Then this guide is for you.

What?

Are you concerned about sustainability? This guide will help you to learn how to demonstrate to your customers that your business is socially and environmentally responsible.

Why?

In today's changing world, consumers and customers in international markets want to know that their fruit is being produced and sold in a way that does not harm the environment or workers involved in producing and selling the fruit and that is safe for consumption. Some governments are also requiring companies to demonstrate their social and environmental responsibility.

How?

This guide will help you to identify your risks and to design strategies to meet the expectations of customers and consumers for engaging in responsible business conduct.

Want to know more?

Read the guide! Take a look at the Additional Resources listed at the end of this guide, and feel free to contact the Responsible Fruits Project team for more information.

What to keep in mind?

This guide outlines general risks that the global pineapple sector is facing. Not all risks may apply to your situation, so you should choose the ones that are relevant to your context, business operations, and partner activities.

What is responsible business conduct?

Responsible business conduct (RBC) means operating your business in a way that avoids negative social and environmental impacts, both as a result of your activities and those of your partners, including suppliers.[1]

By committing to and implementing RBC practices within your company, you go one step further. Your company will not only avoid negative impacts by preventing and addressing risks and remedying negative impacts as they arise, but also demonstrate to your customers and consumers *how* you are increasing the sustainability of your business in line with internationally recognized principles and standards. These principles and standards may include the United Nations Sustainable Development Goals (SDGs), the United Nations Guiding Principles on Business and Human Rights, and national-level regulations[2] on due diligence, among others. By minimizing the risks of negative impacts and adopting practices to build the long-term economic, social and environmental sustainability of your business, you also build your operation's resilience to shocks that can potentially damage your business. This helps to strengthen your business model and your relationship with suppliers.

Box 2 **Definition of responsible business conduct**

Responsible business conduct

Responsible business conduct (RBC) encompasses the commitment of businesses to sustainable development, human rights, and addressing environmental and social challenges. It involves compliance with laws, even in cases where enforcement is weak, and responsiveness to societal expectations (including those of consumers). RBC goes beyond legal requirements and can assist businesses in anticipating stricter regulations.

Source: Adapted from **OECD-FAO.** 2016. *OECD-FAO Guidance for Responsible Agricultural Supply Chains.* Paris, OECD. www.fao.org/3/i6074e/i6074e.pdf

[1] There are several other related terminologies describing contributions that businesses can make to do-no-harm sustainable development, which may overlap with the definition of RBC given in Box 2 or have a slightly different focus area. These terms include corporate social responsibility, environmental, social and governance (ESG) factors, business and human rights, sustainable business, and others (AFi and OECD, 2022).

[2] In some countries such as Germany, Switzerland, the United Kingdom of Great Britain and Northern Ireland, Australia, Canada and the European Union, laws and regulations on due diligence now make it compulsory for companies operating in, or exporting to, these areas to demonstrate how they are managing environmental and social risks.

What about due diligence? What does that term mean?

Due diligence is a key component of RBC. **It is the process through which RBC is operationalized,** i.e. you cannot be considered a responsible business unless you conduct some form of due diligence. Due diligence is the process through which companies identify, assess, mitigate, prevent, remedy and report on how they address the negative impacts of their activities and those of their suppliers and business partners (OECD-FAO, 2016; OECD, 2011; OECD, 2018).

Table 1. Due diligence in the context of responsible business conduct

What is it?	**A process**
Who is responsible?	**that companies should conduct to**
What must be done?	**identify, prevent, or mitigate and remediate, and report on how**
What is the focus?	**actual and potential negative impacts are addressed**
Where is it applied?	**in their own operations, supply chains and other business relationships.**

Source: **OECD.** 2018. *OECD Due Diligence Guidance for Responsible Business Conduct (RBC)*. Paris, OECD. www.oecd.org/investment/due-diligence-guidance-for-responsible-business-conduct.htm

What is driving responsible business conduct?

RBC is influenced by many factors and stakeholders. Public demand for accountability and transparency increased following criticism of companies engaging in unethical behaviour that have negatively impacted people and the planet. Consumer preferences for sustainably sourced products, as well as the growing importance of Environmental, Social, and Governance (ESG) issues for financial investors, changing government regulations, and civil society advocacy contributed to the accelerated adoption of RBC. Furthermore, the potential role of businesses to make positive contributions to sustainability objectives is highlighted in the 2030 Agenda for Sustainable Development adopted in 2015.

These factors combined are increasing the pressure on businesses to demonstrate how they are engaged in RBC. To support this goal, several international guidance standards have emerged (Box 3).

Voluntary sustainability standards (VSS) were developed by standard-setting organizations (public or private), certification schemes and industry initiatives. VSS can serve as a tool for businesses to access high-value markets by showcasing their commitment to sustainability and by demonstrating how they address pertinent sustainability issues, including social and environmental issues. Customers in international markets often demand adoption of specific VSS by their suppliers. However, the number of VSS available, and the varied demands from international customers to adopt these standards, can make it challenging for producers and exporters to manage compliance (see Table 2). It can also be

difficult for consumers to understand which standards cover the sustainability issues they care most about. Recent studies also show that adopting VSS alone in some commodity sectors (e.g. coffee) is not enough to promote a transition towards the more sustainable production practices that are needed to achieve the SDGs (Rubio-Jovel, *et al.*, 2023). Box 4 presents three examples of VSS relevant to the pineapple industry that aim to prevent negative social and environmental impacts.

Box 3 International guidance standards relevant to responsible business conduct

International guidance standards

International frameworks and guidelines – such as the United Nations (UN) Guiding Principles on Business and Human Rights, the Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises on Responsible Business Conduct, and the International Labour Organization (ILO) Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy – have outlined expectations related to human rights, labour, the environment, and corruption. These frameworks establish the foundation for RBC and due diligence. In the agriculture sector, international expectations on responsible business conduct and due diligence are embodied in the OECD-FAO Guidance for Responsible Agricultural Supply Chains (the OECD-FAO Guidance).

Sources: **UN.** 2011. *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*. New York and Geneva, UN; **OECD.** 2011. *OECD Guidelines for Multinational Enterprises*. Paris, OECD; **OECD.** 2018. *OECD Due Diligence Guidance for Responsible Business Conduct (RBC)*. Paris, OECD; **OECD.** 2023. *OECD Guidelines for Multinational Enterprises on Responsible Business Conduct.* Paris, OECD. **ILO.** 2022c. *Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy – Sixth edition*. Geneva.

Table 2. Examples of certification standards used by companies in the tropical fruit sector

Standard	Value chain scope	Issue focus
Fairtrade	Production and/or trade (as applicable to the certification holder)	Social, economic and environmental sustainability
The IFOAM Standard	Production	Organic agriculture
Rainforest Alliance	Farm and/or entire supply chain after farm (as applicable to the certification holder)	Social, economic and environmental sustainability
GLOBALG.A.P. Fruit & Vegetables certification	Pre-harvest activities, production, and post-harvest produce handling, packing and storing	Food safety; traceability; quality assurance; workers' occupational health and safety; site management; soil management; fertilizer application management; integrated pest management; plant protection products management; and water management
SA8000	General non-agricultural specific	Child Labour; forced or compulsory labor; health and safety; freedom of association & right to collective bargaining; discrimination; disciplinary practices; working hours; remuneration; and management system

Source: **FAO.** 2023. *Gap analysis to support due diligence in the avocado and pineapple sectors.* Rome. https://doi.org/10.4060/cc4149en

Box 4 Examples of voluntary sustainability standards relevant to the pineapple industry

The ***Asociación Empresarial para el Desarrollo*** [Business Alliance for Development] (AED) is an association that supports companies to integrate social responsibility into their corporate strategies. AED is a non-profit entity formed by over 100 companies in Costa Rica, including some of the major producing and exporting pineapple companies. AED guides the productive sector to consider sustainability principles as part of its management, reducing negative impacts and maximizing positive effects on society, the environment and the economy. This support is managed through a series of tools created by AED to measure the status of each of the companies and their level of progress in relation to the incorporation of sustainability principles in their management, including the development of a work plan to address priority areas. The signatory companies work together with civil society organizations and the government, though private–public partnerships to contribute to sustainability in its three dimensions and improve industry competition. Although the Alliance does not provide company-wide sustainability certifications,

AED certifies professionals in specific areas, such as the development of sustainability reports based on the Global Reporting Initiative (GRI) standards.

Fairtrade Labelling Organizations (FLO) International is a non-profit entity responsible for establishing and supervising voluntary Fairtrade standards for ethical and sustainable trade. These standards provide guidelines and criteria for Fairtrade-certified agricultural products. Key requirements to become a certified product are the Fairtrade minimum price, which ensures a fair price for smallholder producers; Fairtrade premium, which is paid by procurers and is invested in community projects; adherence to standards of labour, human rights, gender equality, and environmental sustainability; and participatory and transparent decision-making. Independent audits and inspections are conducted to ensure compliance. Various grievance mechanisms, including on the national level, are in place within the Fairtrade framework. In recent years, Fairtrade has been involved in and informed by ongoing debates on due diligence. According to Fairtrade, its due diligence requirements are currently being strengthened.

The **Rainforest Alliance** is a non-governmental organization dedicated to promoting sustainability. Their standards offer guidance on sustainable practices, such as biodiversity, worker rights, resource management and community engagement. Enforcement involves independent third-party firms performing audits and inspections of members' certified products. The Rainforest Alliance standards are also influenced by ongoing discussions regarding due diligence. In recent years, the organization has underscored the importance of preventive actions against negative impacts. They provide a risk matrix approach to identify and prioritize risks, which may aid companies in proactive risk management. Moreover, their supply chain requirements mandate that all companies establish a responsible business conduct policy. High-risk supply chain actors must also have operational-level assess-and-address systems in place.

Sources: **AED (Alianza Empresarial para el Desarrollo).** 2023. *Alianza Empresarial para el Desarrollo*. San José. [Cited 3 October 2023] www.aedcr.com; **Fairtrade International.** 2023a. Fairtrade International. [Cited 18 December 2023]. www.fairtrade.net; and **Rainforest Alliance.** 2023b. Rainforest Alliance for businesses. En: *Rainforest Alliance*. Nueva York, USA. [Cited 18 December 2023]. www.rainforest-alliance.org/for-business

The voluntary nature of international standards and limited scope of many VSS can lead to uneven adoption and potential gaps in ensuring responsible business conduct and carrying out due diligence (FAO, 2023c). Recognizing these limitations of voluntary international standards and VSS, countries are increasingly developing laws that require companies to carry out mandatory due diligence to identify, address, remedy and report on how they address different types of sustainability risks. Some examples of these laws are given in Box 5. It is important for pineapple businesses to understand how these laws may affect their businesses in the future, and which additional efforts may be needed that go beyond VSS to comply with laws on due diligence.

Box 5 **Example of a proposed law on due diligence**

European Union's Corporate Sustainability Due Diligence Directive

On 1 June 2023, the European Parliament agreed on legislation for the European Union's Corporate Sustainability Due Diligence Directive (CSDDD). On 15 March 2024, the European Council approved a revised version of the CSDDD.* The CSDDD aims to establish a foundation for responsible business conduct (RBC) and aligns with international standards and agreements, as well as European Union policies and regulations, such as the European Green Deal. The CSDDD is intended to encourage companies and stakeholders to reduce adverse environmental and social impacts.

The CSDDD outlines a due diligence process that aligns with the steps defined by the OECD Due Diligence Guidance for Responsible Business Conduct (2018). The process entails a similar step-by-step process as illustrated in Figure 1.

Requirements to comply with the legislation depend on company size, resources, and risk profiles. Measures to address these risks should be proportional to the severity and likelihood of negative impacts. Companies located in the European Union are bound by the directive, as are third-country companies exporting to the European Union above a certain size threshold. The CSDDD will be implemented gradually over the next five years and the companies bound by it will be obliged to conduct due diligence and address negative impacts throughout their entire value chains, from their operations to their business partners'. For example, large tropical fruit companies can be held accountable for negative impacts caused by their suppliers' activities. While micro, small and medium enterprises are exempt from the CSDDD, its influence extends to these smaller entities. This extension is because larger businesses purchasing the products of smaller companies will need to demonstrate compliance with the CSDDD's requirements.

The Corporate Sustainability Reporting Directive (CSRD) is closely interrelated and complementary to the CSDDD. CSRD aims to improve and broaden sustainability reporting among companies operating in the European Union. Under this Directive, companies need to disclose the social and environmental impacts of their operations based on robust audit processes.

Other countries with national due diligence legislation aligned with the CSDDD include Germany (German Supply Chain Due Diligence Act), the Kingdom of the Netherlands (Human Rights and Environmental Due Diligence Law) and France (Duty of Vigilance Act). All 27 member states of the European Union will be required to adopt national legislation on due diligence within two years of final approval of the CSDDD. Countries outside of Europe who have recently enacted (3 May 2023) a due diligence law include Canada (Bill S-211 Legislation on Forced Labour and Supply Chain Due Diligence).

**With the agreement reached in the Council, the CSDDD will now be sent back to the EU Parliament for approval, with a final vote in the plenary likely in April 2024.*

Source: Authors' own elaboration.

Why is responsible business conduct important to your pineapple business?

By committing to RBC and implementing due diligence processes, your company can avoid social conflicts and environmental damage, which also help to minimize financial losses and maintain long-term profitability. **You can identify, prioritize and deal with problems as they arise, rather than waiting for them to grow bigger or be discovered by auditors, your buyers or journalists** (Fairtrade International, 2023c). In the past, the media scrutinized some aspects of global pineapple production and trade based on concerns raised by consumers, activists and non-governmental organizations. Criticisms mostly focused on potentially negative environmental damage caused by production (e.g. contributing to water pollution and deforestation) and social impacts on workers (e.g. labour rights violations). Adopting an RBC approach to managing risks can help you to prepare for, and demonstrate to your buyers and others, the steps you are taking to actively avoid risks and build a sustainable business that you can be proud of. Being a responsible business can also help your company to maintain your clients, minimize the risks of potential lawsuits for non-compliance and reduce expenses resulting from remedial actions required to address the adverse impacts of risks that could have been addressed sooner.

In addition to enhancing your reputation as a responsible business, there are a number of internal benefits such as:

- **Improving wellbeing** among your workers and their communities by reducing the potential for social conflict and environmental damage to shared resources and minimizing interruptions in your business operations.
- **Establishing better relationships with workers** by actively consulting with your employees, gaining their insights and opinions on how to reduce risks to improve the business, and responding to their needs and expectations.
- **Prioritizing an action plan** by identifying which risks could have the most damaging impacts and dealing with those risks first.
- **Retaining and expanding access to markets** by demonstrating to international suppliers that you can comply with laws on environmental and social due diligence and the changing needs of consumers.
- **Collaborating with and influencing partners in your supply chain** to commit to RBC practices by sharing your information on risk management and asking them to support your activities. For exporters, collaboration may involve actively supporting producers to undertake the RBC process and ensuring that you are not contributing to additional risks to them through unfair trading practices.
- **Retaining voluntary certifications.** In recognition of the international trend towards RBC and due diligence legislations, many voluntary certification schemes are beginning to introduce their own due diligence requirements (see Box 4), which must be followed in order to retain certification.

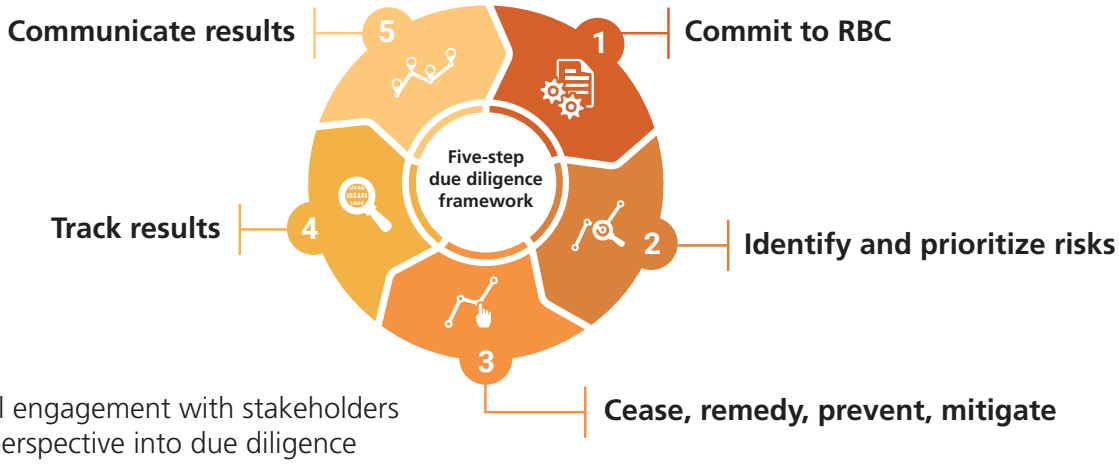
- **Requesting support for RBC implementation.** If you are a small or medium business in an exporting country that is required to comply with the importing country's laws on due diligence, you may be able to access support to help you meet these requirements. By starting to implement basic RBC measures yourself (e.g. stating your commitment to RBC and identifying and prioritizing risks) and by collaborating with your partners, you can demonstrate to the relevant agencies[3] that you are a worthy candidate for additional support (adapted from Fairtrade International, 2023c).

How can your pineapple business become responsible?

In order to become a responsible business, you must follow the five commonly accepted steps for due diligence (see Figure 1):

Step 1: Commit to responsible business conduct (RBC).
Step 2: Identify and prioritize risks of negative impacts.
Step 3: Cease, remedy, prevent and/or mitigate risks.
Step 4: Track results of how impacts are addressed.
Step 5: Communicate results of addressing impacts.

Figure 1. Five-step framework for due diligence



Source: Adapted from **OECD-FAO.** 2016. *OECD-FAO Guidance for Responsible Agricultural Supply Chains*. Paris, OECD. www.fao.org/3/i6074e/i6074e.pdf; **OECD.** 2018. *OECD Due Diligence Guidance for Responsible Business Conduct (RBC)*. Paris, OECD. www.oecd.org/investment/due-diligence-guidance-for-responsible-business-conduct.htm; and **Fairtrade International.** 2023c. *Implementing Human Rights and Environmental Due Diligence: A guide for plantations and other organizations with hired labour*. Bonn, Germany, Fairtrade International. https://files.fairtrade.net/publications/Fairtrade_HREDD-guide-for-plantations_EN.pdf

[3] On 1 June 2023, the European Parliament agreed on legislation for the Corporate Sustainability Due Diligence Directive (CSDDD). The European Union is developing accompanying measures at the global, regional and local levels to support businesses, organizations, governments and civil society throughout global value chains (both in the European Union and third-party countries) to implement due diligence requirements. Other donors and development partners are also likely to support this objective in the coming years under their private sector engagement programs (OECD, 2022).

How can this guide help you implement responsible business conduct in your pineapple business?

There are many existing international guidance documents (discussed previously) and tools that can help you to understand the general concept of RBC and the due diligence process. Many of these resources are listed in Annex 1, including the OECD-FAO Guidance for Responsible Agricultural Supply Chains (2016), which is the leading framework for due diligence and RBC in the agriculture sector. However, these guidance documents are not sector or commodity specific and are only tailored to large companies.

The purpose of this guide is to **build the capacity of pineapple producing, packing and exporting businesses and associations, including small and medium-sized companies, to begin their RBC journey by implementing Step 2 of the due diligence process,** i.e. identify and prioritize risks of negative impacts. The guide will also discuss ways to address these risks to implement **Step 3: Cease, remedy, prevent and/or mitigate risks.**

This guide is a starting point and targets producers and exporters who are interested in improving their overall commitment to RBC and the risk management systems needed to achieve this goal.

How we developed this guide and some limitations

To develop this guide the Responsible Fruits Project team drew on a range of existing secondary resources and technical work from the project. The OECD-FAO Guidance for Responsible Agricultural Supply Chains (2016) was used as the basis to identify how pineapple producers and their organizations and businesses could implement or strengthen RBC practices in their operations. The technical work conducted by the project, including a baseline sustainability survey rolled out in 2021, a comprehensive value chain analysis, a technical guide on climate change adaptation for pineapple producers (FAO, 2024b) and a resilience study of avocado and pineapple value chains (FAO, 2023h) supported the identification of sustainability risks, gaps in best practice and opportunities facing the pineapple sector. This was complemented by a comprehensive literature review to validate the risks identified, and to review the sustainability risk assessment, monitoring and reporting mechanisms, tools and frameworks commonly used by pineapple producers and exporters. This aimed to ensure that the guide produced is aligned with globally recognized standards, existing business practices, and commonly used VSS, to ease the burden for companies striving to incorporate and mainstream RBC in their operations.

On 29 November 2023, an online validation workshop was organized with pineapple businesses participating in the project to present the draft RBC guide. The findings from the pineapple industry risk mapping exercise included in this guide (see Table 3. Scope of risks and issue areas) were reviewed and discussed. Eight pineapple exporting businesses and producer associations participated based in Costa Rica and Togo. The list of environmental, social and cross-cutting sustainability risks was found to be comprehensive, covering all the major potential risks to pineapple production and trade.

However, one of the limitations of this guide is that the risk mapping exercise is not specific to a particular country context for pineapple production and trade. Instead, the guide has drawn from the experiences of pineapple businesses operating in several of the major pineapple producing and exporting countries. As discussed in Step 2 of the due diligence process, more specific analysis is needed at the country-level to narrow down the risks that can be considered a priority for the specific production systems, regulatory environment of the production country and targeted import markets.

How to use this guide?

The guide is organized to reflect the five-step due diligence process identified in Figure 1. **You do not need to read the guide in a linear fashion from start to end, but rather use it as needed to jump[4] to the sections most relevant to meet your own needs and stage in the due diligence process.**

This step gives an explanation on how you can **commit to RBC** and shares useful examples and resources to help you develop an RBC commitment statement or policy. Go there if your business does not have an RBC policy in place or needs to improve an existing one.

It provides an **overview of risks specific to the pineapple industry** and suggests a simple method for how to prioritize them. Table 3 lists the scope of risks for the global pineapple value chain, and the hyperlinks given for each risk area can be used to navigate directly to a more detailed description of the risks that are deemed relevant to your business and partners. This step also suggests resources that can help you address specific risks. Go to this section if you are planning to conduct a risk assessment exercise and/or need practical guidance on how to prioritize and address the most salient risks.

This step provides **guidance on how your business should respond to the impact** (i.e. cease, remedy, prevent or mitigate) depending on your relationship to it, and whether there is a responsibility to provide or cooperate in remediation. Go to this section if you need guidance to address the risks you identified, including how to develop an action plan.

This step provides initial **recommendations on how to plan a tracking system** to help monitor your progress to RBC. Go to this section if you need guidance on how to generate evidence of your RBC interventions.

It refers you to existing resources and materials on **how to communicate your progress** with your value chain partners, workers, local communities and other relevant stakeholders. It provides suggestions on sustainability reporting standards and frameworks that can be used. Go to this section when you are ready to report on your RBC progress.

Let's get started!

[4] Hyperlinks to specific sections of the guide (e.g. risk descriptions listed in Table 3) are provided throughout the document. Use them to navigate directly to your section of interest.

Chapter 2.

Due diligence in pineapple value chains

Step 1 Commit to responsible business conduct

The first step to becoming a responsible business is to commit in writing a policy or statement that clearly states that your business will respect human rights and environmental sustainability in line with national laws and internationally recognized principles. The statement should also outline how you plan to respect the principles, including your goals and how you will undertake due diligence. It does not have to be extensive. It can be a stand-alone policy, or incorporated into existing policies on corporate responsibility, sustainability, risk management or other relevant areas. There are several models available that can help you get started. Box 6 provides some suggestions on essential content for an RBC commitment statement.

Some useful examples of model policies from the OECD-FAO Guidance for Responsible Agricultural Supply Chains (2016) and from Fairtrade International (2022, 2023c, 2023d) can be found in Annex 2.

However, it is not enough to simply draft a written policy or statement on RBC. You must integrate your commitment into your existing policies and management systems that deal with environmental sustainability and human rights. It is also essential that you begin raising awareness with the board, management, staff, workers, suppliers and other business partners about their rights and responsibilities in supporting and implementing the policy.

Box 6 **Content of a responsible business conduct commitment statement**

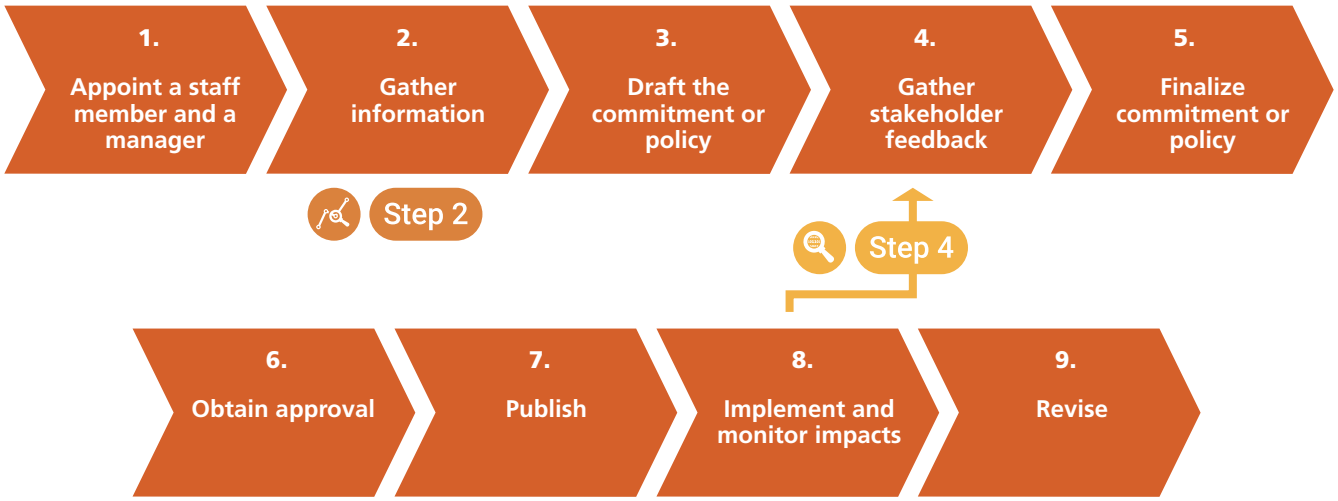
What should a commitment statement for responsible business conduct include?

1. Commitments to uphold national laws and international guidelines relevant to human rights and the environment, and any voluntary sustainability standards that you implement in your pineapple business that are aligned with RBC (specify which ones).
2. A brief explanation of the process you will use to identify and prioritize risks (see Step 2 of the due diligence process).
3. The specific risks you consider to be most important to your business and partners. As your business continuously assess risks, this list may change, and the statement or policy should be updated.
4. The method you will use to address these risks internally through the due diligence processes, including stakeholder consultations, establishing grievance mechanisms and remediation.
5. A description of how the commitment statement or policy will be implemented and monitored. Consider the following questions:
    a. How is this statement or policy on RBC connected to other company policies on sustainability? How can they be implemented together?
    b. Who is responsible for doing what? What role does the board, management, workers (both employees and temporary workers), and other business partners play in the supply chain? Note that senior management (i.e. chief executive officers, director or equivalent) are ultimately responsible for ensuring due diligence is carried out.
6. Dates of when the statement or policy will be reviewed and updated, and the method by which you will communicate the results.

Source: Adapted from **OECD.** 2018. *OECD Due Diligence Guidance for Responsible Business Conduct (RBC)*. Paris, OECD. www.oecd.org/investment/due-diligence-guidance-for-responsible-business-conduct.htm

Also, the integration of RBC in your existing policies and management systems is an iterative process that is connected to other steps of the due diligence process. An illustrative example of the process required to fully develop an integrated RBC commitment is given in Figure 2 with the linkages to the due diligence process highlighted. For example, to implement Step 2 of the five-step due diligence process, you need to gather information to elaborate the commitment statement (see point 2 in Figure 2). Additionally, as you track the results of the statement in Step 4, you will also be fulfilling your commitment to implement and monitor impacts and gain feedback from stakeholders that can be used to revise the policy (see points 4, 8 and 9 in Figure 2).

Figure 2. Process to develop a responsible business conduct commitment policy



Source: Adapted from **Fairtrade International.** 2023c. *Implementing Human Rights and Environmental Due Diligence: A guide for plantations and other organizations with hired labour*. Bonn, Germany, Fairtrade International. https://files.fairtrade.net/publications/Fairtrade_HREDD-guide-for-plantations_EN.pdf

Step 2 Identify and prioritize risks of negative impact

The second step in the RBC due diligence process is to identify and prioritize risks of negative impacts on people and the environment caused by your pineapple business and your partners' operations. Understanding this step is the focus of this guide.

Box 7 What is risk in the context of responsible business conduct?

For most businesses, the term risk means risks that can have an impact to the functioning of the enterprise – financial, market, operational, reputational risks, etc. – so when they look at risks, it is typically risks to themselves. However, the principles of RBC and due diligence focus on the likelihood of adverse impacts on people, the environment and society that businesses cause, contribute to, or to which they are directly linked. In other words, it is an outward-facing approach to risk.

This is not to say that an analysis of internal risks is not important to the long-term sustainability and resilience of the business but to meet RBC conditions, it must be combined with an outward-looking approach to risk.

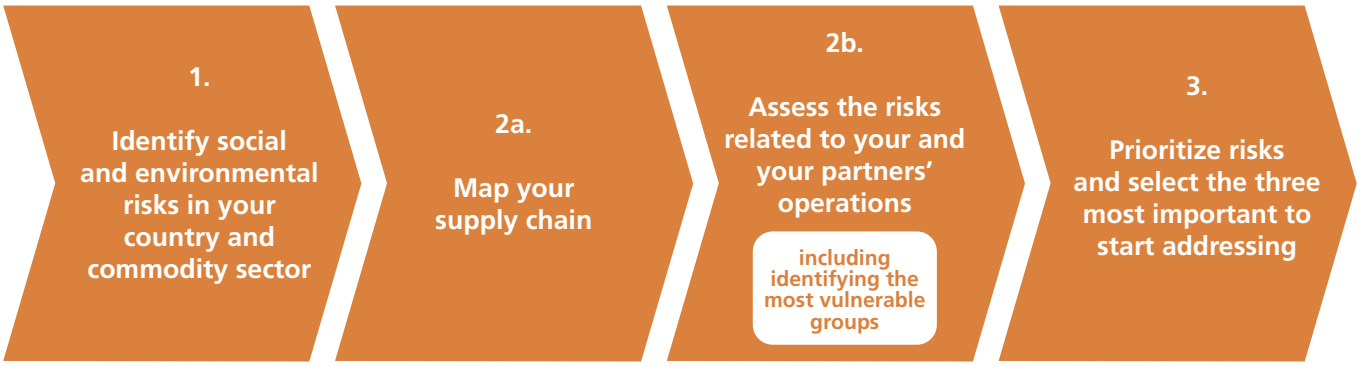
Source: Adapted from **OECD.** 2018. *OECD Due Diligence Guidance for Responsible Business Conduct (RBC)*. Paris, OECD. www.oecd.org/investment/due-diligence-guidance-for-responsible-business-conduct.htm

This guide will support your pineapple business to consider risks that are both internal and external to your operations and that are critical for implementing RBC in your business and your partners'.

How to identify and assess risks

The risk assessment process can follow the three steps in Figure 3. Based on feedback from pineapple companies and associations involved in the Responsible Fruits Project, many feel comfortable identifying and addressing environmental risks to production and some social risks related to labour conditions and health and safety of employees; however, less attention may be given to considering how environmental and social risks may impact people outside the business (i.e. the external risk focus needed for RBC). For this reason, Step 2b explicitly ensures that adequate consideration is given to identifying the vulnerable communities and groups that may be negatively impacted by the risks identified.

Figure 3. Steps for risk assessment

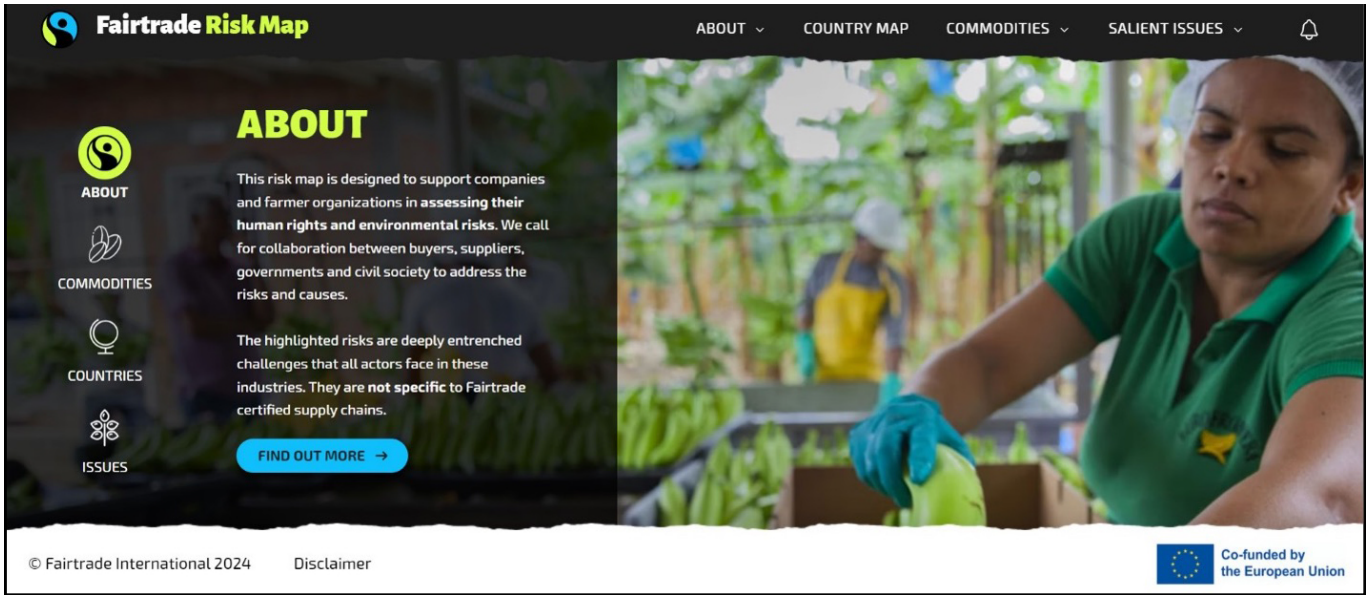


Source: Adapted from **Fairtrade International.** 2023c. *Implementing Human Rights and Environmental Due Diligence: A guide for plantations and other organizations with hired labour*. Bonn, Germany, Fairtrade International. https://files.fairtrade.net/publications/Fairtrade_HREDD-guide-for-plantations_EN.pdf

1. Identify social and environmental risks in your country and commodity sector

An easy way to begin identifying social and environmental risks relevant to your business is to look at the information from your country of operation about pineapple production, if available, or about other agricultural commodities where risk assessments were completed. Two tools that can help you gather this information are from Fairtrade International and the International Finance Corporation (IFC) of the World Bank – in Figure 4 and Figure 5. Although neither of these tools cover risk assessments for pineapple production and trade, they do cover other relevant commodities (e.g. banana, cocoa, coffee) in countries where pineapples are produced, and they can help to give an initial idea of some of the most important (or salient) RBC risks facing businesses producing and exporting these products (e.g. risks related to water and biodiversity, climate and forests, workers' rights and discrimination).

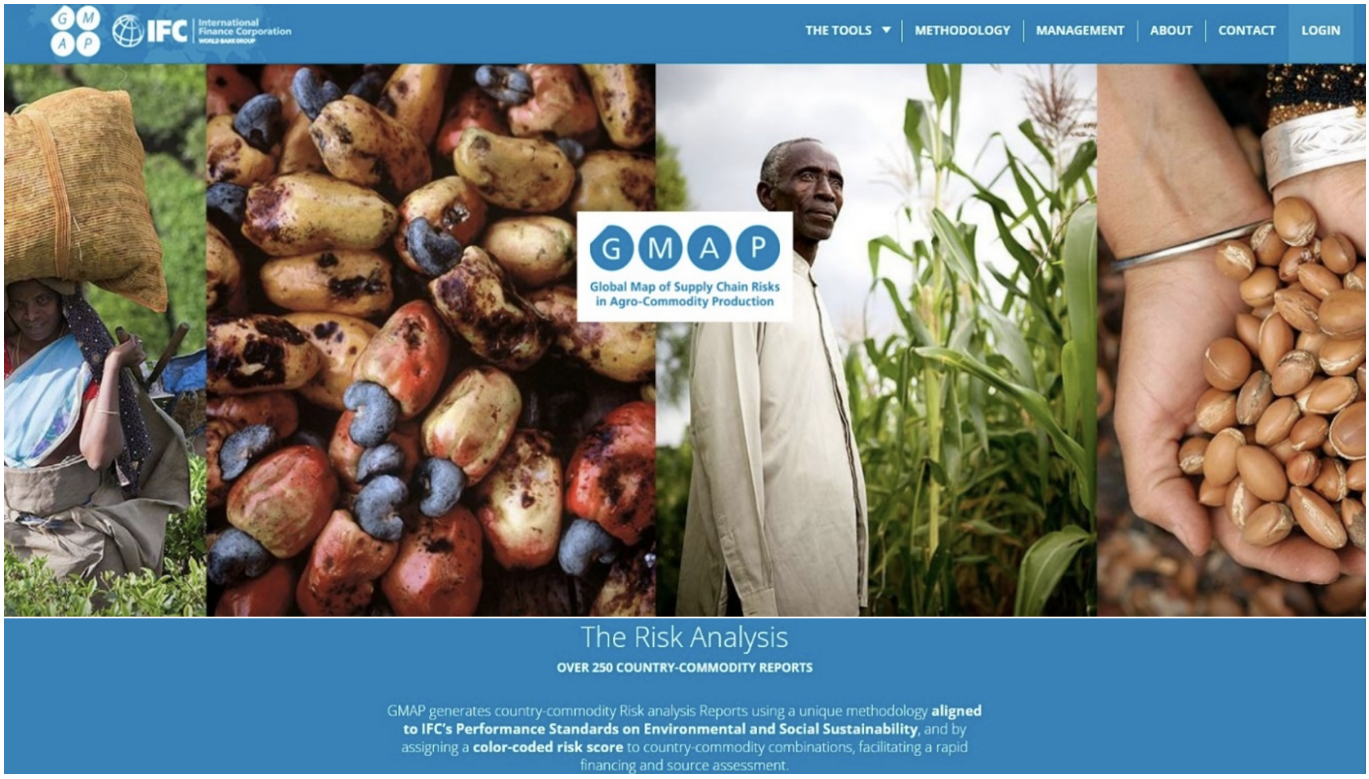
Figure 4. Fairtrade risk map



Note: You can select the country of interest on the landing page by clicking on the logo "Countries".

Source: **Fairtrade International**. 2023b. *Fairtrade Risk Map In: Fairtrade.* Bonn, Germany. [Cited 3 October 2023] https://riskmap.fairtrade.net

Figure 5. IFC Global Map of Supply Chain Risks in Agro-Production Commodities



Note: You can search for the country of interest by signing up for free on the IFC website.

Source: **International Finance Corporation.** 2023. Global Map of Supply Chain Risks in Agro-Production Commodities. In: *GMAP Tool.* Washington, DC. [Cited 3 October 2023] https://gmaptool.org

Other tools are also available that focus on specific risk areas such as the Rainforest Alliance Social Risk Map (2023a), which provides country-level assessments on child labour and forced labour, or FAO's Global Forest Resources Assessment and the Global Forest Watch, which provide information on deforestation[5] risks and forest change at country and local levels in near real time using satellite imagery.

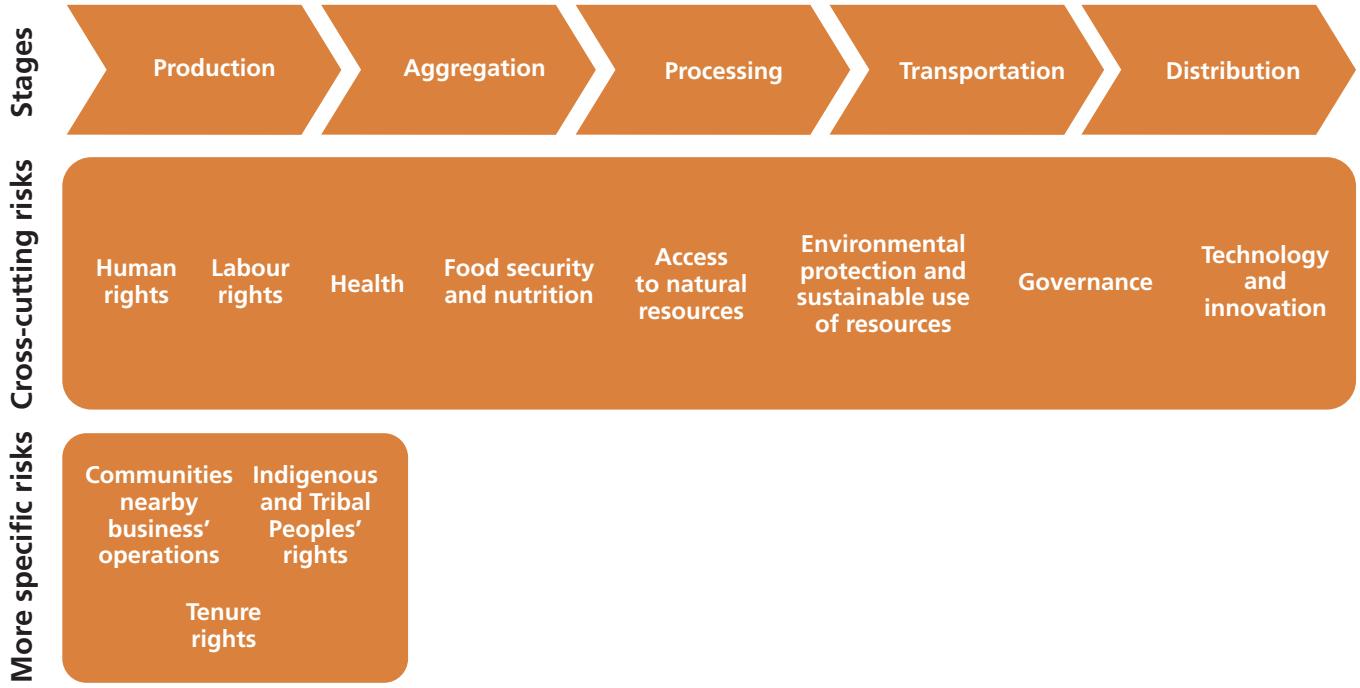
The OECD-FAO Guidance for Responsible Agricultural Supply Chains (2016) includes a description of generic risks that are common in agriculture and proposes mitigation measures. During this early stage of risk identification, you may consider which of the risks and issue areas included in the OECD-FAO Guidance are relevant for your circumstances. If you are already using voluntary sustainability standards or have internal policies in place that list sustainability risks and the processes to address them, you can compare these with the OECD-FAO Guidance. To make the comparison, a gap analysis guide (available in English, Spanish and French) was developed by the Responsible Fruits Project. The guide includes an Excel-based tool that is free, easy and quick to use. Its results will give you an overview of the strengths and weaknesses of your internal policies or certification standards when compared against the OECD-FAO Guidance and can help to identify gaps and areas for improvement when alignment to the RBC principles outlined in the OECD-FAO Guidance is incomplete.

[5] For detailed advice on how to identify and assess deforestation and forest degradation risk in due diligence procedures, refer to the OECD-FAO Business Handbook on Deforestation and Due Diligence in Agricultural Supply Chains (2023) available at https://doi.org/10.1787/c0d4bca7-en.

2a. Map your supply chain

After identifying common risks for similar commodities within your country of production, you can map your own supply chain and focus on identifying high-risk areas – such as processes, goods, services and business relationships – where negative environmental, social and human rights impacts may be associated with your or your business partners' operations. A basic value chain map for an export-oriented pineapple business could be similar to Figure 6, with some potential risks identified at various stages of the supply chain.

Figure 6. Risks at various stages of pineapple value chains



Source: Adapted from **OECD-FAO.** 2016. *OECD-FAO Guidance for Responsible Agricultural Supply Chains.* Paris, OECD. www.fao.org/3/i6074e/i6074e.pdf.

It is important to note that how risk assessments are conducted may depend on the **type of enterprise and its position in the value chain**. For example:

- **On-farm enterprises** may establish on-the-ground assessment teams for gathering and sharing reliable and up-to-date information on risks associated with agricultural production activities that can be verified (e.g. agrochemical use and biodiversity). Your company can use findings from audits conducted as part of compliance with VSS to help inform risk assessments. The information gathered should include those risks identified through meaningful consultations with local communities and marginalized or vulnerable groups. Whenever relevant, the information collected should be disaggregated by sex. These enterprises should provide the results of their risk assessments to downstream enterprises, including packers, exporters, importers and retailers.

- **Downstream enterprises** should not only identify risks in their own operations, but also, to the best of their efforts, assess the risks faced by their suppliers. These enterprises can assess the due diligence process and findings reported by their suppliers or may choose to assess the operations of their suppliers themselves, for instance by conducting farm visits. Participating in industry-wide schemes that assess the compliance of business partners with RBC standards can also provide relevant information to support these assessments (OECD-FAO, 2016).

2b. Zoom in on risks in your and your partners' operations, including identifying the most vulnerable groups

In this section, we present and discuss the global risks identified by the Responsible Fruits Project as relevant to pineapple producers and exporters when mapping out their supply chain and thinking about how they will address these risks (Table 3).

We categorized the risks into four categories based on how they are often reported on:[6] (1) environmental risks; (2) social risks; (3) economic risks, and (4) cross-cutting issues. Yet in reality, a synergy exists between these identified risks – for example, environmental risks have implications for social and economic risks and vice versa – so risks should not be considered discrete.

While the majority of the identified risks are likely to be relevant for many pineapple producing and exporting businesses, some of the risks may vary depending on contextual factors. These factors may include production systems types, climate and natural resource allocations, and laws and regulations for the protection of human rights and the environment in the country of production, among other factors. The risks identified as high priority will also vary depending on the position of the business in the value chain as discussed earlier. For example, producers may identify as high-risk environmental hazards that can directly impact production, such as water quality and agrochemical use. Yet for packers and exporters, social risks related to employment practices and food safety may be of higher concern (see Annex 3 for an example of risk mapping across the pineapple value chain on human rights issues). Because of these factors, **your business should further assess the risks most relevant to your operations.**

[6] Where possible, we have aligned the risks with those covered in the Global Reporting Initiative (GRI) 13: Agriculture, Aquaculture and Fishing Sectors 2022 to make it easier to meet reporting requirements under Step 5 (communicate results) of the due diligence process. The GRI 13 standard is an example of one reporting framework used by pineapple companies; however, the risk descriptions given can be modified to suit the needs of other reporting frameworks also.

Table 3. Scope of risks and issue areas identified by the Responsible Fruits Project for the global pineapple value chain

Environmental	Social	Economic	Cross-cutting
Water use and effluents	Food safety	Smallholder inclusion in global value chains and equitable sharing of value along the chain	Governance, including compliance with national policies, laws and regulations; disclosure, anticorruption, advocacy and lobbying
Soil health	Food security and nutrition	Anticompetitive behaviour	Consultation
Agrochemical use (fertilizers, pesticides and flowering inducers)	Employment practices and working conditions	Increasing costs of production	Grievance mechanisms
Deforestation and forest degradation	Living income and living wage	Logistics	Right to effective remedy
Biodiversity and protection of ecosystems and ecosystem services	Occupational health and safety (OHS)	Political risk: war, civil unrest and political instability	
Land use, land expansion and land rights	Forced or compulsory labour		
Food loss and waste, waste disposal, upcycling and valorization	Child labour		
Climate change effects on production	Freedom of association and collective bargaining		
Carbon emissions and energy use	Non-discrimination and equal opportunity, including rights of women, migrants and Indigenous and Tribal Peoples		
Technology and innovation	Local communities		

Note: Click on each risk to get more details. Each sustainability dimension is colour-coded for easy identification of the connection between the risks and the dimension they are related to; see more in the section scope of risks in pineapple value chains.

The risks and issues identified in Table 3 are described in the following section and can be accessed directly by clicking on the hyperlinks in the table. A general description of the risk is provided, followed by a description of how it may apply in the context of pineapple value chains. **You are not expected to read all the risk descriptions, but rather focus on the risks that are relevant to your own operations and of your partners'.** We also suggest some additional resources that may assist your business with addressing and mitigating the risks.

Another important source to help identify risks is a well-functioning grievance mechanism within the business. A grievance mechanism is also an essential component of demonstrating implementation of RBC practices, which is why it is included in the table as a cross-cutting issue. Box 8 explains what a grievance mechanism is and why it is necessary for RBC.

Box 8 What a grievance mechanism is and how it is used in the context of responsible business conduct

What is a grievance mechanism and how is it used

A grievance mechanism is a formal process for receiving and responding to complaints from workers, local community members and other stakeholders. It allows people to voice their grievances without fear of being punished. For example, you might establish a telephone hotline or WhatsApp contact number for workers and community members to raise concerns about issues affecting their rights, such as health and safety conditions, discrimination, unfair labour practices (e.g. unfair firing), or environmental impacts such as excessive water extraction and pollution affecting water sources, etc.

The grievance mechanism should be easy to use, accessible and supported by a transparent process. Those who submit a complaint should clearly understand the process and timeline to receive, screen, acknowledge and investigate the grievance; to communicate findings; and to resolve, follow-up about and close the complaint. It is a good sign when your business is receiving grievances, as it means that people are aware of and trust the grievance mechanism. When designing a grievance mechanism, special care should be given to ensure that it is gender-sensitive by considering obstacles that may prevent women from accessing the mechanism, especially for reporting on sensitive issues such as sexual harassment and violence.

For RBC, a grievance mechanism is essential because it acts as an early warning system that supports your risk assessment. The grievance mechanism:

- allows you to respond to concerns and incidents early, before the problem grows bigger and is discovered by auditors, buyers, journalists or non-governmental organizations; and
- brings you information about emerging risks and problems so that you can consider strengthening your related policies and practices.

It is also essential for Step 3 of the due diligence process as it helps to enable remediation or remedy (i.e. make right or correct the harm associated with the negative impact incurred).

Source: Adapted from **OECD.** 2018. *OECD Due Diligence Guidance for Responsible Business Conduct (RBC)*. Paris, OECD. www.oecd.org/investment/due-diligence-guidance-for-responsible-business-conduct.htm and **OHCHR.** 2021. *Accountability and Remedy Project.* Geneva, OHCHR. www.ohchr.org/sites/default/files/2022-01/arp-note-meeting-effectiveness-criteria.pdf

When considering the risks presented and discussed in this document, **special attention should be given to identifying the most marginalized or vulnerable groups of people likely to be affected by the risks** (Step 2b) and engaging them from the early stage in the RBC process. Some examples of who these stakeholders may be and why they require special consideration in RBC are given in the following list:

- women from various social categories (such as young or single women, pregnant women and mothers with small children) and youth who may not be in a socially accepted position to bring up issues;
- international migrant workers lacking legal documentation who may not speak the local language or know local laws, customs or support channels;
- national migrant workers lacking social support systems who might not know local customs;
- Indigenous and Tribal Peoples and minority groups – for example, national, ethnic or religious minority groups – who may be suffering or have suffered from discrimination;
- unskilled and temporary workers and those with a low-level of education who may not be aware of their rights;
- persons living with disabilities; and
- trade union representatives and other human rights activists who defend the rights of specific groups of people or human rights relating to the environment (FAO, 2022f).

☞ Scope of risks in pineapple value chains

Environmental risks

Ten environmental risks were identified as highly relevant to the pineapple industry. These risks cover issues related to access to natural resources and technology, biodiversity protection, agrochemical use, and the impact of climate change, among others.

Water use and effluents

Recognized as a human right, access to fresh water is essential for human life and well-being. The amount of water withdrawn and consumed by an organization and the quality of its discharges can have impacts on ecosystems and people. This topic covers impacts related to the withdrawal and consumption of water and the quality of water discharged (GRI, 2022, p. 28).

According to the baseline survey and study on business resilience, risks associated with water access and quality were identified as a key sustainability challenge and stress factor for businesses operating in the pineapple sector. In addition, many environmental groups and non-governmental organizations raised concerns in the media about the high amount of water pollution caused by the production of pineapples.

The pineapple industry relies mainly on rainfall for production. However, the pineapple processing business uses considerable amounts of water at almost every step of the process, contributing to water withdrawals and producing a considerable amount of solid and liquid waste (Fouda-Mbanga and Tywabi-Ngeva, 2022). The industry generates significant amounts of toxic waste, such as biochemical oxygen demand, chemical oxygen demand and suspended solids. This waste is harmful to biological entities, with detrimental impacts on the aquatic environment and soils (Musa and Ahmad, 2014), and it also poses risks to local communities.

Also, unrefined, fresh pineapple production effluent is highly toxic as it contains high levels of carbohydrates, such as sucrose, glucose, and fructose. These carbohydrates may cause environmental issues when released into rivers and other water bodies (Fouda-Mbanga and Tywabi-Ngeva, 2022).

These problems are also aggravated by climate change and associated extreme weather events. Heavy rainfalls can cause water erosion by removing the topsoil layer through rapid water flows. Without proper drainage systems, the excess water produced by intense rains can transport the toxic waste (e.g. fertilizers and herbicides) from the soil to water steams and reservoirs.

Some of the risk factors identified by producers and associations are:

- water access: effective regulatory mechanisms are needed to oversee extraction and ensure preservation of groundwater;
- water quality: poor water treatment facilities upstream and inadequate on-farm wastewater management can cause pollution problems; and
- water scarcity: competition for water resources within the agriculture sector and between industries and local communities is on the rise. Lack of water limits the growth and shape of fruits, affecting the production of class 1 pineapple.

Numerous resources, methodologies and training materials are available to support businesses as they assess water risks along their supply chain and to develop policies and strategies to mitigate these risks. The Responsible Fruits Project has developed a tool for measuring a pineapple company's water footprint. The tool measures the impact of pineapple production, packing and transportation to the port on both water quality and use. The tool is free-of-charge and aims to help businesses to identify where their operations impact water resources and to take corrective actions.

Another essential part of mitigating risks involves engaging with local communities and ensuring the involvement of marginalized or vulnerable groups in participatory planning, managing water resources, and incorporating a human rights-based approach to integrated water resources management. The Alliance for Water Stewardship Standard (AWS, 2019) is a globally applicable framework (available in English, Spanish and French with associated guidance materials) that can help companies to understand their water use and impacts, and to work collaboratively and transparently for sustainable water management within a catchment context. The AWS framework can be implemented in parallel with the RBC process and involves five steps: (1) gather and understand data on shared water challenges; (2) commit and develop a water stewardship plan; (3) implement the site's water stewardship plan; (4) evaluate performance against the plan; and (5) communicate and disclose the site's water stewardship efforts (2019).

Soil health

Soil health is the capacity of soil to function as a living ecosystem and to sustain plant and animal productivity, promote plant and animal health, and maintain or enhance water and air quality. This topic covers impacts on soil health, including soil erosion, soil loss, and reduction in soil fertility (GRI, 2022, p. 24).

Soil health issues are commonly seen in systems where there is a high concentration of the same plant species in the production area, such as pineapple plantations. Issues occur because there is an intensive absorption of soil nutrients by the crop cultivated and limited nutrient recycling in the absence of other species (plant or animal) in the production system (Altieri, 2011). Soil health is also impacted by inadequate soil management practices. Such practices include excessively tilling soil, changes to land use, applying synthetic fertilizers for nutrient management, using heavy machinery, and disproportionately applying pesticides and herbicides to manage pests, diseases and weeds (Martínez, Menjívar and Saavedra, 2022; see section on agrochemical use).

Soil erosion is reflected in different degradation processes, including soil pollution, fertility decline and salinization. These processes affect the capacity of the soil to retain and drain water. Soil erosion is an important risk for pineapple production as plants require good soil drainage to be able to thrive and prevent the incidence of fungal pathogens. Soil erosion issues are observed in several pineapple producing countries and production areas.

Increased soil degradation and reduced soil health also increase the requirement for external inputs to safeguard production, including nutrient additives, water and pesticides, to protect plants from pests and diseases (Altieri, 2011). Fertilizers, both organic and inorganic, and pesticides impact soil health (see also the section on agrochemical use). Excessive use of inorganic fertilizers can increase soil acidity levels and alter soil fertility in the long term.

Overall, poor soil health and land degradation negatively impact production and the environment. They lower productivity and negatively affect ecosystems and biodiversity adjacent to agricultural production areas (European Commission, 2021) and lead to higher production costs.

To help your company to identify and address soil related risks, FAO's Global Soil Partnership is an online platform that provides extensive technical and capacity development material on soil health topics (2023d).

Agrochemical use (fertilizers, pesticides and flowering inducers)

Fertilizers are chemical or natural substances or materials used to provide nutrients to plants, usually via application to the soil, but also to foliage or through water (FAO, 2023c).

Pesticides are chemical or biological substances intended to regulate plant growth or control, repel or destroy any pest. This topic covers an organization's approach and impacts related to pesticide use, including their toxicity on non-target organisms (GRI, 2022, p. 26).

The excessive use of agrochemicals has a detrimental effect on local biodiversity and natural resources quality (e.g. water and soil). Issues associated with excessive fertilizer use were discussed previously in relation to soil health. Pesticides include herbicides, insecticides, fungicides, nematicides, and rodenticides and can be used in crop production to control weeds and other pests. Pesticides and fertilizers can leach into the soil and contaminate groundwater, rivers, and other water bodies, and have a detrimental impact on aquatic ecosystems and biodiversity. Chemical runoff can also pollute fresh water, putting human and animal health at risk.

If not handled properly, pesticides can cause adverse health effects in humans by interfering with reproductive, immune and nervous systems (GRI, 2022), thus causing negative social impacts. In some cases, pesticides can even cause death (WHO and FAO, 2019). For this reason, significant care is required when handling and disposing of these chemicals to prevent harm and potentially save thousands of lives (see section on occupational safety and health). Proper handling of agrochemicals can also help businesses save money because of a more efficient use of inputs and lower health insurance pay outs (which is also connected to economic sustainability).

Pesticides can also have negative impacts on biodiversity because of their ecotoxicological effects. For example, pesticides that target insects or weeds can be toxic to birds, fish, and nontarget plants and insects. These impacts can threaten key ecosystem services needed for pineapple production.

According to pineapple producers, the incremental use of synthetic pesticides and herbicides impacts the biodiversity surrounding plantations and water and soil quality. These impacts have significant implications for both economic productivity and social risks.

Another challenge pineapple producers face is the high dependence on Ethylene-based flower inducers to synchronize fruit maturity, harvests and sales. These products are forbidden in organic production, and the European Union market restricts the quantity that can be used in conventional production (MASIPAG, 2015). For imports coming from non-European Union countries, the maximum residue limit for Ethephon (which releases ethylene gas) on pineapples is 2 milligrams (mg) per kilogram (kg). These regulations increase the economic risks of producers, especially small and medium sized ones. The limits to the use of inducers reduce the volume of production economically worth exporting, thereby increasing the costs of production and tightening revenues. This is discussed in detail in the section on increasing costs of production. Desynchronized flowering also has a negative environmental impact due to the increases of crop losses and greenhouse gas emissions (see sections on food loss and waste and carbon emissions). Alternatives to ethylene or ethephon are under development and not yet available at national or regional levels, and its unavailability increases businesses' expenses in researching and sourcing alternative inducers (see section on technology and innovation).

A related issue of major concern to pineapple producers is the lowering of maximum residue limits (MRLs) by importing markets. This reduction is an internal and external risk for businesses and their partners, as it has economic, environmental and social implications along the supply chain in terms of accessing markets, protecting biodiversity and ensuring food safety for end consumers. A significant collaboration among value-chain partners will be needed to address this risk and help producers achieve lower MRLs and find alternatives to recently banned pesticides – such as changing agronomic practices (e.g. introducing integrated pest management methods) or developing molecules with lower chemical load or are organic-based.

To help companies address risks related to the use of fertilizers, pesticides and other agrochemicals, as well as MRLs, the following resources are available: The international code of conduct for the sustainable use and management of fertilizers; FAO's technical and training materials on pest and pesticide management; and the work of the Codex Alimentaris Committee on Pesticide Residues that sets international standards for pesticide residues on specific food items or on groups of food that move in international trade. The Responsible Fruits Project also developed a technical brief summarizing some opportunities for the tropical fruit sector to meet MRL requirements. Other resources from the European Union's Committee Linking Entrepreneurship Agriculture Development (COLEAD) on MRLs are available to producers and exporters to keep track of legislation changes in the tropical fruit industry, including: the EU pesticides database and AGRINFO, an information tool newsletter that highlights changes to rules in Europe (including pesticides and plant health).

Deforestation and forest degradation (also known as natural ecosystem conversion)

Deforestation refers to the conversion of forest to other land use, whether human-induced or not (FAO, 2020b).

Forest degradation refers to changes within a natural ecosystem that significantly and negatively affect its species composition, structure and function and that reduce the ecosystem's capacity to supply products, support biodiversity, and deliver ecosystem services (Afi, 2020).

Natural ecosystem conversion refers to changing a natural ecosystem to another use or a profound change in a natural ecosystem's species composition, structure or function. Terrestrial ecosystem conversion can include the conversion of forests through deforestation and the conversion of other ecosystems, such as grasslands, woodlands or savannas. Deforestation occurs when primary and secondary forests are cleared, often by burning (GRI, 2022, p. 21).

Land use change (from forest and grasslands to agricultural land) and deforestation are high-risk factors in some of the most important pineapple producing countries as producers seek out more suitable areas for production in response to climate change and international market demand. Deforestation disturbs wildlife, puts native animal and plant species at risk of extinction and decreases vegetation cover, which contributes to higher levels of greenhouse gases emissions, reduces the capacity of the soil to capture and storage carbon and contributes to soil erosion. In-so-doing, deforestation intensifies the impacts of climate change.

Some studies report forest loss due to agricultural expansion, including of pineapple production, with such expansion occasionally encroaching into critical biological areas vital for the preservation of endangered species (Ortiz and Torres, 2020; ILRF, 2019).

For further information on how to identify and address risks associated with deforestation and forest degradation, consult the OECD-FAO Business Handbook on Deforestation and Due Diligence in Agricultural Supply Chains.

Lack of enforcement of land-use regulations is also considered by pineapple industry stakeholders to be a key risk factor that needs to be addressed to prevent deforestation, as discussed in the section on land use, land expansion and land rights of this document.

Biodiversity and protection of ecosystems and ecosystem services (pollinators)

Biodiversity is the variability among living organisms. It includes diversity within species, between species and of ecosystems. Biodiversity not only has intrinsic value, but is also vital to human health, food security, economic prosperity, mitigating climate change, and adapting to its impacts. This topic covers impacts on biodiversity, including on plant and animal species, genetic diversity and natural ecosystems (GRI, 2022, p. 18).

Biodiversity is essential for food production and a wide range of ecosystem services, including disease and natural pest control. Destruction of natural habitats, deforestation, exposure to synthetic chemicals and extreme weather contribute to the loss of beneficial organisms, such as pollinators, pest-control regulators and nutrient cycling microorganisms, which affects crop production (FAO, 2021). These risks will continue to escalate with global warming and have a significant impact on the availability of nutritious food (IPCC, 2022; FAO 2021). Loss of genetic diversity decreases the availability of genetic variation in agricultural production to breed crops to withstand climate change and reduces the range of crops available to provide a healthy diet (FAO, 2021).

Biodiversity can be adversely impacted by monoculture that is driven by market demand (e.g. preferences of certain pineapple varieties) and economic efficiency (e.g. economies of scale). Growing the same crops year after year can decrease agrobiodiversity on farms and plantations and compromise biodiversity in surrounding areas. Continuous monocropping can result in the decline of soil fertility and a build-up of pests and diseases, which usually requires higher volumes of pesticides and fertilizers that can be toxic to many non-target species, such as pollinators and natural pest enemies.

In pineapple producing areas, the large amount of agricultural residue generated pose a risk to local biodiversity and other industries (see section on agricultural waste). When they are not properly treated, reused or valorized, residues can enable the proliferation of pests and pathogens that can be spread by insects, such as the horse fly that transmits diseases to cattle and horses. Containers and plastic used to hold agrochemicals or other substances used for crop protection and weed prevention (e.g. mulch, shading) are often inadequately recycled or disposed of, which has negative effects on biodiversity, especially on water and soil organisms (Díaz Ramírez, Hurtado and Jäger, 2022).

Pineapple companies depend on the conservation of biodiversity and ecosystem services for production. The steady decline of biodiversity and ecosystems services can become an economic risk for many businesses in the future, by threatening productivity and the quality of production. At the same time, a proactive approach to conserve biodiversity can create new business opportunities.

The Biodiversity Check is a tool developed by the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) and the Sustainable Agricultural Network that can help pineapple companies to identify potential risks and opportunities to improve biodiversity management and protection (e.g. habitats, genetic diversity, endangered species) and can be used in business units, farms, manufacturing

facilities, products or processes. The assessment results can help companies to develop biodiversity protection policies and action plans and develop the capacity of its staff to improve operational management, sustainability reporting and opportunities for marketing. Some companies in Costa Rica and the Dominican Republic are already using this tool.

Land use, land expansion and land rights

Land and resource rights encompass the rights to use, manage and control land, fisheries, forests, and other natural resources. An organization's impacts on the availability and accessibility of these resources can affect local communities and other users. This topic covers impacts on human rights and tenure rights that result from an organization's use of land and natural resources (GRI, 2022, p. 40).

Acquiring legal rights to land and use of natural resources is often a complex process, as forms of land and resource tenure vary and can include public, private, communal, collective, indigenous, and customary tenure[7] (OECD-FAO, 2016; GRI, 2022). Not recognizing customary claim to lands, forests, and other natural resources is a common cause of conflict between agribusinesses and local communities, with negative impacts on human rights (GRI, 2022). Rightsholders who are commonly affected by these conflicts include farmers, particularly women whose land rights are often not recognized, fishers and their organizations, forest users, pastoralists, Indigenous and Tribal Peoples, communities with collective rights over the territory and local communities.

All agricultural businesses, including pineapple producers and exporters, are expected to identify legitimate rightsholders through consultations with stakeholders and assessments, and to independently verify assessment results. Businesses in the downstream segment of the value chain (i.e. importers and retailers) can contribute to securing land tenure and access to natural resources for rightsholders by requiring their suppliers (i.e. producers and exporters) to respect such rights (e.g. demonstrate evidence).

The pineapple industry faces risks related to land use, expansion, and rights that need to be carefully addressed for sustainable growth. Concerns were raised about the rapid expansion of the pineapple industry in some regions to meet international demand, including: illegally taking land from local farmers, local communities, and Indigenous and Tribal Peoples in some countries and clearing protected forests and territories (Rodríguez Echavarría and Pruniuer, 2020).

Another related issue is the lack of enforcement of environmental laws governing illegal clearing of forest land and water rights and usage allocations, which poses a serious threat to the environment. Land planning policies should also consider soil suitability and water availability and are crucial for

[7] Customary tenure is accepted as an ancient traditional practice regarding the tenure and use of land, usually at the community level, and is not necessarily recognized by national laws or found in writing.

responsible pineapple production. Deforestation activities and laws against burning forest land should be monitored with tools like Global Forest Watch Pro. Land-use change also needs monitoring for disaster risk reduction purposes to prevent pineapple production from taking place in hazardous areas or exacerbate existing risks (e.g. areas at risk of landslides and flooding).

Because land related risks are highly context specific, risk mitigation solutions and remedies must be tailored to meet each context within national laws. Existing international guidance documents, such as the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security, can help companies assess if their practices of land use are in alignment with internationally recognized principles. The Free, prior, and informed consent (FPIC) is a specific right granted to Indigenous Peoples, which allows them to have a say in projects or initiatives and that impact their territories in any way (FAO, 2024a). National and sub-national governments should ensure that Indigenous and Tribal Peoples rights are granted, however businesses play an important role to ensure that these rights are respected (see more on this in the section on Indigenous and Tribal Peoples in this guide).

Food loss and agricultural waste (waste disposal, upcycling and valorization)

Food loss refers to the decrease in edible food mass at the production, post-harvest and processing stages of the food chain. Food waste refers to the discard of edible foods at the retail, food service provider and consumer levels (FAO, 2019b).

Waste refers to anything that a holder discards, intends to discard or is required to discard during processing or production operations. When inadequately managed, waste can have negative impacts on the environment and human health, which can extend beyond the locations where waste is generated and discarded. This topic covers impacts from waste and the management of waste (GRI, 2022, p. 30).

Less food loss and waste would lead to more efficient land and energy use and better management of water resources, which would positively impact climate change mitigation and livelihoods. For more information on food loss and waste, refer to the FAO Technical Platform on the measurement and reduction of food loss and waste.

Pineapple is a crop that is susceptible to a number of pre- and post-harvest defects. Warmer weather and increasing humidity in some regions are affecting the production of high-quality fruits (e.g. unevenly shaped fruit, sun-damaged fruits, skin pathogen damage, rot, increased fruit acidity). On the other hand, post-harvest management at the packing and transportation stages is essential to protect quality and yield. Shipping pineapples by sea and storing them long term exposes fruit to more handling, temperature variability and diseases that in turn make the pineapple more susceptible to post-harvest losses (TFNet, 2023).

For this reason, pre- and post-harvest management of fruits is essential to protect quality and yield. Many of the post-harvest diseases for pineapple are associated with microbial or fungal infections that occur in the field but may appear only during or after storage. To control pathogens, careful management of the plantations and pre-harvest treatments are needed. Bruising or puncturing caused by poor handling, dropping or abrasion must also be avoided during the post-harvest stage to prevent softening of localized areas and the development of microbial infections (TFNet, 2023). To prevent losses, ripe and green fruits should be refrigerated rapidly, and the cold chain maintained until the fruit reaches its final retail destination (TFNet, 2023).

Waste from agri-businesses includes organic waste, such as crop residues or damaged fruits, and inorganic waste, such as plastics. Agricultural production waste can also include hazardous waste, such as pesticide containers (GRI, 2022). Incorrectly disposed organic and inorganic waste from agriculture can have lasting impacts on the environment, causing long-term contamination of soil and water, as well as generating greenhouse gas (GHG) emissions. Contamination of agricultural land and natural resources leads to negative impacts on the health and safety of local communities and food safety (GRI, 2022).

Pineapple is mainly consumed for its fruit, while other components of pineapple (peel, crown and stubble)[8] are usually discarded as waste and end up being burnt or in landfills, generating GHG. It is estimated that every hectare cultivated with pineapple generates around 250 tonnes of waste (Satyanarayana, Guimaraes and Wypych, 2007). However, waste generated through commercial pineapple production shows potential as a raw material for value-added products obtained through processing. Pineapple fruit and its by-products are rich sources of nutrients and phytochemicals that could be used in the food, textile, pharmaceutical and cosmetic industries (Salazar-López *et al.*, 2021). Likewise, the waste generated, such as the stubble, can also be processed to create biofertilizers.

[8] Pineapple stubble refers to roots, stems, leaves, side shoots and stalks left in the ground after harvest.

Table 4 lists some upcycling strategies and products that can be extracted from non-marketable or damaged fruits and other pineapple residues. These strategies can help reduce the environmental risks associated with waste disposal. Other options to reduce food loss, and upcycling and valorizing by-products are offered in the Responsible Fruits Project's technical brief: *Minimizing food loss and valorizing non-marketable fruits and residues can help drive business performance and boost the sustainability of the pineapple industry*. However, these strategies may require companies and associations to make significant investments in infrastructure and technology (e.g. for setting up textile processing), as well as collaboration with other industries (e.g. food and cosmetic industries). The ability to make these investments is also tied to the enabling environment, including the incentives available to business to invest in sustainable technologies and capacity development.

Table 4. By-products derived from pineapple residues (non-exhaustive)

By-product	Observations
Furan compounds	Furan compounds are an environmentally friendly option to oxygenate additives for fuels and to technological solvent materials. The compounds can also be an alternative to Methyl tertiary-butyl ether (MTBE).
Bioethanol and bromelain	Bioethanol can be produced from pineapple leaf waste through the use of simultaneous saccharification and fermentation (SSF). The process uses cellulolytic enzyme and yeast to produce the component. SSF can also support the extraction of bromelain, which can be used in the cosmetic industry.
Biogas	Fresh pineapple stubble can be used to produce biogas. It is estimated that one kilogram of stubble can render 25.7 litres of methane.
Paper	Pineapple leaves can be pulped to create fibre and transformed into paper. Pineapple-based paper was found to be highly absorbent and durable.
Biomanure	Processed pineapple residues used in the production of bioethanol can be first inoculated and then enriched with nitrogen, phosphorus and potassium using *Fischerella muscicola*. This enrichment will allow the use of residues as biofertilizer.
Food industry	Starch: Starch can be extracted from pineapple waste, especially from stem waste, using a milling process. Isolated high-purity starch can be used as an alternative to starch obtained from rice, corn and cassava. Dietary fibre: Pineapple peel contains insoluble rich fibre segments that can be used in producing low-calorie, high-fibre foods. Vinegar production: Simultaneous fermentation with Acetobacter can transform pineapple peel to vinegar. The resulting vinegar was found to have phytochemical and antioxidant properties.
Textile industry	The stubble, being a natural vegetable fibre, adheres to other types of fibres, whether natural or even synthetic, and can be used to generate textiles.

Sources: See references at the end matter.

Climate change effects on production

Organizations contribute to climate change and are simultaneously affected by it. Climate adaptation and resilience refer to how an organization adjusts to current and anticipated climate change-related risks, as well as how it contributes to the ability of societies and economies to withstand and prepare for impacts from climate change. (GRI, 2022, p. 16).

Climate change is an observed reality, with countries around the world experiencing increases in the frequency and intensity of extreme weather events. High temperatures, unexpected cold weather, rainfall variability and strong winds affect global pineapple production and trade, and impact crop growth, productivity and fruit quality. In some regions, changing weather patterns make production unviable and, in some cases, producers are forced to relocate or abandon pineapple production completely. Increased outbreaks of pests and diseases due to changing climatic conditions are also threatening production in many countries.

Pineapple production is highly sensitive to changes in temperature and precipitation. All major pineapple producing countries are projected to experience higher temperatures in the coming decades, whereas rainfall patterns are expected to vary from country to country (FAO, 2024b). These changes will lead to different climate risks and impacts on pineapple production. Current climate trends have already exacerbated many of these risks in producing countries, with the following key climate risk factors and their impacts on production discussed.

- **High temperatures** (above 32 °C) can cause the development of unevenly shaped fruits or increase plant mortality. Together with higher humidity, warmer weather enables the conditions needed for the proliferation of pineapple pathogens. Warmer night temperatures can accelerate flowering and distort production and harvesting schedules (see below).
- **Intense solar radiation** poses significant risks to fruit quality, including sunburn and severely misshapen fruits. Direct exposure of pineapple plants to sunrays during flowering causes an increase in fruit damaged by corky roots, reducing the overall quality and appearance of the fruit, diminishing its market value. Additionally, the well-being and productivity of field workers are compromised by risks such as dehydration, skin-related ailments and heat-stress symptoms.
- **Excess rainfall** directly impacts fruit quality and development, as well as the prevalence of pests and diseases. Soil saturation reduces root development and vegetative growth, which can cause colour loss and lower sugar content and yields. Without a good drainage system, waterlogging can cause developmental disorders, and when combined with high temperatures, may increase the incidence of fungal diseases such as *Fusarium E. carotovora*.
- **Precocious flowering** affects crop management, harvesting and fruit sales. Early natural flowering occurs with warmer night temperatures or a sudden fall in temperature. This phenomenon desynchronizes production and harvest times, leading to increasing costs, unreliable supply and increased losses. Early flowering is an important economic risk for producers.

- **Strong winds** can severely damage all parts of the plant or uproot it, resulting in re-planting costs. Strong winds can also contribute to soil erosion, especially of bare soils.
- **Soil erosion** is exacerbated by heavy rainfall and temperature changes. If inadequate soil and land management practices are not adopted, soil degradation may be reflected in pollution, fertility decline, and salinization. Soil erosion also affects the ability of the soil to drain and retain water, with detrimental effects on yield and product quality. Warmer weather may also result in higher soil temperatures, affecting soil moisture retention and structure.
- **Spread of pests and disease.** Warmer temperatures and changes in humidity levels are bringing about shifts in the geographical distribution of pests, the timings of outbreaks, and population dynamics (e.g. survival rates). The projected increase in pests, compounded by more stringent phytosanitary requirements and regulations on agrochemical use from importing markets, poses a sustainability and resilience challenge to the pineapple sector.

For further information on climate risks to pineapple production and adaptation practices identified to address these risks, please refer to the Responsible Fruit Project's Technical Brief Number 5 (2023e) on adapting pineapple production to a changing climate, and *Adapting to climate change in the tropical fruit industry: a technical guide for pineapple producers and exporters* (FAO, 2024b).

Carbon emissions and energy use

This topic addresses emissions into the air – including greenhouse gas, ozone-depleting substances, nitrogen oxides and sulphur oxides – and other significant air emissions regarded as pollutants. Emissions can have negative impacts on air quality, ecosystems, and human and animal health. Greenhouse gas emissions are also a major contributor to climate change. (GRI, 2022, p. 14).

It is estimated that agri-food systems emitted around 31 percent of the world's greenhouse gas emissions in 2020 (FAO, 2022d). Land use change generates the highest share of total emissions in agriculture, such as converting forests or grasslands from a natural ecosystem to farmland. Poor soil management practices can accelerate the release of carbon from the soil into the atmosphere through cultivation practices, including tilling, burning vegetation and waste, and the heavy use of fertilizers. Conversely, good soil management can contribute to the capacity of soil to store carbon, which is why addressing risks associated with soil health is so important. Fertilizers, pesticides and fuels used to power machinery and vehicles, and the electricity used in the operations, also release greenhouse gas emissions. Thus, using more efficient and sustainably sourced energy will positively contribute to climate change mitigation.

Actions to reduce greenhouse gas emissions must be made to address climate change. These actions consist of identifying the main sources of greenhouse gas emissions discussed previously and implementing adaptation and mitigation plans. At an international level, the foundation for these actions stems from the Paris Agreement, a legally binding international treaty on climate change, which calls on countries to limit global warming to well below 2 °C (UNFCCC, 2023). Actions to restore and protect forests and other ecosystems, preserve soil and water resources, minimize agrochemical use, and reduce food losses, among others, promote adaptation while reducing emissions and storing carbon; in other words, climate adaptation and mitigation should go hand-in-hand (FAO, 2024b).

In the pineapple industry, some examples of practices to promote adaptation to climate change that can also contribute to reducing carbon emissions and removing or storing carbon include incorporation of agroforestry practices, establishment of windbreaks and living fences, sustainable soil management and integrated pest management. Businesses can also identify ways to reduce greenhouse gas emissions in their production systems by using open-source carbon and water footprint tools, such as the guide the Responsible Fruits Project developed for the pineapple industry. Businesses engaged in pineapple production, packing and transportation to the export port can use such a guide tailored to the pineapple sector to measure their operations' carbon footprint. The guide allows companies to establish the scope of their activities and quantify the direct and indirect emissions of their activities. By using a life cycle analysis lens, this guide helps pineapple businesses to identify which activities are generating the most emissions so efforts can be made to reduce or mitigate them. The guide also helps your business to make decisions regarding a more efficient use of resources along your operations, saving costs and increasing the profitability of your company. The full guide will be available on the project website in the first semester of 2024.

Technology and innovation

In today's world, promoting and sharing innovative technologies can contribute to creating an environment that supports the enjoyment of human rights and enhances environmental protection (OECD-FAO, 2016). However, equitable access to these technologies is not assured and may result in the exclusion of vulnerable groups from benefiting from technology gains, and/or negative impacts on the environment and biodiversity. This topic deals with environmental and social risks associated with developing, disseminating and adopting agricultural technology.

If value chain actors develop and adopt innovative technologies at the production, aggregation and processing levels, many of the environmental, social and economic risks identified in Table 3 could be addressed. Technologies can improve on farm productivity, reduce the risk of negative environmental impacts and cut down production cost. Such technologies include improved genetic varieties to deal with changing climatic conditions and pests and diseases, as well as technologies for nutrient management. Digital technologies,[9] such as the use of drones, can make input use more efficient by assessing the nutrient requirements of plants or applying the necessary amount of pesticides discretely. Satellite imaging can help to demonstrate to customers that production does not come from areas of deforestation.

Technologies such as sustainable mechanization in production and processing can help companies to compensate for the lack of labour force available in some producing regions. Post-harvest technologies can support the minimization and valorization of waste and the creation of alternative income sources for companies and local communities. Improved cold value chains can also have important environmental and economic impacts, as they have the potential to reduce post-harvest losses and waste, and guarantee export quality, resulting in better wholesale prices.

[9] See also the FAO platform on Digital Agriculture for more information on the type of digital technologies available to support sustainable agricultural development and associated risks.

Traceability along the supply chain can be enhanced through technologies such as blockchain that can be used to share data between value chain partners on sustainability risks and measures taken to address them. Blockchain technologies can also help demonstrate to retailers and consumers that production and transportation respect phytosanitary standards and that fruit quality is maintained along the supply chain, through temperature and moisture control or other measures. Digital tools are also being piloted in agrifood processing factories to help address human rights challenges such as detecting child labour and excessive working hours.

However, emerging technologies also face certain risks. In the case of the digitalization of agriculture and the food value chain, there are issues such as cybersecurity, data protection, labour replacement and re-education. There is also the risk of creating a digital divide, regarding access to and adoption of technology between women and men, and between individuals with differing abilities es (FAO, 2023a). More traditional technology solutions, such as plant breeding, must also take into account risks such as those associated with use of genetic material (e.g. national laws on farmers' rights to save, use, exchange and sell genetic resources), and the time taken to develop and register new varieties. For the MD2 pineapple variety, some studies show that the industry encountered challenges in developing planting material that can ensure genetic and phytosanitary quality, resulting in loss of seed quality (Díaz Ramírez, Hurtado, and Jäger, 2022). Also, in some countries, small-scale producers struggle with high costs to access high-quality planting material and lack knowledge about the plant's physiological parameters that determine the right timing for floral induction. These issues result in farmers resorting to inadequate seeds and use of inducers or growth regulators, which negatively impacts fruit quality and marketability.

Businesses investing in breeding practices and technologies also need to assess the risks associated with the loss of traditional knowledge of Indigenous and Tribal Peoples and intellectual property laws. An example of the latter is the development of special varieties such as the "Pinkglow" pineapple. The engineering of this variety took the company who owns the variety around 17 years to develop it and required high investments in research and development. Once the "Pinkglow" pineapple was registered, the Ministry of Agriculture and Livestock in Costa Rica granted the company exclusive rights for the cultivation and development of this fruit for a span of 20 years. Despite the legal protection and the controlled environment under which the patented variety is cultivated, the company recently denounced that this pineapple was being produced and commercialized by third parties, which violates both national and international laws (Fresh Plaza, 2023a). These risks can also discourage companies from investing in new technologies and knowledge and challenge their competitiveness in the long term.

Apart from the risks associated with innovation and adoption of the new technology, companies should also consider the environmental risks to surrounding biodiversity of pineapple plantations when new planting materials and varieties are introduced.

Social risks

Ten social risks were identified as highly relevant to the pineapple industry. These risks are diverse and cover issues related to food safety and food security, employment practices and working conditions, labour and human rights. The risks associated with labour rights cover five principles, in line with the International Labour Organization's (ILO) Declaration on Fundamental Principles and Rights at Work (1998, amended 2022):

- a safe and healthy working environment;
- the elimination of all forms of forced or compulsory labour;
- the effective abolition of child labour;
- freedom of association and the effective recognition of the right to collective bargaining; and
- the elimination of discrimination in respect to employment and occupation.

The section also discusses risks related to non-discrimination and equal opportunity and issues associated with the rights of women, migrant workers and Indigenous and Tribal Peoples who may face discrimination and lack equal opportunities in employment. The importance of considering the impact of risks on local communities is also covered here.

Food safety

Food safety concerns the handling of food products in a way that prevents food contamination and foodborne illness. This topic addresses an organization's efforts to prevent contamination and ensure food safety (GRI, 2022, p. 34).

The Sustainable Development Goals (SDGs) call for everyone, in particular the poor and vulnerable, to have access to safe, nutritious, and sufficient food all year round. Food safety is a fundamental part of food security (SDG 2) and contributes to human health (SDG 3). Food can become unsafe at any point in the supply chain. Harmful bacteria, viruses and parasites can contaminate food and cause illness in humans. Contaminants may enter food commodities from the soil, water, air, applied chemicals or equipment used during production and processing. Storing food improperly, unhygienic handling of food and transporting it at the wrong temperature can make it unsafe to eat, negatively impacting the health of local communities and of domestic and international consumers. Climate change is also increasing the risk of consumer exposure to foodborne hazards. The changes in climate directly impact biological (pathogens and parasites) and chemical (heavy metals, pesticides, mycotoxins and algal biotoxins) hazards by changing their occurrence, distribution or severity (IPPC, 2020).

All pineapple producing and exporting businesses must conduct specific risk assessments related to food safety and demonstrate compliance with national and importing market regulations. Two examples of regulations include compliance with phytosanitary requirements related to pests and diseases and maximum residue levels (MRLs) as discussed under the section on agrochemical use. The use of third-party certification schemes often helps businesses in the pineapple value chain to independently verify that their product is safe for consumers. If safety is not verified and results in an outbreak of food contamination, businesses will lose export markets, revenue and consumer confidence in both the domestic and international markets.

Food security and nutrition

Food security means that people have physical and economic access to sufficient, safe, and nutritious food that is acceptable within a given culture and meets people's dietary needs and food preferences for an active and healthy life. Adequate food is a human right and is crucial to the enjoyment of all rights. This topic covers impacts of businesses' operations on the dimensions of food security (GRI, 2022, p. 32).

It is estimated that between 691 and 783 million people in the world faced hunger in 2022, and it is projected that almost 600 million people will be chronically undernourished in 2030 (FAO, IFAD, UNICEF, WFP and WHO, 2023). Worldwide, more than 3.1 billion people – or 42 percent of the world's population – were unable to afford a healthy diet in 2021. Food insecurity disproportionately affects women and people living in rural areas. The SDG 2 aims to end hunger, achieve food security, improve nutrition and promote sustainable agriculture. Tackling food insecurity is an enormous challenge that requires engagement from different actors. To the extent possible, producers and exporters in the pineapple value chain should consider the impacts of their operations on the availability of and access to safe and nutritious food for their workers and local communities, and of their contributions to local employment and the stability of the food supply.

Pineapples form part of a healthy diet and are an important source of vitamins and nutrients for consumers in both the producing and importing countries. In many producing countries, pineapples are a culturally important food. In recent years, the global demand for the MD2 pineapple variety led to greater focus on its production, which limits the availability of indigenous or local varieties in domestic markets in producing countries.

Pineapple production and exporting sectors face tight revenues that puts the quality of the local employment at risk. These risks include low and unstable incomes and employment options and reduce the capacity of workers and communities to afford healthy diets. The competition for suitable agricultural land for expanding pineapple plantations in some regions could also cause a negative shift away from other essential (yet lower value) food crops, such as cassava and rice, affecting the supply and affordability of these important staples for food security.

Climate change also affects food security and nutrition. Higher temperatures, land and water scarcity, flooding, drought and displacement will negatively impact agricultural production and disproportionally affect the most vulnerable people. Vulnerable groups risk further deterioration of available food and nutrition when exposed to extreme climate events. Pineapple form part of a healthy diet and on this basis, pineapple businesses could consider how they may be able to support vulnerable populations in their local communities. Some examples of support include targeted social outreach programmes that aim to improve food security and nutrition such as public procurement (e.g. school feeding programmes, community canteen services) or food banks. Providing healthy meals to workers is also an important part of demonstrating good working conditions in pineapple companies.

Employment practices and working conditions

Employment practices refer to an organization's approach to job creation, terms of employment and working conditions for its workers. This topic also covers the employment and working conditions in an organization's supply chain (GRI, 2022, p. 55).

Like all workers, agricultural workers employed in the production-to-export segment of global pineapple value chains deserve to earn a fair wage and work in safe conditions free from exploitation. On-farm employment positions include support activities such as preparing land, cultivating and maintaining the plantation (e.g. nutrient management), harvesting, packing and processing pineapples for domestic and export markets. Although there are risks associated with employment conditions in other mid- and downstream activities, such as international shipping, ripening, logistics and distribution in destination markets, other studies have found that these risks are not specific or unique to the pineapple supply chain. Given this complexity, risks associated with working conditions in these segments of the value chains may be better assessed through wider sectoral or business activity assessments conducted by other actors (i.e. not single pineapple companies), such as government, industry associations and others (Aldi South Group, 2021).

The risk assessment process conducted by your business should first focus on the employment practices related to your own core business activities – such as those within your direct control: only production, integrated production and packing or only packing. The next step should ensure that any risks identified as jeopardizing the ILO Fundamental Principles and Rights at Work are discussed with workers and addressed (1998). Some of these risks related to employment conditions may include the lack of security and legal protection for informal and short-term labourers (in particular, seasonal labourers), indirect employment contracts that may leave workers without access to social security benefits, excessive working hours in the fields or packhouses, lack of transparency in salary payments and deductions, and little or no worker representation by labour unions or associations. The lack of a grievance mechanism (see Box 8) also prevents employees from voicing their concerns in a safe and anonymous manner without fear of retribution from employers.

An employment relationship is a legal relationship between a worker and an organization that confers rights and obligations to both parties that can be regulated and enforced by law. However, **informal and short-term employment** is widespread in the agriculture sector and may restrict the rights of workers particularly if the terms of their employment are not clearly defined. In some countries where pineapples are produced, studies show that temporary workers in other value chains earn less than half the wages of permanent employees and are ineligible for union membership (Fairtrade International, 2023b). Seasonal work is also largely informal and may rely on family labour, where women often engage part time while dealing with household chores and family care, or migrant work (Rodríguez Echavarría and Prunier, 2020). Informal work also frequently goes undeclared, violating labour law and undermining tax collection (GRI, 2022).

Another challenge is the **type of employment arrangements along the supply chain** that may be complex and involve many actors, particularly if workers are not hired directly by the farm or exporting firm but through third party agencies or contractors (i.e. outsourcing). These arrangements are often referred to as "disguised employment". Workers employed through employment agencies may face unjustified recruitment fees, unlawful employment conditions, and restrictions on terminating their engagement (GRI, 2022). These agencies are often excluded from due diligence. When selecting which agencies to work with, businesses should conduct their own risk assessment to ensure that the agencies are operating responsibly and in line with national labour laws and international labour rights. Failing to do so can put your business at significant risk of negative social impacts on workers and additional scrutiny by customers and non-governmental organizations, which may result in loss of sales contracts and damaging media attention.

Excessive working hours (e.g. 12 to 15hours per day and half-day on weekends) are common in the export horticulture sector and may be another high-risk area that can jeopardize the health and wellbeing of workers (see section on occupational safety and health) and go against the principles of responsible business conduct. Maximum working limits for normal hours, as detailed in national labour laws and regulations, should be enforced, and agreements on overtime hours must be in place with prior consent of workers – such as, no worker should be forced to work overtime.

To overcome some of the abovementioned risks, in some pineapple producing countries such as Costa Rica, simple and practical guidance was developed (Basic manual for the application of Costa Rican labour law) to increase transparency and encourage compliance with national labour laws and international best practices.

Living income and living wage

Living income and living wage refer to such level of income or wage that is sufficient to afford a decent standard of living for all household members, including nutritious food, clean water, housing, education, healthcare, and other essential needs, such as provision for unexpected events. This topic covers the organization's approach to worker compensation in the context of whether it provides a living income or living wage (GRI, 2022, p. 57).

The Universal Declaration of Human Rights recognizes that all workers have a right to a just and favourable wage that enables an existence worthy of human dignity for themselves and their families (UN, 1948). The lack of a decent standard of living can lead to poverty, malnutrition and limited access to basic services. Providing a living income or living wage helps reduce inequality and in-work poverty.[10] In contexts where workers are self-employed, the concept of "living income" is used in place of "living wage".

Both living wage and living income aim to secure a decent standard of living for households by calculating the level of remuneration needed to secure this standard, based on the cost of living in a specific geography. Therefore, living wage benchmarks are applicable to all workers in that geography regardless of sector, industry or job type (GLWC, 2023). Increasingly, downstream companies in global supply chains (e.g. importers and retailers in importing countries) are starting to commit to paying living wages to their direct employees and are working with their suppliers to seek living wages in their supply chains. For this reason, pineapple producers and exporters need to be aware of the difference between paying a minimum wage versus a living wage to employees.

A minimum wage is defined as the lowest remuneration that employers may legally pay their workers and can sometimes be used as a proxy for living wage. However, a living wage is defined by the Global Living Wage Coalition (GLWC) as "the remuneration received for a standard workweek by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. The living wage may be higher than the minimum wage. As a useful reference, the Global Living Wage Coalition conducted a number of benchmarking studies in the fresh fruit industry in specific locations, including in pineapple producing regions in countries such as Costa Rica (including Costa Rica and Nicaragua), Côte d'Ivoire (Rural Côte d'Ivoire) and the Philippines (Rural Ilocos Sur Province) (2023).

The Accountability Framework Initiative's Operational Guidance on Workers' Rights (2021) also provides useful advice on how businesses can transition towards paying living wages to all workers to close the gap between current wages and living wage benchmarks (where they exist). To close the gap, a plan can be developed in conjunction with workers' representatives as part of a collective

[10] Working poverty refers to the population that receives labour income that does not exceed the monetary value of the basic basket of goods.

bargaining agreement. It recommends that if a living wage benchmark (or reference level) does not exist for the context where workers are employed, then the employer should approach other stakeholders in the area (e.g. workers' representatives, non-governmental organizations, other companies in the same sector) to pursue the development of a local living wage benchmark.

Studies show that in some countries, pineapple companies are outsourcing their labour requirements to third-party agencies to bring down labour costs, leading to declining employment conditions for agricultural workers (Gansemans *et al.*, 2017). The Responsible Fruits Project identified the issue of living wage as a sustainability challenge, which is also allegedly contributing to anticompetitive behaviour in the industry. Some pineapple companies alleged that businesses relying on undocumented migrant labour might be able to lower their production costs by paying lower wages and offering fewer employment benefits (see sections on employment practices and migrant labour). Some studies show that in some producing countries, many of the jobs created in the sector are reported to be insecure and lacking compliance with national labour regulations, with a significant share of the workforce made up of immigrants from neighbouring countries (Gansemans *et al.*, 2017).

In some pineapple producing countries, contract farming arrangements were introduced by the private sector and were originally thought to provide smallholders with the security and incentive needed to invest in adopting VSS. In this scenario, the contracting company supported small-scale producers from whom they source pineapple, by providing financing and extension services to upgrade production processes. It was thought that this arrangement would lead to better prices in export markets and living incomes for smallholder farmers, following the higher adoption of VSS. However, an analysis on the implementation of these agreements found that in most cases, participating smallholders were subject to higher rejection rates for their fruit, no price premiums and long payment delays, despite the higher adoption rate of VSS (Wollini *et al.*, 2012). This finding highlights that adoption of VSS is no guarantee of a living income for farmers.

Although the pineapple industry created thousands of jobs in major producing countries, further work is needed to translate job creation into decent jobs for workers and the reduction in poverty in rural areas where these companies operate. However, companies point out that increasing employment standards for all workers is challenging for the sector, given the increasingly tight export revenues (see section on equitable sharing of value) and inflexible local laws and the institutional settings with slow processes to officially onboard new workers, including migrant workers.

Occupational health and safety

Healthy and safe work conditions are recognized as a human right. Occupational health and safety involve the prevention of physical and mental harm to workers and promotion of workers' health. This topic covers impacts related to workers' health and safety (GRI, 2022, p. 52).

In June 2022, the International Labour Organization's (ILO) Conference amended the Declaration on Fundamental Principles and Rights at work by adding a fifth principle and right to a safe and healthy working environment. The loss of life, accidents and diseases caused by inadequate safety and protection of the working environment remain a reality in every country, from the poorest to the most prosperous (ILO, 1998, amended 2022). The consequences are enormous in terms of lives lost or damaged as well as the economic costs to enterprises and the economy. The agriculture sector is considered among the most hazardous, with workers experiencing high numbers of work-related injuries and illnesses each year. Workers' living conditions must also be taken into account when assessing safe and healthy working conditions, as many agricultural workers live where they work. Ensuring a decent working environment is also of great importance for the surrounding community, as they may be negatively affected by impacts such as exposure to pesticides and polluted water sources.

According to the ILO (1998, amended 2022), occupational health and safety is a moving target that therefore requires continuous risk assessment. New occupational risks may emerge due to technological innovation or organizational change, and physical hazards can be compounded by mental health problems and harassment and violence at work. Varying forms of labour contracts, informal and seasonal work and excessive working hours, particularly during harvesting seasons, create challenges for health and safety regulations and their implementation. At times of economic downturn or health emergencies, safety and health may come under threat. A safe and healthy working environment proved to be an essential element of the response to and longer-term recovery from the COVID-19 pandemic, highlighting the importance of addressing these risks for building resilience within each business. The World Banana Forum, in close collaboration with industry actors and national governments, has developed practical risk management manuals on health and safety in the banana industry in Cameroon and Ecuador (available in Spanish only), which could be adapted to meet the specific needs of the pineapple industry.

The ILO Convention 184 concerning safety and health in agriculture (2001) clearly defines employer obligations with regard to their duty to identify hazards, evaluate risks and apply the necessary prevention and protection measures if hazards cannot be eliminated (Article 7, ILO, 2001). Workers must also be aware of and consistently apply all the standards and procedures that allow them to carry out their work in safe conditions (Article 8, ILO, 2001). Workers' knowledge of these standards can be increased through dedicated training and awareness raising campaigns in the workplace.

To overcome some of the abovementioned risks, in some pineapple producing countries such as Costa Rica, simple and practical guidance on occupational health in agriculture were developed to increase transparency and encourage compliance with national labour laws and international best practices. These guidelines are directed to the Inspectors of the Ministry of Labor and Social Security of Costa Rica and were produced by the National Directorate of Labor Inspection. In collaboration with the ILO, the Ministry of Labour developed a technical guide on occupational health and safety in the pineapple sector in Costa Rica (available in Spanish only) that describes in detail the job requirements for pineapple production and packaging and identifies the risks associated with each process. The guide also offers a list of prevention and protection measures that companies can take to address occupational safety and health risks. Major pineapple producer associations in the country provide practical guidance to businesses operating in the sector to mitigate the occupational hazards in alignment with national regulations. In the Philippines, similar guidance has been issued by large pineapple producing companies to address occupational health and safety hazards, although this guide is not specific to the pineapple industry.

When assessing health and safety risks for workers in global pineapple value chains, a gender perspective is also essential as risks in the workplace can affect women and men differently due to differences in physical, physiological and psychological characteristics. Your business should take measures to ensure that the special needs of women agricultural and packing workers are considered in relation to menstruation, pregnancy, breastfeeding, reproductive health, and menopause (Article 18, ILO, 2001).

Traditional gender roles and stereotypes in many countries may mean that men and women are engaged in different activities along the pineapple value chain. A greater share of male workers is allocated agricultural work in the field, technical posts and managerial positions, whereas female workers are often engaged in processing and packing operations. Specific risks facing women workers in this context may include risks of injury and illness associated with manual handling and highly repetitive and paced shift work, lack of personal protective equipment for their sizes or limited accessibility to it, limited access to or inadequate hygiene facilities (e.g. toilets, dedicated space for lactation, changing rooms), and risks of violence and harassment in the workplace. These issues and others affect retention and absenteeism at work and the quality of life of female workers. There are, however, some good examples of industry-led initiatives emerging in recent years to improve the occupational health and safety of women workers in the export-oriented horticulture sector. These efforts include the World Banana Forum's work on developing guidelines on healthy and safe employment of women workers in the banana industry in Latin America (available in Spanish only).

Risk assessments for occupational health and safety should also take into account how age affects the varying needs and exposure to risks. For example, young workers (15 to 24 years) are still developing their skills and do not always have the maturity of adult workers to understand work related risks and hazards. For this reason, they are more likely than adult workers to be hurt or made ill from their job (ILO, 2018). Similarly, for older workers (those aged 55 and older), businesses should identify the types of activities likely to hasten the ageing process or that pose difficulties for older workers to adapt to the demands of their work. After which, businesses should devise appropriate solutions to address these difficulties (ILO, 1980). Solutions may include redesigning remuneration systems for older workers along the pineapple value chain that consider not only the speed of performance but also know-how and experience. Other solutions may also require adjusting facilities (e.g. incorporating resting facilities) to support older workers' performance.

Forced or compulsory labour

Forced or compulsory labour is work or service which is exacted from any person under the menace of penalty and for which a person has not offered themselves voluntarily. Freedom from forced labour is a human right and a fundamental right at work (GRI, 2022, p. 46).

ILO identifies agriculture as one of the sectors that is highly susceptible to forced or compulsory labour. Workers are less likely to be unionized, often earn less, and have fewer skills than workers in other sectors, which may increase the risk of abusive work practices. Agricultural work is labour-intensive and often occurs in remote locations. A high demand for workers is often filled by employment agencies as discussed under the section on employment practices and working conditions. Incidents of forced labour have been found in the supply chains of most products in the agriculture sector, including cocoa, coffee, tea, sugar, fruits, vegetables, rice and nuts (Fairtrade International, 2023b).

Forced or compulsory labour includes any labour that is involuntary and where the worker is coerced to perform the duties. Forced labour can take place during the recruitment process, as part of work conditions, and when leaving a job. Coercion can include recruitment under false promises, confining workers to the workplace so they are unable to leave, retaining personal identification documents, restricting communication outside of the workplace, threatening or performing violence, delaying or manipulating wages or loans, and depriving workers of basic needs, including food and safe living conditions (AFi, 2021).

Forced labour includes all forms of debt bondage, human trafficking and modern slavery. Debt bondage occurs when a debt to the employer or a labour broker traps workers in a job until the debt is repaid. For example, workers may take high interest loans to cover the cost of recruitment, necessities, or work equipment that employers fail to provide. Human trafficking includes the recruitment, transportation, transfer, harbouring or receipt of persons through any form of coercion, for the purpose of exploitation (AFi, 2021). Modern slavery is an umbrella term often used to refer to both forced labour and trafficking, as well as other forms of labour exploitation.

Undocumented migrant workers are particularly at risk of forced labour and are more likely to work under conditions of coercion. They may not have valid work permits or be unaware of their legal status. They may have their passports or identification documents taken away and employers may threaten to report them to authorities. This risk area may be relevant for pineapple value chains, particularly those that rely on migrant workers or work with employment agencies who hire them, as discussed before. In some pineapple producing countries, there have been reports of forced labour during harvesting seasons. Forced labour may also have implications for child labour.

All forms of forced labour are a serious violation of fundamental human and labour rights, as well as a criminal offence. Over the past decade, the issue has drawn increased attention from national and local governments in both producing and importing countries, as evidenced by a number of new laws and regulations. Some of these laws require companies to perform due diligence regarding forced labour in their supply chains; some focus on disclosure of company efforts to combat forced labour; and some address importation of goods produced by forced labour (e.g. the United Kingdom's and Australia's Modern Slavery Act) (AFi, 2021). In other countries, protection to workers from forced or compulsory labour is covered under existing labour and criminal laws. All pineapple businesses need to be familiar with these laws and understand their obligations.

In some pineapple producing countries such as Costa Rica, national labour laws were created to provide protection to smallholder farmers, migrant workers and seasonal and casual workers. An instance of this is the law number 9095 that protects people against human trafficking and created the national coalition against the illicit smuggling of migrants and trafficking. Also, Costa Rica's Constitution (1949) establishes the right to freely choose employment (Article 56), including the right of changing jobs. Article 139 of the Labour Code (1943) also establishes a framework on the number of maximum working hours per day and week, including of hazardous work, and provides guidelines

on compensation. The article further highlights the risks of forced work to vulnerable groups. Ghana and the Philippines are working to develop a National Action Plan on Business and Human Rights in order to implement the United Nations Guiding Principles on Business and Human Rights in the country.

The *Guía de debida diligencia en el Trabajo Forzoso* developed by the *Asociación de Empresas de Alimentos de Chile A.G* and ProChile (2023c; available in Spanish only) is a useful resource to better understand the risks associated with forced labour. The guide also details the due diligence process an agrifood company should undertake both internally and along their value chain to identify, prevent, mitigate and account for human rights impacts associated with this issue.

Child labour

Child labour is defined by the ILO as work that deprives children of their childhood, their potential and their dignity, that is harmful to their development, and that interferes with their education. It is a violation of human rights and can lead to lifelong negative impacts. Abolition of child labour is a fundamental principle and right at work (GRI, 2022, p. 48).

The agriculture, aquaculture and fishing sectors have the highest share of child labour compared to all other sectors, and instances of child labour were documented in the supply chains of many products, including cocoa, sugar and cotton (ILO, 2015, 2016, 2017). Child labour risks are also present in the production of coffee, tea, bananas and wine grapes as well as various vegetables, fruits, nuts, seeds and oils (US Department of Labor, 2022). Some instances of child labour are noted in countries where pineapples are produced, and some cases of child labour in pineapple production and packing were found, although with a decreasing trend (see United States Department of Labour's 2022 list of goods produced by child labour or forced labour).

According to the ILO, child labour is defined by the age of the working child and by the nature of the work. A child is a person under the age of 18; however, not all work performed by children is considered child labour. For example, in the context of family farming, some participation of children and adolescents in non-hazardous activities can be positive as it contributes to the intergenerational transfer of skills and food security of the family. It is important to distinguish between light duties that do not harm the child and child labour, which is work that interferes with compulsory schooling and damages health and personal development. This difference can be assessed based on hours and conditions of the work, the child's age, the activities performed, and the sector and hazards involved.

ILO conventions allow countries certain flexibility in setting minimum ages and determining what constitutes hazardous work and light work. National governments can determine what is considered hazardous work through consulting with employers' and workers' organizations. Employers may adopt more restrictive standards than those put forward by the ILO and national laws but should never have more relaxed rules. Any business engaging children in the production and packing of pineapples must be familiar with their country's laws and regulations on what constitutes light legal

work for children versus hazardous work, and businesses must be able to provide clear evidence to external labour auditors of how they are complying with appropriate laws. Failure to do so will put the business at a grave risk of breaching international human rights and of causing negative and often irreparable damage to children and their surrounding communities. Failure to comply will also damage the reputation of the business and lead to an immediate loss of buyers in export markets in all countries that have ratified ILO conventions No. 138 and 182 and other due diligence policies. Such countries include important pineapple markets in the United States of America, the United Kingdom, Canada and the European Union, among others.

No child under the age of 18 can be subjected to hazardous work that is inherently dangerous, such as applying pesticides, lifting heavy objects, and working long hours, at night or in high temperatures (see also, Article 3 of ILO Convention No. 182).

The risk of child labour is considered greater where i) families do not have access to schools or childcare facilities (e.g. if the parents cannot afford to pay fees, if the work site is located in a remote area far from a school, or the workplace does not offer daycare facilities); ii) poverty is high; iii) the social and gender norms accept child labour and children not being in school; iv) laws either do not exist or are not enforced; v) there is a lack of social protection and affordable healthcare; and vi) there is a lack of child protection services (Rainforest Alliance, 2021).

There are many resources available from the ILO to help companies understand the issue of child labour and how to identify, prevent, mitigate and address risks. Two useful resources to better understand the due diligence process a pineapple business could undertake both internally and along its value chain to identify, prevent, mitigate and account for human rights impacts associated with child labour are: i) the *Conducta Empresarial Responsable frente al trabajo infantil y adolescente: Guía para orientar la acción, Costa Rica* (available in Spanish only) (*Ministerio de Trabajo y Seguridad Social de Costa Rica* and the ILO, 2021); and ii) the *Guía de debida diligencia en el trabajo infantil* (available in Spanish only) (*Asociación de Empresas de Alimentos de Chile A.G* and ProChile, 2023b).

Freedom of association and collective bargaining

Freedom of association and collective bargaining are human rights and one of the five fundamental rights at work. They include the rights of employers and workers to form, join, and run their own organizations without prior authorization or interference, and to collectively negotiate working conditions and terms of employment. This topic covers an organization's approach and impacts related to freedom of association and collective bargaining (GRI, 2022, p. 60).

Freedom of association is the right of employers and workers to unite and create organizations to help them defend their interests and voice their demands. By forming organizations, workers can also engage in bargaining over fair working and employment conditions, which include topics such as

wages, working time, training, occupational health and safety, and equal treatment, among others. This process is called collective bargaining and can result in a collective agreement. These negotiations are vital to ensure favourable working relationships between workers and employers. According to the ILO, all workers in the agriculture sector should enjoy the right to freedom of association and collective bargaining. These workers include self-employed, seasonal, migrant and informal workers, as well as smallholder farmers, plantation workers and others.

However, these rights remain at risk in the agriculture sector because workers are denied their rights to organize and bargain collectively in many countries (ILO, 2020). Several challenges face agricultural workers when it comes to organizing and forming trade unions. Low-income, informally employed, migrant, seasonal, and casual workers may be restricted from joining unions due to the temporary nature of their employment or lack of official employment status. Women workers may be even more vulnerable due to laws that restrict ownership and control of land, or due to by-laws or customary rules that restrict women's participation and prevent them from taking leadership roles in groups such as cooperatives or associations. Household responsibilities often mean that women have less time to participate in union activities and leadership positions. For those who can participate, trade union officials and members may face discrimination, harassment, intimidation or retaliation related to participation in unions or groups.

Businesses have the obligation to protect workers' rights to all aspects of freedom of association, including their rights to organize and represent themselves in collective negotiations with management. Employers engaged in responsible business conduct should be able to demonstrate that their workers freely chose the union or other workers' organization that negotiates with the employer. Non-discrimination against union leaders and members is an essential element of a responsible business. The employer should ensure that workers are not subjected to any discrimination, harassment or retaliation related to participation in unions or organizing in any capacity. Protection against acts of anti-union discrimination is particularly important in the case of trade union officials, as they should perform their duties in full independence, without fear of suffering retaliation. Workers, workers' representatives and trade union members should be protected from discrimination in relation to hiring, training, promoting, dismissing and assigning jobs. This protection should be addressed clearly in all procedures and training, and monitored through regular reviews of disciplinary actions, human resource records, grievance logs and interviews (AFi, 2021).

In some pineapple producing countries, trade union officials and members in the industry experienced serious risks associated with intimidation, harassment, retaliation and violence, including gender-based violence. Subcontracting is widely practiced in the sector, which aggravates the risks because it means that contractual workers are not members of unions and are unable to raise grievances (Dubois *et al*., 2016). The hiring of contract workers prevents most workers from having the legal right to unionize, hindering the freedom of association and collective bargaining. However, as reported by the participants of the Responsible Fruits Project, in some pineapple producing countries, other types of worker groups or organizations exist, which allow effective representation and collective bargaining with workers, even if they are not considered as unions.

Given the complexity of this area, the issue of non-discrimination against members of labour unions and protection of all employees and their rights to organize and engage in collective bargaining is a relevant area for risk assessment for the sector.

Implementation strategies to address these risks can be found in guidelines developed by the ILO (2020), as well as other guidance documents such as the Accountability Framework initiative's Operational Guidance on Workers' Rights (2021), among others.

Non-discrimination and equal opportunity promotion

Freedom from discrimination is a human right and a fundamental right at work. Discrimination can impose unequal burdens on individuals or deny fair opportunities on the basis of individual merit. This topic covers impacts from discrimination and an organization's practices related to equal opportunity (GRI, 2022, p. 44). Issues associated with the rights of women, migrant workers and Indigenous and Tribal Peoples who may be at risk of discrimination and lack equal opportunities in employment are also covered.

Discrimination occurs when a person is treated less favourably than others because of characteristics that are not related to the person's competencies or the requirements of the job. The ILO Convention 111 identifies race, skin colour, sex, religion, political opinion, national extraction and social origin as bases of discrimination (1958). Other ILO instruments list additional grounds: persons living with HIV/AIDS, age, disability, family responsibilities, sexual orientation, education, and trade union membership or activities. The ILO Convention 100 promotes the principle of equal pay for work of equal value. Discrimination may occur at any point along the employment process – from recruitment to employment, promotion or when leaving, such as unfair dismissal (1951).

All workers and job seekers have the right to be treated equally, regardless of any attributes other than their ability to do the job. It is essential for workers to be able to choose their employment freely, to develop their potential to the fullest and to be rewarded based on merit. To reduce risks of discrimination, your company must put in place transparent policies and management procedures. These policies and procedures should demonstrate zero-tolerance of discriminatory practices and proactively ensure that skills and experience serve as the basis for recruiting, placing, training and promoting their staff at all levels.

Rights of women, gender equality and gender-based violence and harassment

Women working in agriculture often experience gender discrimination, evident in poorer working conditions, unequal opportunities, lower wages and less secure forms of employment compared to men. They may also be subject to discriminatory practices, such as undergoing pregnancy tests during hiring procedures and being excluded as job applicants based on family responsibility (children) or marital status. ILO Maternity Protection Convention, 2000 (No. 183), for

example, recognizes that pregnancy and maternity are an especially vulnerable time for working women and their families and provides maternity protection to all women in all types of economic activity (including in relation to maternal health, maternity leave and benefits, employment protection and non-discrimination, breastfeeding).

It is important to note that within the broad category of women, individuals and groups may experience gender-specific impacts differently, depending on factors such as their sexual orientation, gender identity, ethnicity, age or class (ILO, 2021a).

Discriminatory impacts will also vary depending on the stage of the value chain in which women operate. In the agriculture sector, stereotypes often drive direct discrimination against women in hiring. Employers may openly express a preference for men for field work or technical roles in cultivation and harvest. Prevalent land tenure patterns also mean that women are likely to be under-represented among smallholders and their associations and face barriers to accessing financial services and formal markets as they lack collateral (OECD-FAO, 2021). Women often face restrictions to access information, technologies and inputs, limiting their capacity to improve their productive capacity and wellbeing.

The analysis of gender risks in pineapple value chains is currently hindered by a lack of sex-disaggregated data across the export industry and limited information on working conditions for female workers. However, some research indicates that women's involvement in the pineapple industry is higher in packing and processing activities, whereas men comprise the workforce for agricultural production and managerial work (Fair Food International, 2020). In the field, men seem to benefit more from being

directly employed by companies, while women are predominantly hired under third-party contractual arrangements (Dubois *et al.*, 2016), making them more prone to experience disadvantaged conditions at work. Pineapple companies participating in the Responsible Fruits Project confirmed these trends: men represent the largest proportion of the workforce, and an average ratio of male to female full-time employees is 85:15 (FAO, 2021).

In addition, female workers are often constrained with heavy family responsibilities, including care work, leaving them with limited time to dedicate to paid employment. The ILO Convention on Workers with Family Responsibilities (No 156) and Recommendation No.165 advocate for the right to achieve a work-life balance. Additionally, the ILO Maternity Protection Convention, 2000 (No. 183), ensures economic and job security for workers. Responsible companies can enhance this balance by pursuing family-friendly benefits, including paid primary and secondary caregiver leave, childcare assistance, and flexible work arrangements. These measures are crucial for supporting employees who are parents or caregivers, facilitating their return to work and ensuring their retention.

Discrimination against women also includes gender-based violence and harassment (GBVH). Depending on the country, women supply 30 to 80 percent of agricultural labour, and the United Nations estimates that one in three women experiences GBVH (IFC, 2020). Reports of workplace sexual harassment against female workers were documented across export-oriented horticultural industries, including in the pineapple industry in several producing countries (Aldi South Group, 2021; IFC, 2020; EBRD and CDC, 2019).

The prevalence of male supervisors is a general risk factor for sexual harassment and other forms of GBVH. GBVH is widespread in the processing and packing stages of agribusiness, where male supervisors frequently oversee the process and control decisions concerning work performance and remuneration (IFC, 2020). In many cases of sexual harassment or other forms of GBVH, grievance mechanisms may fail to work effectively, lacking sufficient protection for complainants of women performing seasonal or informal work. It has been noted that these women are less likely to report openly sexual violence and other abuses they experience. Affected workers often have no alternative except to leave their employment, contributing to adverse impacts on women's livelihoods. The business is also impacted economically, including loss of productivity, higher workforce turnover and increased absenteeism, time and money spent on healthcare, filing complaints and pursuing investigations. Most importantly, the victims experience a loss of well-being (ILO, 2022b).

Companies operating in pineapple value chains have a duty to promote gender equality, raise the prospects of women in the sector and address risks associated with gender-based violence. By doing so, they will contribute to the Sustainable Development Goal 5 (SDG 5) that aims to achieve gender equality and empower all women and girls. Integrating a gender perspective into the due diligence process can also help your company to demonstrate contributions to SDG 5 in a measurable way, going beyond the company's own operations and pervading into the whole supply chain.

At the workplace, companies can undertake simple infrastructure solutions such as separate toilets or well-lit amenities that can reduce sexual harassment and enhance sense of security (FAO, 2023g). It is also key to work with women and men to discuss in an open dialogue, while collaborating with local women's organizations, government and NGOs to strengthen women's collective action and voices. Companies should also consciously design a gender-responsive grievance mechanism that ensures a gender sensitivity and parity among grievance mechanism staff, and that involves gender committees to review the cases and address complaints, Enabling whistleblowing could also be a complementary approach (WomenWin, 2024).

The UN Global Compact has developed the Women Empowerment Principles' Gender Gap Analysis Tool to help companies assess current policies and programmes, identify areas for improvement and consider opportunities to set future corporate goals and targets regarding gender equality. Other tools are available from the ILO (2022a, 2022b) and others (IFC, 2020; OECD-FAO 2021; Eckman *et al.*, 2022) to support companies in considering how the actual or potential adverse impacts may differ for or may be specific to women. These tools aid in developing strategies to prevent, mitigate and address these risks, as well as monitor and evaluate progress. FAO's e-learning portal also offer resources to improve engagement of women producers in agribusinesses and fostering decent wage employment for women and men.

Rights of migrants

As discussed under the sections on employment practices and working conditions, forced labour, and freedom of association and collective bargaining, migrant workers are highly vulnerable to discriminatory labour practices and gender-based violence and harassment (GBVH). Undocumented migrant workers are particularly at risk of coercion and intimidation as they have limited social networks and experience, and fear retaliation from employers if they report an incident, such as being blacklisted, unable to return the following cropping season or deportation (EBRD and CDC, 2019). These risks are frequently compounded by their dependence on employers for housing, transportation and the right to stay, lack of knowledge of their rights and restricted access to key services (OHCHR, 2017). This highly vulnerable situation leaves migrant workers extremely exposed to hazards and with limited capacities to prepare or recover from these once materialized.

Consultations with industry stakeholders indicate that migrant workers are frequently engaged in the pineapple value chains of several producing countries. Often, migrants live in the countries without a working visa, or when production takes place close to the border, where people cross into the neighbouring country every day to work on nearby farms (Dubois *et al.*, 2016). Considering the risks associated with migrant work in pineapple value chains will be important, especially as climate change is expected to cause populations to move around the globe as some regions will become hazardous and unable to sustain livelihoods. Most people displaced by weather and environmental causes will likely look for homes in countries close to their own (IOM, 2018).

Another issue driving employment of international migrants in the sector is the shortage of domestic workers. In some regions, domestic and international migration from rural to urban areas is common, particularly among young people. This migration reduces the availability of the labour force in the agriculture sector and creates competition among industries. For instance, in Costa Rica and Colombia, workers tend to move to more profitable sectors, such as coffee, during the harvest season, which affects the maintenance of pineapple plantations (Díaz Ramírez, Hurtado and Jäger,2022, and as reported by members of the Responsible Fruits Project during regular meetings). In Costa Rica, as export-oriented agriculture expands for various commodities, the agriculture sector increases its reliance on foreign migrants, who make up to 70 percent of total workforce. Reliance on contractors to recruit workers also increases, and in some cases, they may offer poor working conditions that impact their livelihoods (Escobar, Martin and Stabridis, 2019; Voorend *et al*., 2013; Martin, 2016), including lack of social security and work risk insurance (Lee, 2010).

Rights of Indigenous and Tribal Peoples

Indigenous and Tribal Peoples are at higher risk of experiencing severe negative impacts as a result of an organization's activities. Indigenous and Tribal Peoples have both collective and individual rights, as set out in the United Nations Declaration on the Rights of Indigenous Peoples (UN, 2007) and other authoritative international human rights instruments. This section covers the impacts on the rights of Indigenous and Tribal Peoples (GRI, 2022, p. 42)

Indigenous and Tribal Peoples[11] hold deep cultural and spiritual value associated with their lands and territories, and often rely on natural resources for subsistence. Collective property is a key fundamental right of Indigenous and Tribal Peoples, and the right to property includes formal and customary rights to indigenous lands, resources and territories, including the rights of ownership, use, possession, control and administration (UN, 2007). When the property rights of Indigenous and Tribal Peoples are impacted by agricultural and forestry supply chains, other fundamental rights are likely to be impacted as well (AFi, 2019c), including the right to:

- culture;
- a healthy environment;
- self-determination, including the right to define their own development priorities, maintain their own institutions, and self-governance;
- life and physical integrity;
- be free from discrimination;
- adequate food;

[11] For a definition of who are Indigenous Peoples, please see www.fao.org/indigenous-peoples

- legal personality;
- access an effective remedy;
- equality before the law;
- access justice;
- be free from forced eviction (coerced or involuntary displacement); and
- participate effectively and meaningfully in the decisions that may affect them.

Some of these rights are enjoyed and exercised by the collective – the right to property, culture, and self-determination – while others apply to individual members – the right to life. All rights apply equally to all genders.

The free, prior and informed consent (FPIC) is a specific right granted to Indigenous Peoples that allows them to provide, withhold or withdraw consent, at any time, regarding projects or initiatives that impact their territories in any way. FPIC allows Indigenous Peoples to participate in negotiations to shape the design, implementation, monitoring and evaluation of projects or initiatives (FAO, 2024a). The right of Indigenous Peoples to be consulted is firmly established in international law. The ILO Convention No. 169 on Indigenous and Tribal Peoples and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP; 2007) constitute the international legal framework on the rights of indigenous peoples and are used as a guide to their own national laws by most of the countries that recognize the rights of Indigenous Peoples (UN Global Compact, 2024c). The ILO Convention has been ratified and is binding in pineapple-producing countries, such as Costa Rica and Brazil (ILO, 2024d).

National governments are responsible for ensuring that the rights of Indigenous and Tribal Peoples are fulfilled by incorporating into the national laws and policies those measures necessary to respect, promote, and protect their rights. Companies, on the other hand, should be familiar and comply with these national laws. When national laws fail to guarantee these rights, companies engaged in RBC practices are still expected to respect the rights of Indigenous and Tribal Peoples as they would all other internationally recognized human rights. This is also in line with the UN Global Compact, the largest corporate sustainability initiative in the world, and is a call for companies to incorporate ten universal principles related to human rights, work, the environment and the fight against corruption in its strategies and operations (2024d).

In the pineapple industry, a business's risk assessment of the negative impacts on Indigenous and Tribal Peoples cuts across most of the environmental risk areas identified in this guide (Table 3). These areas include land use, land expansion and land rights; water and agro-chemical use; deforestation and forest degradation; and biodiversity and protection of ecosystems and ecosystem services. Indigenous farming practices are intertwined with indigenous cultures and are deeply linked to particular territories. Natural ecosystem conversion and water use for pineapple production can affect

traditional farming and put the livelihoods of Indigenous and Tribal Peoples at risk. These populations may be displaced to make way for the expansion of plantations for export production, and indigenous knowledge and culture may be lost when disrupted (GRI, 2022). This issue has been observed in some pineapple producing countries when Indigenous and Tribal Peoples were forcibly displaced to make way for the expansion of high-value commodities or when native pineapple varieties were displaced by the market-preferred MD-2. Additionally, there were troubling instances of severe human rights violations against Indigenous and Tribal Peoples and their advocates, encompassing incidents such as unlawful detentions, threats, homicides and exploitation (UN, 2024).

Protection of the rights of Indigenous and Tribal Peoples also cuts across most social issues because Indigenous and Tribal Peoples are considered to be at a higher level of vulnerability to human rights breaches, including forced labour and child labour; right to enjoy freedom of association and collective bargaining; and non-discrimination and equal opportunity. In terms of cross-cutting risks, the importance of consultation and right to effective remedy are fundamental in mitigating the risks associated with potentially negative impacts from the operations of pineapple companies on Indigenous and Tribal Peoples.

Through compliance with national laws, pineapple companies operating in regions where Indigenous Peoples are present have a duty to carry out operations consistent with the UN Declaration on the Rights of Indigenous Peoples (UNDRIP; 2007). Taking steps to conform company activities to UNDRIP's provisions and training relevant staff on UNDRIP's content can help your company fulfil commitments to respect the rights of Indigenous Peoples throughout your operations and supply chains.

FAO offers a practical toolkit and a free e-learning course on how to operationalize the indigenous Peoples' right to FPIC. The Accountability Framework Initiative's Operational Guidance on Respecting the Rights of Indigenous Peoples and Local Communities (2019) provides useful advice on how to prevent negative impacts and strategies to address situations in which the company has caused or contributed to adverse impacts on these rights. Additionally, the Business Reference Guide to the UN Declaration on the Rights of Indigenous Peoples (2013) and the Practical Supplement (2014) from the UN Global Compact provides examples for companies to better understand, respect and support the rights of Indigenous and Tribal Peoples and learn how these rights are relevant to business activities. The UN Global Compact also suggests due diligence measures that companies can take to respect Indigenous and Tribal Peoples in their operations and supply chains, with the elements and steps discussed in this guide.

For these prior consultative processes, collaboration with national and subnational government actors, as well as with the institutions of Indigenous and Tribal Peoples, is essential. This has the purpose of achieving compliance with the right of these peoples to be consulted, and thus, reach agreements or approve the proposed measures taking place in their territories.

Local communities

Local communities comprise individuals living or working in areas that are affected or that could be affected by a business's activities. A business is expected to conduct community engagement to understand the vulnerabilities of communities living in areas close to where business's operations take place and to identify how communities may be affected by these. This topic covers socioeconomic, health, and human rights impacts on local communities (GRI, 2022).

An assessment of the potentially negative impacts of a business's operations on local communities cuts across all of the environmental and social risks identified in the risk mapping for pineapple production and export (Table 3). In case there is presence of Indigenous and Tribal Peoples in local communities, please refer to the corresponding section in this guide to address the risks related to these populations.

Local communities may be directly engaged in production and export activities as smallholders, employees or business partners, and they may be impacted by a company's operations. For this reason, when assessing all risk areas, special consideration must be given to local communities as a group that are potentially vulnerable to the negative impacts of your business's operations. To mitigate the risks for conflicts and tensions between the business and potentially affected communities, early and ongoing consultations should be conducted in good faith and without intimidation (OECD-FAO, 2016). Companies may also need to provide independent technical and legal assistance to the affected communities to support them as they express their views and make informed decisions about situations that may affect their rights and livelihoods.

In several pineapple producing countries, communities living close to plantations and packing areas raised concerns about how the commercial agriculture sector may be polluting and depleting water resources, which may restrict access to safe and plentiful water for smallholders and communities' domestic use. Loss in water quality due to nutrient runoff and pre- and post-harvest processes (e.g. pineapple and equipment washing) also affects communities' access to clean water. In some cases, local communities have also made complaints about presence of pests and diseases brought about by agricultural residues, which can also harm other productive sectors and can create concerns for health.

In the face of climate change impacts, growing competition for limited water resources is a given in many producing countries. Therefore, all responsible pineapple business should develop proactive strategies for engaging and consulting with local communities and reaching an agreement on how to deal with these highly sensitive issues. Numerous resources and training materials are available for businesses to improve their capacity to engage with local communities in the participatory planning and management of water resources (see section on water use and effluents). Also, tools such as the water footprint measurement guide for pineapple value chains, developed by the Responsible Fruits Project, can help companies measure the impacts of their operations on water quantity and quality and identify measures to address these. Some options to reduce, upcycle and/or valorize residues in the industry are also discussed in the section of food loss and agricultural waste.

Economic risks

Five economic risks were identified as highly relevant to the pineapple industry. These risks cover general issues including risks associated with increasing costs of production and logistics; as well as current commodity-specific concerns, such as sharing value along the supply chain.

Smallholder inclusion and equitable sharing of value along the chain

Economic inclusion concerns an organization's impacts on access to economic opportunities for local communities and the productive potential of actual and possible suppliers. This topic covers an organization's approach to economic inclusion of farmers and their communities (GRI, 2022, p. 59).

The exporting pineapple industry is characterized by its highly vertical integration, where single companies and associations oversee all processes from production to export. The integration has occurred partly is in response to the sector's growing market volatility and the low average export price of pineapple. In a market with such high volatility, highly integrated production-export-import systems have allowed the creation of economies of scale and ensured competitiveness of the industry in global markets. However, the high degree of vertical integration among large-scale producers, packers and exporters in the value chain, can exclude small-scale farmers, preventing their involvement in downstream segments of the chain, especially in export markets (Sosilla, 2012; Gomez *et al*., 2007). In some countries, small-scale producers' land was incorporated into large-scale agribusiness plantations, with smallholders becoming labourers on plantations (Hayden, 2018; Shaver *et al*., 2015).

Despite the consolidation of the industry, small-scale pineapple farmers still play a significant role in the global export industry. A small number of export-oriented farmer cooperatives and producer associations remain in the main producing and exporting countries. They shifted focus on niche markets, such as organic and Fairtrade production. For these farmers, this specialized export channel is a means to bypass the highly competitive, vertically integrated conventional channel for exports, and in-so-doing, ensures a fair price for their products. However, according to participants of the Responsible Fruits Project, many of these farmers and cooperatives rely on unconditional fund transfers (e.g. via trust funds or development projects) to cover investments used to upgrade production practices to comply with sustainability standards. Relying on these funds might not be viable and sustainable in the long term.

The inclusion of small-scale producers in pineapple production is important to support livelihoods in rural communities and to increase agricultural productivity and food security. Effectively engaging them in global and local value chains would also prevent negative environmental impacts. In some countries, a large percentage of small producers plant in hazardous places (e.g. hillsides) without an

adequate production-plot design, which can exacerbate soil erosion and deforestation (Díaz Ramírez, Hurtado and Jäger, 2022). By including smallholders in export value chains and ensuring consultation, pineapple packers and exporters can avoid displacing negative social and environmental impacts onto local communities, while at the same time securing stable fruit supplies for consumers in domestic and export markets.

However, both small-scale producers and pineapple buyers (i.e. packers and exporters) can face economic and social risks associated with the inclusion of smallholders in value chains that need to be addressed. From a buyer's perspective there are challenges to ensuring that smallholders adhere to company RBC commitments, including the protection of natural ecosystems and respect for human rights. Specific risks may include insecure land tenure, insufficient access to inputs and finance, lack of training and support, poor traceability systems and lack of economies of scale (AFi, 2019d). As a result, buyers may exclude smallholders from their list of preferred suppliers due to the higher costs of ensuring their compliance, especially from those who do not yet comply with any voluntary sustainability standards (VSS), as well as the higher transaction costs of sourcing from them.

For many smallholders, traditional farming practices and access to finance for investments in technology and innovation may limit their ability to extract added value from the chain, and volatile prices may further restrict their opportunities. The high degree of vertical integration in the sector also means that smallholders may face specific challenges in entering and gaining empowerment within these chains. This level of integration gives buyers, intermediaries and retailers significant control over volumes and prices, leaving smallholders and their cooperatives with little influence over the trading conditions.

In some countries, this disempowerment causes discontent among small-scale pineapple farmers who feel they are not receiving fair prices for their products. They may feel they are subjected to unfair trading practices (see section on anti-competitive behaviour).

Outside of these integrated channels, access to effective technologies to address some of the most pressing challenges (e.g. maximum residue limits [MRLs] and traceability) is often too poor and slow-paced for the industry to respond to risks. Producer associations increasingly report declining prices, higher productions costs and requirements for market compliance as concerns caused by the main importing markets' rapid changing directives and regulations (see sections on increasing costs of production and logistics).

The Accountability Framework initiative's Operational Guidance on Smallholder Inclusion in Ethical Supply Chains (2019d) provides useful advice on how companies may facilitate smallholder inclusion in responsible supply chains through supply chain commitments. The GRI 13 reporting framework also encourages companies to identify and adjust company sourcing practices to support smallholder farmers. Companies are encouraged to disclose actions taken to include of farmers and their communities in value chain activities (e.g. direct support through investments, employment, partnerships or training) and to quantify the effectiveness of these actions in their reports (e.g. increased yields or productivity, number of farmers reached, percentage of products sourced from small producers).

Anti-competitive behaviour

Anti-competitive behaviour refers to an organization's actions that can result in collusion with potential competitors, abuse of a dominant market position or exclusion of potential competitors, thereby limiting the effects of market competition. This behaviour can include fixing prices or coordinating bids, creating market or output restrictions, imposing geographic quotas, and allocating customers, suppliers, geographic areas or product lines. This topic covers impacts as a result of anti-competitive behaviour (GRI, 2022, p. 65)

Anti-competitive agreements can lead to purchasing prices for products being set below those in a competitive market and to restrictions placed on product volumes. Anti-competitive practices may render small producers unable to cover their costs, achieve a living income or pay wages to their workers, resulting in economic exclusion and risk to livelihoods (GRI, 2022). Smallholder pineapple farmers face substantial barriers to accessing markets and may be at risk of anti-competitive behaviour when large organizations take advantage of information asymmetry and market fragmentation to limit their choices of buyers. Other actions that purposely limit the effects of market competition can also cause small producers to lose their independence and be pressured into joining producer associations or forming a dependent relationship with large buyers with unequal bargaining power.

Recently, unfair trading practices became an increasingly important topic of discussion to pineapple producers and associations. The introduction of MD2 pineapple variety in major production countries in the past was stimulated by important government incentives and subsequently, a large number of new producers entered the market. Over the years, this growth exerted a downward pressure on prices and translated into greater price volatility (Faure, Veerabadren and Hocdé, 2006; Kleemann and Effenberger, 2010).

In recent years, pineapple producers have seen international buyers use their market power to drive down prices and squeeze producers and exporters to accept reduced prices. Some buyers may also use unfair practices such as false claims linked to fruit quality, phytosanitary concerns or irresponsible business practices. At the same time, some importing companies and retailers are introducing anti-competitive strategies to create pineapple supply shortages, such as cancelling orders, and bring consumer-facing prices up to increase profits, following the experience during the COVID-19 outbreak (Fresh Plaza, 2023b). To date, testimonial evidence from producers and exporters exists of these types of anti-competitive practices occurring in the pineapple industry. These practices represent a genuine economic risk to producers and exporting companies that could further result in severe loss of income and livelihoods for thousands of small- and large-scale producers and workers.

Another unfair trading practice observed relates to research and development and the ownership of intellectual property and production rights. In some regions, companies have invested in the development of new pineapple varieties to provide the fruit with unique organoleptic characteristics for marketing purposes (e.g. pink-fleshed pineapple) or genetic superiority to enhance adaptiveness to the agroclimatic conditions in the producing regions (see section on technology and innovation). The development and patent of these varieties are usually driven by the companies' own initiatives and bear very high time and investment costs. Thus, it is usually only large and highly integrated businesses who have the skills and resources to implement these initiatives.

Given the high market value of these unique breeds, some competitors might be motivated to illegally obtain and plant the patented varieties in order to capture some of the value generated in niche markets. Stealing property rights may result in unfair competition, economic losses to the property rights holders and legal prosecution, and in some cases, it disincentivizes innovation. Environmental issues might also arise if illegally planted pineapples need to be destroyed through burning plantations or discarding the fruits in landfills.

As a prevention and mitigation strategy against anti-competitive behaviour, in some regions, pineapple producers are working to improve their traceability, auditing and marketing strategies to demonstrate how production is aligned to market requirements and sustainability principles, in the hope of differentiating their product and enhancing their reputation and export value. Companies and associations are investing in traceability technologies and human resources, such as independent auditors who are on-the-ground in the departing and import ports, to document the quality and safety of the product. These investments can help to prevent price downgrading by importers and retailers over unfounded quality concerns when the shipments reach their final markets.

Some pineapple companies and associations are also working together with national governments to ensure compliance with national laws and plans, and to implement practices to enhance the competitiveness of the sector nation-wide and internationally. These efforts will help to unite the production sector by improving compliance and transparency and build a stronger and more resilient industry that is less likely to be the target of unfair trading practices from downstream partners.

Increasing costs of production

Around the world, producers of fresh produce reported dramatic increases in production and operating costs that began during the COVID-19 pandemic and have continued since. In 2023, the Global Coalition of Fresh Produce (GCFP) studied the increasing costs of fruits and vegetable production around the world and their impacts on the produce industry and end consumers. The study found the following:

- Producers of fresh fruits and vegetables the world over experienced unprecedented increases in production and operating costs during the COVID-19 pandemic, regardless of their region of operation.
- Cost increases were led by fertilizer (up 60 percent increase in production and operating costs worldwide during and following the COVID-19 pandemic), construction (48 percent), fuel and gas (41 percent), shipping (40 percent) and electricity (40 percent).
- Most operators were able to increase their selling prices, with rises of 11 percent in Europe, 13 percent in Oceania and South America, 14 percent in North America and 23 percent in Africa. However, these increases were not enough to compensate for the rise in production and operating costs, leaving nearly three-fifths of the global industry selling at a loss or breaking even.
- Spiking costs affected strategic and operational choices of businesses. Certain producers reduced their output, while some traders reduced their export activities or switched to produce with lower shipping costs.
- Eighty percent of respondents noted that they are delaying or cancelling investments in their businesses, not only in capital and equipment but also in innovation and expansion. This decrease in investments means that the impacts of the rise in costs will be felt for years to come (Global Coalition of Fresh Produce, 2023, p. 3).

During the COVID-19 pandemic, the pineapple industry was hit hard. Even large-scale producers were affected by drops in exports associated with cancelled orders in the hospitality sector and shortfalls in the production and import workforce, leading companies to request governments for debt forgiveness. The war in Ukraine presented a new risk to the industry's recovery from the COVID-19 outbreak, as it directly impacted freight and input costs, as reported by most of the Responsible Fruit Project participants (see section on political risk). So far, producers, packers and exporters have largely absorbed these costs (FAO, 2022b), and the low average export unit value has not

fully compensated for the additional production expenses (FAO, 2022d). Despite presenting a slight increase in the pineapple average export unit in the past year (FAO, 2023d), lower retail prices benefit consumers in importing markets, at the expense of producers at the origin, especially if the value is not well distributed along the value chain (see section on equitable sharing).

The general trend towards increased cost of production is an economic risk that has been raised by pineapple producers and exporters and must be taken into consideration for the long-term sustainability of the industry. Decisions to delay or cancel investments in capital, equipment and innovation, to abandon production or to resort to unfair trading practices may also put pineapple businesses at further economic, environmental and social risk, particularly if efforts to invest in climate change mitigation and adaptation practices are abandoned or if efforts to improve working conditions for all are dismissed. If the imbalances between production cost and revenues are not addressed, they could worsen existing vulnerabilities of the industry, jeopardize the continuity of small and medium producers and companies, and stimulate the further consolidation and integration of the pineapple industry.

Tighter margins may also have implications for adopting RBC practices. Their implementation often requires farmers and companies to incur additional costs to make the changes needed to comply (e.g. occupational health and safety of workers and living income and living wage). There are also the recurring costs associated with RBC verification and reporting requirements (i.e. Steps 4 and 5 of the due diligence process).

Systematic efforts to identify areas within the business to reduce costs may be needed to strengthen its economic resilience, but these efforts must not come at the cost of deprioritizing RBC practices. Such areas include decreasing dependence on expensive agrochemicals, introducing green energy, reducing pre- and post-harvest waste, and reducing transportation costs by focusing on regional and domestic markets. The findings from the Global Coalition of Fresh Produce study demonstrate that addressing the current impacts of the increase in production and operating costs as well as future risks, will require coordinated action between industry, financing organizations, government and consumer education (e.g. understanding that paying a higher price is necessary to ensure their continued access to sustainably produced fruit).

Logistics

Transportation is one of the most important links in the supply chain for perishable products, as the transport infrastructure (roads, ports and logistics) and storage have a direct influence on the costs and quality of the product. While international transport systems and costs tend to be the focus of global supply chains, domestic transport costs can still represent one-third of the price of agricultural products (World Bank, 2012). Generalized problems in domestic logistics can significantly reduce the quality of the product and the marketable output. These problems include weak post-harvest infrastructure on-farm, poor roads, delays in managing the product at the port, or

inadequate cold storage facilities (Marmolejo-Gómez, 2020). For producers and exporters selling to markets where stringent phytosanitary measures are applied, these issues affect the export potential and price of the product.

Problems in transportation, infrastructure and logistics were noted in the pineapple industry. In some regions, long travel routes to reach the largest cities for domestic trade, packing houses or ports for export increase the likelihood of damage and waste and result in lost revenues. For production that takes place in hillside areas, the use of mechanized equipment that facilitates the transportation, collection and storage of the fruit is restricted, leading to internal and external damage of the fruit and decreasing its commercial value (Díaz Ramírez, Hurtado and Jäger, 2022).

In some regions, the fruit is transported from the production areas to the packing houses or markets in vehicles without equipment for temperature control, generating losses. High costs to reach ports (e.g. fuel and tolls) and slow loading times at shipping ports are logistics issues that considerably reduce the sector's profits and its competitiveness in international markets (Díaz Ramírez, Hurtado and Jäger, 2022).

As a means to mitigate increasing transportation costs in some countries, producer and exporter associations are offering training to producers on how to select the most cost-effective transportation options for pineapple export. In other value chains, some companies are collaborating with the wider fruit sector to jointly export fruits to common market destinations to minimize freight costs, while others are refocusing marketing strategies on domestic and regional markets where freight costs are lower. Moreover, some companies are slowly starting to produce their own biofertilizers and pesticides and find alternatives to replace some of the imported inputs which may also be subject to logistical challenges.

Political risk: war, civil unrest and political instability

Political risk can affect businesses' interests in the country of investment and create a politically unsafe and high-risk environment for exporting companies. These risks result from political instability, import bans, customs duties, quotas and embargoes, and violent political activities, such as war, civil unrest or terrorism (World Bank, 2011). Political risks stand as one of the biggest obstacles not only to exports but also to imports of key inputs and services into producing countries.

The intensification of the war in Ukraine since February 2022 has had important implications on international trade as the Russian Federation and Ukraine are some of the largest producers and exporters of energy and fertilizers in the world. To put this into perspective, Costa Rica – the leading fresh pineapple exporter – imports around 25 percent of soil fertilizers for agricultural production from the Russian Federation (FAO, 2022b). This statistic indicates the potential magnitude of impacts that political instability can have on the production of the commodity and international trade.

The reduced supply of fuel, gas and agricultural inputs brought by the war has exacerbated the already growing pressure on energy and fertilizers prices (see increasing costs of production). Likewise, the war has disrupted transportation routes to and from Ukraine and the Russian Federation. The disrupted transportation routes since February 2022 altered pineapple imports mainly from Costa Rica and the Dominican Republic into Ukraine and the Russian Federation. Jointly these conditions have had negative impacts on input supply costs (OECD-FAO, 2022), which was also confirmed by companies across all the surveyed regions.

The outbreak of global and local conflicts is difficult to predict and falls outside the realm of potential risks that any individual or group of pineapple producers and exporters can generally plan for and mitigate. However, businesses can conduct an initial assessment and mapping of the business's economic risks that considers the impacts of a conflict in neighbouring countries and regions and in important input and export markets. This assessment could include an analysis of input sources and aim to reduce reliance on single suppliers for the import of inputs where possible, as well as to lobby government and relevant industries to encourage investing in locally produced inputs. Company efforts to invest in green energy to reduce reliance on outside energy sources is also a prudent strategy to mitigate high energy costs and supply risks, as well as to contribute to the business's climate change mitigation goals. Identifying at-risk transportation routes can also help businesses consider options to avoid an overreliance on particular end-markets, especially where alternative routes are limited.

Another mitigation strategy can be acquiring a political risk insurance, which can help businesses take out in order to secure risks such as changes in the political order, political instability or crises in the foreign country where trade or investment is made (Mervenur, 2022). Thes insurances could also offer coverage against war and political violence, expropriation, breach of contracts, important fluctuations in exchange rates and transfer restrictions.

Cross-cutting issues

Five cross-cutting risks were identified as highly relevant to the pineapple industry. As an issue of cross-cutting relevance to all aspects of responsible business conduct, governance is included as it promotes equality, participation, transparency, responsibility and the rule of law. Good governance helps to create an environment where corruption is avoided and potential for fraudulent practices are minimized. In this environment businesses comply with tax laws and regulations in the countries where they operate; they refrain from anti-competitive behaviour; and they commit to disclosure of potentially negative impacts of their operations (OECD-FAO, 2016).

This section also covers issues related to consultations with stakeholders, accessing grievance mechanisms and the right of affected individuals and groups to access effective remedy.

Governance

Compliance with national policies, laws and regulations

Complying with national policies, laws and regulations is a basic requirement of any responsible business and includes all regulations that may cover any of the environmental, social and economic risk areas described in earlier sections.

In addition to complying to national regulations, pineapple producers and exporters are also expected to comply with the regulations of importing markets and certification schemes when required. Increasingly, businesses will also need to demonstrate how they and others along the value chain are complying with due diligence requirements to reduce the potential for adverse impacts on people and the environment.

Disclosure, anticorruption, advocacy and lobbying

Good governance requires the disclosure of timely and accurate information related to foreseeable risk factors, planned responses and outcomes used to address social and environmental impacts that were identified as high priority. Disclosing information is an important part of Step 5 – communicate results – but is also needed at other stages of the due diligence process that require consultation with potentially affected stakeholders. Withholding information from workers and potentially affected communities can create distrust and deprive the business of the possibility to resolve minor problems before they escalate into large (and potentially costly) conflicts. Withholding information can also limit the opportunity to develop trust-based relationships with buyers and other supply-chain partners who may be able to support the business to overcome specific challenges.

Businesses should demonstrate progress towards their RBC commitments through accurate, verifiable, and timely disclosure of information so that potentially affected communities, business partners,

governments, civil society, and consumers can make decisions based on credible information. The information disclosed must be accessible physically, and in a language and manner that is culturally appropriate so that it is noticed and understood by the intended audience (OECD, 2018). Making information accessible may involve using a range of communication mechanisms to target potentially affected communities, including in-person consultation meetings; the general media (e.g. newspaper and radio reports); sharing information with trade unions; and multistakeholder or industry initiatives.

The type of information shared should respect confidentiality requirements and may include general information on the business, such as the scale of the operations, ownership and governance structure, financial situation and performance; social and environmental risks and the progress made to address them; and independent labour, human rights, or environmental audits or assessments. In the event of an imminent threat to human health or the environment, all information that could enable authorities and the public to take measures to prevent or mitigate harm should be shared immediately (OECD-FAO, 2016).

Enterprises should take into account established disclosure policies in the countries and sectors in which they operate, and the information required by their downstream partners. The business should also tailor disclosure policies to the nature, size and location of the enterprise, and consider costs, business confidentiality and other competitive concerns (OECD, 2018).

Corruption includes practices such as bribery, facilitation payments, fraud, extortion, collusion, money laundering, or the offer or receipt of an inducement to do something dishonest or illegal. This topic covers the potential for corruption to occur and its related impacts (GRI, 2022, p. 67).

Corruption can erode the capacity of governments to limit unsustainable practices in the agriculture sector. For example, corruption may affect the allocation of land for agricultural investments to the detriment of communities that hold customary land rights. Corruption may influence the allocation of government-subsidized credit, such as when government officials receive unnecessary fees (i.e. bribes) for granting credits to preferred candidates. Corruption may also increase the price of agricultural inputs if input companies sell their products to government agencies at an elevated price so that public officials receive a share of the profit. Corruption also increases the likelihood of potential negative impacts on workers and communities and reduces government revenues. Businesses that engage in corruption can have an unfair advantage in competitive markets, as it may increase the cost of accessing resources for other businesses and smallholders. Allegations of corruption also increase the potential for conflict with communities by undermining the confidence in and trust-base for the enterprise, which are essential for developing positive long-term relationships.

In their RBC commitment statements (Step 1), all responsible businesses must commit to preventing and abstaining from any form of corruption and fraudulent practices. Some suggested risk mitigation measures include the following:

- Refrain from seeking or accepting exemptions not covered in the statutory or regulatory framework related to human rights, environment, health, safety, labour, taxation, or other issues.
- Avoid directly or indirectly (via a third party) offering to, promising, giving to, or demanding a bribe from public officials, the workers of business partners, their relatives, or business associates.
- Develop and adopt adequate internal controls, ethics and compliance programmes or measures for preventing and detecting bribery.
- In internal company controls and compliance programmes, prohibit or discourage the use of small facilitation payments, which are generally illegal in the countries where they are made, and if such payments are made, accurately record them in financial records.
- Ensure properly documented due diligence pertaining to the hiring of agents and consultants for any aspect of business facilitation so that their remuneration is appropriate and for legitimate services only.
- Abstain from any improper involvement in local political activities.
- Use transparent, independent and objective assessments, processes and services, and a right to appeal, to prevent corruption with regards to tenure rights, in particular the customary tenure rights of Indigenous and Tribal Peoples and local communities.
- Collaborate with governments to implement national regulations and international conventions on antibribery (e.g. OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions and related antibribery documents) (OECD-FAO, 2016).

Your business should also be conscious of the risks associated with **advocacy** or **lobbying** by the agriculture sector, which may target policies that aim to limit the sectors' environmental or social impact. While your business can encourage public policy developments that benefit society, participation can also be associated with corruption, bribery, undue influence, or an imbalanced representation of the business' interests (GRI, 2022). Documented cases show that large agricultural organizations advocated for postponing legal requirements that aim to address sustainability issues such as the prevention of deforestation and land degradation, use of crop rotation, and decreased use of certain pesticides and fertilizers (GRI, 2022). Lobbying can also affect farmers' access to technology and genetic resources, such as high-quality seeds. Any business engagement in public policy processes (including political contributions) should be duly disclosed to potentially affected stakeholders and reported publicly as part of their RBC reporting framework (Step 5).

Consultation

A fundamental principle of RBC is engaging stakeholders potentially affected by your business operations in meaningful and transparent consultations. As such, consultations must be part of all RBC commitment statements, policies and implementation practices (Step 1 of the due diligence process). Failure to do so puts the business at risk of exposure to potential lawsuits, distrust between workers and the company, and conflicts with local communities.

Stakeholder engagement and consultation with impacted and potentially impacted stakeholders is important throughout every stage of the due diligence process and is therefore considered a cross-cutting risk if not addressed accordingly. Consultation is particularly important when a business is:

- identifying actual or potential adverse impacts in the context of its activities;
- devising prevention and mitigation responses to risks that the enterprise caused or contributed to;
- identifying forms of remedy for adverse impacts and designing processes to enable remediation; and
- tracking and communicating how actual or potential negative risks are being addressed in the context of its activities (OECD, 2018).

The OECD-FAO Guidance for Responsible Agricultural Supply Chains – Annex A (OECD-FAO, 2016) provides guidance on risk mitigation and prevention measures to ensure adequate consultation throughout the due diligence process. Suggested actions include developing a stakeholder engagement plan; designing consultation processes that are free from intimidation; and documenting and implementing agreements that result from consultations in a way that community views and concerns can be properly recorded.

An example of a thorough consultation mechanism is the Free, Prior, and Informed Consent (FPIC) as discussed in detail in the section on Indigenous and Tribal Peoples.

Grievance mechanisms

As discussed in Box 8, a **grievance mechanism** is a formal process for receiving and responding to complaints from workers, local community members and other stakeholders directly affected by businesses' operations. It is an essential component of any due diligence system and is non-negotiable for RBC. It is also an extremely important source of identifying risks that require the company to address, mitigate or remedy the negative impact. The grievance mechanism should be **easy to use, accessible, gender sensitive and supported by a transparent process**.

Further information on how to design and implement an effective grievance mechanism in line with the United Nations Guiding Principles on Business and Human Rights (Principle 31) can be found in the Office of the High Commissioner for Human Rights (OHCHR) Accountability and Remedy Project in English and Spanish (2021). A practical guide on developing grievance mechanisms for the agrifood sector has also been developed (available in Spanish only) by the *Asociación de Empresas de Alimentos de Chile A.G* and ProChile (2023) .

Right to effective remedy

When a pineapple business identifies that it has caused or contributed to negative impacts from risks identified in Step 2 of the due diligence process, or complaints made through the company's grievance mechanism reveal negative impacts, the business has a responsibility to address these impacts. The business should provide remedies to correct the harm that was caused, or it should cooperate with legitimate remediation mechanisms through which impacted individuals and groups can raise complaints and seek to have them addressed with the enterprise.

The type of remedy or combination of remedies that is appropriate will depend on the nature and extent of the adverse impact (OECD, 2018). For example, remedies appropriate to addressing human rights impacts include options such as apologies; restitution or rehabilitation (e.g. restitution of land to dispossessed Indigenous and Tribal Peoples or local communities, reinstatement of dismissed workers, recognition of a trade union for the purpose of collective bargaining); financial or non-financial compensation (e.g. establishing compensation funds for victims, or outreach and educational programmes); or punitive measures (e.g. the dismissal of staff responsible for wrongdoing). Remedies for environmental impacts should aim to restore the affected environment to the state prior to the adverse impact, and can include restoring degraded forests or deforested land, and replanting native species to restore and attract lost biodiversity (e.g. pollinators or endangered species), among other measures. In cases where it is not possible to restore the affected environment to its original state, the enterprise should provide appropriate levels of compensation in a form mutually agreed on by affected communities. The business must also demonstrate how it will take measures to prevent similar adverse impacts from reoccurring.

In all cases, when determining the remedy to be applied, consultation with impacted rightsholders and their representatives is essential, as well as confirming that those impacted are satisfied with both the outcome and the process. A company's grievance mechanism must have a roadmap for remediation and resolving complaints that indicates timelines for resolving grievances; processes to respond to complaints if an agreement is not reached or if impacts are particularly severe; consultation with relevant stakeholders on culturally appropriate and accessible ways to resolve complaints; allocation of staffing and resources to manage the grievance mechanism; and tracking and monitoring the mechanism's performance and stakeholders' satisfaction with the outcomes.

In situations where there are disagreements on whether the business caused or contributed to adverse impacts, or on the nature and extent of remediation to be provided, the alleged impact could be referred to a legitimate remediation mechanism (OECD, 2018). All businesses are expected to cooperate in good faith with judicial and non-judicial remediation mechanisms (OECD, 2019). The Accountability Framework initiative's Operational Guidance on Remediation and Access to Remedy (2019b) provides useful advice for companies on how they can ensure proper and accessible remediation for human rights issues and on the overall remediation processes. The companion guide for environmental issues (i.e. remedies for deforestation, ecosystem conversion, and associated impacts on conservation) is the Operational Guidance on Environmental Restoration and Compensation (AFi, 2019a). The OECD-FAO Business Handbook on Deforestation and Due Diligence in Agricultural Supply Chains (2022) also provides specific guidance on remediation options for businesses where they have failed to prevent or mitigate deforestation. The Technical and operational guide of action for the repair of environmental water damage developed by the National Water Commission of Mexico (available in Spanish), provides guidance to the repair of damage caused to water resources (CONAGUA, 2022).

3. Prioritize risks and select the three most important to start

How to prioritize risks?

Given that all businesses have limited time and resources, it is not realistic to try to address all the risks identified in Step 2 of the due diligence process at once. For this reason, your pineapple business needs to **prioritize risks by evaluating and ranking them so that you can select at least three of the most serious and use these as the starting point for action** (Step 3 in the risk assessment process, see Figure 3). Once the most significant risks are identified and dealt with, you can then move on to address less significant ones. However, in some instances new adverse risks and impacts may arise and be prioritized before moving on to less significant risks (OECD, 2018).

Your business can prioritize risks by identifying their likelihood and severity. That is, you will need to prioritize based on how serious a potential impact would be and how common or likely it is for this problem or risk to occur.

The **severity** of an actual or potential negative impact can be determined by its **scale** (how serious the impact is), **scope** (how widespread the impact is), and **irremediable character** (how hard it is to correct or make good the harm caused). While it is not necessary for an impact to rank high in more than one of these characteristics to be considered severe, it is often the case that the greater the scale or the scope of an impact, the less remediable it is (OECD, 2018). Table 5 provides some examples of indicators that can be used to determine the severity of an impact.

Table 5. How to determine the severity of an impact

Examples of indicators of scale, scope and irremediable character			
Adverse impact	**Scale**	**Scope**	**Irremediable character**
Environmental issues	• Extent of impact on human health. • Extent of changes in species composition. • Water use intensity (% of total available resources used). • Degree of waste and chemical residues or run-off.	• Geographic reach of the impact. • Number of species impacted. • Number of communities impacted.	• Degree to which rehabilitation of the natural site is possible or practical. • The length of time remediation would take.

Examples of indicators of scale, scope and irremediable character			
Adverse impact	**Scale**	**Scope**	**Irremediable character**
Labour issues	• Extent of impact on workers' health or safety. • Whether the violation concerns a fundamental right at work.	• Number of workers and employees impacted. • Extent to which impacts are widespread (e.g. to a geography, industry or sub-sector). • Extent to which some groups are disproportionately affected by the impacts (e.g. minorities, women, etc.).	• Extent to which the impact can be fixed (e.g. through compensation, reinstatement, etc.). • Whether the prior enjoyment of the right in question can be restored to the workers affected • The extent that. intimidation stops workers from forming or joining a trade union to exercise the right to representation.
Human rights breach	• Extent of the infringement of access to basic life necessities or freedoms (e.g. education, work, freedom from discrimination etc.).	• Number of people impacted. • Percentage of groups of people impacted.	• The extent to which the impact can be rectified (e.g. through compensation or restitution). • Whether the people affected can again exercise the right in question.
Disclosure (lack of)	• Extent to which the inadequate or false disclosure of information has the potential for significant impact. • Extent of impacts on markets, people, environment, and society due to decisions made based on the inadequate or false disclosure of information.	• Extent to which decisions were made based on inadequate or false information disclosure. • Number of people impacted. • Number of groups (e.g. communities, government, investors, shareholders, etc.) impacted by decisions made based on false or inadequate information disclosure.	• Extent to which false or the lack of disclosure led to irreparable financial losses or irremediable adverse impacts on people and the environment.

Source: Examples adapted from **OECD.** 2018. *OECD Due Diligence Guidance for Responsible Business Conduct*, Paris, OECD. p. 43 –44.

A number of tools are available to help businesses assess and prioritize the risks identified. One of the most common ways to assess and prioritize risks is a **simple five-by-five matrix** that uses **severity indicators defined by the business** to describe how serious the risk is (see Table 5), and how likely

it is that the risk will occur. An example of the five indicators that could be used to determine the severity and likelihood of a risk is provided in Table 6 and Table 7, and was adapted from Fairtrade International (2023c). Your business could further adjust the severity indicators to reflect the risks you identified through the risk mapping process. The example from Fairtrade International focuses mostly on defining severity indicators for social risks; however, this approach could equally be adapted to reflect environmental risks if they are considered more significant for your business.

Table 6. Indicators defined to determine the severity of the risk

Severity			
Level	**Definition**	**Indicator**	**Score**
Serious	Likely to result in death or significant harm	If not attended to, the impact is likely to result in significant impact to health and safety (e.g. physical, disability or death), to affect all your stakeholders, or to be impossible, or take more than 8 years, to restore.	**5**
Major	May probably result in significant harm	If not attended to, the impact can probably result in major effects on health (e.g. injury that needs significant rehabilitation), affect a large part of your stakeholders, or take between 5 and 8 years to restore.	**4**
Moderate	Likely to result in damage though not significant	If not attended to, the impact is likely to result in moderate impact to health and safety, though not significant, affect some of your stakeholders, or take between 3 and 5 years to restore.	**3**
Minor	Likely to result in minor damage	If not attended to, the impact is likely to result in slight impact to health and safety (e.g. minor injury or illness), affect a few of your stakeholders, or take between 1 and 3 years to restore.	**2**
Minimum	Not likely to result in harm	The impact is likely to result in minimum harm or no harm to health and safety (e.g. first aid case), it does not cause negative impact to any of your stakeholders or takes less than a year to restore.	**1**

Source: **Fairtrade International.** 2023c. *Implementing Human Rights and Environmental Due Diligence: A guide for plantations and other organizations with hired labour.* Bonn, Germany, Fairtrade International. p. 27. https://files.fairtrade.net/publications/Fairtrade_HREDD-guide-for-plantations_EN.pdf

Table 7. Criteria developed to assess the likelihood of the risk occurring

Likelihood		
Level	**Indicator**	**Score**
Very high	Such issues have occurred consistently from the past until present	**5**
High	Such issues have recently occurred often	**4**
Medium	Such issues have sometimes occurred	**3**
Low	Such issues rarely occur in the farm or within the community	**2**
Very Low	Such issues almost never occur in the farm or within the community	**1**

Source: **Fairtrade International.** 2023c. *Implementing Human Rights and Environmental Due Diligence: A guide for plantations and other organizations with hired labour.* Bonn, Germany, Fairtrade International. p. 27. https://files.fairtrade.net/publications/Fairtrade_HREDD-guide-for-plantations_EN.pdf

For each of the indicators identified, the levels are allocated a score from 1 to 5, where **1 is the lowest severity and likelihood** (i.e. minimum severity and very low likelihood according to Table 6 and Table 7) **and 5 is the most serious impact and very high likelihood**.

The output of the assessment on risks for severity and likelihood can be incorporated into a **five-by-five risk matrix** to identify the most salient risks based on a total score, which is calculated by multiplying:

Likelihood score X Severity score = Risk impact score

You should now have a risk impact level on a scale of 1 to 25 for each risk you identified. With these number values, it is easier to determine which risks are of top priority. Prioritization can be visually represented through a colour-coded scale for impact scores from **green (very low risk)** to **red (very high risk)**.

Figure 7 provides an example of a five-by-five risk matrix that can be adapted to your indicators and used to categorize the final risk impact score.

Figure 7. Five-by-five risk matrix and colour-coded scale for impact scores

Likelihood						
	5 Very likely	5	10	15	20	25
	4 Likely	4	8	12	15	20
	3 Moderately likely	3	6	9	12	15
	2 Unlikely	2	4	6	8	10
	1 Very unlikely	1	2	3	4	5
		1 Minimum	2 Minor	3 Moderate	4 Major	5 Serious
		Severity				

Source: **UNDRR.** 2023. *Strengthening risk analysis for humanitarian planning – Integrating* disaster and climate risk in the Humanitarian Programme Cycle. Geneva, UNDRR. p. 29.

Colour-code scale for impact scores are in Figure 8.

Figure 8. Risk thresholds for impact scores

Very low risk	Low risk	Medium risk	High risk	Very high risk
1 to 3	4 to 6	7 to 14	15 to 16	17 to 25

Source: **UNDRR.** 2023. *Strengthening risk analysis for humanitarian planning – Integrating* disaster and climate risk in the Humanitarian Programme Cycle. Geneva, UNDRR. p. 29.

An example of an outcome of the risk prioritization matrix is given in Table 8. It was developed using the risk matrix approach in Figure 7 to prioritize the key risks identified in Step 2 of the due diligence process for a fictitious company.

Table 8. Example outcomes from five-by-five risk evaluation matrix for an pineapple business

Risk identified (and associated impact)	Likelihood	Severity	Risk score	Is it a human rights risk?
Soil degradation (productivity loss)	3	5	15	No
Water contamination from chemical run-off (with downstream impacts on a neighbouring community)	1	5	5	No
Decline in water availability, e.g. drought (production loss)	3	4	12	No
Biodiversity loss	4	4	16	No
Forced labour on a pineapple supplier farm (breach of human rights)	2	5	10	Yes
Workplace injuries, e.g. repetitive work stress (loss of workers and union action)	3	3	9	No
Maximum residue limits exceeded (market access loss)	2	4	8	No
Inadequate logistics for cold storage (post-harvest loss and profitability loss)	3	3	9	No

Source: Authors' own elaboration.

The prioritization of risks for action will be determined by:

a. **the severity of the impacts on human rights**, and

b. the risks identified as **"high risks" based on impact scores**.

Prioritizing human rights differ from that of other social and environmental adverse impacts. The OECD Due Diligence Guidance for responsible business conduct (2018) states that in the case of human rights risks, **severity is a greater factor than likelihood in considering prioritization**. Thus, enterprises should begin with those human rights impacts that would be most severe, recognizing that a delayed response may affect the ability to remediate. For example, if a potential adverse impact can result in loss of life, it may be prioritized even if it is less likely. In the example given in Table 8, the risk of forced labour must be addressed first even though it has a lower impact score than some other risks, such as soil degradation or biodiversity loss. In some cases, prioritization may also be informed by domestic legal obligations. For example, certain domestic laws require enterprises to conduct due diligence to avoid and address the risk of human trafficking in their supply chains (OECD, 2018).

For the prioritization based on the impact scores, your business should prioritize first for action the risks with the highest scores (in dark red in Table 8: soil degradation and loss of biodiversity). When your company has risks with the same risk impact score, it will be up to you and your team

to determine which risk to prioritize. Risks with equal risk impact may require equal attention as you create your **action plan** (see Step 3 of the due diligence process).

Even though we have considered economic risks in our risk mapping exercise to holistically address all risks, it is crucial, within the context of RBC and due diligence, **to prioritize environmental and social risks for action**. This prioritization demonstrates to customers and stakeholders that your focus goes beyond economic risks to pursue broader sustainable development objectives.

Other sources that may help your business with the prioritization process of potentially negative social impacts include the *Guía de identificación y gestión de impactos con consecuencias sociales* (available in Spanish only) developed by the *Asociación de Empresas de Alimentos de Chile A.G* and ProChile (2022).

Step 3 Cease, remedy, prevent and/or mitigate risks

Based on the comprehensive risk assessment conducted in Step 2 of the due diligence process, your business should now have a good idea of the risk areas where there is the potential for negative impacts on the environment and people, both inside (e.g. workers) and outside the business (e.g. local communities) and along the value chain. You will also have assessed the likelihood and severity of these risks, and the outcome from the risk matrix has helped to guide you to **select the three most salient risks to begin addressing first**.

You now have the option to address these risks in several ways, depending on the type of risk identified, and whether your business has **caused**,[12] **contributed**[13] to or whether you are **directly linked**[14] to the impact by a business relationship.

[12] Cause: An enterprise causes an adverse impact if its activities are sufficient to result in the adverse impact (OECD, 2018, p. 70).

[13] Contribute: An enterprise contributes to an impact if its activities, in combination with the activities of other entities, cause the impact, or if the activities of the enterprise cause, facilitate or incentivize another entity to cause an adverse impact. Contribution must be substantial, meaning minor or trivial contributions are not included (OECD, 2018, p. 70).

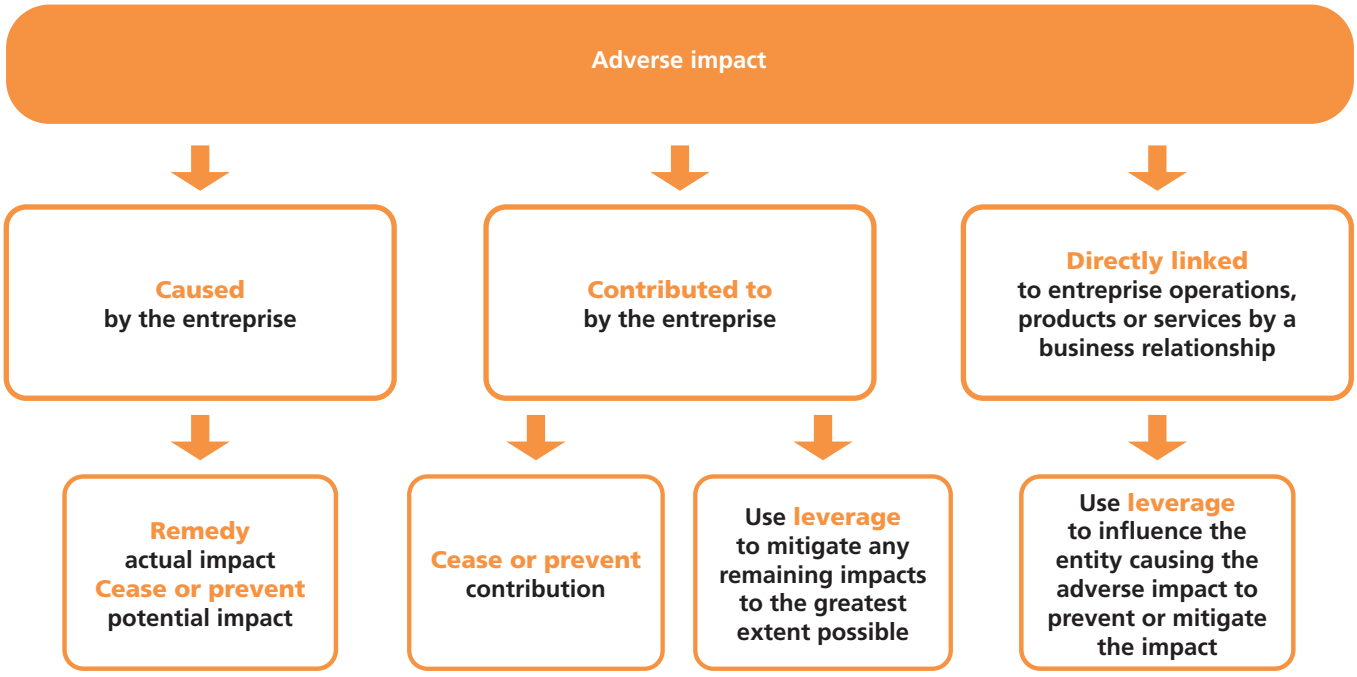
[14] Directly linked: Linkage is defined by the relationship between the adverse impact and the enterprise's products, services or operations through another entity (i.e. business relationship) (OECD, 2018, p. 71).

You may choose to:

1. Cease	Stop practices that you now know could be harmful to people or the environment, or those practices that may have direct legal or reputational implications for your business and are not in line with RBC principles – such as excessive working hours, soil degradation, child labour, etc. You must stop all activities that you are responsible for causing or contributing to the negative impacts of the risks identified.
2. Remedy	Solve wrongs that your business has caused that have negatively impacted workers, vulnerable people and the environment, which may have been identified through grievance mechanisms, community consultations or company audits. See discussion on the right to effective remedy for more detail.
3. Prevent and mitigate	**Prevention** refers to anticipating and addressing risks before they occur and is the primary goal of due diligence. Prevention methods include implementing climate change adaptation practices such as soil conservation and efficient water management and holding consultations with workers and local communities to discuss how to address social and environmental risks through changes in business practices, policies and training. **Mitigation** refers to activities that reduce the impact when an adverse risk materializes. Methods for mitigation include reforesting efforts, introducing water filtration systems to reduce the release of effluents into common water systems, developing and implementing anti-harassment and discrimination policies, and training across all levels of the workforce in response to complaints raised through grievance mechanisms.

Figure 9 provides a decision tree with options of how a business should respond to the impact depending on their relationship to it, and whether there is a responsibility to provide or cooperate in remediation. Based on the prioritization of your risks, you should first address the most salient (or important) risks that your business **caused or contributed to** and that you have greater control over and can therefore immediately address. You should also begin efforts to influence your business partners (use leverage) to address those risks where you are directly linked to the impact. For example, if a packhouse sources pineapples from a farm that uses child labour, the packhouse can be directly linked to the adverse impact, child labour. In this case, the packhouse did not cause or contribute to the adverse impact, but there is a direct link between the products sold by the packhouse to exporters and the adverse impact through its business relationships with producers. For more information on how to address adverse impacts where you are directly linked through a business relationship, refer to the OECD Due Diligence Guidance for Responsible Business Conduct (2018), Section II, 3.2 (available in English, Spanish and French).

Figure 9. Options for addressing adverse impacts



Source: **OECD.** 2018. *OECD Due Diligence Guidance for Responsible Business Conduct*. Paris, OECD. Paris, OECD. p. 72.

Once you have decided the course of action to address the risks prioritized, the development of an action plan can help focus and organize your efforts, and the plan will make it easier to track (Step 4) and communicate results (Step 5) to your partners and customers. The action plan is not a stand-alone document and must be developed as an integral part of the sustainability strategy or vision that will guide your monitoring, evaluation and learning systems as discussed in detail in Step 4.

The action plan should address the three most important risks and set goals that are SMART (S: Specific, M: Measurable, A: Attainable, R: Relevant, T: Timely or timebound). These goals will then guide the design of the specific activities you will take to address these risks (i.e. how to cease, remedy, or prevent/mitigate). The action plan must be timebound with indicators that show when the activity was completed, and it should also be linked to developing and revising company policies in a way that encourages continuous monitoring, evaluation and learning (see Step 4). Table 9 gives an example of a template that your business could use to develop an action plan for addressing your adverse impacts.

Table 9. Action plan template for addressing negative impacts caused or contributed to by the business

Objectives	Activities	Responsible persons or units	Time frame	Resources needed	Support needed	Means of verification	Reporting requirements
Objective 1: State clearly what your business aims to achieve for the risks that you have prioritized	List the key activities to be implemented or achieved	Indicate the key person(s) or units who will ensure that the activities are carried out	Indicate start and end dates as well as the duration of the activities (if applicable)	List the resources that will be needed to undertake the activities	Indicate the type of support needed and who can provide it	Indicate how you will verify and demonstrate that the activities took place	Indicate who will receive reports on progress towards achievement
Example							
Objective 1: By 2025, reduce discrimination against women by 30%	Create one policy on discrimination against women	HR manager	1st quarter, 2024	Budget, senior management commitment	Review of policy by operations team, production manager and programme director	The policy document	HR director and senior management
	Develop and conduct two surveys to assess women's and men's perceptions of discrimination	HR manager	One survey during the 1st quarter of 2024 and one in the 4th quarter of 2025	Budget, internal and external expertise, IT support	HR team, IT team, gender specialist	One survey developed and one report with findings produced	HR director and chief operating officer
	Set up one online system to receive reports on discrimination against women	Operations manager	2nd quarter, 2024	Budget, internal and external expertise, IT support	IT team, gender specialist	One online platform built	Chief operating officer
	Develop guidelines to process and resolve reported issues on discrimination	Operations manager	2nd quarter, 2024	Budget, internal and external expertise, communication material	Review by HR manager, production manager, and gender specialist	One document with clear guidance on how to process and attend to claims	HR director
	Provide one capacity-building workshop to managers and supervisors on how to identify and address discrimination against women	HR manager	3rd quarter, 2024, one week and once every year for newcomers	Senior management's time, internal and external expertise, venue	HR manager, logistics support, gender specialist	List of attendance	Chief operating officer
	Organize a training for workers and staff on equal opportunities	HR manager	2nd quarter, 2024, 3 days and once every year for newcomers	Budget, venue	Training support from HR team, and logistics support by operations manager	List of attendance	HR director

Objectives	Activities	Responsible persons or units	Time frame	Resources needed	Support needed	Means of verification	Reporting requirements
Objective 1	Increase women's participation in the workforce, including in managerial positions by 30 %	HR manager	By 2025	Budget	Training support from HR team and management	Recruitment reports	HR director
Objective 2: By 2030, reduce at least 25% of the loss and waste generated in post-harvest activities	Provide a training to field workers on good harvesting practices, including pre-cooling techniques and detection of potentially harmful organisms	Operations manager and HR manager	Once prior to each harvesting season to all current and new workers	Budget	Training support from HR team, and logistics support by operations manager	List of attendance	HR director
	Provide a training to packers on packaging standards, including sanitation practices	Operations manager and HR manager	Once prior to each harvesting season to all current and new workers	Budget	Training support from HR team, and logistics support by operations manager	List of attendance	HR director
	Implementation of temperature sensors in the cargo during precooling, transport or cold storage	Operations manager	Once, and maintenance and monitoring provided continuously	Budget	Support from Operations unit	Invoices	Chief operations Officer
	Replace of 30% of traditional plastic packaging with sustainable solutions that regulate moisture around the products	Operations manager, Sustainability officer	4th quarter, 2026	Budget, research and development	Research support from sustainability team, time and advising from Financial officer	Cost-benefit analysis of sustainable packaging options identified Operations' report	Chief operating officer
	Develop a communication and commercialization strategy to incentivize customers to buy Class 2 or 3 fruit	Communications officer	2nd quarter, 2024	Budget	Market analysis reports and financial reports by Communications team and Financial officer, inputs from Sustainability officer	Communication and commercialization strategy	Senior management

Source: Adapted from **Fairtrade International.** 2023c. *Implementing Human Rights and Environmental Due Diligence: a guide for plantations and other organizations with hired labour*. Bonn, Germany, Fairtrade International. p. 31. https://files.fairtrade.net/publications/Fairtrade_HREDD-guide-for-plantations_EN.pdf

There are a number of measures that your business may take to prevent or mitigate future adverse impacts in your operations. Common actions that could be incorporated in your action plan include:

- **Improving or designing a sustainability strategy for your business:** If one does not already exist, the business should develop a strategy outlining its sustainability vision and goals. This strategy should encompass short-, mid-, and long-term sustainability objectives, as well as the actions necessary to achieve them.
- **Adapting or modifying operations, products or services:** These actions may be necessary to prevent or mitigate impacts. Examples include changing production processes to reduce the use of agrochemicals; introducing health and safety protocols to mitigate the risk of repetitive stress and work injuries in packhouses; etc.
- **Upgrading facilities:** Some impacts may only be prevented by investing in facility and equipment improvements. Examples of investments could include water filtration systems to prevent pollution to waterways; lighting and ventilation systems in packhouses to improve working conditions; sustainable machinery to minimize soil compaction and technologies to improve traceability; etc.
- **Designing and implementing RBC policies:** The development of business policies and accompanying protocols for their implementation can be a means of preventing negative impacts from occurring. For example, a policy on anti-discrimination in the hiring process can help to prevent discrimination.
- **Consultation and stakeholder engagement:** This engagement is an ongoing process required at all steps of the due diligence process, and therefore must be reflected in the activities designed to address specific prioritized risks included in the action plan.
- **Training:** Effective training of workers, employees and management can help to prevent adverse impacts from occurring. Training may cover a wide range of topics identified as relevant to the prioritized risk areas, such as business policies and protocols, laws and obligations, safe handling of machinery and chemicals, and awareness raising on how to identify risks.
- **Developing risk monitoring systems:** The business should design a system of indicators for pre-identified and emerging risks, and a process for the enterprise to follow if risks of causing or contributing to adverse impact are identified (see also, Step 4: Track results of how impacts are addressed) (OECD, 2018).

Step 4 Track results of how impacts are addressed

The fourth step in the RBC due diligence process involves tracking the results of your action plan and your progress addressing the risks prioritized as most significant for your business.

Tracking your results is largely based on processes already undertaken by your business to comply, for instance, with VSS (e.g. certification schemes), environmental, social, and governance (ESG) criteria and sustainability reporting requirements. These systems already generate essential information needed to report on the progress of the activities that your business is implementing to address, prevent or mitigate some of the risks identified in Step 2. For example, the Accountability Framework has developed operational guidance documents, which include guidelines for businesses to monitor and verify commitments to environmental sustainability (2020). These guidelines include tracking metrics used by certification bodies like Rainforest Alliance to monitor and verify activities and outcomes related to no-deforestation, no-land use change and human rights. The use of these systems will help you demonstrate to your costumers and consumers how your business is adopting responsible business conduct practices.

However, some of the identified risks may extend beyond the sustainability reporting mandated by certification schemes and other existing systems, and your business will need to develop a tracking system that allows you to trace and measure progress towards addressing such risks. This tracking can be achieved by using complementary tools, such as establishing a monitoring, evaluation and learning (MEL) system.

Note: A MEL system is not an official component of the five-step framework of the due diligence process. However, the system is a very useful tool to monitor the implementation and outcomes related to your company commitments to sustainability and can help avoid assessment fatigue and increase efficiency in the way your business verifies and reports on internal processes. For instance, when generating evidence from your RBC interventions through a MEL system, certification auditors may recognize the findings generated from assessments carried out by your business and your business partners (OECD-FAO, 2016).

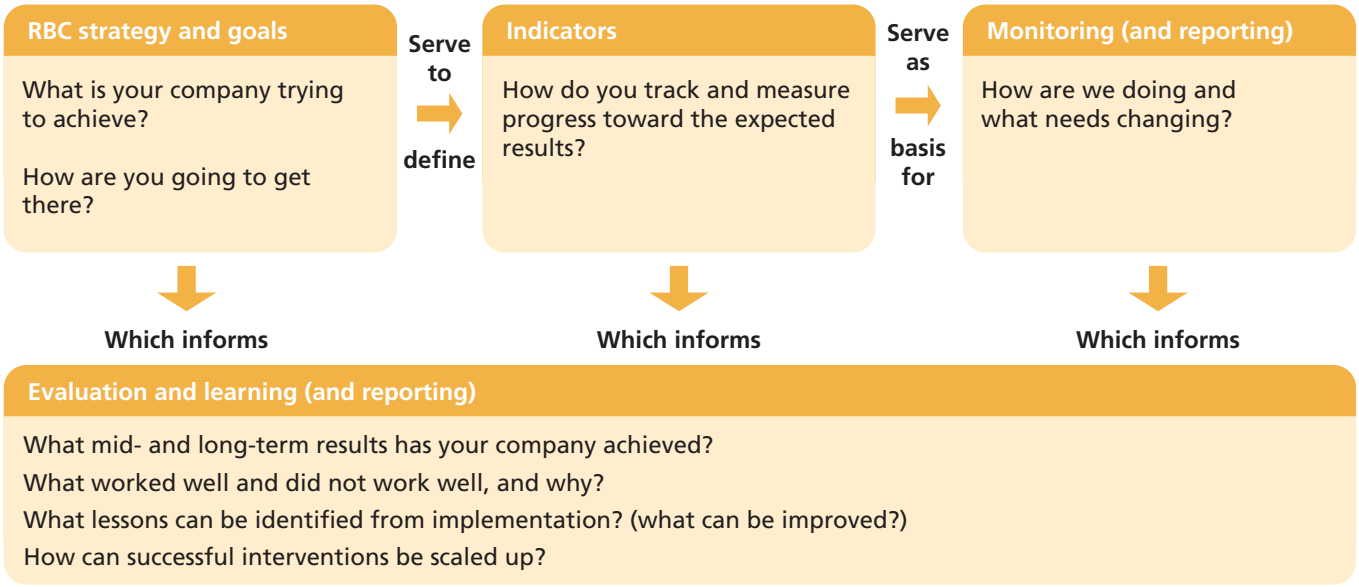
It is important to remark that the way your business tracks the implementation of risk-mitigation activities and results, including whether risks and impacts were effectively addressed, will vary based on the context in which your company operates, its size, the resources available and the nature of the risks that your business has prioritized (OECD, 2018).

What is a monitoring, evaluation and learning system?

The MEL system is **the act of collecting data on the performance of your pineapple business so that you can make decisions and constantly improve your business operations** (Noltze *et al*., 2021). Through a MEL system, your business will be able to identify risks and bottlenecks as they arise (**monitoring**), determine whether your interventions and strategies successfully addressed potential and actual adverse impacts of the risks identified (**evaluation**), and improve the business operations over time as they continue or are scaled up (**learning**). In the context of RBC, MEL should allow your business to take steps to verify that your due diligence practices are effective, or in other words, that your company has adequately identified, mitigated or prevented sustainability risks linked to your operations and those of its partners (OECD-FAO, 2016).

Your business can use a MEL system to establish mechanisms and metrics that facilitate risk management, as well as to obtain information about whether it met its goals for implementing RBC strategies. If goals were not met, MEL can illustrate how operations can be adjusted to reach them. Through MEL, you can assess whether and to what extent the action plan you developed in Step 3 was successful. Your business will know this by setting specific targets using SMART indicators as discussed earlier in Step 3. The target-setting process will also generate important lessons that can help to improve implementation of RBC activities, including the revision of existing strategies, policies, plans and internal programmes to align with RBC principles (see Figure 10).

Figure 10. Main components of a monitoring, evaluation and learning system



Source: Adapted from **World Bank.** 2017. Operational Guidance for Monitoring and Evaluation (M&E) in Climate and Disaster Resilience-Building Operations. Washington, DC, World Bank.

In practical terms, MEL can facilitate your company's commitment to RBC by:

- **Assessing the outcomes:** This evaluation is crucial for ensuring that your business is making a positive contribution on different stakeholders, including employees and local communities, and to the environment, and is effectively addressing the identified risks, especially the most salient ones.
- **Accountability and transparency:** Providing a structured way to measure and report on your business's performance in meeting its ethical and sustainability commitments allows stakeholders – including consumers, investors, and regulators – to attribute the benefit of the actions to your business. Transparency builds trust and can lead to support from these stakeholders.
- **Evidence-based decision-making:** Businesses can use MEL information to refine their strategies, policies, and practices to ensure they are in line with RBC principles. It also helps in setting targets and benchmarks for improvement. To get a full picture as to whether impacts are being addressed, your business will need to look across a range of inputs, including assessment data (e.g. including data from VSS), data from grievance mechanisms, and stakeholder feedback.
- **Compliance and legal obligations:** By regularly assessing and evaluating the business operations and practices, your company can identify areas where it might be falling short of legal standards related to RBC and take timely corrective actions.
- **Investor relations:** Investors increasingly consider responsible business conduct principles when making investment decisions. MEL data and reporting can attract socially responsible investors and help businesses access capital and financing from these sources.

- **Continuous improvement:** By learning from your business's successes and weaknesses, you can make the necessary adjustments to improve your RBC commitments. This continuity is also essential to stay aligned with evolving ethical, social, and environmental standards in local and international markets.
- **Employee engagement and attraction:** MEL can also impact the internal culture of a business and its ability to attract and retain top talent. Employees are often more engaged when they see their organization making a positive social and environmental impact or when decent working conditions are offered. It can also be a factor in attracting like-minded individuals to the workforce (OECD, 2018; World Bank, 2017; Liu *et al*., 2023).

When should your business start planning and implementing a tracking system for responsible business conduct?

Tracking systems, including MEL systems, should be developed when your company is designing interventions aimed at enhancing the sustainability of its operations and before beginning any activity to address your sustainability risks through your action plan. By doing so, your business will be able to truly evaluate the effectiveness of its RBC interventions and gather important lessons for improving operations in the future.

As mentioned earlier, this process builds off of other internal processes that your business is already conducting to comply with other sustainability reporting.

What should your pineapple business have in mind when developing a system to track progress to responsible business conduct?

For the development of an effective and successful tracking system, you must **have the commitment of senior management** and other relevant staff to generate robust evidence for decision-making and improving business operations. This commitment also requires strong internal business controls and transparency in the delivery of business operations.

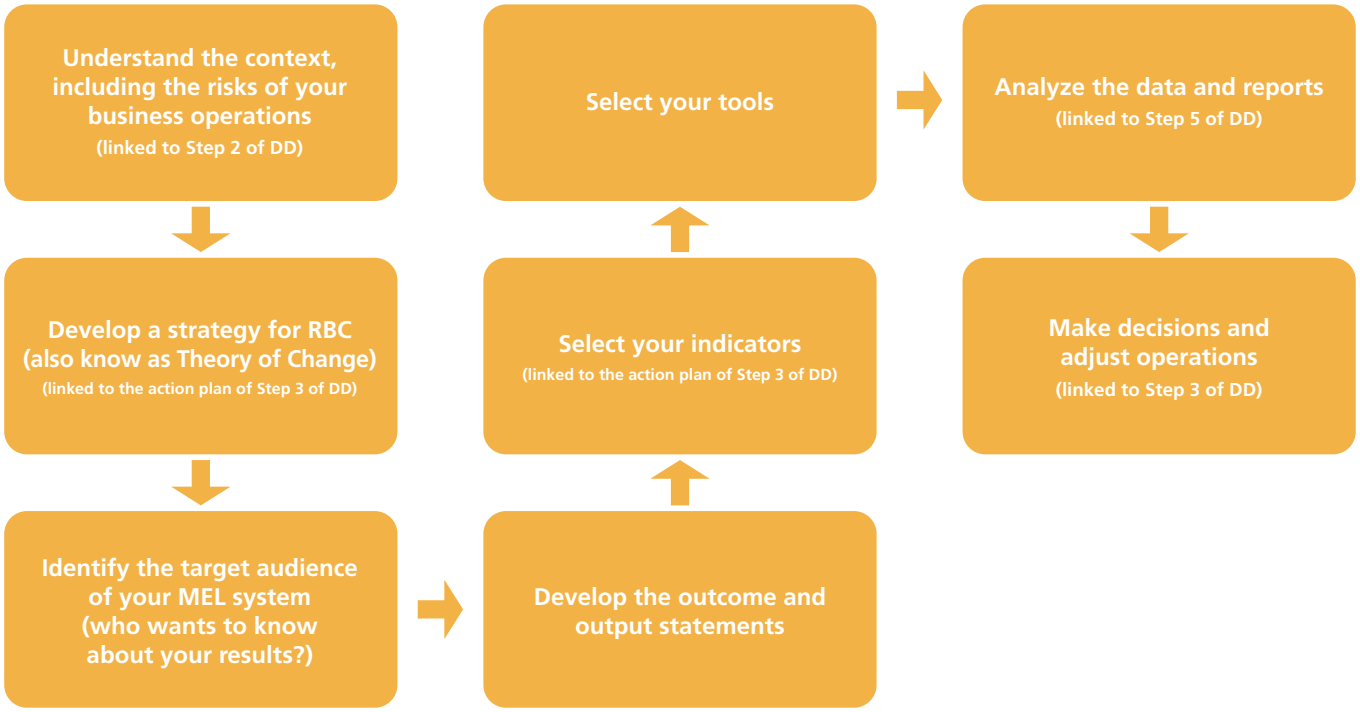
The tracking system used by your company, whether it is an existing monitoring process or a wider MEL system, needs to be included as part of your business's budget. Usually, tracking activities are underestimated and underbudgeted as they are not perceived as essential to business operations. However, adequate planning and budgeting will allow your company to generate the evidence needed to make more effective decisions, improve your operations and be more transparent. Your business can prioritize tracking operations that have the greatest potential for creating adverse impacts and acting to prevent and mitigate them (as discussed in Step 2 and Step 3 of the due diligence process). Your company may also need to assign the responsibility for tracking implementation and results to a number of individuals across different units or offices within

the company, based on the nature of the information that needs to be collected (OECD, 2018). For instance, information on agrochemical use and MRLs might need to be sourced from your designated phytosanitary officer, whereas aggregated data on workers' health could be obtained from your safety officer, human resources department or health insurance services.

Your tracking system needs to respond to information requirements from different stakeholders. For example, senior management may require detailed and periodic information on implementing activities to address the three most salient risks identified; your business partners (e.g. importers, retailers, auditors, consumers) may require you to report on specific efforts to address risks that are important to their reputation (e.g. efforts to combat child labour and forced labour); third-party certification schemes may have their own topics that must be addressed (e.g. deforestation); and civil society will want to know how the risks identified can potentially affect local communities, workers or other groups. Understanding the varying needs of your stakeholders **will allow your business to generate the evidence that is actually required and prevent it from generating evidence that might have no use** (Care International, 2012). This understanding will also help you keep a practical focus of your MEL system. The information generated needs to be reported in a way that is understandable and accessible to those who require it (see Step 5 of the due diligence process on how to communicate results).

It is important to note that there is **no standardized methodology to develop a tracking system for RBC**, as its development will be connected to whether your company already has formal tracking/MEL systems in place, or whether it needs to be built from the beginning. The capacity and resources of your company also impact its development. The general process to develop a new tracking system aligned with MEL principles or to strengthen an existing one in line with the due diligence process is shown in Figure 11.

Figure 11. Diagram of the steps to develop a monitoring, evaluation and learning system in the context of responsible business conduct



** DD=due diligence*

Source: Authors' own elaboration.

You should keep in mind that **some of the changes or impacts that your business would like to see after taking risk mitigation actions may take time to materialize**. For instance, addressing certain risks, such as biodiversity loss or discrimination, might take several years to yield results from the time of implementation of the mitigation measures. Understanding the timeframe may allow your business to develop a tracking system that is flexible enough to be able to generate evidence for reporting on your business's progress towards RBC, decision-making and accountability in the long term. The Responsible Fruits Project is developing a practical guide to support companies operating in the tropical fruit sector to prepare an MEL system that helps track, measure and report on their progress towards RBC. The guide will be accessible through the project's website in the second semester of 2024.

Step 5 Communicate results of addressing impacts

The final step of the due diligence process requires your pineapple business to effectively communicate[15] your approach to RBC and the results of your efforts to identify, address and monitor risks. How you decide to communicate this progress to your customers, workers, local communities and other value chain partners depends on a number of a factors. For example, you will need to decide on the frequency of the communication (e.g. annually or biannually) and the form for communicating. Such forms include whether you use established and endorsed sustainability reporting templates, your company-designed reporting mechanisms, or a combination of both. The scale of your business, the information requirements of your value chain partners, as well as the reporting requirements in your country of operation and in importing markets will affect your choices on how to communicate information.

In terms of the form of communication, there is some flexibility in the approach; however, the OECD (2018) suggests that businesses should publicly report relevant information on due diligence processes, with consideration given to commercial confidentiality and other competitive or security concerns. The business's annual sustainability or corporate responsibility reports are a good way to publicly communicate and should be published in a way that is easily accessible, such as on the business's website. Physical copies in local languages should also be available at the business premises so that workers and community members can access them. Other ways to communicate the results of RBC efforts include:

- in-person meetings with workers and local communities;
- online dialogues;
- consultation with impacted or potentially impacted rightsholders;
- sharing audit or assessment findings with trade unions; and
- through an appropriate intermediary.

[15] See also consultation and disclosure for additional information on how to communicate risks and the action taken to address them with potentially affected stakeholders.

When deciding which form is most appropriate for communicating with stakeholders, the following guiding questions may be useful:

- Who is the audience?
- How can the audience access information?
- What barriers might exist for certain vulnerable groups when it comes to accessing the information?
- What is the capacity of the audience (language, literacy, location, time, availability, technical competence) (OECD, 2018)?

Box 9 provides a summary of the suggested content for annual reporting on RBC efforts.

Box 9 Suggested content for responsible business conduct reports

a. A description of RBC policies (the outcome of Step 1 of the due diligence process) and information on measures taken to integrate RBC into policies and management systems (part of Step 4).

b. Outline of the significant adverse impacts or risks identified, prioritized, and assessed, as well as the criteria used to decide prioritization (Step 2).

c. The actions taken to prevent or mitigate those risks (Step 3), including estimated timelines and benchmarks for improvement and their outcomes (i.e. details from the action plan), and information on cooperation in any remediation.

d. Measures used to track implementation and results and to improve the risk management system (the outcome of Step 4).

Source: Adapted from **OECD.** 2018. *OECD Due Diligence Guidance for Responsible Business Conduct*. Paris, OECD.

Your business should be prepared to communicate at any time, in a culturally sensitive and accessible manner, any **human rights impacts** that the business causes or contributes to, in addition to including this information in your annual reports. These impacts should be communicated to the impacted or potentially impacted rightsholders and is necessary when they raise relevant concerns or concerns are raised on their behalf (OECD, 2018).

There are a number of existing resources available that can help you to structure the way you report on RBC in the context of sustainability.

In Step 2 of this guide, we have aligned relevant risks mapped for the pineapple industry with the material topics included in the Global Reporting Initiative (GRI) 13: Agriculture, Aquaculture and Fishing Sectors standards (2022). The purpose of this alignment is to highlight how to simplify the reporting process for your business by categorizing risks according to the GRI's recognized standards or other reporting standards you may use. The GRI 13 standard is available in English, French and Spanish and was developed by a multistakeholder working group comprised of members from multinational food companies and agricultural production firms, government agencies and civil society organizations. The standard aims to increase the completeness and comparability of sustainability information for all organizations around the world involved in crop cultivation, animal production, aquaculture or fishing. It becomes applicable for reporting starting on 1 January 2024, and will be used together with the GRI Universal Standards and the GRI Topic Standards. One of the benefits of the GRI 13 standard is that it also maps the risks identified (or material topics in the GRI 13 standard) against the SDGs, allowing businesses to see how addressing each risk topic can help to support their contributions towards achieving the goals (see Annex 4).

The European Union's Corporate Sustainability Reporting Directive (CSRD) provides updated guidance on how companies need to report on social and environmental information and can be useful for companies aiming to comply with the European Union's Corporate Sustainability Due Diligence Directive (CSDDD), which was approved on 1 June 2023 and be fully voted later in 2024. The CSRD came into effect on 5 January 2023 and requires a broad set of large companies and some small- and medium-sized enterprises operating in Europe and their supply chain partners to report on sustainability. Companies will need to disclose information on their due diligence systems, the risks and opportunities arising from social and environmental issues, and the impact of their activities on people and the environment. Companies subject to the CSRD must report according to European Sustainability Reporting Standards (ESRS). Content to be included in your company's report must cover the following: [16]

- ESRS 1 – General requirements;
- ESRS 2 – General disclosures;
- ESRS E1 – Climate change;
- ESRS E2 – Pollution;
- ESRS E3 – Water and marine resources;
- ESRS E4 – Biodiversity and ecosystems;

[16] See Annex 1 to the Commission Delegated Regulation supplementing Directive 2013/34/EU as regards sustainability reporting standards for more information on sub-topics covered under the ESRS standards.

- ESRS E5 – Resource use and circular economy;
- ESRS S1 – Own workforce;
- ESRS S2 – Workers in the value chain;
- ESRS S3 – Affected communities;
- ESRS S4 – Consumers and end-users; and
- ESRS G1 – Business conduct

With the exception of the ESRS S4 on consumers and end-users, all of the mentioned topics covered by the ESRS are discussed in the risk mapping section in Step 2 of this guide, so that any pineapple business required to report using the ESRS should be familiar with these risks. As with due diligence in general, European Union regulations recommend that reporting should be proportionate to the size of the company and their potential for causing or contributing to adverse impacts and should not impose an unnecessary administrative burden on companies. According to CSRD, micro-enterprises will not be required to deliver sustainability reports and exceptions may apply for small- and medium-sized enterprises. The European Union directive strives for streamlined reporting on sustainability, but there is more than one way to report. The CSRD refers to several existing reporting mechanisms, including GRI, as potentially valid.

Other standards, such as the Carbon Disclosure Project and the Sustainability Disclosure Standards, are available and that can help businesses structuring specific aspects of their corporate sustainability reporting. The Carbon Disclosure Project can support reporting on environmental impacts of businesses' operations on climate change, forests and water security. The Sustainability Disclosure Standards of the International Financial Reporting Standards (IFRS) can support companies disclosing environmental sustainability-related information in order to enhance dialogue between investors and businesses.

With documented evidence from your due diligence process, your business should be able to ensure the integrity in the reporting process. Evidence-based reporting should support any claims made in your sustainability report on progress made to address risks, contribute to the SDGs and any other claims related to the business's sustainability attributes or credentials. Given increasing consumer interest in products that are produced and sold in a sustainable and responsible manner and the rise in companies reporting on sustainability attributes, some governments such as the European Union[17] and the United Kingdom are proposing regulations to prevent companies from making **greenwashing or social washing** claims. Green or social washing is defined as making environmental or social sustainability claims that are false, misleading or have no reasonable basis. These regulations aim to protect consumers by ensuring that companies substantiate the claims they make.

Other resources that can provide useful information on how to structure your sustainability report in a way that also integrates RBC efforts include The Accountability Framework Initiative's Operational Guidance on Reporting, Disclosure and Claims (2019), and the *Guía para la elaboración y comunicación de reportes de sustentabilidad en la industria de alimentos procesados* (available in Spanish only) by the *Asociación de Empresas de Alimentos de Chile A.G* and ProChile (2021).

[17] On 22 March 2023, the European Commission put forward a proposal for a directive on green claims that aims to protect consumers from greenwashing by ensuring that companies substantiate the green claims they make. The proposal also sets requirements on how to communicate the claims and introduce rules on environmental labelling schemes. Other countries such as Australia and the United States of America are also proposing similar regulations on greenwashing or revisions to guidance on trade practices related to green claims.

Chapter 3.

Final comments and recommendations on responsible business conduct in the pineapple industry

Throughout this guide we have reinforced the concept that responsible business conduct encompasses the commitment of businesses to sustainable development, human rights, and addressing environmental and social risks. We have discussed how RBC involves compliance with national laws, and how implementation of **RBC goes beyond legal requirements and voluntary certification standards for sustainability and traceability systems used by businesses**.

The context for international trade of agricultural products is changing, with consumers and governments in several importing countries requiring more detailed information on sustainability and evidence of socially and environmentally sustainable practices. The focus is shifting towards compliance. Increasingly, businesses must demonstrate compliance with international principles, guidance on sustainable development, importing market regulations on conducting due diligence, and how they are addressing high priority risks such as forced labour, child labour, agrochemical use and deforestation. **In the future you will need to demonstrate how your business is complying with these principles if you do not already. By following the five-step framework for due diligence presented in this guide, your pineapple business can prepare for future stricter regulations and meet the needs of your customers.**

However, it is recognized that this compliance places additional burdens on producers and exporters for information and new skills to effectively implement the due diligence process. These new requirements also bring with them additional costs for the business and the need for capacity development of staff. In an environment of already tight margins, finding the means to continuously upgrade existing systems and processes can be challenging, with several pineapple businesses and associations reporting that the goalposts for being considered a sustainable business are constantly shifting depending on the requirements of importing markets. In some contexts, pineapple producers and exporters have mentioned that requests for support from national governments often go unanswered, and more help is required from importing countries and their development agencies. A key conclusion from the development of this guide is that **producers and exporters need targeted capacity development to better understand due diligence, and enhanced access to grants or loans to upgrade systems and processes to meet RBC requirements**.

Pineapple producers, exporters and their associations also recognize the value of working with a range of different actors across the industry to share knowledge and practices on how to conduct due diligence and jointly address social and environmental risks. Examples of national public–private partnership initiatives on RBC were suggested to the project as a means to help bring the industry up to speed on some of these topics. The Responsible Fruits Project team has discussed with participants, the concrete benefits of multistakeholder initiatives such as the World Banana Forum, which is driven by the industry and works with a range of value chain actors to collectively address emerging and prioritised environmental and social risks. This experience was recognized as valuable by the pineapple industry, as in some countries, multistakeholder dialogue has allowed producers, exporters, importers and retailers to reach consensus on practices and prices that support more equitable value sharing along the supply chain.

Multistakeholder initiatives can be extremely beneficial to raise the level of commitment to sustainability across the industry and help to build capacity of all participants involved in a value chain including producers and their associations, as well as packers, processors, exporters, importers, distributors and retailers. Other groups who either support or are affected by the value chain, such as governments, worker unions, civil society organizations and local communities can also be involved. Such initiatives provide an opportunity for all participants to learn from each other about how to prevent and address pre-competitive issues pertaining to responsible business conduct. As such, these should be considered as a potential mechanism to support producers and the industry as a whole to address these challenges moving forward.

Capacity development on context-specific risk mapping and analysis will be needed for pineapple businesses and other users of this guide. The aim is to use this guide as a starting point only, to identify potentially relevant risks. Further analysis of in-country production context and of the requirements of your supply chain partners for specific information on certain risks is needed.

Additional training will also be needed in the areas of risk prioritization, the design of monitoring, evaluation and learning systems to track efforts to address prioritized risks and in communicating the results of businesses' efforts on RBC with relevant parties. The guide provides some initial suggestions on these steps, but training will be needed to apply them in most cases.

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Annexes

Annex 1: additional documents

A. Key documents for understanding RBC in agricultural supply chains

1. *OECD-FAO Guidance for Responsible Agricultural Supply Chains* (2016)

- English
- Spanish
- French

2. *OECD Due Diligence Guidance for Responsible Business Conduct* (2018)

- English
- Spanish
- French

3. ***The UN Guiding Principles on Business and Human Rights*** (UNGP) (2011)

4. ***ILO Declaration on Fundamental Principles and Rights at Work*** (1998, amended 2022)

5. *OECD-FAO Business Handbook on Deforestation and Due Diligence in Agricultural Supply Chains* (2023)

- English
- Spanish
- French

B. Additional resources

Accountability Framework Initiative. 2023.

Banana Link. 2020. *Guidelines on the healthy and safe employment of women workers in the Ghanaian banana industry*.

Chilealimentos and ProChile. 2023 (available in Spanish only).

- Due diligence in child labour
- Due diligence in forced labour
- Due diligence in supply chains for the agro-industry
- Landing page for all RBC resources from Chilealimentos

European Commission and International Trade Center. 2022. Making mandatory human rights and environmental due diligence work for all. Guidance on designing effective and inclusive accompanying support to due diligence legislation. Summary report.

- English
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Fairtrade International. 2022. *Implementing Human Rights and Environmental Due Diligence: A guide for smallholder farmers organisations.*

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Global Reporting Initiative Sector Standard for Agriculture, Aquaculture, and Fishing. 2022. **GRI 13: Agriculture, Aquaculture and Fishing Sectors 2022** comes in effect for reporting from 1 January 2024. This Standard is used together with the GRI Universal Standards and the GRI Topic Standards.

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The Economics of Ecosystems and Biodiversity (TEEB). 2018. Measuring what matters in agriculture and food systems: A synthesis of the results and recommendations of TEEB for Agriculture and Food's Scientific and Economic Foundations report.

- English
- Spanish
- French

The Economics of Ecosystems and Biodiversity (TEEB). 2020. TEEB Agrifood: Operational Guidelines for Business.

United Nations. 2007. *United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)*.

C. Tools for risk assessment

Fairtrade International Risk Map – Country Profiles

International Finance Corporation Global Map of Supply Chain Risks in Agro-Production Commodities

Rainforest Alliance Social Risk Map

Global Forest Watch

Annex 2: Examples of RBC commitment statements (Step 1)

Box A2.1 OECD-FAO Guidance Model Enterprise Policy

The OECD-FAO Guidance for Responsible Agricultural Supply Chains advises businesses to adopt, or integrate into existing processes, an enterprise policy for RBC along the supply chain (2016). The model policy outlines the major standards that businesses should commit to in order to build responsible supply chains.

The business should begin its policy with a brief statement that commits to practicing RBC, and then it should cover 10 elements that can be adapted to suit the scale and scope of pineapple businesses. Under each element, the business should state its commitment to national laws and international principles, and identify specific goals related to that element (e.g. labour rights: "We will respect international core labour standards …. In our operations we will also ensure decent wages, benefits and working conditions, and seek to prevent abuses of migrant workers, etc."). The ten elements are the following:

- human rights;
- labour rights;
- health and safety;
- food security and nutrition;
- tenure rights and access to natural resources (e.g. land, water);
- animal welfare;
- environmental protection and sustainable use of natural resources;
- governance;
- technology and innovation; and
- cross cutting – impact assessment, disclosure, consultations, benefit sharing, grievance mechanism, and gender.

Source: **OECD-FAO.** 2016. *OECD-FAO Guidance for Responsible Agricultural Supply Chains*. Paris, OECD. www.fao.org/3/i6074e/i6074e.pdf

Box A2.2 **An overview of the content in Fairtrade International's models of commitment policies on Human Rights and Environmental Due Diligence (HREDD)**

Fairtrade International (2022; 2023c; 2023d) developed three model Human Rights and Environmental Due Diligence (HREDD) commitment statements tailored to the different levels of the supply chain (see Figures A2.1, A2.2 and A2.3 in Annex 2) – one for **small farmers' organizations**, one for **plantations and other organizations with hired labour** and one for **"first buyers"**, trading companies that source directly from producers or producer associations. These simple models could be adapted to suit the specific needs of small- and medium-sized pineapple businesses, bearing in mind additional content may be needed to answer the six questions listed above.

For plantations, the Fairtrade model policy covers:

1. **Preamble** – details which international guidance principles on human rights and environmental protection the business will commit to, how it will address negative impacts and who is responsible for implementing the policy.
2. **Company policies** – how the commitment will fit in with existing company policies, and how these policies will be reviewed.
3. **Sphere of influence** – how the company will embed the policy in its daily operations and consult with workers, trade unions, the community and supply chain partners to implement it.
4. **Governance** – how the policy will be monitored and updated.
5. **Conclusion** – commitment approved, signed and dated by the board (2023c).

For **"first buyers"**, the content is similar, yet focuses more on the need for collaboration with suppliers and recognizes that unfair purchasing practices can contribute to human rights and environmental challenges (2023d).

Source: **Fairtrade International.** 2023d. *Implementing Human Rights and Environmental Due Diligence: A guide for small and medium sized "first buyers"*. Bonn, Germany, Fairtrade International. https://files.fairtrade.net/publications/Fairtrade_HREDD-guide-for-traders_EN.pdf

Box A2.3 Example commitment statement for smallholder farmer organizations

1. With this document, the ***XX*** [*name of the organisation*] commits to respecting the interationally recornised human rights and environmental sustainability, including:
   - Rights of the child
   - Labour rights
   - Protection of the climate and natural environment
2. We actively seek to avoid causing or contributing to adverse human rights and environmental impacts. If such impacts occur, we will seek to correct them.

   As a Fairtrade certified organisation, me already work to prevent, mitigate, cease and remediate severel adverse impacts. For example, we implement policies and plans on ***X, Y and Z*** [*list any human rights and environmental topics you have policies on, for instance child protection, gender, workers rights or climate adaptation*].
3. We will strengthen our due dilligence process over time. We seek continuous development in identifying, addressing and remediating adverse impacts on human rights and environmental sustainability, and tracking and communicating about our progress. This work is overseen by our ***XX***. [*title of the assigned manager or director*].
4. To advance our members', workers' and all people's rights, we call for concrete collaboration among supply chain actors. We seek partnerships and collaboration with our business partners, government agencies and civil society experts, to strengthen our human rights and environmental work.
5. We look for business partners who also respect human rights and the environment.
6. We will raise awareness about human rights and environmental sustainability and this commitment among our members, and seek to communicate this commitment to our business partners and other stakeholders.

This Commitment has been approved by ***XX*** [*for example the board*] in ***XX*** [*city and country*]on [*day, month, year*].

Source: **Fairtrade International.** 2022. *Implementing Human Rights and Environmental Due Diligence: A guide for smallholder farmers organisations*. Bonn, Germany, Fairtrade International. p. 7.

Box A2.4 Example commitment statement for plantations and other organizations with hired labour

Example of Commitment

Preamble

1. ***XX*** [*company name*] commits to undertake its business activities in a manner which respects human rights and the environment, in line with the:

- laws that apply to our operations
- United Nations' Universal Declaration on Human Rights
- United Nations Guiding Principles on Business and Human Rights
- International Labour Organisation's (ILO)
- Declaration on Fundamental Principles and Rights at Work, and the
- Fairtrade Standard for Hired Labour

Organisations

2. We actively seek to avoid causing or contributing to adverse human rights and environmental impacts. If such impacts occur, we will seek to provide for or cooperate in correcting them. As a Fairtrade certified organisation, we already work to address and remediate adverse impacts.

3. We will strengthen our due diligence process over time. This work is overseen by our ***XX*** [*title of the assigned manager or director*].

Company Policies

4. Our policies and practices are developed to prevent exposure of our workers, other stakeholders and the environment to avoidable human rights and environmental harms.

5. We revise these policies and practices periodically to ensure that they meet contemporary standards of responsible business conduct and train our workers on the changes.

Our sphere of influence

6. We strive to reflect this commitment in our everyday activities, procedures, business relationships and corporate philosophy, and encourage our partners to commit to responsible business conduct.

7. Our company seeks to protect the environment where we operate, provide safe and rewarding work environments and take steps to prevent forced labour, discrimination against women and other human rights harms.

8. We recognise the role of stakeholders in contributing to the sustainability of our business. We take their opinions and concerns into consideration in making decisions that affect them, and strive to solicit our stakeholders' opinions in matters that interest them.

9. We commit to social dialogue with workers and trade unions, as it helps us to identify risks, existing challenges and effective measures to address and remediate them. We seek continuous improvement in our structures and processes of social dialogue.

Governance

10. We will update our Board of Directors on human rights and environmental issues, and steps the company is taking to improve its performance in this area.

11. We seek to build synergies and collaboration with various stakeholders including industry players, government agencies, trade unions, non-governmental organisations and community members, in order to keep our commitment responsive to the rights, interests and well-being of our stakeholders and the environment.

Conclusion

This Commitment has been approved by *XX* [*for example the Board*] in *XX* [*city and country*] on [*day, month, year*].

Source: **Fairtrade International.** 2022. *Implementing Human Rights and Environmental Due Diligence: A guide for smallholder farmers organisations*. Bonn, Germany, Fairtrade International. p. 9.

Box A2.5 **Example commitment statement for small- and medium-sized "first-buyers" – such as trading companies who make purchases directly from producers or producer associations**

Example: Commitment to Human Rights and Environmental Sustainability

1. With this document, *XX* [*name of the company*] commits to respecting the internationally recognised human rights and the environment.

This includes the rights contained in the International Bill of Human Rights and the Declaration on Fundamental Principles and Rights at Work of the International Labour Organization (ILO).

2. To **demonstrate our commitment, we carry out human rights and environmental due diligence (HREDD)** in our business operations and relationships. This means that we actively seek to avoid causing or contributing to adverse human rights and environmental impacts. If such impacts occur, we participate in correcting them.

[*If you operate in or source from conflict areas: We conduct more comprehensive due diligence in conflict areas*].

3. We will strengthen our due diligence process over time. This work is overseen by our ***XX*** [*title of the assigned director*].

4. As a Fairtrade certified organisation, we already work to prevent, mitigate, cease and remediate several adverse impacts. For example, we implement policies and plans on [list any human rights and environmental topics you have policies on, for instance health and safety, workers' rights, climate adaptation or fair procurement). We also run [or participate in] a grievance mechanism that allows anonymous complaints.

5. We **actively seek opportunities to collaborate with other supply chain actors** to strengthen our due diligence work. This is crucial to tackle such complex, systemic problems as poverty and inequality, which lie at the root of many human rights and environmental risks.

In particular, we will initiate annual discussions with our largest suppliers to identify improvements in both our own and our suppliers' ways of working, to better prevent and mitigate human rights and environmental risks and harms. **We recognise that our purchasing practices can contribute to human rights and environmental challenges in our supply chains.** We also recognise that this collaboration benefits from long-term business relationships.

Further, we seek collaboration with multistakeholder initiatives and our buyers [*and/or civil society experts and government agencies*].

6. We recognise the importance of social dialogue with our employees, as well as dialogue with other people who may be affected by our and our business partners' operations. Meaningful dialogue can help in identifying, addressing and remediating the salient issues. We seek to pay particular attention to the perspectives of the most vulnerable groups of people.

7. We will raise awareness about human rights and environmental sustainability and this commitment among our employees and will communicate this commitment to our business partners and other stakeholders.

This Commitment has been approved by ***XX*** [*for example the Board*] in ***XX*** [*city and country*] on [*day, month, year*].

Source: **Fairtrade International.** 2022. *Implementing Human Rights and Environmental Due Diligence: A guide for smallholder farmers organisations*. Bonn, Germany, Fairtrade International. p. 9.

Annex 3: Risk mapping example (Step 2)

Table A3.1. An example of risk mapping for human rights issues along the pineapple value chain (Step 2)

	Rights category	Rights issue	Where the issue takes place			
			Cultivation	Harvest	Smallholder production	Processing
NEGATIVE IMPACTS	**Labour Rights**	Working conditions	●	●	●	●
		Freedom of association and collective bargaining	●	●		●
		Forced labour		●		
		Child labour			●	
		Non-discrimination and equal opportunities (labour)	●	●	●	●
		Gender-based violence and harassment (GBVH) in the workplace	●	●	●	●
		Availability and accessibility of workplace grievance mechanism	●	●		●
	Civil & Political Rights	Right to life/physical integrity	●	●		
		Freedom of information and anti-corruption	●			
		Freedom of expression, assembly and association (civil/political)	●			
	Economic & Social Rights	Right to adequate standard of living (housing, food, water)	●			
		Right to adequate standard of living (livelihoods - communities, smallholders)	●		●	
		Right to adequate standard of living (livelihoods - workers)	●	●		
		Right to health	●	●		●
	Cross-Category Rights	Right to effective remedy	●		●	
		Non-discrimination (non-labour)	●	●		

Source: **Aldi South Group.** 2021. *Human Rights Impact Assessment Report: Pineapples from Peru*. Frankfurt, Germany, Aldi South Group. p. 5. https://cr.aldisouthgroup.com/en/download/human-rights-impact-assessment-report-pineapples-from-peru

Table A4.1. Linkages between the likely material topics for the agriculture, aquaculture, and fishing sectors and the SDGs

	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
Topic 13.1 Emissions			●				●					●	●	●	●		
Topic 13.2 Climate adaptation and resilience	●	●											●				
Topic 13.3 Biodiversity		●				●						●		●	●		
Topic 13.4 Natural ecosystem conversion													●	●	●		
Topic 13.5 Soil health		●													●		
Topic 13.6 Pesticides use			●			●		●				●			●		
Topic 13.7 Water and effluents						●						●		●			
Topic 13.8 Waste												●					
Topic 13.9 Food security		●															●
Topic 13.10 Food safety		●	●														
Topic 13.11 Animal health and welfare															●		
Topic 13.12 Local communities	●	●	●		●	●							●			●	
Topic 13.13 Land and resource rights	●	●								●		●			●	●	
Topic 13.14 Rights of indigenous peoples	●	●									●		●		●	●	
Topic 13.15 Non-discrimination and equal opportunity					●			●		●						●	
Topic 13.16 Forced or compulsory labor					●			●								●	
Topic 13.17 Child labor	●							●								●	
Topic 13.18 Freedom of association and collective bargaining								●								●	
Topic 13.19 Occupational health and safety			●					●									
Topic 13.20 Employment practices	●							●		●							
Topic 13.21 Living income and living wage	●	●						●		●							
Topic 13.22 Economic inclusion	●	●			●			●	●	●	●			●			
Topic 13.23 Supply chain traceability												●		●		●	
Topic 13.24 Public policy		●												●	●	●	
Topic 13.25 Anti-competitive behavior																●	
Topic 13.26 Anti-corruption																●	

Source: **GRI.** 2022. *GRI 13: Agriculture, Aquaculture and Fishing Sectors 2022*. Amsterdam, GRI. p. 13.

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