Sustainable Production and Trade

Perspectives from the Commonwealth

Commonwealth Secretariat

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Contents

List of Figures, Tables and Boxes

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Foreword

Sustainable production and trade are essential for the future of our planet as they provide critical pathways towards achieving long-term economic, social and environmental sustainability. The Commonwealth recognises that the challenges of climate change, loss of biodiversity and resource depletion require urgent action. For over three decades, the Commonwealth has been at the forefront of global sustainability efforts, leading the way and advocating for change. This is reflected in milestone events like the adoption of the Langkawi Declaration on the Environment in 1989, which predates the 1992 Earth Summit in Rio de Janeiro, the launch of the Commonwealth Blue Charter in 2018, and most recently, the Commonwealth Living Lands Charter in 2022.

During the Commonwealth Heads of Government Meeting (CHOGM) in Kigali, Rwanda, in June 2022, our leaders reiterated the importance of trade and investment for inclusive and sustainable economic growth and shared prosperity. They also reaffirmed the need to take a holistic approach towards trade and sustainability within the Commonwealth, which includes focusing on "sustainably sourced products".

Against this backdrop, this book analyses sustainable production and trade practices in four key sectors: cocoa, fisheries, forestry, and textiles and garments. It seeks to shed light on the commendable sustainable practices employed by Commonwealth countries in these sectors, while also highlighting the challenges they face and the potential to make production and trade more sustainable in the future. A central message throughout the book is the need to prioritise support to small-scale producers, indigenous peoples and local communities, women and youths, and small and medium enterprises to help achieve these goals while improving their livelihoods.

While the opportunities for sustainable production and trade are significant, there are also many challenges. Significant investment and political will is needed to support the transition to sustainability. It requires a shift away from the current linear economic model, where resources are extracted, used and disposed of, towards a circular economic model, where goods are recycled and kept in use for as long as possible. This transition will require new technologies, new business models and new ways of thinking. With its diverse member countries and wealth of resources and policy experiences, the Commonwealth stands ready to contribute to this global transition.

Ahead of the 2023 Sustainable Development Goals (SDG) Summit, which marks the mid-point of the implementation of the United Nations' 2030 Agenda, this book is a valuable contribution to the ongoing conversation about sustainable production and trade, especially SDG 12. I commend the authors for their efforts and hope

that this book will inspire new ideas and new collaborations. As we look towards the next CHOGM in Samoa in October 2024, the Commonwealth and its member countries remain committed to promoting sustainable production and trade, and we shall continue to work together and collaborate with our partners to create a more sustainable future for ourselves and future generations.

The Rt Hon Patricia Scotland KC
Secretary-General of the Commonwealth

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Paul R. Baker, Pallavi Bajaj and Zahraa Beeharry of International Economics Consulting Ltd prepared Chapter 2. Neetish Hurry (Director of Analytics at International Economics Consulting Ltd), Matthieu Lamolle (Senior Adviser at the International Trade Centre) and Sajal Mathur (Counsellor at the World Trade Organization) provided research and data support for that chapter. Any errors remaining are the sole responsibility of the authors. Nicholas Hardman-Mountford (Head of Oceans and Natural Resources at the Commonwealth Secretariat) provided insightful and constructive comments on Chapter 3.

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Acronyms and abbreviations

ANRC	African Natural Resources Centre
APEC	Asia-Pacific Economic Co-operation
ARS	African Regional Standard
ATC	Agreement on Textiles and Clothing
BBNJ	Biodiversity Beyond National Jurisdiction
BSR	Business for Social Responsibility
CAOPA	Confédération africaine des organisations professionnelles de la pêche artisanale (African Confederation of Artisanal Fisheries)
CARIFORUM	Caribbean Forum
CBD	Convention on Biological Diversity
CBD COP	United Nations Biodiversity Conference
CBI	Centre for the Promotion of Imports from Developing Countries
CEMAC	Economic and Monetary Community of Central Africa
CETA	Canada–European Union Comprehensive Economic and Trade Agreement
CFA	Commonwealth Forestry Association
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COCOBOD	Cocoa Marketing Board (Ghana)
COP	Conference of the Parties
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CRS	Congressional Research Service (USA)
CSA	climate-smart agriculture
CTE	Committee on Trade and Environment (WTO)
CUSMA	Canada-United States-Mexico Agreement
DESTA	Design of Trade Agreements

DFAT	Department of Foreign Affairs and Trade (Australia)
DG Trade	Directorate-General for Trade (EC)
DSTF	Digital and Sustainable Trade Facilitation
EC	European Commission
EEZ	exclusive economic zone
EPA	economic partnership agreement
EPZ	export processing zone
ETI	Ethical Trading Initiative
EU	European Union
FAD	fish aggregation device
FAO	Food and Agriculture Organization of the United Nations
FDI	foreign direct investment
FFSR	Fossil Fuel Subsidy Reform
FiBL	Research Institute of Organic Agriculture
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council
FOB	free on board
FSA	Fisheries Subsidies Agreement
FTA	free trade agreement
GBA+	Gender-Based Analysis Plus (Canada)
GDP	gross domestic product
GFA	global framework agreement
GLOBEFISH	Information and Analysis on World Markets and Trade of Fisheries and Aquaculture Products
GRI	Global Reporting Initiative
GSP	Generalised Scheme of Preferences
GSSI	Global Sustainable Seafood Initiative
ICCO	International Cocoa Organization
IDP	Informal Dialogue on Plastic Pollution and Environmentally Sustainable Plastics Trade
IEC	International Economics Consulting
IFAD	International Fund for Agricultural Development

IFC	International Finance Corporation
IFS	IKEA Forestry Standard
IISD	International Institute for Sustainable Development
ILO	International Labour Organization
IMPAC5	Fifth International Marine Protected Areas Congress
IPCC	Intergovernmental Panel on Climate Change
IPR	intellectual property rights
ISO	International Organization for Standardization
ITC	International Trade Centre
ITTA	International Tropical Timber Agreement
ITTO	International Tropical Timber Organisation
IUU	illegal, unreported and unregulated
IYAFA	International Year of Artisanal Fisheries and Aquaculture
LDC	least developed country
LID	Living Income Differential
LULU	Land Use, Land Use Change and Forestry
MC	WTO Ministerial Conference
MFA	Ministry of Foreign Affairs (Netherlands)
MFA	Multifibre Arrangement
MFN	most-favoured nation
MOTI	Ministry of Trade and Industry (Ghana)
MPA	marine protected area
MSC	Marine Stewardship Council
MSMEs	micro, small and medium enterprises
NEDS	National Export Development Strategy for the Non-Traditional Export Sector (Ghana)
NGO	non-governmental organisation
NOAA Fisheries	National Marine Fisheries Service (USA)
NORC	National Opinion Research Center (USA)
NTM	non-tariff measure
OEC	Observatory of Economic Complexity

OECD	Organisation for Economic Co-operation and Development
PACER Plus	Pacific Agreement on Closer Economic Relations Plus
PEFC	Programme for the Endorsement of Forest Certification
PGI	Protected Geographical Indication
PNA	Parties to the Nauru Agreement
QCC	Queen's Commonwealth Canopy
RFMO	regional fisheries management organisation
R&D	research and development
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SACU	Southern African Customs Union
SDG	Sustainable Development Goal
SCAP	Sustainable Clothing Action Plan (UK)
SIDS	small island developing states
SITC	Standard International Trade Classification
SMEs	small and medium-sized enterprises
SPS	sanitary and phytosanitary
STP	São Tomé and Príncipe
TBT	technical barrier to trade
TESSD	Trade and Environmental Sustainability Structured Discussions
TRIPS	WTO Agreement on Trade-Related Aspect of Intellectual Property Rights
TSD	trade and sustainable development
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFSA	United Nations Fish Stocks Agreement

UNFSS	United Nations Forum on Sustainability Standards
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
USCTTA	United States–Cambodia Textile Trade Agreement
USTR	Office of the US Trade Representative
VPA	voluntary partnership agreement
VSS	voluntary sustainability standards
WITS	World Integrated Trade Solution
WTO	World Trade Organization
WWF	Worldwide Fund for Nature

Chapter 1

Introduction

The 2030 Agenda for Sustainable Development defines international trade as 'an engine for inclusive economic growth and poverty reduction, [that] contributes to the promotion of sustainable development' (UN, 2015). However, for trade to be truly sustainable, it must generate benefits across all three dimensions of sustainable development: economic, social and environmental (Perkins, 1999). Trade policies are evolving at both the international and the domestic levels to achieve these sustainability goals (UNCTAD, 2021).

The Commonwealth and its 56 member countries have been pioneers in this evolution, leading the way towards sustainable production and trade practices. In fact, Commonwealth members committed to achieving sustainable economic development through collective and national action as early as 1989, through the Lankawi Declaration, which predates the 1992 Earth Summit in Rio de Janeiro. This commitment was reaffirmed in 2013, two years before the adoption of the Sustainable Development Goals, when members recognised the importance of sustainable development in eradicating poverty and conserving natural ecosystems. Additionally, they acknowledged the need for an effective and equitable multilateral trading system that considered the special requirements of small states and developing countries (Article IX of the Commonwealth Charter 2013).

Against this backdrop, this book analyses sustainable production and trade practices in four key sectors: cocoa, fisheries, forestry, and textiles and garments. Through this analysis, it seeks to shed light on the sustainable practices of Commonwealth countries in these sectors, highlighting their achievements, challenges and potential for improvement.

Globally, the fish sector is a significant contributor to international trade, with 90 per cent of fish produced annually being traded across borders (GLOBEFISH, 2022). This sector employs and generates livelihoods for over 10 per cent of the global population.

Another natural resource, forests, covers approximately one-third of the Earth's land surface, and the forestry sector provides a source of livelihood for almost 1.3 billion people, including over 2,000 indigenous cultures (FAO, 2022; UN, 2022). The export of raw and processed wood was valued at almost US$155 billion annually in 2019–2021.

Efforts to promote sustainable forestry and tackle deforestation are strongly linked with the cocoa sector. This sector also contributes to international trade, with cocoa beans and cocoa products worth approximately US$50 billion exported annually. Smallholder farmers, primarily in Asia, West Africa, Latin America and the Caribbean, produce these products, giving employment to nearly 50 million people worldwide.

The textile and garment sector is one of the largest industries in the world, generating revenues of over US$1.5 trillion annually. Global exports in 2020 were estimated at $477 billion, and the sector employs approximately 75 million people worldwide (Textile Exchange, 2021).

The book contains four sector case studies: cocoa, fisheries, forestry, and textiles and garments. After providing an overview of global and Commonwealth trade, each chapter addresses two key questions. First, it examines the challenges each sector faces in achieving economic, social and environmental sustainability. Second, it explores the various ways in which each sector has sought to address these challenges to promote sustainability in Commonwealth countries. The book concludes by highlighting common challenges facing Commonwealth members across the four sectors and proposing various ways forward to promote sustainability throughout the Commonwealth. By focusing on specific sectors, the book provides a comprehensive analysis of the challenges and potential solutions involved in promoting sustainable production and trade practices in the Commonwealth.

These sectors hold significant importance for Commonwealth members, as reflected in their average export shares from 2019 to 2021 of 16 per cent for fisheries, around 20 per cent for forestry, almost 16 per cent for cocoa and 14.5 per cent for textiles and garments.[1] Additionally, 49 out of the 56 member countries have large coastal belts and exclusive economic zones rich in fish and other marine resources, highlighting the importance of the fisheries sector. Member countries also accounted for 23 per cent of the global forest area in 2020, spanning nearly 900 million ha, underscoring the significance of the forestry sector.

The importance of these sectors is further highlighted by their dominance in various geographical regions of the Commonwealth. For example, the fisheries sector is of critical importance to small island developing states and low-income coastal states, with its contribution to total merchandise exports ranging between 60 per cent and 85 per cent for countries such as Maldives, Nauru, Kiribati and Vanuatu. Canada and New Zealand dominate Commonwealth forestry exports, and forests cover more than 90 per cent of the land area in Gabon, Guyana and Solomon Islands.

Commonwealth countries are some of the largest cocoa producers in the world, with Ghana and Cameroon accounting for almost 9 per cent and 7.3 per cent of global cocoa production in 2020, respectively. Meanwhile, countries in South Asia rely heavily on the manufacturing and export of textiles and garments to generate income and employment. For instance, employment in textiles and garments accounts for more than 70 per cent of total manufacturing employment in Bangladesh, 55.6 per cent in Sri Lanka and 45 per cent in Mauritius. The diversity of these sectors and their regional significance make them crucial to the economic development and growth of the Commonwealth as a whole.

All four sectors are characterised by being 'buyer-driven' and labour-intensive, making them crucial to economic growth and job creation in developing countries

1 Data calculated by the Commonwealth Secretariat using the World Integrated Trade Solution (WITS) database.

and least developed countries (LDCs). However, all four sectors also face significant sustainability challenges across their value chains and have immense scope for improvement.

Chapter 2 provides an overview of sustainable trade practices and provisions in free trade agreements (FTAs) of Commonwealth countries. These provisions address various cross-cutting sustainability issues, including environmental protection, enhanced labour rights and development co-operation. These provisions may be incorporated in different forms, such as in the preambulatory language, as specific provisions or into entire chapters on sustainable development. Chapter 2 also reviews the scope and coverage of trade and sustainable development provisions in three select FTAs involving Commonwealth members: the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, the Pacific Agreement on Closer Economic Relations Plus and the Canada–European Union Comprehensive Economic and Trade Agreement. Additionally, the chapter provides an overview of voluntary sustainability standards (VSS) and the extent to which they have been adopted in different Commonwealth countries.

In Chapter 3, the focus shifts to the fisheries sector, to analyse key sustainability issues and promotion policies. The chapter examines the major challenges facing the sector, including the over-exploitation of fish stocks, the mechanisation of fishing practices and harmful fish subsidies that hinder economic sustainability. Additionally, the sector is plagued by food insecurity, poor working conditions for fisherfolk and environmental degradation through increased carbon emissions and damage to marine ecosystems. The chapter explores various multilateral, regional and national frameworks aimed at improving sustainability in the sector, including the World Trade Organization's Fisheries Subsidies Agreement and the Commonwealth Blue Charter. Moreover, the chapter recognises the adoption of VSS by private sector firms across the supply chain to ensure sustainability in fisheries.

Chapter 4 of the book examines the challenges to sustainability in the forestry sector, focusing on issues such as illegal logging and deforestation, which have significant impacts on economies, societies and the planet, related to climate change, human rights (especially of indigenous peoples) and global health through increased risk of zoonotic diseases. The chapter emphasises the need to safeguard and promote the rights of indigenous peoples and their sustainable forestry practices. Additionally, it discusses the significance of adopting key VSS to promote sustainability in the forestry value chain. The chapter provides an overview of pan-Commonwealth as well as global initiatives aimed at tackling deforestation and promoting sustainable forestry management and land use, such as the Commonwealth Living Lands Charter and the United Nations Framework Convention on Climate Change.

In Chapter 5, the focus is on trade and sustainability issues in the cocoa sector. The chapter highlights the major challenges facing the sector, such as the integration of small farmers into the cocoa value chain, low incomes and poor working conditions, including forced, bonded and child labour. Additionally, cocoa production is a leading cause of deforestation, which poses a significant risk to forest ecosystems. The chapter explores various measures aimed at promoting sustainability in the sector,

such as national co-operatives, the Living Income Differential policy and multilateral frameworks like the Harkin-Engel Protocol. Furthermore, the chapter discusses the incorporation of sustainability provisions in FTAs that are specific to the cocoa sector. The chapter concludes by providing an overview of various initiatives that private sector companies have launched to promote sustainability in the cocoa sector.

Chapter 6 discusses the textile and garment sector. Typically, this sector is highly resource-intensive, using significant amounts of energy and water at all stages of the production process. The sector is also characterised by poor working conditions, labour abuses and gender discrimination. To promote sustainability in this sector, the chapter discusses measures such as using more sustainable inputs, improving transparency and utilising digital technology to enhance traceability. Additionally, the chapter highlights the need to create circular business models to promote sustainability in the sector. It also discusses key industry-led and private sector initiatives to improve and develop labour standards in the textile and garment sector.

Chapter 7 concludes by highlighting sustainability issues common to all four sectors, and proposes possible solutions and ways forward to promote more sustainable production and trade in the cocoa, fisheries, forestry, and textiles and garments sectors across the Commonwealth.

Chapter 2

Examining Sustainability Provisions in Commonwealth Free Trade Agreements

Paul R. Baker, Pallavi Bajaj and Zahraa Beeharry

2.1 Introduction

The 2030 Agenda regards trade as 'an engine for inclusive economic growth and poverty reduction, [that] contributes to the promotion of sustainable development' by internalising social, economic and environmental issues in trade (UNCTAD, 2021). In essence, sustainable trade can foster the preservation and responsible use of natural resources, reduce poverty and inequality, and promote a more equitable and sustainable global economy (Jones et al., 2021).

It was the Brundtland Commission Report that first defined the concept of sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland Commission, 1987; UNESCO, 2021). Sustainable development encompasses three essential dimensions: social, economic and environmental.

The United Nations Conference on Environment and Development in Rio de Janeiro in 1992 and the World Summit on Sustainable Development in Johannesburg in 2002 both acknowledged the critical role trade can play in promoting sustainable development. These conferences highlighted the importance of trade in facilitating the efficient allocation of scarce resources and promoting access to environmental goods, services and technologies, particularly for developing countries (WTO, 2011). The World Trade Organization (WTO) also recognises that trade can contribute to sustainable development by reducing poverty and hunger, improving access to affordable medicines, promoting good health and well-being, achieving gender equality, fostering economic growth and decent work, reducing inequality, enhancing competition, facilitating knowledge and technology transfer, and promoting innovation and the preservation of the environment and marine life (WTO, nda). However, trade liberalisation can also have adverse impacts, such as inequalities, social consequences, economic winners and losers, and natural resource depletion and environmental externalities. Therefore, it is crucial to assess the sustainability impact of trade before engaging in policy discussions and negotiations.

This chapter presents an overview of sustainable trade practices and provisions in free trade agreements (FTAs) among Commonwealth countries. These provisions focus on cross-cutting sustainability issues like environmental protection, labour rights and development co-operation. The chapter also assesses the trade and sustainable development (TSD) provisions in three specific FTAs involving Commonwealth members – namely, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the Pacific Agreement on Closer Economic Relations Plus

(PACER Plus) and the Canada–EU Comprehensive Economic and Trade Agreement (CETA). Furthermore, the chapter provides an overview of voluntary sustainability standards (VSS) and the extent to which various Commonwealth countries have implemented these.

2.2 Sustainable trade and development

2.2.1 The linkages between sustainable trade and development

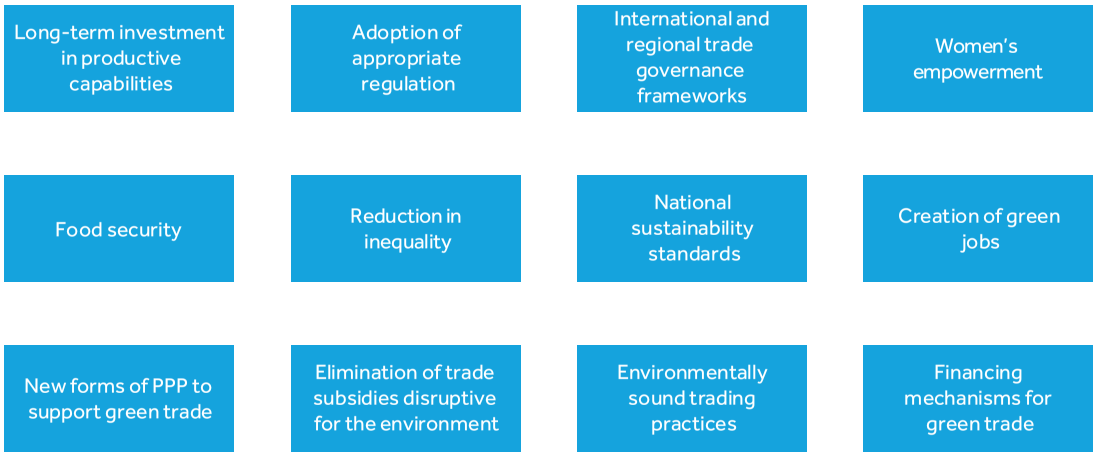
The United Nations Conference on Trade and Development (UNCTAD) suggests that trade links with sustainability in both financial and non-financial ways (UNCTAD, 2015). On the one hand, governments can use trade and trade policy to raise revenues, for example through taxes on goods and services, and claiming proceeds from exports of specific commodities. However, this approach does come with the risk of distorting trade and reducing welfare or affecting the equity of welfare distribution. On the other hand, non-financially, trade interacts with sustainability through improving or distorting access to resources, and by affecting the ecosystem (Figure 2.1). Therefore, trade policy does need to account for the impact of trade on sustainable development.

Promoting sustainable trade and production processes can also bring economies a step closer to realising sustainable growth without being trapped in a 'race to the bottom,' or low-income trap. Driven by the objective of producing goods at the lowest costs, many industries have given little to no consideration to the social implications of their production process. For instance, the textiles and garments sector is notorious for its impact on human rights and the environment. It is estimated that the carbon footprint of the industry amounts to around 6–8 per cent of global emissions. In the period between 2005 and 2016, a 35 per cent increase was noted in the associated impact of the industry on climate change (Sharpe and Retamal, 2021).

A transition to sustainable trade can mitigate such impact and can encourage, instead, a more balanced distribution of the benefits of trade, while accounting for the constraints of the ecosystem (MFA Netherlands, 2016). Adopting sustainable trade practices also has numerous economic and distributional benefits for a country. In a study conducted in the USA, for example, it was observed that the low-carbon and environmental goods and services sector generated more than US$1.3 trillion of revenue while employing 9.5 million people (Georgeson and Maslin, 2019). Furthermore, the same trends were observed in other areas, such as the EU and the UK, where the environmental economy rose by more than 60 per cent between 2000 and 2016, generating approximately €746 billion worth of output (Switch2Green, nd).

At the same time, trade and trade policy instruments, built on multilateral and regional co-operation, as well as international trade rules can equip countries with the tools necessary to maximise the use of resources and minimise the impact of shocks. When trade leads to a more efficient use of the factors of production, it can also allow better resource utilisation and a reduction in the carbon footprint (Perkins, 1999), as well as better working conditions and productive employment. On the other hand, if poorly designed, trade policies can inhibit all these objectives (IISD, nd) and act as a

Figure 2.1 Trade and sustainable development – the linkages



Source: Apostolov (2017).

channel for depleting resources, damaging the environment and leading to unequal distribution of income and gains, as well as poor employment conditions.

Therefore, there has been increasing exploration of this relationship between trade and sustainable development, and disciplines around it are being adopted in trade agreements. The 1994 Marrakesh Agreement – the founding Agreement of the WTO – recognises the central role of trade in sustainable development (WTO, ndb). The WTO has also made a series of recommendations aimed at mainstreaming the SDGs into trade policies. The key among these relate to:

- enhancing the state of infrastructure in the least developed countries (LDCs) and building their capacity in trade;
- addressing non-tariff measures (NTMs) so as to facilitate trade; and
- reducing trade costs overall by promoting the full implementation of the WTO's Trade Facilitation Agreement (WTO, 2018). A strong focus is also placed on countries devising their own national strategies or sectoral strategies in this regard.

Within the SDGs, Target 17.10 encourages trading nations to harness the WTO framework to create 'a universal, rules-based, open, transparent, predictable, inclusive, non-discriminatory and equitable' multilateral trading system (UNCTAD, 2015). Similarly, speedy implementation of the Ministerial Decisions of the WTO Doha Development Round, and those included in the Bali Ministerial Declaration (2013) of the WTO, is one of the action points of the Addis Ababa Action Agenda (ibid.). At the same time, there is high-level endorsement for trade policies to be able to support the 'shared vision' of global leaders, to 'ensure the multilateral trading system is reformed, … , to be free and fair for all, more sustainable, resilient, and responsive to the needs of global citizens' (HMG, 2021). In this context, and in addition to ongoing discussions on an international climate change agreement and an environmental goods agreement, several economies are also reducing or committing to reduce tariffs on environmental goods and services (Jones et al., 2021). Some countries have taken unilateral steps in this regard. The UK government, for instance, through the UK Global Tariff, has eliminated tariffs on more than 100 green goods, and aims to further promote the accessibility of green technologies worldwide (UK Board of Trade, 2021).

In the absence of a dedicated agreement on trade-related aspects of environment at the WTO, the Committee on Trade and Environment acts as a bridge between trade and environmental protection. In addition, the Committee, under the Doha Development Agenda, is also analysing the impact of environmental measures on market access, intellectual property, biodiversity and labelling (WTO, ndc). Specifically, in December 2021, the WTO adopted three Ministerial Statements aimed at addressing environmental concerns (WTO, 2021a). A total of 81 members of the WTO, of which more than 50 per cent were developing countries, signed at least one of the Statements (Lim et al., 2022).

The first Ministerial Statement is on the Trade and Environmental Sustainability Structured Discussions (TESSD). Comprising 71 co-sponsors, the TESSD represents

approximately 84 per cent of global trade in goods and services. TESSD members have expressed strong intent to engage in discussions on matters pertaining to trade and climate change. They have also expressed intent to discuss measures to facilitate the trade of environmental goods and services and address issues concerning supply chains, among others (WTO, 2021b).

The second Ministerial Statement is on the Informal Dialogue on Plastic Pollution and Environmentally Sustainable Plastics Trade, and commits members to collaborate to mitigate plastics pollution and facilitate the transition to a circular economy and encourage the use of more sustainable resources and materials (WTO, 2021c).

The third Ministerial Statement is on Fossil Fuel Subsidies and provides for shared intent on phasing out subsidies on fossil fuels (WTO, 2021d).

However, these Statements, in addition to being only supported by a limited subset of WTO members, remain for the most part assertions of intent, opening the way for further discussion and collaboration without any substantive commitment. Converting this work into action points and enforceable commitments at the multilateral level will involve complex negotiations and finding the perfect middle ground for all parties involved. This has remained unresolved in multilateral trade negotiations at the WTO so far.

As the discussion at the multilateral level is drawn out, several dimensions of sustainable development in trade are finding a place in an increasing number of bilateral agreements and FTAs. The inclusion of sustainable development provisions in trade agreements is based on the acknowledgement of the role that trade can play through its implications for the environment; society; poverty reduction; job creation; innovation; and improving food security, gender equality and workers' rights (UNCTAD, 2021).

While the expectation from trade is more efficient allocation of resources and increase productivity and welfare (UNCTAD, 2021), trade policy interacts with many layers of sustainable dimensions, through several NTMs, such as technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS), and, more recently, VSS. Globally, 41 per cent of NTMs work towards achieving the SDGs (ibid.). At the same time, together with economic co-operation among trading economies, trade can act as a tool for creating employment and reducing economic and social inequality (ibid.). If poorly designed, trade policy can inhibit all these objectives (IISD, nd). This underpins the significance of increasing awareness and understanding of the link between trade and several sustainable development aspects in the rules-based international trade regime.

To this end, it is necessary for countries to 'work together to create more open markets and more inclusive, stable, and predictable trade that promotes the diversification of goods, suppliers, and markets' (IISD, 2021). For trade to be sustainable and to promote sustainable development, it must generate benefits in line with all the three key fronts of sustainable development – namely, social, economic and environmental. At present, discussions focus on addressing two key dimensions of sustainability – ensuring that trade happens in a manner that promotes decent work conditions and

that trade practices do not have negative impacts on the environment and natural resources (Trade for Development Centre, nd).

The Organisation for Economic Co-operation and Development (OECD) recommends three key aspects of policy coherence to achieve sustainable development. First, countries should implement an integrated, coherent, strategic vision, which requires whole-of-government action and policy-making towards this end goal while capitalising on synergies between economic, social and environmental policies, and balancing trade-offs. Second, countries should address policy interactions by instituting effective, inclusive governance and institutional frameworks, through a combination of stakeholder engagement, subnational engagement for co-ordinated action and alignment of priorities. Finally, countries need to integrate into their toolkits responsive and adaptive mechanisms, for analysis, anticipation and assessment of the impact of policies in this regard. This final aspect includes strong monitoring, reporting and evaluation mechanisms, to feed into decisions and to allow for adaptation of policies as needed (OECD, 2021).

2.2.2 Categorising sustainable trade provisions in FTAs

As the previous section discussed, the link between trade and sustainable development covers all aspects of sustainable development across the three areas of social, economic, and environmental, accounting for social justice, protection of human rights, respect for labour rights, protection of the environment and cautious use of natural resources. Effective inclusion, or mainstreaming, of trade into sustainable development objectives requires integrating trade into governance and policy-making while ensuring implementation and monitoring mechanisms are put in place (WTO, 2018; Glass and Newig, 2019). Enhancing the link between trade and sustainable development also requires creating awareness and understanding among stakeholders, building on public-private collaboration, more structured stakeholder consultations and participation from civil society, as well as capacity-building in both the public and the private sectors (DG Trade, nd). For this, efficient institutional structures will be needed, at both the domestic and the inter-governmental level, with high-level representation from all trading economies, to organise, review and monitor such consultation. Overall, it has been noted that, in order to achieve sustainable development, it is essential to 'coordinate measures at different levels of government and between interacting policies. Particularly with regard to complex and interrelated sustainability goals, policy coherence can contribute to the reduction of trade-offs between different sectoral policies and thereby lead to more effective implementation' (Glass and Newig, 2019).

In this regard, the WTO serves as a structured framework for harnessing the trade and sustainable development link, using its objectives and rules to create a balance between fostering trade and maintaining policy space for legitimate policy objectives of members (WTO, 2011). This framework can represent a robust guideline on which to build FTAs of the future, especially those with developing country members, to ensure the balance is achieved and everyone can access the gains from trade. Furthermore, one of the objectives on the sustainability of trade under the WTO's Doha Development Round was to integrate sustainable development dimensions

Box 2.1 Mechanism for monitoring the sustainable impact of trade agreements

To further monitor the impact of trade on sustainability, governments and organisations may also conduct impact assessments in order to model or assess any concerns that may arise from the implementation of a trade agreement (Cordonier Segger, 2021). These assessments may be conducted both *ex-ante* or *ex-post*, in order to allow policy-makers to undertake the appropriate measures to counter any negative outcomes that may result or have resulted from trade liberalisation (Baker, 2021). For example, the North American Free Trade Agreement (NAFTA) was evaluated *ex-post* by the North American Commission for Environmental Co-operation of Canada, Mexico and the USA. The evaluation revealed that NAFTA posed environmental risks to certain sectors of the economy that were expected to boom, for instance base metals, petroleum and transportation, with regulators not sufficiently prepared (Cordonier Segger, 2021).

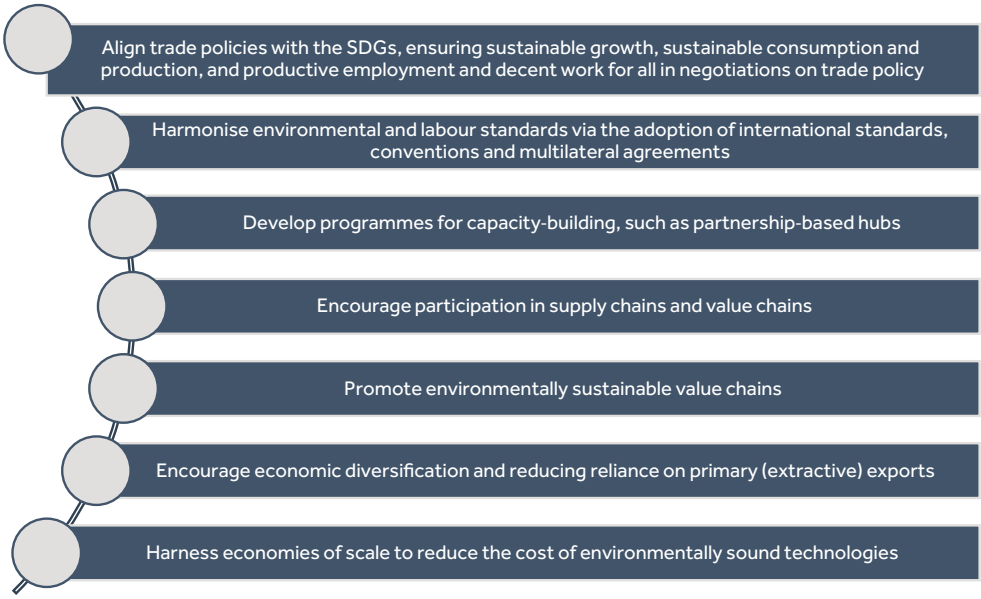
Numerous countries and organisations have developed their own models to assess sustainability concerns arising from FTAs. Canada, for instance, conducts an Environmental Assessment of its trade policy initiatives, in conjunction with an Economic Impact Assessment as well as a Gender-Based Analysis Plus (GBA+) (Government of Canada, 2021). The GBA+ assessment is conducted on the majority of policies and proposals undertaken by the government in connection with its objective of achieving gender parity and ensuring consideration of the impact on other intersectional identity characteristics[1] (Government of Canada, 2022). In 2018, the Canadian government further demonstrated its commitment to ensuring that the GBA+ process would be carried out for more FTAs. In the case of the Canada-Mercosur FTA, for instance, a GBA+ analysis was conducted in order to guide negotiations. For the Canada-United States-Mexico Agreement (CUSMA), an analysis was conducted after negotiations concluded in order to assess the different opportunities that the provisions would provide for women and other identified stakeholders, such as indigenous communities and small and medium enterprises (SMEs), among others.

such as environmental protection and more liberalised trade in environmental goods and services.[1]

Additionally, the role that trade facilitation has in promoting sustainable development cannot be ignored. Trade facilitation can promote sustainable trade and development through reducing the time and cost of cross-border trade transactions, but also through reducing waste and addressing the detrimental impact of trade and transit on the environment, lightening paper-based administrative and transit

1 This includes identity characteristics such as age, education, indigenous heritage, ethnicity, religion, culture, language, geography, socio-economic status, family status, sexual orientation, and mental or physical disabilities.

Figure 2.2 Key recommended elements for sustainability in trade in FTAs



Source: Authors using Apostolov (2017).

processes, and facilitating trade in environmental goods and services, to name a few (Apostolov, 2017).

It is in this context – in which carefully negotiated FTAs are, by nature, 'voluntary but enforceable' (MFA, 2016) – that these notions have become critical to mainstreaming trade into sustainable development. Specifically, Figure 2.2 presents key sustainability elements that FTAs should target.

FTAs are fertile ground for exploring the link between trade and sustainable development. In looking at the trade relationship between parties, FTAs aim to increase trade, enhance employment opportunities and harness comparative advantage among partners (Yao et al., 2019). In arriving at trade rules between the parties, it is possible to address key sustainability issues such as the environment, resource utilisation, decent work and productive employment, as well as less common subjects such as SMEs and the gender dimensions of trade. This is also important because FTAs, beyond their already well-articulated benefits, have a variety of economic and environmental implications, both positive and negative, for the parties. Therefore, it is potentially beneficial to use FTA negotiations to develop a framework that counters the negative impact of trade and builds on the positive. For instance, in an analysis of 182 countries from 1980 to 2012, Baghdadi et al. (2013) observed that countries with FTAs containing environmental provisions tended to have lower per capita carbon emissions.

To date, different FTAs have addressed the trade-sustainability link in different ways. While some have avoided the subject, others – such as those of the USA, the EU and Canada – have covered the topic through more substantive provisions on the

sustainability of trade. One prominent approach involves linking the implementation of these provisions, and the establishment of necessary frameworks in the partner country, to preferential market access, as in the case of the EU's Generalised Scheme of Preferences (GSP) (Baker and Quiles, 2019). One of the first FTAs that officially institutionalised substantive provisions on environmental protection was NAFTA. The North American Agreement on Environmental Co-operation – the side agreement to NAFTA – contained provisions on environmental co-operation in matters affecting trade, technical assistance and capacity-building, as well as a separate dispute settlement mechanism (from that of NAFTA) that could entail monetary assessment and the suspension of trade benefits (CRS, 2022).

Similarly, while some FTAs simply acknowledge the importance of sustainable trade and development in the preamble or the introductory provisions, others make references to certain aspects of trade and sustainable development (TSD) across various chapters, such on as NTMs (including TBT and SPS). At another level, some FTAs dedicate entire chapters to one or more of the three pillars of sustainability, while others encourage public participation in the processes related to sustainability in various respects.

The enforceability and legal value of these agreements and provisions also differ. While some have binding commitments and strong language, others express only best endeavour, or commitment to co-operate at best. Some provide recourse to dispute settlement after the initial consultation process; others encourage agreement within a joint committee. Agreements with very lax provisions categorically exclude TSD matters from the purview of dispute settlement; at the other end of the spectrum, such as in the CPTPP, recourse to sanctions is provided to ensure the enforceability of parties' commitments.

Environment and labour continue to be the most popular sustainability provisions in FTAs. In effect, such provisions require parties to harmonise regulations and work towards the implementation of international treaties, such as the 1998 International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work and multilateral environmental agreements (UNCTAD, 2015). Many agreements also recognise the policy space of parties to regulate such matters domestically and encourage them to establish and implement frameworks for labour rights, decent working conditions, environmental protection and the preservation of exhaustible natural resources. Moreover, some agreements encourage co-operation between parties, including on capacity-building in this regard.

In reviewing FTAs with at least one Commonwealth member country, this chapter considers the link between trade and sustainable development on several key dimensions, as identified above. It notes that some FTAs address some dimensions as cross-cutting themes in different chapters or provisions. Often, such references are merely indicative, such as references to health under SPS, intellectual property rights (IPR) or investment chapters. It is important to note that, for the purposes of this report, assessing the coverage of the sustainability provisions of FTAs with at least one Commonwealth member country involved scanning the FTAs only for

dedicated chapters containing each sustainability dimension and references of any of the dimensions in the preamble of the agreement (see details in Annex 2.2).

2.3 Sustainability in Commonwealth countries' trade policies

2.3.1 TSD in Commonwealth member countries' policies

As the world recovers from COVID-19, it is essential that Commonwealth member countries work together towards achieving the SDGs and ensuring that no one is left behind. This is even more important for the several small island developing states (SIDS) that face the greatest impacts of environmental damage and hazards. According to Binat Sarwar et al. (2018), this requires specific emphasis on, among other things, certain areas of trade policy, including service delivery (focused on health, social protection, education and connectivity), non-discrimination, and legal and institutional reform.

During its assessment of post-Brexit FTAs, the UK House of Commons also found support from industry and stakeholders for the inclusion of sustainability provisions such as 'environmental standards, combating illegal trade, tackling climate change and promoting corporate social responsibility' in FTAs (International Trade Committee, 2018). In doing so, the assessment cited the example of the Canada-Chile FTA, which includes a chapter dedicated to gender issues in trade. Even though such chapters typically remain aspirational or best endeavour, their inclusion in FTAs negotiated by the Commonwealth member countries is a step in the right direction.

Both individually and as a group, Commonwealth member countries recognise the significance of achieving the SDGs and their link with trade. COVID-19 has underscored the importance of this realisation. In this regard, individual member countries such as Bangladesh, Belize, Cyprus, India, Kenya, Malaysia and Nigeria, for example, have undertaken several steps to integrate the SDGs into their development agenda (Pisupati, 2018). Ghana has adopted a National Export Development Strategy for the Non-Traditional Export Sector (NEDS), which acts as a roadmap guiding the country's trade objectives from 2020 to 2029. As part of the NEDS, the Ghanaian government has also adopted four additional sub-strategies aiming to improve inclusivity in trade and promote the protection and preservation of the environment and biodiversity (MOTI, 2020). Other countries, such as Malaysia, have put in place certification schemes targeting key sectors of the economy. For example, acknowledging the environmental damage the palm oil industry has caused in the country, the government has introduced a five-year cap on the area cultivated by palm oil (Taylor, 2022). In 2015, the local government of Sabah state in Malaysia launched an initiative pursuing sustainable palm production by 2025.

Additionally, Commonwealth member countries have adopted trade facilitation as one measure to foster sustainable trade. The UN Global Survey on Digital and Sustainable Trade Facilitation (DSTF) assesses several key component areas, such as measures to facilitate women's participation in trade, trade facilitation for SMEs and paperless trade. However, despite the existence of such provisions, trade facilitation

measures have generally been poorly implemented, especially in developing countries (UNESCAP, 2022). Some Commonwealth member countries are working to change this *status quo*. India, for example, has undertaken numerous positive actions in this regard. For example, the Directorate-General of Tax-Payer Services and the Directorate-General of Foreign Trade have organised events and webinars aimed at increasing awareness among SMEs, and the country has recorded 91.7 per cent implementation of measures targeting SMEs in the DSTF survey – much higher than the global average of 60 per cent. The country has fully implemented all measures assessed except for SMEs' access to a single window. India also fares well on the other indicators of the survey, except for on women in trade facilitation and cross-border paperless trade, on both of which it scores 66.7 per cent (ibid.).

Commonwealth member countries also support sustainable trade through partnerships with like-minded partners. Examples include the EU-Pacific Green-Blue Alliance, which aims to leverage the European Green Deal to facilitate co-operation with countries of the Pacific in achieving the common objective of a low-carbon global economy by 2050 (Europa, nd). The Green-Blue Alliance aims to improve adaptation to and mitigation of the impacts of climate change, building greater resilience and using sustainable natural resources in a manner that leads to an inclusive and sustainable economy. Actions to be undertaken under the initiative are structured around two main pillars: mainstreaming climate action across all policies and establishing 'a stewardship model reconciling biodiversity, environmental protection, and restoration with sustainable development, favouring economic growth, jobs creation, population well-being, as well as human rights, fundamental values, peace, and security' (ibid.). The Alliance also encourages the development of circular economy initiatives, digitalisation and e-business solutions, agri-food systems, ecotourism and broader activities aimed at reducing the impact of human activities on the environment.

Similarly, the Commonwealth Blue Charter, adopted by all 56 Commonwealth member countries, focuses on sustainable ocean development and economic development, and addressing ocean-related challenges based on a fair, inclusive and sustainable approach (Commonwealth Secretariat, 2021). The Charter operates through multiple Action Groups working on designated issues, such as Coral Reef Protection and Restoration, or Sustainable Aquaculture, among others.

2.3.2 Coverage of sustainable development in Commonwealth member countries' FTAs

Specifically, FTAs are an important channel for Commonwealth members to advance economic growth and sustainable development objectives. Over the past two decades, Commonwealth member countries have entered into a number of these agreements. They have typically been either between developed countries or between at least one developed and one developing country, having affirmed the commitment of the parties to sustainable trade and development (Figure 2.3). The levels of ambitions and commitments, however, differ. The least ambitious FTAs address these issues simply in the preamble, or in a statement of intent. More progressive agreements

tend to include at least one provision on, or dedicate a whole chapter to, key sustainability issues such as environmental protection, labour rights or development co-operation. The majority of these provisions or chapters pledge only best efforts towards compliance with international conventions or co-operation among parties, with a commitment to the progressive development of frameworks to address sustainability issues; others contain legally binding commitments, with recourse to dispute settlement for non-compliance.[2]

Given their cross-cutting nature, some sustainability issues, such as health and gender, appear to be included across several chapters or provisions. For example, health-related provisions tend to appear in chapters or articles addressing SPS, TBT and IPR, following the provisions of the WTO Agreement on Trade-Related Aspect of Intellectual Property Rights (TRIPS). Overall, the scope, structure, coverage and enforceability of these commitments vary across agreements. This variation derives from the levels of development, and the current domestic legal and institutional frameworks, of the parties. Articles and chapters addressing the interaction of trade with environmental issues, and with labour rights, remain the most popular sustainability provisions in most of these agreements.

In terms of **geographic distribution**, out of all Commonwealth member countries, the UK signed the highest number of FTAs during the study period of 2010–2022, owing to the rolling over of existing FTAs post-Brexit. Among these, only three contain provisions addressing environmental and labour issues (Table 2.1). Additionally, only two include development co-operation chapters and only three address SME issues.

New Zealand, with fewer overall FTAs signed during the study period, has a higher percentage of FTAs that cover sustainability issues (60 per cent) among Commonwealth members. Two of New Zealand's FTAs cover environmental sustainability and labour rights, two address SME issues and two address development co-operation (see Table 2.1 and Annex 2.2). Overall, New Zealand's approach to sustainability in trade is collaborative, based on consultation and co-operation among parties. This is in contrast to the labour and environment chapters of the CPTPP, of which New Zealand is also a member, which provide stronger commitments and a sanctions-based enforcement mechanism (Velut et al., 2022). On the other hand, two out of Australia's three FTAs (including the CPTPP) include provisions on the environment and labour. Despite its active participation in the CPTPP, Australia has repeatedly opined that FTAs should not address these subjects.

Other developing Commonwealth member countries have comparatively fewer FTAs with TSD aspects incorporated. Botswana, Brunei Darussalam, Eswatini, Lesotho, Namibia and South Africa each have one FTA signed and entering into effect during the study period that addresses environmental and labour sustainability issues. Brunei Darussalam, as a signatory of the CPTPP, has also made commitments on SME issues and responsible business practices (Annex 2.2).

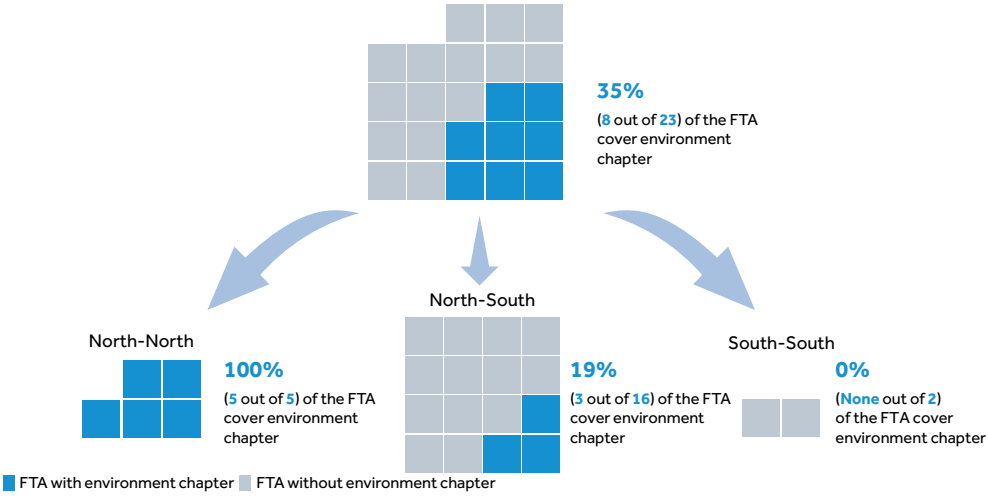
2 For a general approach to assess levels of commitment by each provision, please refer to the materials provided in UNESCAP (2021) (see Baker, 2021).

Table 2.1 TSD provisions in selected FTAs with at least one Commonwealth member, 2010–2022

Source: Authors using IEC Database on Trade Agreements based on DESTA.

In terms of **dimensions of sustainability** covered in these agreements, protection of the environment and natural resources, together with labour rights, remains the most popular element of addressing sustainability in FTAs (Figure 2.3). This comes in light of growing international concerns on climate change and the depletion of natural resources, and the resulting encouragement to shift to low-carbon intensive processes and renewable energy resources. It has been noted that trade can play a significant role in the protection of the environment through regulation, compliance

Figure 2.3 Environmental provisions in FTAs, 2010–2022



Note: FTAs include at least one Commonwealth country.
Source: Authors using IEC Database on Trade Agreements based on WTO and DESTA.

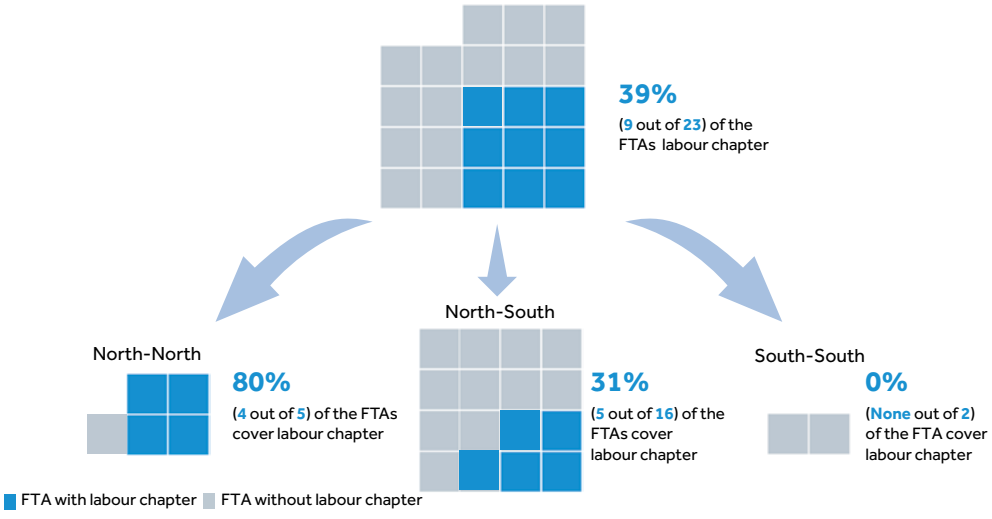
with international standards and conventions, and liberalising trade in environmental goods and services.

Analysis of the available data indicates that 35 per cent of the FTAs under review contain provisions or chapters addressing environmental issues in trade (see Figure 2.3). Among these, the majority are North-North agreements – that is, all parties are developed economies – and all five of these contain provisions on trade and environment. A total of 19 per cent of the 16 North-South agreements under review contain environmental provisions. Neither of the two South-South agreements under review contains any provisions on environmental issues in trade. A possible reason for the limited coverage of issues related to trade and environment in these FTAs could be that several developing countries, such as India, as well as developed countries, such as Australia, have often indicated that trade agreements are not the appropriate instrument to address these subjects.

Labour rights are the next most common sustainability dimension addressed, with 30 per cent of the FTAs under review providing for the protection of labour rights. Four out of five North-North agreements (80 per cent) contain provisions on labour rights; the figure for North-South FTAs is five out of 16 (31 per cent) (Figure 2.4). None of the two South-South FTAs under review contain provisions on labour rights. Post-Brexit, there has been a steep increase in FTAs by Commonwealth member countries addressing commitments to protecting the environment, and assurance of decent work conditions and labour rights (Figure 2.5).

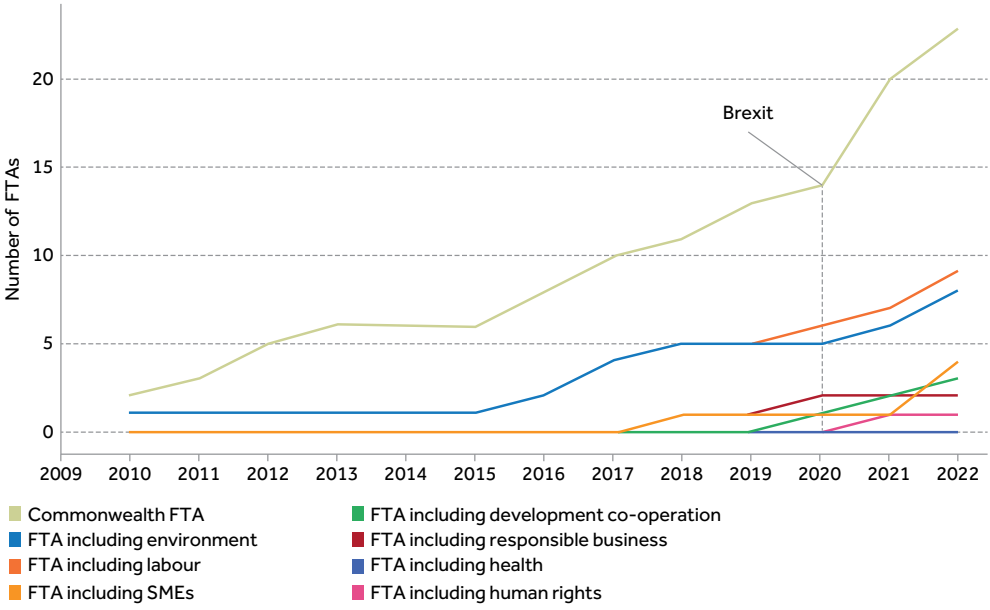
The CPTPP, in 2018, was the first FTA in which at least one Commonwealth member country included sustainability dimensions other than environment and labour. This

Figure 2.4 Labour provisions in FTAs, 2010–2022



Note: FTAs include at least one Commonwealth country.
Source: Authors using IEC Database on Trade Agreements based on WTO and DESTA.

Figure 2.5 FTAs with sustainability provisions, 2010–2022



Note: Cumulative graph. Only FTAs between Commonwealth countries that are enforced as from 2010 are considered.
Source: Authors using IEC Database on Trade Agreements based on DESTA.

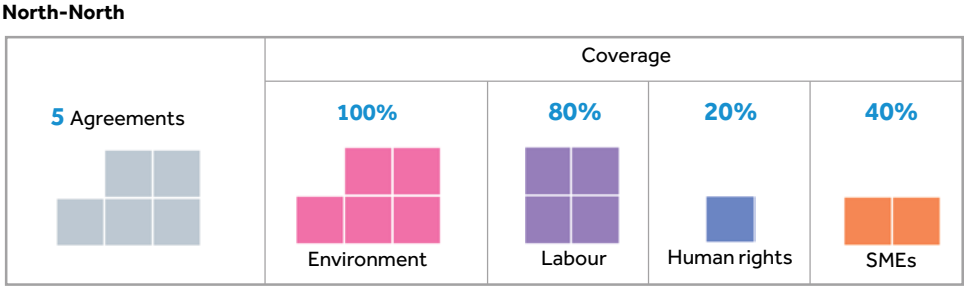
agreement also includes chapters on SMEs and responsible business practices. By 2022, four FTAs under review covered SMEs. The first FTA of those under review to cover human rights was the EU-UK Trade and Co-operation Agreement, signed in 2020.

North-North FTAs with at least one Commonwealth member country almost always include provisions on environment and labour rights. All five North-North agreements under review contain provisions on the environment, and four out of five address labour rights (Figure 2.6). Only 20 per cent of these agreements include provisions on protecting human rights, and 40 per cent address issues relevant to SMEs.

Since 2021, all agreements negotiated by the UK with other developed Commonwealth members, such as Australia and New Zealand, have contained separate chapters addressing at least one of the key sustainability issues of environment and labour rights. As a matter of fact, there has been a sharp increase in the inclusion of TSD provisions in North-North FTAs featuring Commonwealth member countries since 2020 (Figure 2.7). This can be explained by the rolling-over of EU trade agreements as well as the quick conclusion of new trade deals by the UK post-Brexit.

While environmental sustainability and protection of labour rights have been part of North-North FTAs with at least one Commonwealth member country, other

Figure 2.6 Coverage of sustainability provisions in North-North FTAs, 2010–2022



Note: FTAs include at least one Commonwealth country.
Source: Authors using IEC Database on Trade Agreements based on DESTA.

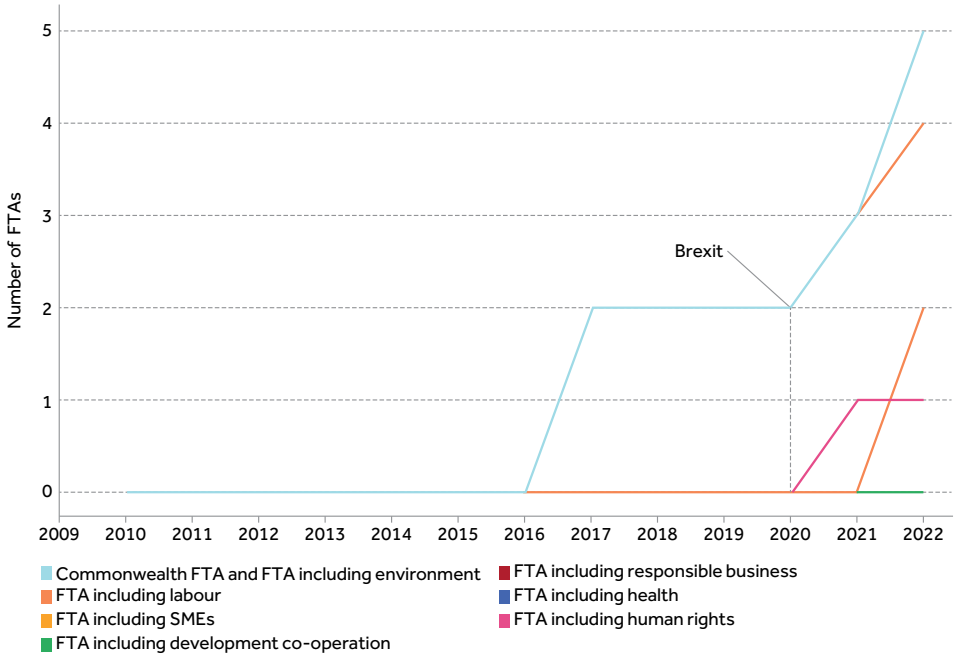
dimensions of sustainability, such as SMEs and human rights, for example, have been seen first in recently signed FTAs (Figure 2.7), and typically post-Brexit. Examples include the EU-UK Trade and Co-operation Agreement (signed in 2020), the Australia-UK FTA (signed in 2021) and the New Zealand-UK FTA (signed in 2022).

At the same time, the number of **North-South FTAs** with at least one Commonwealth member country with provisions on sustainable development co-operation has been on the rise since 2010, at a consistent rate of one FTA a year. However, none of these FTAs includes provisions on health and human rights (Figure 2.8).

Only 19 per cent of the North-South FTAs with at least one Commonwealth member country include provisions addressing environmental protection (Figure 2.9). A quarter of these agreements cover provisions on decent work and productive employment. As is expected of North-South agreements, some contain provisions on development co-operation, but these make up only about 19 per cent of the 16 North-South FTAs under review. Depending on the parties' objectives and negotiation process, the co-operation framework may be provided through various means. For example, the CPTPP specifies a wide range of possible co-operation activities, such as dialogues, workshops, seminars, conferences, collaborative programmes and projects; technical assistance to promote and facilitate co-operation and training; the sharing of best practices on policies and procedures; and the exchange of experts (see Article 20.12.5).

Thirteen per cent of the FTAs under review provide for the concerns of SMEs. Since SMEs are considered engines of growth, especially in developing economies, addressing issues of relevance to their effective participation in trade is essential. Additionally, 13 per cent FTAs discuss responsible business practices. With the launch of the WTO micro, small and medium enterprise (MSME) package of recommendations and declarations, and increasing awareness of environmental, social and governance issues, these two areas can be expected to receive further consideration within FTAs and other partnership frameworks.

Figure 2.7 FTAs with sustainability provisions, North-North agreements, 2010–2022



Note: Both Commonwealth FTAs and FTAs including environment have the same trend and overlap. They are represented by only one line in this graph. Cumulative graph. Only FTAs between Commonwealth countries that are enforced as from 2010 are considered.
Source: Authors using IEC Database on Trade Agreements based on DESTA.

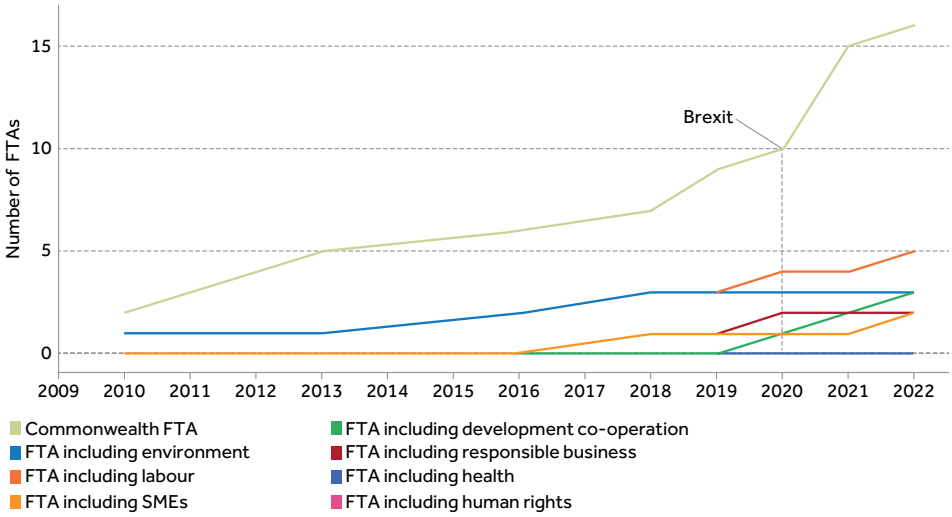
South-South FTAs featuring Commonwealth member countries have been negotiated less frequently, with the last such FTA (of those under review) signed in 2016 (i.e., the Mercosur-Southern African Customs Union (SACU) FTA), bringing the total number of this category of FTA to only two during the 2010–2022 period. No South-South trade agreements with Commonwealth member countries as parties contain any provisions on sustainability issues, such as labour rights, environment, SMEs, health, responsible business practices, etc. (Figure 2.10).

Overall, sustainability dimensions other than environment and labour rights, such as SMEs, health, development co-operation, responsible business practices, etc., are less common in the FTAs under review (Figure 2.11). Lack of an international framework, along with complexity in arriving at an agreement on binding commitments in each of these areas, means these issues are likely to continue to remain largely the subject of domestic policy and reform.

2.4 Sustainability in trade: existing coverage and best practices

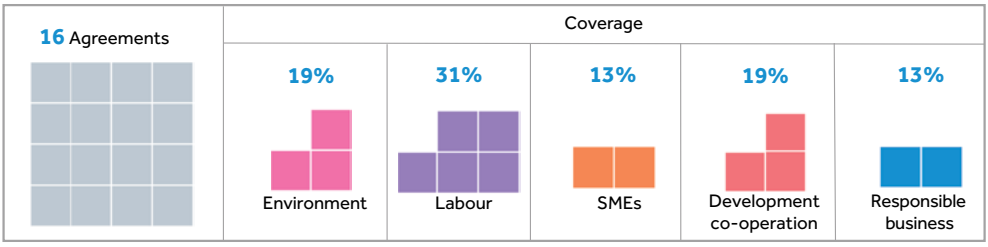
Over the past decade, an increasing number of FTAs across the world have addressed the link between trade and sustainable development. Most often, they

Figure 2.8 FTAs with sustainability provisions, North–South agreements, 2010–2022



Note: From 2010 until 2019, the pattern of FTAs with environment and labour chapters are identical and only one of the two lines is seen. Cumulative graph. Only FTAs between Commonwealth countries that are enforced as from 2010 are considered.
Source: Authors using IEC Database on Trade Agreements based on DESTA.

Figure 2.9 Coverage of sustainability provisions in North-South FTAs, 2010–2022

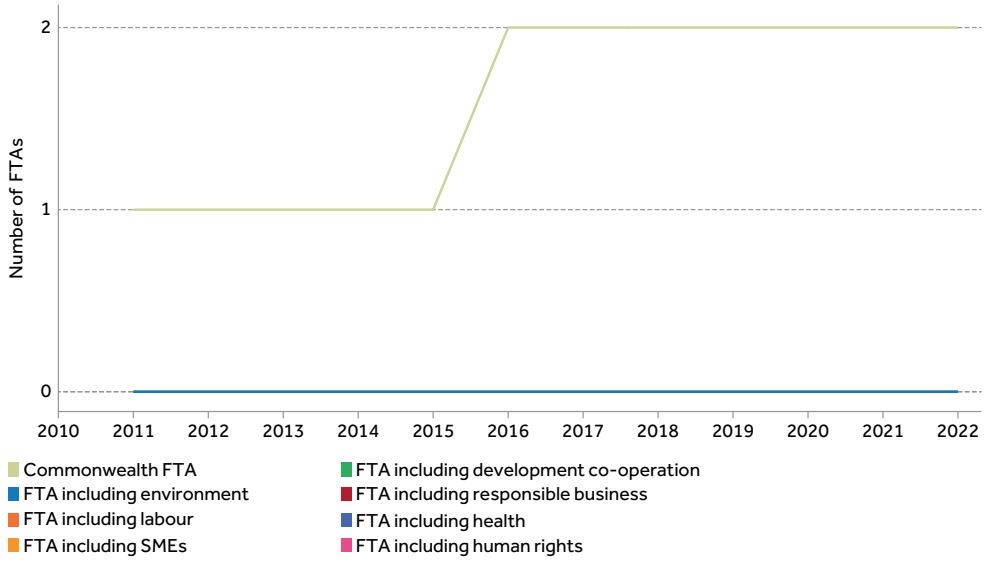


Note: FTAs include at least one Commonwealth country.
Source: Authors using IEC Database on Trade Agreements based on DESTA.

have included provisions or entire chapters addressing issues related to protection of the environment and labour rights. These provisions and chapters differ in scope and binding value, with varied approaches adopted in line with the preferences of the members or parties to the specific FTA. In recent years, TSD provisions have extended their coverage to include gender, health, capacity-building and provisions pertaining to issues of relevance to SMEs, although these remain less frequent, and often consultative in nature.

This section reviews the scope, coverage and binding nature of TSD provisions and chapters contained in three select FTAs involving Commonwealth member countries:

Figure 2.10 FTAs with sustainability provisions, South–South agreements, 2010–2022



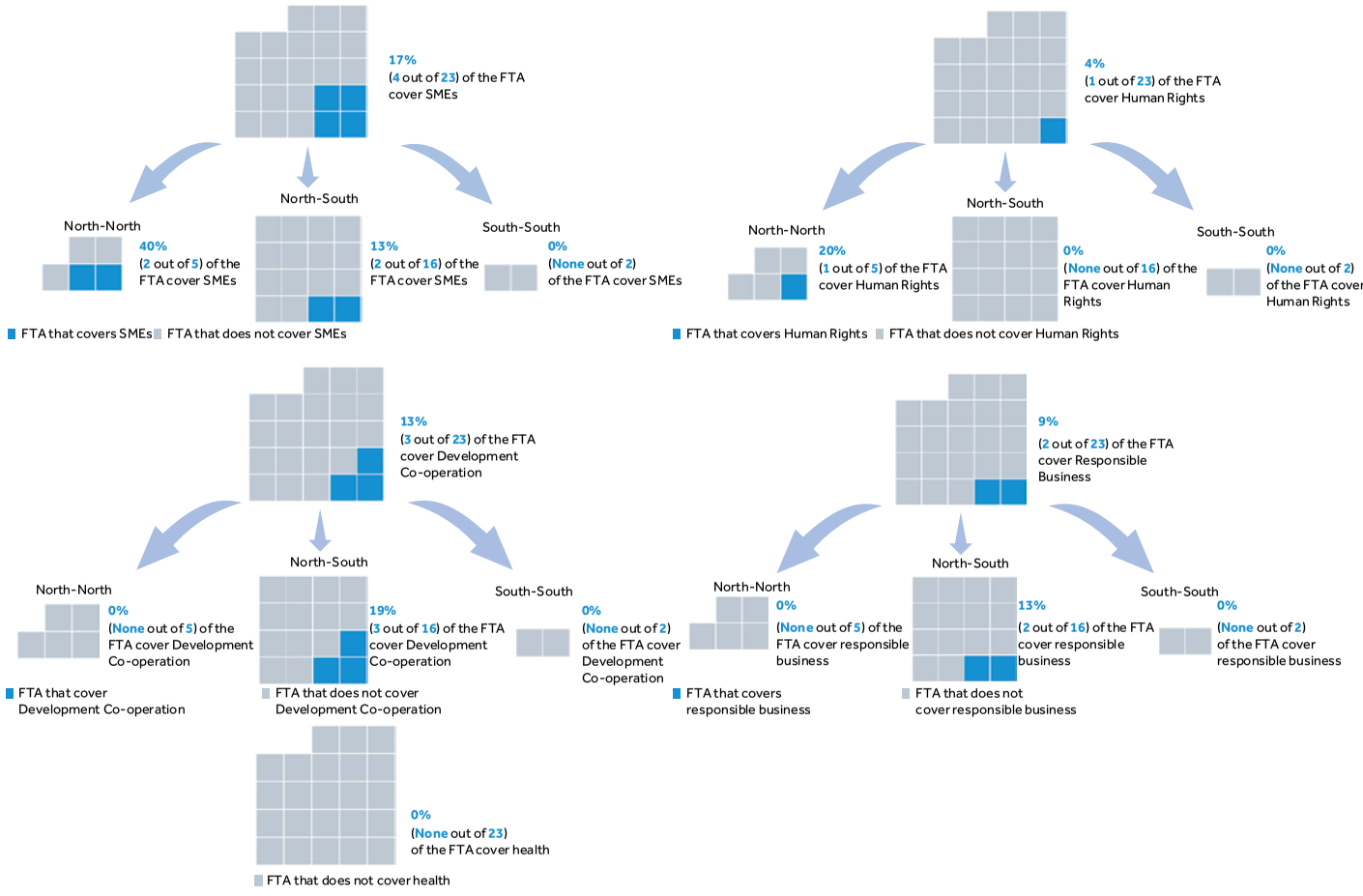
Note: All the lines on the zero line overlap each other and only one colour line is seen. Cumulative graph. Only FTAs between Commonwealth countries that are enforced as from 2010 are considered.
Source: Authors using IEC Database on Trade Agreements based on DESTA.

the CPTPP, PACER Plus and the Canada–EU CETA. It also identifies elements of these agreements that can serve as models or best practices for a wider audience of Commonwealth member countries in their attempts to include substantive TSD provisions in their FTAs.

The Canada-EU CETA, PACER Plus and the CPTPP are some of the most recent FTAs among a diverse Commonwealth member base, and therefore show the different existing approaches to addressing issues of sustainability within FTAs. These provisions are driven by the composition of members in the FTAs. Meanwhile, the presence of some common developed country members between agreements adds layers of similarity in the scope, coverage and binding nature of these provisions.

Broadly, it appears that commitments addressing the link between sustainable development and trade remain restricted mainly to labour rights and environmental issues: less attention has been paid to other issues, such as gender, health, anti-corruption and SME affairs. Where such provisions exist, these are not legally binding and the commitments are restricted to intent and best endeavour. Even with provisions on labour and environment, with more substantive commitments, and in some cases recourse to dispute settlement and encouragement of the use of sanctions and remedies, there is recognition of the sovereign right to policy space of member countries. This is often indicated through a more consultative dispute resolution process, and the restriction of commitments to an institutional mechanism for the implementation of members' obligations.

Figure 2.11 Other sustainability provisions in FTAs, 2010–2022



Note: FTAs include at least one Commonwealth country.
Source: Authors using IEC Database on Trade Agreements based on DESTA.

Box 2.2 Approaches to promote sustainable development through trade

The first substantive commitments linking environmental goals with trade were in NAFTA (1994), which, while recognising the sovereign right of parties to regulate such matters, also contained binding commitments on enforcement and the provision of remedies. However, different countries have different approaches to tackling TSD in trade arrangements.

The EU, for example, links sustainable development to its GSP, in particular with reference to respect for international conventions on labour rights and environment, granting additional preferential treatment for partners that abide by specific international standards. To date, only the EU's GSP+ has attached any gender-related conditionality to benefiting from unilateral trade preferences (IEC, 2022). This works through an approach of positive discrimination – the linking of preferences to compliance with certain standards and norms ensuring sustainability of trade.

The actual impacts of such schemes, however, are mixed. For example, one of the major benefits the EU GSPs confer is their significant impact in terms of increasing developing countries' exports to the EU market. However, this incentive to increase exports may lead beneficiaries to bypass sustainable development objectives. The textiles and garments sector, which constituted close to half of the EU's total imports under the GSP in 2016 (EC, 2018), has largely been linked to low-paying jobs, poor working conditions and limited job security. From a gender perspective, while such exports generate employment, especially for women, as evidenced in countries such as Bangladesh and Cambodia, they also restrict women to low-skill sectors with little to no upward mobility (Baker and Quiles, 2019). On the other end, with proper monitoring, the GSPs will contribute greatly to improved governance in the beneficiary countries across all committed areas – human rights, labour rights, environment and good governance (EC, nd). One of the key recent achievements that have been noted under the EU's GSP+ frameworks involves the actions undertaken by the Sri Lankan government to assert the independence of certain key institutions such as its National Human Rights Council (EC, 2018).

Under FTA frameworks, countries like Canada prefer a more binding approach to commitments on labour and environment, often including sanctions for the violation of laws pertaining to these issues. Others, like Australia, Chile and New Zealand, have a more consultative approach, with no recourse to dispute settlement. Chile tends to afford more weight to labour rights relative to environmental protection, and Australia and New Zealand have only recently institutionalised separate TSD provisions in their agreements. Several of these FTAs also extend the scope of labour rights provisions to include 'occupational safety and health, right to strike, wages, labour inspections, the protection

of migrant workers, and/or access to justice, remedies and social guarantees' (Velut et al., 2022). The majority of these FTAs recognise and allude to multilateral agreements and international declarations, such as the ILO Declaration on Fundamental Principles and Rights at Work (1998), in affirming their commitments.

On the one hand, this situation is proof of the early stages of linking trade to sustainability issues. On the other hand, the lack of binding commitment across the board provides a middle ground for negotiating parties to incorporate elements of their own approach to dealing with sustainability issues and finding a policy balance. The increased use of capacity-building provisions and development assistance, such as in PACER Plus, is encouraging for developing country member countries, and can provide a strong reference for their future FTA negotiations.

2.4.1 Comprehensive and Progressive Agreement for Trans-Pacific Partnership

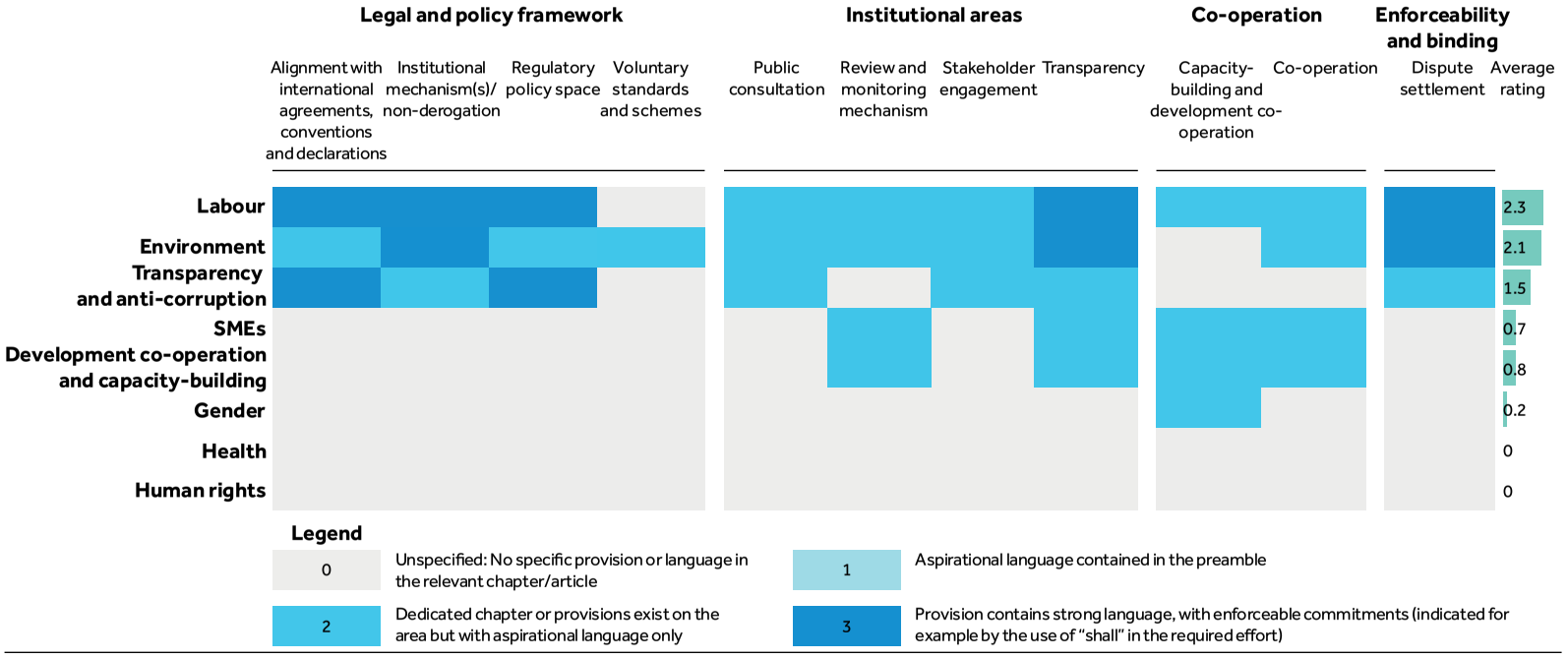
The CPTPP[3] contains specific chapters wherein participating member countries commit to addressing trade-related issues of labour, environment, MSMEs, co-operation and capacity-building, regulatory coherence, and transparency and anti-corruption, all related to ensuring sustainable trade and development. It also contains references to health (in the chapter addressing intellectual property) and gender (Article 23.4 Women and Economic Growth, Chapter 23) (Table 2.2).

Specifically, the CPTPP's **Chapter 20 (Environment)** provides for participating contracting states to 'promote mutually supportive trade and environmental policies; promote high levels of environmental protection and effective enforcement of environmental laws; and enhance the capacities of the Parties to address trade-related environmental issues, including through co-operation' (CPTPP, 2018) through measures to ensure the provision of adequate levels of environmental protection in their legal and policy framework, including reaffirming their commitments in multilateral environmental agreements. It also requires member countries to pursue continued improvement of environmental protection. The chapter makes specific reference to protection of the ozone layer (Article 20.5) and protecting the marine environment from ship pollution (Article 20.6), biodiversity (20.13), invasive alien species (20.14), low emissions (20.15) and marine captures (20.16). Article 20.18 covers addressing barriers to trade in environmental goods and services, including NTMs.

Specifically, Article 20.7.5 of the CPTPP requires member countries to provide appropriate sanctions or remedies to address violations of such environmental laws and non-compliance with their enforcement. The presence in the CPTPP of sanctions

3 Members: Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam. The UK joined the CPTPP on 31 March 2023 and so is not covered in the analysis.

Table 2.2 Sustainable development areas – CPTPP



Source: Authors using agreement texts.

and remedies in this area is not common among FTAs with similar chapters. This is, however, in line with Canada's approach to the enforcement of labour and environment-related provisions in its FTAs. It diverges, however, however, to the usual Australian or Chilean approach to TSD issues in FTAs (Velut et al., 2022).

The chapter at hand also encourages participants, through its Article 20.11, to foster a general environment of good business practices in favour of environmental protection, including encouraging corporate social responsibility, as well as the use of 'flexible, voluntary mechanisms' towards this end, in addition to the policies under the domestic legal framework.

The chapter is subject to the CPTPP's dispute settlement mechanism, following the exhaustion of the multiple consultative layers. Once again, this is different from the standard 'consultative' Australian and Chilean approaches on the subject, wherein, normally, there is no recourse to dispute settlement under TSD provisions (Velut et al., 2022). The chapter, while providing members the necessary policy space to regulate such issues, contains strong language requiring members to ensure effective enforcement mechanisms for their legal framework pertaining to protection of the environment, marine life and biodiversity. The chapter also places significant emphasis on transparency, and publication of laws and regulations, as well as the co-operative framework, including technical assistance and training, to further support the effective implementation of the obligations under this chapter.

Chapter 19 of the CPTPP addresses **labour issues**. The chapter recognises that 'it is inappropriate to encourage trade or investment by weakening or reducing the protections afforded in each Party's labour laws' and requires member countries to maintain and implement legal and regulatory frameworks for the protection of specific labour rights as provided for under the ILO Declaration on Fundamental Principles and Rights at Work (1998). Additionally, Article 19.6 makes special reference to the need to eliminate all forms of 'forced or compulsory labour'. Similar to the Environment Chapter, the Labour Chapter is subject to the dispute settlement mechanism (Chapter 28) of the CPTPP. Before having recourse to the dispute settlement mechanism, member countries must exhaust all consultative remedies provided for by Chapter 19. Finally, and as seems to be standard in Canada's approach to sustainability provisions in its FTAs, Chapter 19 also requires the institution of a public submission process for non-compliance with commitments under these chapters (Velut et al., 2022).

Chapter 24 on SMEs does not enact any strong and substantive commitment, simply providing a framework for the availability of information for SMEs, and the establishment of a committee for the exchange of information and experiences as well as the identification of SME issues. Member countries do not have recourse to dispute settlement under Chapter 28 of the CPTPP for matters pertaining to Chapter 24.

The provisions in **Chapter 26 on Transparency and Anticorruption**, while only best endeavour on transparency, include a comprehensive framework affirming the commitment of members to the elimination of corruption, in line with the framework

provided by the Asia-Pacific Economic Co-operation (APEC) Conduct Principles for Public Officials 2007, and encourage observance of the APEC Code of Conduct for Business: Business Integrity and Transparency Principles for the Private Sector 2007.[4] It requires members to commit to the UN Convention against Corruption 2003, and to maintain, as necessary, legal frameworks to combat corrupt practices. Provisions for ensuring integrity of public officials and for active engagement with the private sector, however, remain best endeavour. While the chapter has recourse to the dispute settlement mechanism of the CPTPP with regard to actions that affect trade and investment between parties, this does not extend to the provisions on application and enforcement of anti-corruption laws.

Public health-related issues are addressed under **Chapter 11** (Intellectual Property) and Annex 26A (Procedural Fairness), which acknowledge the rights of members to provide public health facilities to their citizens, with regard to their obligations for the protection of intellectual property under Chapter 11. Annex 26A provides guidelines for transparency in matters of public health-related laws and regulations, and encourages members to seek views from the public in this regard. The provisions are, however, at best indicative.

A similar level of commitment is found with regard to **gender-related matters**. Article 23.4 of **Chapter 23**, on Development, acknowledges the role of inclusion of women in economic growth and encourages members to co-operate on capacity-building for women in trade in the areas of skills development; access to markets, technology and financing; leadership networks; and flexibilities in the workplace for women. The provision remains a best endeavour clause, with no enforcement mechanism, or guidance on implementation, review and monitoring.

In effect, the CPTPP provides a notably comprehensive framework for environment and labour protection, including public participation procedures that aim both to allow access to relevant information and to seek views and inputs of subject matter experts and persons with interest in the subject. Such consultative processes can help strengthen the effective implementation of the provisions of the chapter, and allow for improvements in the scope and coverage of the provisions over time.

2.4.2 Pacific Agreement on Closer Economic Relations Plus

PACER Plus,[5] which entered into force in December 2020, has been envisioned as a development-centric agreement, designed to increase and facilitate the participation of Pacific Island countries in trade, while also providing benefits to businesses in Australia and New Zealand (DFAT, nd). It does not have provisions or chapters discussing labour or environment provisions, in line with the Australian approach, which is not in favour of covering labour and environment issues in FTAs.

4 However, the chapter limits its scope to subjects concerning those covered by the CPTPP.

5 Members: Australia, Cook Islands, Kiribati, New Zealand, Niue, Samoa, Solomon Islands, Tonga and Tuvalu.

While the agreement makes no direct reference to any individual element of sustainable development through trade, such as labour, environment, SMEs or gender dimensions of trade (Table 2.3), it does discuss the intent to ensure sustainable development, and a framework for the provision of trade and investment-related assistance by Australia and New Zealand to Pacific Island countries (DFAT, nda).

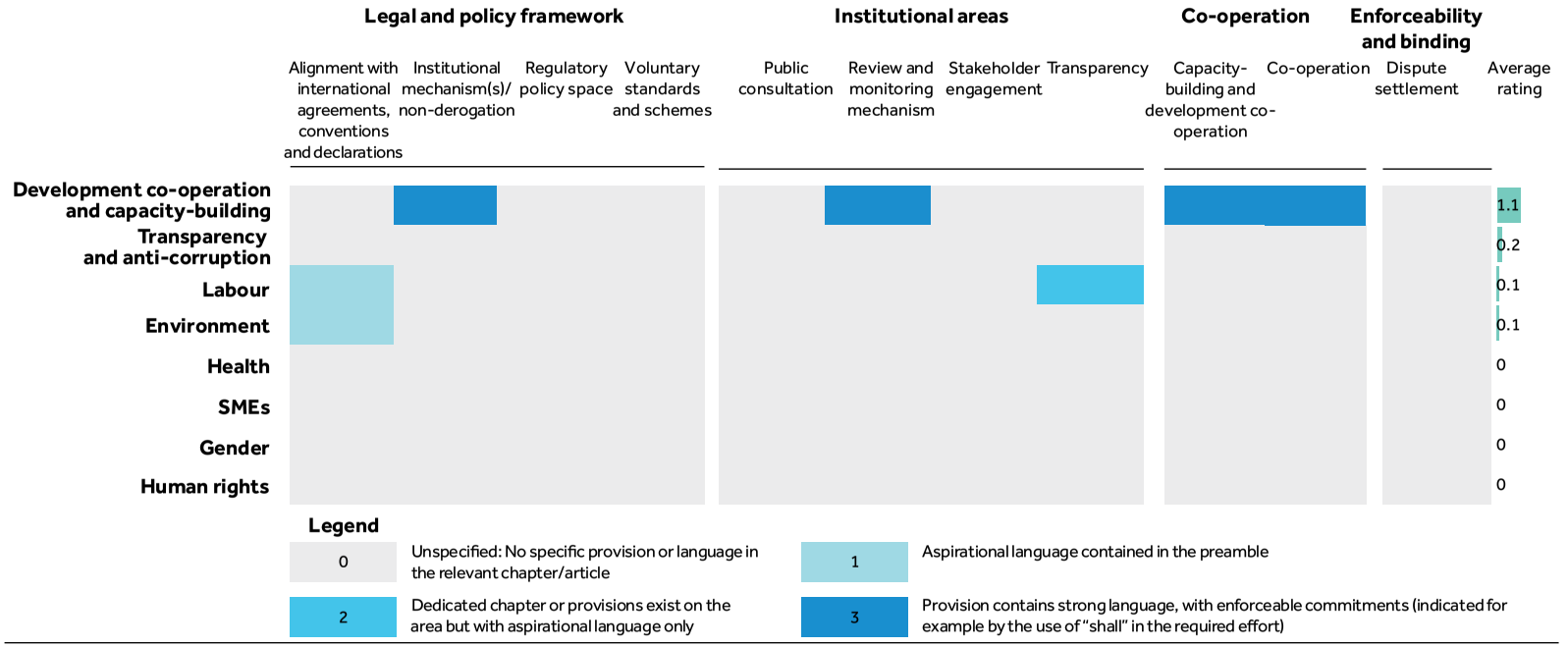
Similarly, a non-binding **Labour Mobility Arrangement**, separate from PACER Plus, supplements the chapter on movement of natural persons in PACER Plus and aims to promote labour mobility among members (DFAT, ndb). On the basis of this arrangement, developed members such as Australia and New Zealand have launched several programmes for capacity-building and enhancing labour mobility for workers from Pacific Island countries. For example, the Labour Mobility Assistance Programme and Pastoral Care Programme of Australia aim to develop strategies in Pacific Island countries from which workers are seeking to migrate to Australia. Specifically, these programmes are working to enhance the quality and supply of workers through capacity-building efforts (ibid.).

The omission of dedicated chapters on other dimensions of sustainability in trade, such as SMEs and gender, is notable, as PACER Plus was expected to have a significant impact on these specific issues for the member countries, in light of the contribution of SMEs, as well as sectors such as agriculture, tourism, fisheries and services, to these economies (UNCTAD, 2019). At the same time, several capacity-building programmes for gender inclusiveness and sustainability through development co-operation have emerged as a prominent result of the agreement.

True to the vision of PACER Plus on increasing the participation of Pacific Island countries in trade, **Chapter 10** of the agreement addresses **Development and Economic Co-operation**, built on the Australian and New Zealand aid programmes that support more inclusive participation of Forum Island Countries in trade. Through the provisions of the chapter, the parties agree to improve and complement existing economic co-operation and work towards targeted capacity-building programmes. The details of the Work Programme and the financial contributions expected of the parties are outlined in the Implementing Arrangement for Development and Economic Co-operation under the Pacific Agreement on Closer Economic Relations Plus (PACER Plus, nd). This document is also the only place in the agreement with a reference to the participation of women in trade.

Chapter 21 of the agreement discusses **Co-operation and Capacity-Building**, another notable and standard feature in FTAs involving Australia and New Zealand. The scope of capacity-building co-operation covers a broad range of measures to help implement the provisions of PACER Plus – namely, to enhance the ability of parties to benefit from the economic opportunities created by the agreement; to promote and facilitate trade between the parties in, among others, the agriculture, industry and services sectors; and to promote education, culture, gender equality and disaster risk management. The chapter remains restricted to a best endeavour, however.

Table 2.3 Sustainable development areas – PACER Plus



Source: Authors using agreement texts.

In terms of institutional arrangements, there is also a provision for a joint committee to facilitate the implementation of this chapter. The role of this is restricted to the exchange of information, discussions on future co-operation, review of implementation and co-ordination among parties. As with most FTAs, however, parties do not have recourse to a dispute settlement mechanism under Chapter 28 on subjects pertaining to the provisions of this chapter. Instead, the Implementing Arrangement for Development and Economic Co-operation under the Pacific Agreement on Closer Economic Relations Plus provides that any disagreements on the interpretations under the chapter be resolved by discussion among parties.

2.4.3 The Canada–EU Comprehensive Economic and Trade Agreement

The Canada–EU CETA,[6] which came into force (provisionally) in 2017, brings together the ideologies of the EU and Canada on TSD provisions. The agreement contains separate chapters on environment, labour and TSD (Table 2.4).

Chapter 22 of the CETA on **Trade and Sustainable Development** makes early reference to a number of international conventions and declarations, including:

- Rio Declaration on Environment and Development of 1992;
- Agenda 21 on Environment and Development of 1992;
- Johannesburg Declaration on Sustainable Development of 2002;
- Plan of Implementation of the World Summit on Sustainable Development of 2002;
- Ministerial Declaration of the United Nations Economic and Social Council on creating an environment at the national and international levels conducive to generating full and productive employment and decent work for all, and its impact on sustainable development of 2006; and
- ILO Declaration on Social Justice for a Fair Globalisation of 2008.

While the language of Chapter 22 remains restricted to intent and best effort, it reinforces the commitments of the parties under the specific chapters on labour rights and environment. It also encourages parties to 'promote the full use' of available instruments such as stakeholder engagement and impact assessment, in addition to promoting greater public consultation and participation (including the establishment of a formal civil society forum). Individual third parties are assigned responsibility to 'review, monitor and assess the impact of the implementation' of the agreement. It also provides for the establishment of a joint committee of high-level representatives but the role of this remains limited to discussion and promotion of transparency.

6 Members: Canada and the EU.

Chapter 22 also alludes to the use of voluntary schemes and standards,[7] as well as voluntary best practices for corporate social responsibility, as indicated by the OECD Guidelines for Multinational Enterprises. Of the three FTAs under review for best practices, only the CETA makes reference to voluntary standards and schemes. Section 2.5 of this report provides a more detailed discussion on this important private governance area of trade.

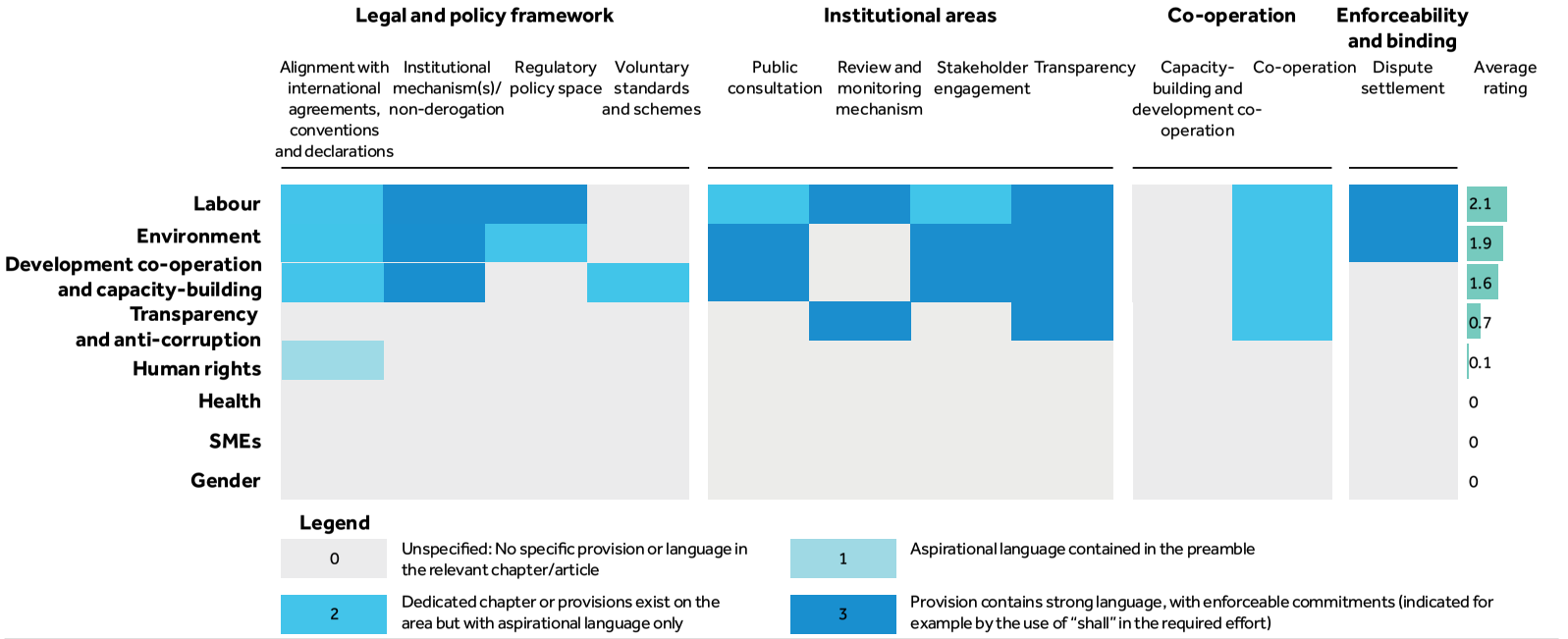
The CETA addresses labour rights and environmental issues in specific chapters. **Chapter 23** addresses the relationship between **Trade and Labour**, recognising the contribution of international trade to providing productive employment and decent work. The chapter provides parties with the right to regulate within their own policy space on the subject, without specifying the nature and extent of the legal frameworks, asking only that laws in member countries' territories seek to promote and provide a high level of protection for labour rights. Article 23.5, however, requires more substantive commitments, obliging members to provide a framework to ensure access to the judicial system for the protection of labour rights, and provisions for a system of labour rights inspections. It also requires members to provide defendants with the right and opportunity to defend themselves. The chapter also encourages transparency and co-operation but restricts obligations to a best endeavour. While Chapter 23 provides for both the consultation and the establishment of a panel of experts for dispute resolution, the outcome is not binding on parties, and parties are encouraged to arrive at a mutually discussed solution.

Similarly, **Chapter 24 (Trade and Environment)**, while reaffirming the parties' various commitments under multilateral environmental agreements, also recognises the right of parties to regulatory space on these issues. The chapter requires parties to maintain the necessary legal and policy framework to ensure environmental sustainability of and through trade practices. Article 24.5 of the chapter provides for substantive commitments by members to ensure the non-derogation of environmental laws in order to encourage trade, investment or economic activity. Article 24.6 stipulates that members must ensure the necessary procedure for competent law enforcement on the subject, as well as an adequate opportunity for defence.

Article 24.9 encourages the reduction of barriers, including non-tariff barriers, to trade in environmental goods and services. However, it remains a best-effort provision. Dispute settlement under this chapter is also similar to in Chapter 23, with recourse only to consultation, and the establishment of a panel of experts. There is no recourse to any other form of dispute settlement.

7 VSS are 'standards specifying requirements that producers, traders, manufacturers, retailers or service providers may be asked to meet, relating to a wide range of sustainability metrics, including respect for basic human rights, worker health and safety, the environmental impacts of production, community relations, land use planning and others' (United Nations Forum on Sustainability Standards, 2020, in UNCTAD, 2021).

Table 2.4 Sustainable development areas – Canada-EU CETA



Source: Authors using agreement texts.

2.5 Voluntary sustainability standards

An important link between trade and sustainable development has been achieved through the increasing use of voluntary sustainability standards (VSS) applied by the private sector. Voluntary standards and schemes – which include private standards, certification and labelling – have been identified as an 'important transnational governance instrument' to create a link between trade and sustainable development, by making value chains more sustainable, especially from the point of view of developing countries (UNCTAD, 2021).

It is necessary to address these voluntary standards from a sustainable development perspective in FTAs to account for their multifaceted impact on trade. On the one hand, they can enhance trade via a reduction of transaction costs and information asymmetries. On the other hand, they can be *de facto* trade barriers, by acting as *de facto* mandatory standards in individual markets, thereby impeding market access, especially for small businesses from developing economies (UNCTAD, 2021). An agreed-upon framework on the effective use of voluntary standards in the least trade-restrictive manner is needed, to address legitimate sustainability concerns in FTAs. Yet the inclusion of such a framework is still not common practice in FTAs.

This section provides an overview of the extent to which different Commonwealth countries have adopted VSS, benchmarking this against the global average. The adoption of VSS can have significant implications, as these can showcase the employment of sustainable production practices in countries in terms of the different dimensions addressed in the relevant FTA chapter. The data used in this section come from the International Trade Centre's (ITC's) Standards Map, an in-depth database covering over 300 VSS established from 1851 to 2020, applicable to several sectors, including agriculture, textiles and garments, consumer products, forestry, mining and services (ITC, nd). This section focuses on three sectors: agriculture, forestry and livestock; manufacturing; and services. Annex 2.3 presents the methodology.

2.5.1 Agriculture, fisheries and livestock

In the agriculture, fisheries and livestock sector, all the Commonwealth developed countries have adopted standards whereby sustainability scores for environmental and human and labour rights are above the rest of the world's average. The UK has the highest scores in both areas (83), followed by India, Canada and Australia. India together with other South countries, such as South Africa, Kenya, Uganda and Malaysia, have scores above 70.

The SIDS Commonwealth member countries are the weakest performers, having the lowest scores. In Africa, Lesotho and Botswana in Southern Africa and The Gambia and Sierra Leone in West Africa have lower sustainable scores than the world's average.

Figure 2.12 Environment score for agriculture, fisheries and livestock

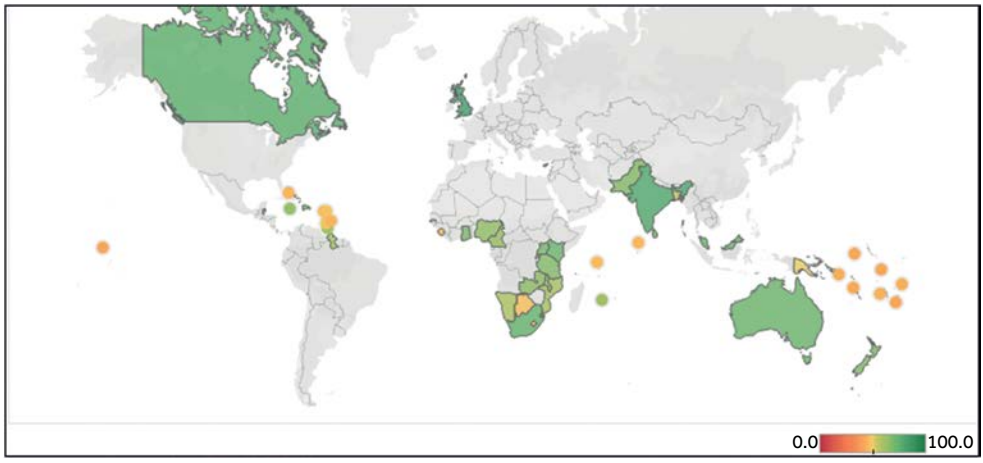
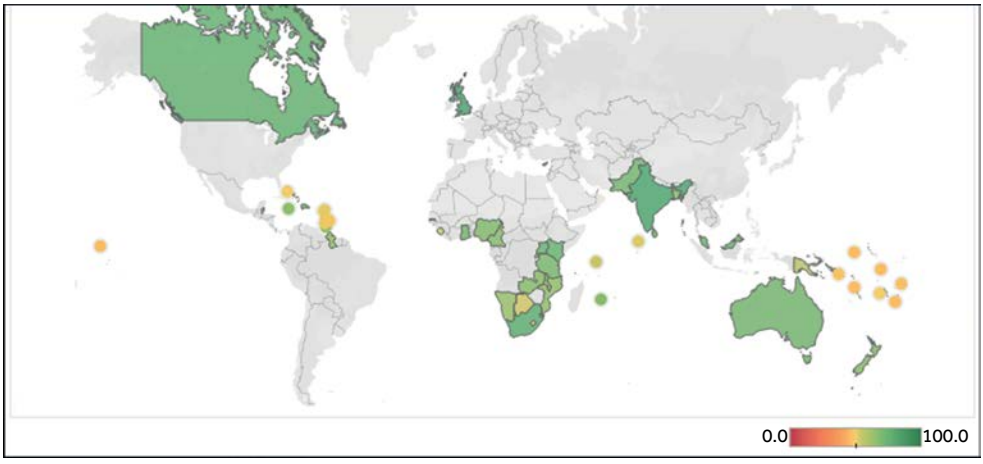


Figure 2.13 Human rights and labour scores for agriculture, fisheries and livestock



Note: Scores closer to 0 – presented by a reddish or orange colour on the map – indicate that the country adheres to fewer sustainable standards compared with the world average; a yellow colour indicates the world average level; and a green colour indicates that the country is adopting more sustainable standards than the world average.

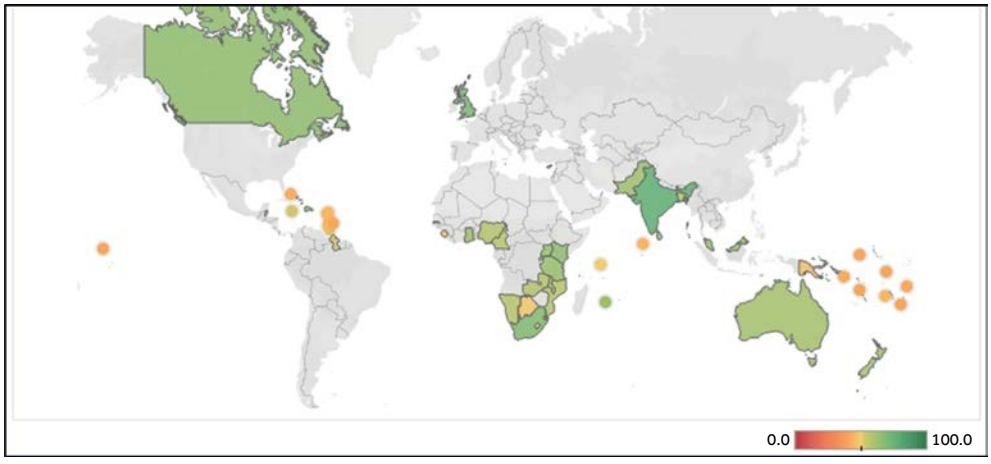
2.5.2 Manufacturing

In the manufacturing sector, India is the Commonwealth country with the highest scores in terms of matching sustainability criteria, ahead of North countries such as the UK, Canada, Australia, Malta, Cyprus and New Zealand. Other developing countries, such as Malaysia, Singapore, South Africa and Kenya, have higher scores than Malta and Cyprus, which are part of the EU.

Like in the agriculture, fisheries and livestock sector, most SIDS and some African countries, including Lesotho, Botswana, The Gambia and Sierra Leone, are weaker performers, meeting fewer than the world average on sustainable criteria in the standards.

Figure 2.14 Environment score for manufacturing

Figure 2.15 Human rights and labour scores for manufacturing



Note: Scores closer to 0 – presented by a reddish or orange colour on the map – indicate that the country adheres to fewer sustainable standards compared with the world average; a yellow colour indicates the world average level; and a green colour indicates that the country is adopting more sustainable standards than the world average.
Source: Authors using IEC calculations based on ITC (nd).

2.5.3 Services

In the services sector, the developed countries of the Commonwealth have very high scores when it comes to environmental standards, as do some developing countries,

such as India, South Africa, Kenya, Malaysia and Sri Lanka (which all score above 80). This contrasts with the very low scores for Caribbean countries and other SIDS, such as Fiji and Kiribati. In Africa, except for Lesotho and Sierra Leone all countries have above average scores.

The scores for all other Commonwealth countries in the area of human and labour rights are above average. Unlike the case for environment scores, the Caribbean countries and other SIDS members perform well on human and labour rights. The UK has the highest score, followed by Kenya, Sri Lanka, South Africa and India.

Figure 2.16 Environment score for services

Figure 2.17 Human rights and labour scores for services

Note: Scores closer to 0 – presented by a reddish or orange colour on the map – indicate that the country adheres to fewer sustainable standards compared with the world average; a yellow colour indicates the world average level; and a green colour indicates that the country is adopting more sustainable standards than the world average.
Source: Authors using IEC calculations based on ITC (nd).

2.6 Conclusion and policy recommendations

Trade, through specialisation and a more efficient utilisation of resources and the factors of production, can improve productivity and create more labour- and environment-friendly frameworks of production (Kuhlmann et al., 2020). For this to happen, it is critical for trade to account for social, economic and environmental factors, in the creation and distribution of benefits (Perkins, 1999). Therefore, it is in the interest of trading economies to ensure more inclusive, stable and predictable networks, with more diversified trade (IISD, 2021). More recently, COVID-19 has also brought greater attention to the role of international trade in promoting and furthering sustainable development, in line with the SDGs.

While countries attempt to find a balance between trade and sustainable development goals at the multilateral level, several economies have started to look for a mutually acceptable approach in bilateral or regional FTAs. The most common challenges addressed in the provisions of these FTAs are protection of the environment, labour rights, conditions of employment and decent work, through trade and trade-related practices. Some agreements mention trade-related issues of development co-operation, SMEs and gender, as well as anti-corruption frameworks.

However, accurately and productively mapping the interlinkages between trade policy and sustainable development aims continues to be a challenge for policy-makers. Therefore, this requires 'policy coherence at all levels' (UNCTAD, 2015).

Economic analysis suggests that trade policy is the second-best instrument for achieving sustainable development and enhancing welfare. This can be achieved by linking social and environmental conditionality with market access (Cuyvers, 2013). An increasing number of FTAs now include such provisions or even dedicated chapters in order to address these issues in trade policy. The scope, coverage, depth and enforceability of these provisions vary but the intent remains to use trade policy as a tool to promote sustainable development. The WTO also provides a robust framework to account for these issues in trade policy. However, the conflict between the protection of legitimate interests and the creation of trade-restrictive or discriminatory policies has prevented this framework from achieving its intended objective.

The choice of sustainability provisions will be a formula to balance a country's and its negotiating partners' policy objectives. As a distinctive trend in enforcing the sustainability aspects of trade, an increasing number of trade agreements provide for the use of sanctions and recourse to dispute settlement. Agreements such as the CPTPP and the Canada-EU CETA also have detailed chapters addressing different sustainability aspects, with recourse to dispute settlement and, in the case of the CPTPP, sanctions for non-compliance with laws. This has added a layer of binding commitments to the discussion. On the other end of the spectrum, several agreements have statements of intent on development co-operation and capacity-building, as needed for compliance with the agreement. PACER Plus also provides a comprehensive plan and framework for the implementation of such development co-operation.

There is an opportunity to harness this link, and create greener supply chains, reduce the carbon footprint of transactions and access new business opportunities from environmental goods and services, while still ensuring the 'robustness and resilience of supply chains' (Lim, 2020; Jones et al., 2021). Mainstreaming various aspects of sustainability into trade policy to align trade policy with the SDGs can help create a model for more inclusive, equitable growth (Kuhlmann et al., 2020).

The Johannesburg Plan of Implementation indicates that it is necessary to ensure that the multilateral trading system promotes sustainable development by means of trade liberalisation; makes environment and trade mutually supportive; provides developing countries financial assistance towards environment and development goals; and encourages macro-economic policies to work towards these goals (UN, nd).

As analysis of FTAs signed over the past decade shows, several of these objectives listed in the Johannesburg Plan of Implementation are now being addressed through various measures and with varied scope, coverage and enforceability in Commonwealth member countries' FTAs, including North-North FTAs and North-South FTAs. South-South FTAs signed by Commonwealth developing country members, however, have not included provisions on sustainable development.

The concerns holding back several developing country members from including TSD provisions in FTAs are rooted in the idea that there is a trade-off between economic growth and sustainability commitments. However, several studies have provided evidence that disproves this perception, and confirmed that green, sustainable development can be achieved in parallel with economic growth. In addition, and beyond deficiencies of infrastructure, developing country members are also concerned about their own capacity to implement some of these provisions. Such countries will need support, in particular financial support, to be able to assuage this fear. It is estimated that developing countries will need nearly 70 per cent of the required investment in sustainable infrastructure globally by 2030. Such support is particularly critical for the coastal Commonwealth member countries, which are vulnerable to environmental damage and its impacts in terms of loss of infrastructure and reduced fishing and tourism revenues, among others. However, such efforts are not easy for individual economies to undertake, and collective efforts, through FTAs for example, can be useful in this regard (Steer, 2018).

To harness the link between trade and sustainable development, FTAs need to create practical but enforceable frameworks for ensuring that legitimate policy issues are addressed, while at the same time ensuring that trade policy in protecting these interests does not unfairly discriminate among economies and suppliers. The CPTPP and the Canada-EU CETA provide functional examples of such provisions. However, it is important to remember that the key elements of sustainable development are, in practice, matters of domestic reform and policy. At the same time, it is important to ensure that, where FTAs seek to address these issues, they do not restrict the policy space available to economies to regulate these matters.

It is also necessary to ensure development co-operation and capacity-building towards better implementation and improved sustainability measures in trade in the future, such as those indicated by PACER Plus, and in lesser detail by the Canada-EU CETA and the CPTPP. Co-operation is also required for the harmonisation of regulations and frameworks to keep the cost and time of transactions low, and compliance with frameworks to protect the environment and labour rights high. This can be achieved through several parallel efforts.

The first, most obvious, step would be to create harmonised frameworks in FTAs to address these issues, with a strong mechanism for governance on sustainability areas. As seen with the CPTPP and the Canada-EU CETA, this could include dedicated chapters with comprehensive frameworks and guidelines for co-operation, review, monitoring and dispute resolution for each element of sustainability in trade. This approach creates frameworks for co-operation without restricting the policy space of members to regulate these issues domestically.

Another approach, most recently used by the EU, is that of positive discrimination, or the linking of preferences to compliance with certain standards and norms ensuring the sustainability of trade. The EU uses this approach by linking a higher level of GSP benefits to compliance with international standards and conventions, such as multilateral environmental agreements. Such an approach is possible since GSP schemes are unilateral measures and therefore have the potential to contribute to ensuring sustainable development in trade, without affecting other areas. This also allows for better monitoring and review of such initiatives (Baker, 2021).

Additional steps should include enhancing and facilitating trade in environmental goods and services, through a reduction in tariff and non-tariff measures that act as barriers to trade; reducing the carbon emissions of businesses, through improved production efficiency by improving the adoption and access to environmental goods and services (Lim, 2020); and introducing trade digitalisation efforts.

Annex 2.1 Selected FTAs between Commonwealth members by type of agreement

	Agreement	Coverage
North-North	EU-Canada	Environment & labour
	UK-Canada	
	EU-UK	Environment, labour & human rights
	UK-New Zealand	Environment, labour & SMEs
	UK-Australia	Environment & SMEs
North-South	UK-Eastern and Southern Africa States	Development co-operation
	PACER Plus	Labour, responsible business & development co-operation
	EU-Southern African Development Community	Environment & labour
	New Zealand-Malaysia	
	CPTPP	Environment, labour, responsible business & SMEs
	UK-Singapore	Labour, SMEs & development co-operation
	Association of Southeast Asian Nations-Australia-New Zealand	No coverage
	EU-Eastern and Southern Africa States Interim Economic Partnership Agreement	
	EU-Singapore	
	Malaysia-Australia	
	UK-Singapore	
	UK-Cameroon	
	UK-Kenya	
	UK-Pacific States	
	UK-SACU and Mozambique	
South-South	India-Malaysia	No coverage
	Mercosur-SACU	

Annex 2.2 Sustainability coverage in selected FTAs with at least one Commonwealth member country, 2010–2022

	The FTAs provision for							
Country	Labour	Environment	SME	Development co-operation	Responsible business	Human rights	Other	Total no. of FTA
United Kingdom	4	4	3	2			6	12
New Zealand	4	3	2	1	2		1	5
Australia	2	2	2	1	2		2	5
Singapore	2	1	2	1	1		3	5
Cyprus	3	3				1	2	5
Malta	3	3				1	2	5
Malaysia	2	2	1		1		2	5
Canada	2	2	1		1		3	5
Brunei Darussalam	1	1	1		1		1	2
Papua New Guinea	1			1	1		1	2
Botswana	1	1					1	2
South Africa	1	1					1	2
Lesotho	1	1					1	2
Mozambiqua	1	1					1	2
Namibia	1	1					1	2
Eswatini	1	1					1	2
Seychelles				1			1	2
Mauritius				1			1	2
Nauru	1			1	1			1
Samoa	1			1	1			1
Solomon Islands	1			1	1			1
Tonga	1			1	1			1
Tuvalu	1			1	1			1
Vanuatu	1			1	1			1
Kiribati	1			1	1			1
Zambia				1				1
Cameroon							1	1
Fiji							1	1
India							1	1
Kenya							1	1

0 1 2 3 4 5 6 12

Note: 'Other' refers to all other areas in the reviewed FTAs that do not relate to any of the TSD areas considered in this report. The health area is not presented because it is not covered in any specific chapter under the reviewed FTAs. The total count of FTAs in each area does not equal 'total no. of FTAs' as one FTA can cover multiple areas.
Source: Dür et al. (2014).

Annex 2.3 Methodology for the analysis of voluntary sustainability standards

The ITC's Standards Map is an in-depth database of over 300 VSS established from 1851 to 2020, applicable to sectors including agriculture, textiles and garments, consumer products, forestry, mining and services. These standards are active in 192 countries and sorted across 1,650 criteria.

There may be some omissions, and the map may not capture all schemes in a country, but still the database is the most comprehensive to date to determine how Commonwealth countries are adopting sustainability standards. ITC has a scoring mechanism whereby, for each standard, based on the number of criteria the standard ticks within several dimensions, including environment and human and labour rights, a score is attributed. The higher the number of criteria met, the higher the score.[8]

Within each sector, for the dimensions of environment and human and labour rights, the total scores of countries are added and normalised using a Z-score distribution with a mean of 50 and a range between 0 and 100.

Scores closer to 0, indicated by a reddish or orange colour on the map, indicate that the standards the country adheres to are ticking fewer sustainability criteria when compared with the world average; a yellow colour indicates closer to the world average and a green colour that the country is adopting more sustainable standards than the rest of the world. Using the above-mentioned standards score, three sectors are evaluated for each Commonwealth country: agriculture, fisheries and livestock; manufacturing; and services. These are further subdivided into two standard dimensions: Environment; and Human and labour rights. The table below lists the sector and mapping details.

Sector and details of coverage

Sector	Details
Agriculture, fisheries and livestock	Agriculture, Fisheries, Forestry, Floriculture and Horticulture, Livestock
Manufacturing	Chemicals, Clothing, Energy, Mining, Textiles, Clothing, Manufactured Products
Services	Culture, Education, Retail, Tourism, Other Services

8 The score is not indicative of the effectiveness or impact that sustainability has, but rather a sum of all the standards adopted by a country multiplied by the number of the requirements attached to each standard.

Chapter 3

Fisheries

Salamat Ali and Kim Kampel

3.1 Introduction

Trade in fisheries constitutes a small share of world merchandise trade (0.8 per cent) but generates livelihoods for around 3 billion people (more than 10 per cent of the global population).[1] Globally, an estimated US$170 billion worth of fish is produced annually, of which around 90 per cent is traded across borders (GLOBEFISH, 2022). A substantial share of these exports originates from Commonwealth countries, largely because of their favourable geography and expansive marine areas. Commonwealth countries span all the world's major ocean basins, and 49 of them have large coastal belts and exclusive economic zones (EEZs) that are rich in fish and other marine resources. With more than one-third of the world's ocean under national jurisdiction lying within Commonwealth borders, Commonwealth countries have a significant stake in the management and sustainable use of ocean resources. This led members to adopt the Commonwealth Blue Charter in 2018. To date, 46 Commonwealth countries have joined one or more of the country-led Action Groups under the Commonwealth Blue Charter (The Commonwealth, nd).

Fishing represents a significant source of food, nutrition, livelihoods, employment and foreign exchange in many Commonwealth countries. However, global fish stocks are depleting rapidly as a result of over-exploitation, poor governance, habitat degradation and climate impacts. This has created significant challenges to the economic, social and environmental sustainability of the fisheries sector. In 2017, the Food and Agriculture Organization of the United Nations (FAO) warned that an estimated one-third of global fish stocks were over-fished, representing an increase from 10 per cent in 1970 and 27 per cent in 2000. In addition to posing difficulties related to food security and livelihoods, the long-term unsustainable management of fisheries is impeding progress towards achieving Sustainable Development Goal (SDG) 14, specifically target 14.4, 14.6, 14.7 and 14b.

Sustainability is a very broad concept, examined through various economic, social and environmental dimensions and usually defined by national or regional public and private sector regulatory frameworks. However, in its simplest form, 'sustainable fishing means leaving enough fish in the ocean and protecting habitats and threatened species' (MSC, nd). Ensuring sustainability of fisheries is an ongoing process. Fisheries practices need regular reassessment and improvement. Scientific knowledge also

1 Data for fish pertain to Division '03' of UN Standard International Trade Classification Rev. 3, which covers fresh and dried fish, crustaceans, molluscs and their preparations.

advances over time and this sector needs to adopt new ways of conserving marine resources for future generations.

This chapter examines the sustainable production and trade of fisheries in Commonwealth countries. It consists of seven sections. The next section provides an overview of the fisheries sector in Commonwealth countries. Sections 3.2–3.5 examine challenges to the economic, social and environmental sustainability of fisheries, respectively. Section 3.6 explores policy measures, best practices and the role of public and private sector mechanisms in promoting sustainability. Section 3.7 concludes the chapter.

3.2 Overview of the fisheries sector in Commonwealth countries

3.2.1 Commonwealth countries' fisheries exports

During 2019–2021, Commonwealth countries exported fish and fish products worth US$24 billion annually. This amounts to about 16 per cent of global exports from this sector,[2] with developing countries contributing around half of these. Most of this fish catch is from coastal waters (also known as marine wild capture), while some countries practise inland fisheries or aquaculture.[3] Some landlocked countries also have fishing rights in neighbouring ocean waters.[4] Overall, Commonwealth countries have a significantly greater reliance on fish exports than the world average (panel A of Figure 3.1). This large dependence on fish exports also holds at the regional level (panel B of Figure 3.1). The Pacific small island developing states (SIDS) depend the most on fisheries exports, followed by the Caribbean SIDS.

These regional averages mask significant differences between countries (see Annex 3.1). For instance, in 10 Commonwealth members, the share of fisheries in merchandise exports exceeds 10 per cent, ranging from 14 to 86 per cent, highlighting the importance of this sector for these economies (panel A of Figure 3.2). SIDS usually have a large share of fisheries in their merchandise exports (panel A of Figure 3.2). The Pacific region's heavy dependence on fisheries reflects its vast marine area, which is more than 20 times its land area. These SIDS also benefit from access to important large regional markets.[5]

In absolute terms, India is the largest fish exporter in the Commonwealth (US$6.6 billion in 2021), accounting for about a quarter of Commonwealth countries' total fish exports. Canada ($5.8 billion) and the UK ($2.3 billion) are the next two largest exporters by value. Together, these three countries account for two-thirds of the total

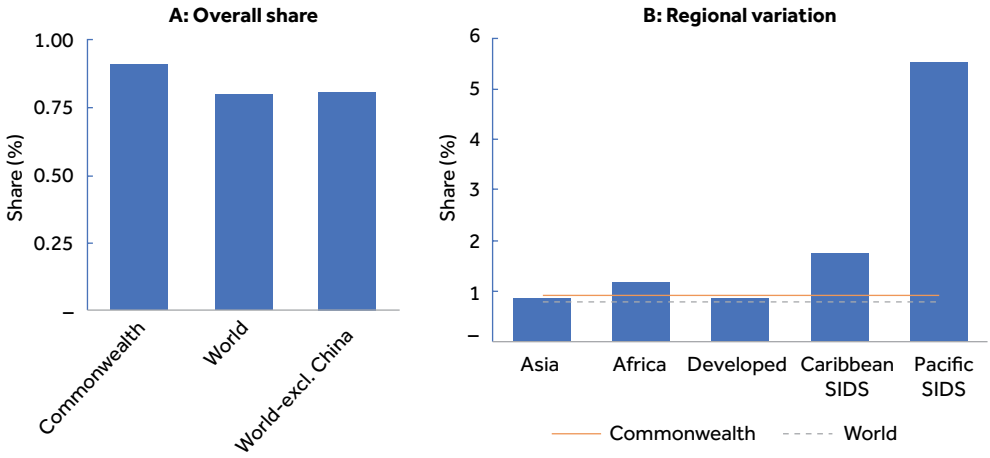
2 During 2019–2021, fish and fish products worth US$155 billion were exported annually across the world.

3 Uganda possesses exclusive exploitation rights over 45 per cent of Lake Victoria, the second-largest freshwater body in the world (Kayombo and Jorgensen, nd).

4 Article 69 of the United Nations Convention on the Law of the Sea, and some regional agreements (e.g. the Southern African Development Community Fisheries Protocol) accord landlocked countries a limited access to marine resources.

5 Such as China, Indonesia and Japan.

Figure 3.1 Fisheries share in merchandise exports, by region and country groups, 2019–2021 average

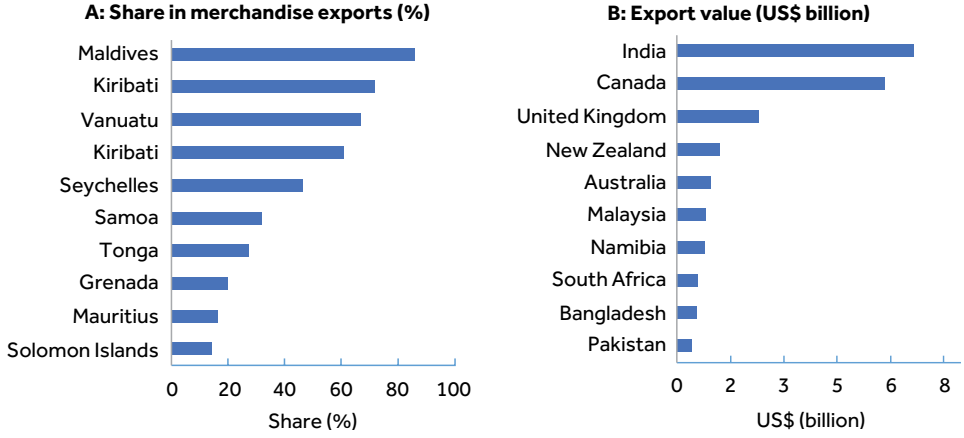


Source: Authors using UNCTADstat.

fish exports of Commonwealth countries. It is worth noting that Canada and India are also among the top 10 fish exporters globally.

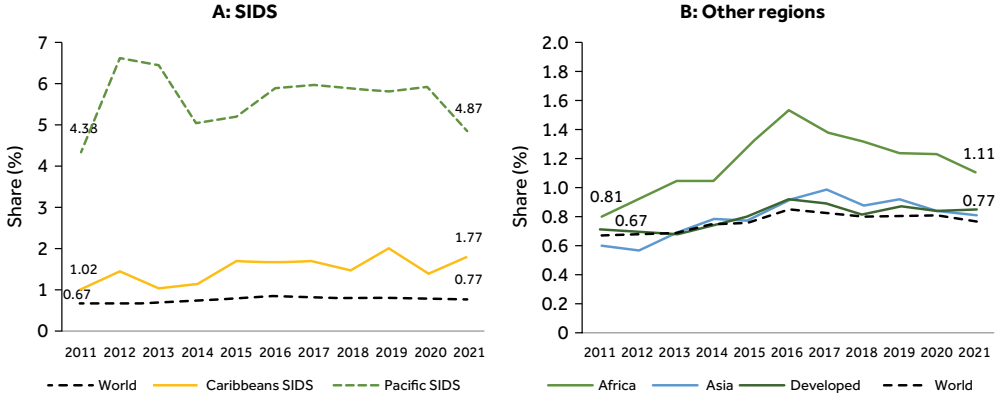
Over the past decade, global fisheries exports have increased by almost 40 per cent (or US$48 billion), growing from $122 billion to $170 billion and raising fisheries' share in global merchandise exports from 0.67 per cent to 0.77 per cent. Similar trends are observed in various Commonwealth regions, with the fisheries share almost doubling in the Caribbean region (Figure 3.3). However, the fisheries share seems to have dropped gradually in other regions since 2016, reflecting slower export growth compared with their merchandise trade.

Figure 3.2 Country-level dependency on fish exports, share and export value, 2019–2021 average



Source: Authors using UNCTADstat.

Figure 3.3 Fisheries export share across various Commonwealth regions, 2011–2021



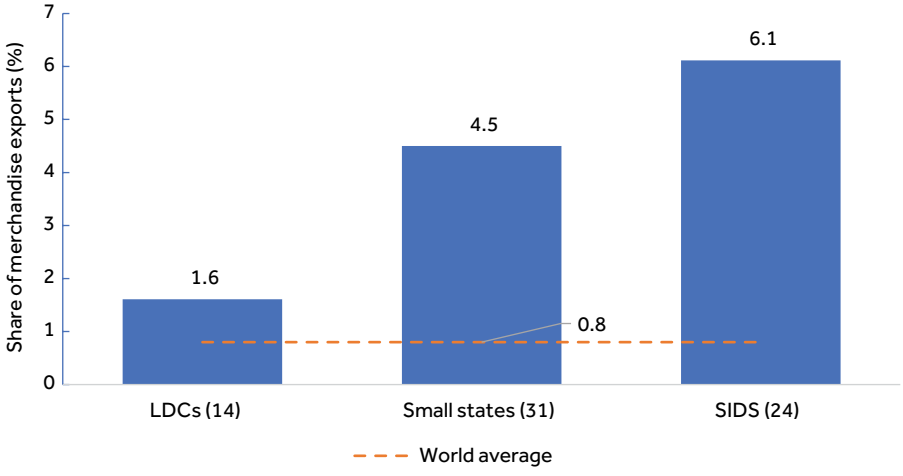
Note: The charts indicate fisheries share in merchandise exports.
Source: Authors using UNCTADstat.

3.2.2 Reliance of vulnerable groups in the Commonwealth on fisheries

Commonwealth least developed countries (LDCs) and small states, including SIDS, rely heavily on fish exports (Figure 3.4). Bangladesh, Tanzania and Uganda are the main fish exporters among the LDCs. The share of fisheries in LDCs' merchandise exports is more than double (1.6 per cent) the global average, and this proportion rises to almost 2.5 times (2.1 per cent) if Bangladesh is excluded.

Namibia is the largest exporter among non-island small states in the Commonwealth, followed by Papua New Guinea. In the case of SIDS, Kiribati, Maldives, Nauru and

Figure 3.4 Commonwealth vulnerable members' dependence on fish exports, 2021



Notes: Small states exclude Malta and Cyprus, SIDS exclude Singapore.
Source: Authors using UNCTADstat.

Vanuatu are highly dependent on exports from this sector, with the share of fisheries in their merchandise exports ranging from 60 to 85 per cent (see Annex 3.2). As noted earlier, this high dependence on fish exports makes these economies extremely vulnerable to depletion of fish stocks (Bellmann et al., 2016).

Solomon Islands has abundant fisheries grounds for tuna fisheries and aquaculture activities. Like in many Pacific SIDS, a significant proportion of the population of Solomon Islands relies on fisheries for their livelihood, food security and export revenues. Additionally, this country depends on tuna for revenue and exports, with proceeds accounting for about 18 per cent of the country's gross domestic product and about 15 per cent of merchandise exports.

3.3 The economic dimensions of fisheries sustainability

International trade in fisheries and aquaculture products generated around US$151 billion in 2020, with aquaculture production growing in most major global regions. The per capita amount of fisheries and aquaculture production destined for human consumption has doubled over the last six decades, demonstrating the sector's increasing importance for human nutritional requirements (FAO, 2022).

SDG 14.7 aims to increase the economic benefits for SIDS and LDCs from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism. The previous section highlighted the economic value of this sector for all Commonwealth countries, including SIDS. Most fishing activity in SIDS and other fisheries-dependent nations is carried out by small-scale artisanal fishers, which underscores the crucial role of the sector in social and economic development in these countries.

One of the greatest challenges facing the fishing sector globally is to prevent over-exploitation of marine resources, minimise damage to aquatic habitats and ensure the social inclusion of excluded and vulnerable groups. Other challenges to the economic sustainability of the fishing sector arise from the provision of harmful, inefficient economic incentives and measures. Certain trade policies such as tariffs, non-tariff barriers and import bans can also result in competitive distortions and market access barriers, disincentivising sustainable fishing practices.

3.3.1 Mechanisation of fishing practices and over-capacity

Although the global fishing fleet size has reduced by 10 per cent since 2015, the total number of motorised vessels worldwide has remained constant at 2.5 million. The resulting increase in fishing efficiency can offset the sustainability gains of reducing the global fleet size (FAO, 2022). Over time, the increasing technological sophistication of fishing techniques has resulted in over-fishing and over-capacity to fish further afield, imperilling the sustainability of global fish stocks (see Box 3.1). Large-scale purse seine fleets can deploy their fish capacity further afield, using fish aggregation devices (FADs) or destructive longlines, causing billions of tons of bycatch (Magudia, 2013). Furthermore, the ability of large-scale industrial mechanised fleets to fish more efficiently and indiscriminately in distant waters, creates an economic

imbalance by reducing the ability of lesser resourced countries to access and harness the production and export value of such resources in their own waters.

Significant consequences of harmful fishing practices include the indiscriminate killing of fish species and sea mammals, as well as damage to the marine ecosystem caused by large industrial fleets' trawling practices. These fishing practices damage seabed and remove coral from reefs, causing severe habitat degradation and destruction, affecting aquatic life and ecosystems within the reefs, which themselves are crucial for the sustainability of fisheries (Jaleel and Smith, 2022). Abandoned and lost fishing nets are another challenge. There is now a huge patch of plastic waste and other forms of garbage in the Pacific Ocean, of significant density but to some extent scattered distribution, 46 per cent of which comprises discarded fishing nets.[6] The latter are considered far more dangerous for marine life than plastic straws.

Some tuna fishers in the Asia-Pacific region use pole and line fishing methods, which are highly sustainable because of their selectivity and their minimal impact on marine ecosystems (Ali and Vickers, 2022). Compared with net fishing, which uses mechanised, fuel-intensive techniques, pole and line fishing has a smaller carbon footprint. Furthermore, the bycatch of pole and line fishing is much lower than that of other approaches, making it more sustainable. This approach involves catching tuna one by one, using a pole, line and hook, resulting in very little bycatch and minimal harm to other marine species like sharks, rays, whales, turtles, dolphins and seabirds. This practice originated in the Maldives and has since spread to many other regions of Asia and Africa (Gillett, 2015).

3.3.2 Fisheries subsidies

The provision of harmful subsidies, including to illegal, unreported and unregulated (IUU)[7] fishing, is considered to be a significant contributing factor to over-exploitation and fish stock depletion. Sumaila et al. (2019) identify three different types of subsidies depending on their impact on fisheries resources:

- beneficial subsidies, including for fisheries management programmes, research and development, and investment in fisheries resources;
- capacity-enhancing subsidies, including for boat construction, renewal and modernisation, fuel subsidies and fishery development programmes, which may encourage disinvestment in the resource when fishing exceeds the economically optimum level;
- ambiguous subsidies, including for vessel buy-back programmes and rural fisher community development, which can promote or undermine investment in the resource, depending on the circumstances.

6 Known as the Great Pacific Garbage Patch (see The Ocean Cleanup, nd).

7 Two-thirds of fisheries subsidies globally (or US$22 billion) are considered IUU subsidies.

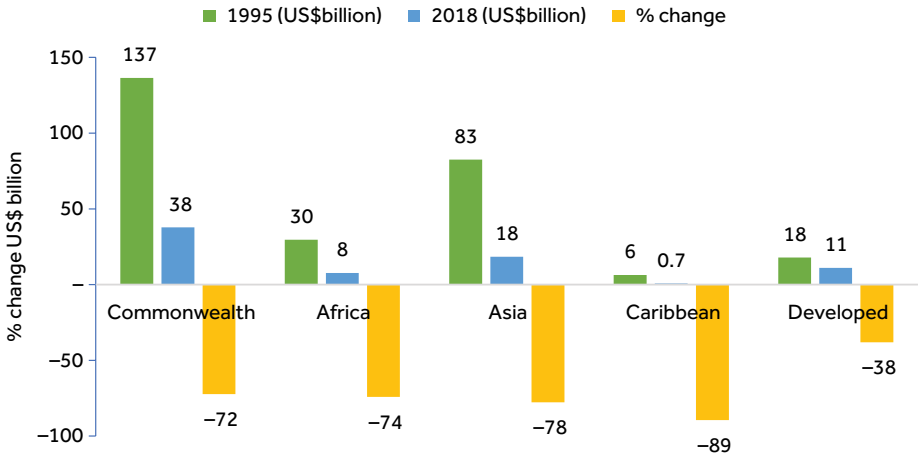
Box 3.1 Changes in Commonwealth countries' fisheries stocks over time

The depletion of fish stocks over time, globally as well as in Commonwealth countries, is clearly evident in recent datasets (World Bank, 2021). These show that the value of Commonwealth members' fish stock has declined by more than two-thirds over the past two decades, from US$137 billion in 1995 to about $38 billion in 2018 (Figure 3.5).

The pattern of depletion varies widely across various Commonwealth regions. Caribbean members have experienced the largest decline, at about 90 per cent, followed by Asian (78 per cent) and African regions (74 per cent). In contrast, Commonwealth developed country members have experienced the smallest decline, at about 38 per cent, most likely because of greater awareness of the sustainability challenges along with technical and financial capabilities to mitigate them.

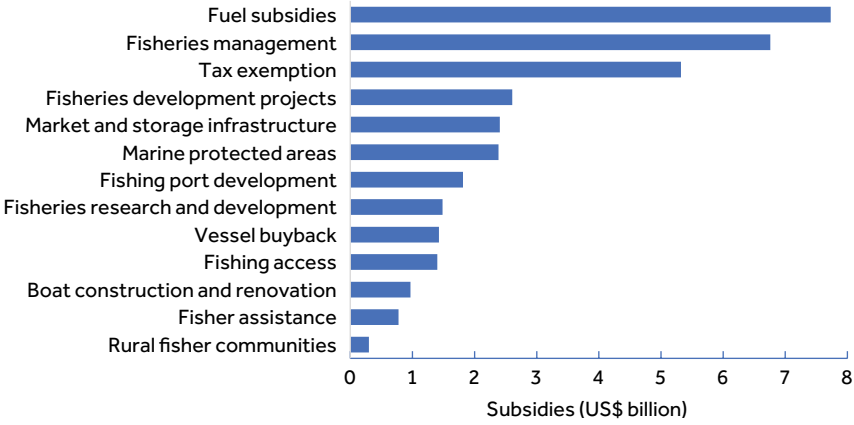
Over-exploitation is considered the primary reason for declining levels of fish stocks. Climate change and migration of fish stocks may also be a reason for depletion of fish resources in specific regions. Irrespective of the causes, this unsustainable depletion of fish stocks means there are insufficient volumes of fish left in the ocean to ensure that the fish population remains productive and healthy. The current rates of depletion of stock imply that fishing cannot continue at existing levels indefinitely into the future.

Figure 3.5 Commonwealth countries' fish stock, 1995 and 2018



Note: The chart excludes nine Commonwealth countries in the Pacific region owing to missing information.
Source: Authors using the World Bank's Changing Wealth of the Nations dataset.

Figure 3.6 Composition of fisheries subsidies, 2019



Source: Authors using global dataset on subsidies to fisheries in Sumaila et al. (2019).

In 2019, the total value of global fisheries subsidies was about US$35 billion, with capacity-enhancing subsidies being the most prevalent, constituting over $20 billion. The fuel subsidies, which are possibly the most harmful of all subsidies, received the largest amount of money (about $8 billion) (Figure 3.6). In open access fisheries, where entry is not restricted, capacity-enhancing subsidies tend to undermine the sustainability of the natural resource. However, the actual effects of capacity-enhancing and ambiguous subsidies on fish stocks may vary with the type of fisheries management regime and the state of the fish stocks.

The quantum of subsidies and their effects on the sustainability of fisheries have been highly debated issues for a long time. In June 2022, World Trade Organization (WTO) members reached a landmark agreement to reduce harmful fisheries subsidies, which had been on the negotiation agenda for the past 20 years (see Section 3.6.1).

3.3.3 Tariffs and import restrictions

Under the principle of most-favoured nation (MFN) in the WTO, applied tariffs for fisheries and aquaculture products can range from 0 to 30 per cent, with an average of 14 per cent. Additionally, fisheries products may face tariff escalation for processed and value-added products (FAO, 2022). Without a preferential trade agreement, developing countries' (excluding LDCs) fish exports may face higher MFN tariffs in their major export markets. This places fish exporters from developing countries at a competitive disadvantage compared with countries that have obtained duty-free market access as a result of a free trade agreement (FTA) or preference scheme. However, such beneficiary fish exporters may utilise less sustainable fishing practices, creating commercial inequities that could disincentivise sustainability efforts. This may lead sustainable fishers to switch to more mechanised and unsustainable fish harvesting methods, in order to maintain and grow market share in key export markets. In this scenario, tariffs present a significant trade barrier to the expansion

of sustainable fishing practices, while facilitating the more unsustainable fishing practices by other competing and less sustainable fish exporters.

3.3.4 Non-tariff measures

Compliance with food safety standards under the WTO Agreements on Sanitary and Phytosanitary (SPS) Measures and the Agreement on Technical Barriers to Trade (TBT) is particularly relevant for fish trade. The United Nations Conference on Trade and Development estimates that technical measures are applied to fisheries and aquaculture products 2.5 times more frequently than to manufactured goods on average (UNCTAD, 2017; FAO, 2022).[8] TBT measures imposed on fisheries products may include technical regulations, product standards and conformity assessment procedures. Other measures applied to fisheries trade include import licensing procedures, rules of origin, and labelling requirements (FAO, 2022; Bellmann et al., 2015). While some of these measures support efforts to make the fisheries sector more environmentally and socially sustainable, stringent health requirements often lead to increased scrutiny at the border, resulting in shipment rejections. Despite the supposed use of SPS standards to protect health and safety based on scientific considerations, some have been linked to protectionist motives, serving as trade barriers, especially for smaller developing countries (Bayliss et al., 2022).

Traceability and catch requirements are dominant aspects of strict food safety regulations, aimed at combating IUU fishing. Some Pacific nations have reportedly received a 'yellow card' or warning from the EU in relation to IUU fishing as a market access condition, based on the EU's 2014 traceability requirements. Ecolabelling and certification schemes used to communicate sustainable sourcing of fisheries can also place additional burdens on exporters from developing countries that lack effective food safety and fish certification systems to meet the requirements of different export markets (FAO, 2022).

Other trade measures that have been reported to the SPS Committee of the WTO include excessive health certification requirements for fishery products and barriers to authorisations, especially in the wake of the COVID-19 pandemic. There have also been import bans imposed on processed fisheries products. Additionally, non-trade concerns are featuring more prominently, with both the EU and the US having taken action to ban imports based on human rights violations in labour practices (Kapoor and Medlong, 2021; Chee, 2022).

3.3.5 Fisheries partnership agreements

Some fisheries partnership agreements have been linked to over-exploitation. These are agreements whereby larger fishing nations with over-fished waters export their fishing capacity and pay for access to more fertile fishing grounds, usually in developing countries' fishing waters. While these agreements provide much-needed

8 FAO (2020) report quoting UNCTAD statistics.

revenue to countries that cannot fully exploit fish resources themselves, they can also lead to inequities and depletion of fish stocks. This can occur as a result of access fees being disproportionate to the value of the fish catch, unsustainable targeting of specific species of fish, or ignoring local fishing regulations, resulting in IUU fishing.

These practices may result in over-exploitation and unemployment and undermine food and socio-economic security for local fish populations. It is estimated that income accrued by small-scale fishers in Africa has reduced by up to 40 per cent over the past decade as a result of such exploitative agreements (Okafor-Yarwood, 2022a). These impacts could be ameliorated to some extent once the WTO's Fisheries Subsidies Agreement (FSA) enters into force (see Section 3.6.1).

3.4 The social sustainability dimension

Fishing is not only a source of nutrition but also a means of livelihood and employment for many communities. In particular, it plays an integral role in the cultural and inter-generational sustenance of island communities. As such, the social dimension of sustainability in the fisheries sector is of utmost importance to these economies.

Discussions surrounding social sustainability in the fishing industry have traditionally focused on responsible sourcing and ethical business practices. Recently, however, concerns regarding adverse labour practices and negative human rights conditions associated with fish capture and processing activities have gained attention. These issues include employment practices, working conditions, food security and gender inclusion, especially in fisheries-dependent vulnerable communities.

3.4.1 Employment generation

Fishing continues to be a significant source of employment in many Commonwealth countries. In Maldives, over 20 per cent of the population is directly employed in the fisheries value chain, while in Solomon Islands the share is over 30 per cent. Similarly, in the Caribbean region, more than 300,000 people are directly employed in fishing, with an additional 100,000 in.the processing sector. However, gaps in data collection mean these numbers are likely to underestimate the true extent of these contributions. Globally, an estimated 58.5 million individuals were engaged as full-time, part-time, occasional or unspecified workers in fisheries and aquaculture in 2020. Of these, 35 per cent were employed in aquaculture and 65 per cent in capture fisheries (FAO, 2022).

Small-scale fisheries play a vital role in job creation, especially in developing countries. Nearly 500 million people partially depend on small-scale fisheries for their livelihoods, and approximately 45 million women participate in small-scale fisheries, including for subsistence (FAO et al., 2022). UNCTAD estimates that small-scale fishing accounts for at least 40 per cent of global fish catches and employs over 90 per cent of people working in fisheries value chains. Approximately half of these workers are women, mainly involved in marketing and processing. About 97 per cent of fishers live in developing countries. These fisheries are often deeply rooted

in cultural traditions. For this reason, SDG Target 14.b (and its Indicator 14.b.1) focuses on small-scale fisheries, aiming to provide access to marine resources and markets for small-scale artisanal fishers based on a human rights-focused approach. Fish processing plants in most countries operate using co-operative-like structures, generating local employment and ensuring the benefits flow throughout the local economy.

3.4.2 Food security

In addition to their commercial value, fisheries are a crucial source of food and nutrition for millions of people worldwide. Fish is an important source of protein, omega fatty acids and vitamins, with the potential to yield significant economic and nutritional benefits. However, over-exploitation of oceans has created challenges for coastal communities that rely on artisanal fishing for food security. These communities must travel farther from shore, only to bring back smaller catches. Despite these challenges, the fisheries sector remains an essential resource for these communities, particularly in the face of rapid population expansion and over-exploitation of land-based agriculture (see Chapter 4).

Given their importance for food and nutritional security, fish products are traded widely across the globe. In 2019, global trade in food products accounted for about 10 per cent of merchandise exports, with about one-tenth comprising fish and fish products.

3.4.3 Working conditions

Fish capture activities involve long, strenuous hours in challenging marine environments, during which fishers use complex machinery to catch, sort and store fish. As a result, injury and fatality rates in this sector are much higher for unskilled workers than national averages for other industries (ILO, 2022).

Moreover, medical support and evacuation services vary considerably between countries and regions, which poses a challenge to fishers in the event of injury or illness at sea. Fishing vessels operate in distant fishing grounds for extended periods, and fishers may be located far from basic medical care. Additionally, fishers often encounter difficulties in taking shore leave in foreign ports and obtaining visas that allow them to join or leave the vessel in foreign countries (ILO, nd).

There are concerns about labour practices and working conditions in commercial fishing activities and processing facilities along the value chain, including forced or slave labour, human trafficking, child labour and unsatisfactory working environments. Reports of abuse and murder on some fishing vessels have raised public attention to human exploitation of workers at sea. The issue has been highlighted by several civil society organisations, such as the Seafood Working Group, which have exposed abuses at sea and employer malpractices, as well as the exploitation of workers who are tricked into work that amounts to slavery at sea (Human Rights at Sea, 2021). These practices require adherence to international labour standards on fisheries (Box 3.2).

Box 3.2 International labour standards on fishers

The International Labour Organization (ILO) has developed specific standards to protect workers in the fishing industry. The International Labour Conference adopted the Work in Fishing Convention 2007 (No. 188) and the Work in Fishing Recommendation 2007 (No. 199) to address the living and working conditions of fishers. These instruments aim to ensure that fishers have decent working conditions on board fishing vessels, including minimum requirements for work, conditions of service, accommodation and food, occupational safety and health protection, medical care and social security.

Convention No. 188 became effective on 16 November 2017. It includes many improvements, such as:

- raising the minimum age for work on board a fishing vessel to 16 years;
- fixing the maximum period of validity of a medical certificate to two years;
- requiring the adoption of laws regarding minimum levels of crewing;
- defining minimum periods of daily and weekly rest for vessels remaining at sea for more than three days;
- establishing fishers' entitlement to repatriation at the cost of the fishing vessel owner; and
- incorporating port state control provisions modelled on those applicable in the maritime sector.

Source: ILO (nd).

There is anecdotal evidence that unfair working conditions prevail downstream in the fisheries value chain, particularly in processing facilities, disproportionately affecting women. These include compulsory overtime work, inadequate remuneration, poor working conditions without adequate protective clothing, substandard factory living quarters and assault by male colleagues.

3.4.4 Gender inclusion

Men tend to dominate the initial stage of the fisheries value chain but women are more involved in the subsequent post-harvest activities, which are core to the downstream processing of aquatic food, such as preservation, packing and drying (Diallo, 2022). Around two-thirds of fish undergo some form of processing before being exported. This involves a variety of techniques aimed at transforming and preserving fisheries and aquaculture products. These activities cut across artisanal, small-scale methods, and large-scale, mechanised operations. In many Commonwealth countries, women dominate cleaning, cooking and packaging activities. Recent FAO/Organisation for Economic Co-operation and Development (OECD) data that disaggregate the sex of workers in the fisheries and aquaculture processing sector in 49 countries, reveal

that women represent just over 46 per cent of the total workforce. However, these data are limited to industrial, organised and formal activities, ignoring artisanal and subsistence fisheries, for which there is a lack of data (FAO, 2022).

Active engagement of women in the fisheries sector is observed in all regions of the Commonwealth. Women in Maldives participate in producing smoked fish and the local delicacy *rihaakuru*, which is fish-based. Most of the employees at fish processing plants are women, who are responsible for purchasing, selling and preparing fish for household consumption, which gives them a unique understanding of quality and market conditions. Women are also actively involved in tuna vessel construction facilities, holding managerial positions.

Similarly, in Solomon Islands, women play an active role across many stages of the fisheries supply chain at the informal level (Yadao-Evans and Bero, 2019). However, a lack of data disaggregated by sex means the exact extent of their engagement is unknown (Krushelnytska, 2015). Anecdotal evidence suggests that women make up the majority of the workforce in the post-harvest commercial processing sector of the tuna fisheries supply chain and provide support to men's traditional activities. However, limited guaranteed access to fish, low margins and marginalisation from decision-making structures may affect women's economic advancement in the tuna canning and processing industry.

Traditional roles of women in fishing generally conform to the entrenched gender norms prevalent in the Pacific fisheries sector (SPC, 2016). However, with the support of international organisations like the International Finance Corporation (IFC), efforts are being made to encourage women in Solomon Islands to venture into non-traditional, male-dominated areas such as jobs on fishing vessels (IFC, nd). Moreover, to prevent the exclusion of women from crucial decision-making processes and promote better integration in fisheries management, a more gender-sensitive approach has been adopted towards coastal fisheries management and development, in line with the Gender Implementation Strategy 2011–2014 of the Fisheries and Marine Resources Ministry (SPC, 2016). The objective is to move towards a gender-informed approach to coastal fisheries management and developments, with the aim of addressing gender segregation prevalent in the fisheries sector with regard to jobs and salaries (SPC, 2019).

Like in the Asia-Pacific region, African women play a vital role in the fisheries sector as processors, traders and distributors along West Africa's coastline. In West Africa's artisanal fisheries, women dominate post-harvest activities, including handling, processing, packaging and marketing, for both fresh fish and dried, salted and smoked fish products (Coastal Fisheries Initiative, 2022). There is a need for social protection and labour upskilling programmes to facilitate sustainable and resilient livelihoods (Box 3.3).

Official statistics often ignore the significant contribution of women along the fisheries value chain, reflecting a widespread undervaluation of women's contribution to the fish sector in Africa (CAOPA, 2022). Nevertheless, anecdotal evidence suggests that women in the sector have proactively and innovatively attempted to address

Box 3.3 Towards social protection in the fisheries sector: 2022 the International Year of Artisanal Fisheries and Aquaculture

Small-scale fishing and aquaculture value chains engage millions of people worldwide (FAO et al., 2022). However, over-fishing and climate change pose a growing threat to the livelihoods and well-being of these artisanal workers, who predominantly operate in the informal sector in the Global South. Additionally, fisheries management and conservation measures can impose short- and medium-terms costs on these communities, resulting in lost earnings.

To improve social protection in the fisheries sector, the United Nations designated 2022 as International Year of Artisanal Fisheries and Aquaculture (IYAFA). The objective of IYAFA 2022 was to raise awareness of the role of small-scale fisheries and aquaculture, to strengthen science–policy interaction, to empower stakeholders to take action and to develop new and strengthen existing partnerships. ILO Convention No. 188 on working conditions in the fishing sector and Protocol No. 29 on forced labour aim to establish decent work for fishers and combat IUU fishing. These measures complement regional efforts, including those of some regional fisheries management organisations (RFMOs) such as the International Commission for the Conservation of Atlantic Tunas (ICCAT) since November 2021, to ensure decent work, compliance with labour standards and the elimination of forced labour on board fishing vessels. These initiatives align with the ILO's recently launched 8.7 Accelerator Lab programme, which aims to assist governments and social partners in achieving the seventh target of SDG 8 by eradicating forced labour by 2030 and child labour by 2025 (ILO News, 2022).

The World Bank and the International Institute for Environment and Development have identified three primary approaches to aligning social protection and labour systems, policies and programmes with fisheries management by incentivising actions that enhance sustainability and compensate for associated costs. The first approach is registering fishers and fish workers to generate critical data for fisheries management and to connect workers with appropriate social programmes. The second approach involves a specific behaviour change, such as compliance with new regulations. The third approach is a partial or complete exit from a fishery, which can be a longer-term strategy to reduce the total numbers of workers when fishing stocks are in perpetual decline. An exit from a fishery can also serve as a step towards a country's broader economic transformation journey, moving from low-productivity fishing activities to higher-value, higher-productivity manufacturing and services.

Potentially spurred on by these global initiatives, several social protection and labour programmes are emerging in many Commonwealth countries. Among the examples of these programmes:

- The Bangladesh government provides social assistance as compensation to fishers for complying with closed seasons, incentivising sustainable hilsa fishery management through a carrot and stick policy.

- In the Caribbean region, Grenada and Saint Lucia have introduced insurance to increase resilience to the effects of climate-related disasters.

While such programmes are a crucial step in the right direction, they come with their own set of challenges. One of the primary obstacles is the fragmented socio-economic data on the fisheries sector. Additionally, social protection, labour and fisheries management are usually led by separate ministries with distinct mandates and limited interactions.

Source: Bladon and Okamura (2022).

these challenges. For example, in Ghana, a women's community village and savings association secured loans and partnered with a marine conservation NGO to obtain critical fish storage cold facilities in exchange for their co-operation on discouraging turtle poaching activities (Okafor-Yarwood, 2022).

3.5 The environmental sustainability dimension

There is a two-way relationship between fisheries and the climate. On the one hand increasing greenhouse gas emissions impact the health of the ocean and marine life by warming and acidifying seawater and reducing the ocean's ability to absorb carbon dioxide (UN, nd). The rising ocean temperatures caused by climate change could lead to a substantial reduction in the availability of fisheries resources, which will have adverse consequences for countries that rely heavily on this sector. On the other hand, over-exploitation by the fishing industry, supported by enhanced mechanisation of the sector, contributes to greenhouse gas emissions, which exacerbates the threat of climate change.

3.5.1 Effects of climate change on fisheries

Climate change presents a significant systemic threat to achieving sustainable fisheries throughout the value chain, with significant costs to the economy and society (Table 3.1).

Elevated sea surface temperatures and ocean acidification can adversely affect the ocean and coastal marine environment, disrupting critical ecosystem services. This increases the vulnerability of the fisheries sector to climate change, since almost 90 per cent of global fish stocks are currently 'fully exploited' or 'over-exploited' (FAO, 2020; Barange et al. 2018). FAO's marine regions model predicts that climate change could reduce the maximum catch potential in the world's EEZ by between 2.8 and 5.3 per cent by 2050. Depending on various greenhouse gas emission scenarios, this decline could reach between 7 and 12.1 per cent.

Rising temperatures may also affect the growth and migration patterns of fish, altering the distribution of species across boundaries. The change in the availability of fisheries resources could affect the trade of fisheries and aquaculture products. It could also trigger

Table 3.1 Potential direct impacts of climate change on fisheries

Climate variability	Areas affected
Temperature	**Production ecology and biodiversity**
Rainfall	Production and yield
Extreme events	Species composition and distribution
Wind patterns	Diseases
Evaporation	Coral bleaching
River flows	**Fishing operations**
Lake levels	Safety and efficiency
Sea level rise	Infrastructure
Salinity, saline intrusion	Processing and transport
	Community and livelihoods
	Loss/damage to livelihood assets
	Livelihood strategies
	Risk to health and life
	Displacement and conflict
	Wider society and economy
	Adaptation and mitigation costs
	Market impacts
	Water allocation
	Floodplain and coastal defence

Source: Badjeck et al. (2010); Harrod et al. (2018).

conflicts between fishers within and across jurisdictions. Additionally, competition for scarce water resources could reduce the contributions of inland fisheries.

The extent of these effects will vary across regions, with the most significant reductions in fish catch expected in the tropics, mainly in the South Pacific regions. Typically, regions with higher exposure to climate change tend to have lower adaptive capacity to cope with them and therefore are more vulnerable to its impacts (FAO, 2018). In the Pacific, while scientists are unable to predict the exact volume and trajectory of fish stocks moving out of EEZs, the risk of tuna stocks moving progressively into the high sea areas will negatively impact tuna-dependent SIDS. This shift will undoubtedly harm local fishers' fishing catch and sales revenues (Tauafiafi, 2022). In higher-latitude regions, the fish catch potential is projected to increase, or at least show a smaller decrease. Increased precipitation could also improve connectivity between some fish habitats in northern regions.

Apart from the long-term impacts of climate change, hurricanes and other severe weather events could cause sudden and physical damage to many islands in the Caribbean and Pacific regions. For instance, past hurricanes in the Caribbean have damaged reefs and destroyed coastal infrastructure (Roberts, 2014). The growing exposure to storm surges and resulting damage to coastal economies, infrastructure and ports could force these communities to abandon the islands.

The implications for individuals, communities and countries will depend on their level of exposure, sensitivity to climate shocks and adaptive capacity. The United Nations Framework Convention on Climate Change and the Paris Agreement predict

Box 3.4 Vulnerability of small-scale fisheries to climate change

Small-scale fisheries contribute about half of the global fish catch and employ over 90 per cent of the world's capture fishers and fish workers, about half of whom are women. This sector is vulnerable to environmental degradation, and natural and human-induced disasters (USAID, 2017). Climate change is creating pressure and uncertainty for small-scale fisheries and the livelihoods of coastal communities in multiple ways.

The warming of ocean waters is causing changes to fish composition and distribution, leading to alterations in fish production and the effectiveness of different fishing gears. Melting ice combined with warming oceans is causing sea levels to rise and potentially restricting access to fisheries or the transportation of catches. The increased frequency and strength of storms and floods are exposing fishers at sea and fishing operations on land. These and other consequences can result in food insecurity, lost income and environmental degradation for small-scale fisheries communities, which can increase their vulnerability to further climate change and disasters.

Small-scale fishers are adapting to climate change by diversifying their livelihoods and adjusting their fishing techniques. However, more rapid adjustments in institutions and management systems are necessary to foster autonomous adaptation and avoid maladaptation. This requires transformative adaptation plans at the national, subnational and local levels in the medium term to help ease the transition to climate resilience in the long term. The FAO has released guidelines for policy-makers to incorporate the sector into national adaptation plans (FAO, 2022).

Source: FAO (2022) and USAID (2017).

that climate change may be catastrophic for SIDS, LDCs and other vulnerable states where small-scale fisheries and farming communities are located. Small-scale fishers in the Southeast Atlantic, Southwest Indian Ocean and Western and Central Pacific are considered to be among the most vulnerable groups (Box 3.4).

3.5.2 Effects of fishing on climate change

The increasing use of mechanised fishing practices has led to higher carbon emissions and greater damage to marine ecosystems, exacerbating the threat of climate change. Environmental challenges arise at each stage of the fisheries trade: capture, processing and exports. At the capture stage, the mechanised fishing is highly fuel-intensive, with fishing vessels (including inland vessels) estimated to have emitted 172.3 million tonnes of carbon dioxide in 2012, accounting for about 0.5 per cent of total global carbon dioxide emissions that year. In the aquaculture industry, around 385 million tonnes of carbon dioxide equivalent were emitted in 2010, accounting for around 7 per cent of those from agriculture (FAO, 2018).

The second channel of transmission of the harmful effects of fisheries on the environment is through transportation-related emissions. Most fish are transported

by air or sea, contributing to carbon dioxide emissions. Emissions from transporting goods are expected to triple over the next 30 years (UNCTAD, 2021). This calls for greater efforts to account for transportation-related emissions in sustainability discussions. The EU's proposed Carbon Border Adjustment Mechanism is considering including such emissions in its ambit.

3.5.3 Financing climate adaption in the fisheries sector

The ongoing viability of the fisheries and aquaculture sectors depends on their ability to adapt to climate challenges. This requires enhanced multilateral support and adaptation investments that align with national socio-economic strategies while addressing the needs of the most vulnerable populations. Fisheries-dependent countries are best-placed to frame these needs and frequently employ adaptation strategies that strengthen the socio-economic resilience of vulnerable communities, including in relation to fisheries governance, value-addition and ensuring the empowerment and inclusiveness of small-scale fisheries and women throughout the sector.

More efforts are needed to channel climate finance and Aid for Trade towards climate adaptation. Currently, adaptation projects continue to lag far behind the investment in mitigation projects (UNCTAD Investment, 2022). Similarly, within Aid for Trade projects that include climate-related objectives, both commitments and projects tend to focus more on mitigation rather than adaptation (WTO-OECD, 2022).

Adaptation finance is particularly important for the poorest and most vulnerable countries, Given the increasing incidence of extreme climactic events and the resulting disasters devastating certain fisheries-dependent regions, Commonwealth SIDS need urgent investment in disaster risk reduction and adaptation measures and preparedness for climate disaster response and recovery. The Commonwealth is supporting small states, including SIDS, to access this finance and increase their climate resilience (Box 3.5).

Box 3.5 The Commonwealth Climate Finance Access Hub

The Commonwealth Climate Finance Access Hub plays an important role in helping develop and implement climate change-related projects in a range of areas, including for fisheries. It has unlocked more than US$250 million in vital finance for 64 projects in several vulnerable countries, which would otherwise struggle to access it, with close to $1 billion in the pipeline. The Hub has also undertaken 111 capacity-building initiatives and trained more than 2,000 officials in 15 member countries.

These projects cover a range of areas pertaining to sustainable fishing practices, including marine protected areas (MPAs), conservation programmes and the use of renewable energy sources in the fishing industry to reduce greenhouse

gas emissions. They span Pacific and Caribbean Island countries and the African region. For example, the Hub has provided technical assistance to Fiji and Jamaica to develop projects to promote sustainable fisheries management and reduce the impact of climate change on fish stocks while improving the livelihoods of small-scale fishers. In Africa, it has provided technical assistance to Seychelles to promote sustainable fisheries management and improve the resilience of coastal communities to the impacts of climate change.

The Hub can also help countries access funding for research and development of innovative technologies that support sustainable fishing practices, such as more efficient fishing gear or methods for reducing bycatch. Furthermore, it can support the development of policies and strategies that promote sustainable fishing practices.

Source: Commonwealth Secretariat.

3.6 Promoting sustainable fisheries in the Commonwealth

3.6.1 Strengthening governance frameworks

Multilateral, regional and national approaches to replenish and rebuild depleted fish stocks and repair the damage to marine ecosystems take a two-pronged approach, focusing on input and output controls (Table 3.2).

Global and multilateral governance frameworks

The United Nations Convention on the Law of the Sea (UNCLOS) is a comprehensive legal agreement that establishes a global legal order governing the world's oceans and seas. It sets rules that govern all uses of the oceans and their resources. The UN Fish Stocks Agreement (UNFSA) provides a framework for the conservation and

Table 3.2 Measures to promote sustainable fisheries

	Input controls	Output controls
Management capacity (- to +)	Licenses	Species
	Fishing vessels/units	Reproductive stages
	Gears	Sizes
	Areas	Total quotas
	Time	Individual quotas

Source: International Institute for Sustainable Development (IISD) (nd).

management of straddling and highly migratory fish stocks in the high seas. This is regulated by Regional Fisheries Management Organisations (RFMOs).

In addition, the FAO has developed several agreements to strengthen international legal instruments and provide guidance for national and regional fisheries management. These agreements include the Code of Conduct for Responsible Fisheries and the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, among others. Adopted by the Committee on Fisheries in 1995, the FAO Code of Conduct for Responsible Fisheries provides a framework for national and international efforts to ensure the sustainable exploitation of aquatic living resources while promoting harmony with the environment and biodiversity.

The FAO Committee on Fisheries (COFI) examines major international fisheries challenges and negotiates global binding agreements and voluntary instruments. The FAO's Port State Measures Agreement entered into force in June 2016. This enables countries to impose trade restrictions at the port of entry to prevent the unloading of products originating from IUU fishing (FAO, 2022).

Global ocean governance has taken significant strides forward in 2022–2023 with the conclusion of two sets of long-standing negotiations that impact the fisheries sector. On 4 March 2023, global negotiations concluded the text towards a Biodiversity Beyond National Jurisdiction (BBNJ) Treaty. One of the main goals of this treaty, once it enters into force, will be to ensure the conservation and sustainable use of marine biodiversity, including fish stocks, through the establishment of MPAs, environmental impact assessments, and capacity-building and technology transfer. Additionally, the BBNJ Treaty will support the implementation of the Kunming-Montreal Global Biodiversity Framework, which was adopted in December 2022 by the Conference of the Parties to the Convention on Biological Diversity. The Framework envisages, among other things, conservation and effective management of 30 per cent of oceans and coastal areas by 2030 (CBD, 2022). Ultimately, the BBNJ Treaty will complement the existing ocean legal framework, including the UNCLOS.

The 12th WTO Ministerial Conference (MC12) in June 2022 adopted the Fisheries Subsidies Agreement (FSA), the first WTO agreement to incorporate environmental sustainability provisions (WTO, 2022). The FSA disciplines subsidies contributing to IUU fishing[9] and subsidies for fishing or fishing-related activities regarding an overfished stock, and includes a catch-all provision prohibiting other subsidies, including subsidies provided to fishing or fishing-related activities on the unregulated high seas, outside the jurisdiction of a coastal state, and outside the competence of a relevant RFMO or arrangement. The agreement includes detailed transparency and notification provisions, whereby members must notify subsidy, conservation, and fish stock-related information, as well as vessels or operators that members have determined to be engaged in IUU fishing.

9 That is, subsidies to a vessel or operator engaged in IUU fishing or fishing-related activities in support of IUU fishing.

The agreement provides developing countries and LDCs with some flexibility regarding prohibitions and dispute settlement action relating to their provision of subsidies to IUU fishing and over-fished stocks (OFS) for two years from the date of entry into force of the FSA and for subsidies granted within the EEZ. It also includes targeted technical and capacity-building provisions and establishes a WTO Funding Mechanism[10] to provide support for implementation. WTO members continue the negotiations to achieve a more comprehensive set of disciplines, including targeting subsidies to overcapacity and overfishing.

Regional governance frameworks

The 1995 United Nations Fish Stocks Agreement designates RFMOs as the mechanism through which states can meet their obligations to conserve and manage fish stocks. FAO categorises RFMOs into two types: generic and species-specific (Terje et al., 2020). The first category is responsible for conservation and management of living marine or fisheries resources in general, while the latter deals with the conservation of a particular stock or species, typically highly migratory or straddling stocks that travel long distances. For example, the five tuna RFMOs are responsible for managing fisheries in approximately 91 per cent of the world's oceans (Pew Trusts, 2012).

These inter-governmental bodies operate in almost all parts of the world. For example, the Western & Central Pacific Fisheries Commission regulates highly migratory fish stocks in this region, and the South Pacific Regional Fisheries Management Organisation is responsible for the long-term conservation and sustainable use of fishery resources (Box 3.6). In the Eastern Pacific Ocean, from Canada in the north to Chile in the south, the Inter-American Tropical Tuna Commission is responsible for conserving and managing tuna and tuna-like species. The Fisheries Committee for the West Central Gulf of Guinea, a regional fisheries body based in Tema, supports sustainable fishing activities in the African region.

Although RFMOs are responsible for managing the majority of the world's oceans, there are still large areas of the ocean where significant fishing activity remains unmanaged. RFMOs tend to focus on a limited number of species and do not oversee fishing for sharks or many deep-sea fish species, even if these activities occur within their area of responsibility. Despite this, the importance of RFMOs as international fisheries management bodies is widely recognised, as they play a crucial role in facilitating co-operation between fishing countries.

National governance frameworks

Within their EEZ countries designate marine protected areas (MPAs), as defined geographic areas and habitats managed for long-term conservation. MPAs also function to protect fisheries and ocean resources and complement national fisheries management efforts. Currently, it is estimated that MPAs cover 7.65 per cent of the

10 In co-operation with relevant international organisations such as FAO and the International Fund for Agricultural Development.

Box 3.6 The Parties to the Nauru Agreement (PNA)

The Parties to the eight-member Nauru Agreement (PNA) manage the world's largest sustainable tuna purse seine fishery, covering a combined 14.3 million km2 of EEZ. The PNA controls around 50 per cent of the global supply of skipjack tuna, and about one-third of tuna stocks globally. It has implemented several world-first conservation measures, including high seas closures to fishing, controls on FADs, protection for whale sharks and 100 per cent observer coverage for purse seine fishing vessels (except during the COVID-19 pandemic). In 2011, the Marine Stewardship Council (MSC) certified skipjack tuna caught without using FADs as sustainable, creating the world's largest sustainable tuna purse seine fishery. The PNA is also actively involved in limiting the bycatch of other species, including dolphins.

The focus of PNA's efforts to sustainably manage tuna is the Vessel Day Scheme, where members agree on a limited number of fishing days per year, based on scientific advice about the status of the tuna stocks. These fishing days are then allocated by country and sold to the highest bidder. This allows Pacific nations to harvest the economic benefits from their sustainable management of tuna, estimated to be around US$500 million annually, while preventing over-fishing by requiring foreign fishing fleets to pay to access Pacific waters and comply with fish stock conservation and management measures.

Source: Tauafiafi (2022).

ocean (IISD, 2023). They may range in level of biodiversity protection from minimally protected, to lightly protected (that may still allow some fishing activities), to highly or fully protected (that prohibit commercial fishing).

Within the Commonwealth, Seychelles has provided a good example of leadership in this regard by announcing the culmination of its marine protection initiative during the COVID-19 pandemic, promising to safeguard 30 per cent (or 410,000 km^2) of the island nation's EEZ from commercial use to encourage sustainable development and climate change adaptation. This achievement exceeded Seychelles' 10 per cent protection of its EEZ by 2020 commitment under SDG 14.5. These MPAs have served to increase the resilience of Seychelles' crucial fisheries and tourism sectors, creating safe havens for over 2,600 documented species, some of which are endangered, thereby preventing over-exploitation of fish stocks, protecting jobs in the sector and enhancing food security (Kampel, 2020).[11] Many other Commonwealth countries, such as Namibia, Maldives and the UK, have national regulations that include specific provisions for ensuring the sustainability of their fisheries (Box 3.7, 3.8, 3.9 and 3.10).

11 See also Bonnelame (2021).

Box 3.7 Sustainable fisheries in Namibia

In Namibia, fishing is the third-largest economic sector of the economy, after mining and agriculture. The sector constitutes an estimated 20 per cent of all the country's exports, making it the second-largest source of foreign exchange. A total of 280,000 people in Namibia (11 per cent of the population) depend on small-scale fisheries for income, employment, and food and nutrition security (Anyango, 2022). The bulk of jobs in the downstream onshore processing factories are occupied by women, who clean, fillet and pack the fish for export.

In 2020, the Namibian hake trawl and longline fishery became the second fishery in Africa to meet the Marine Stewardship Council (MSC) sustainable fishing standard (MSC, 2020). This recognition comes after approximately 30 years of joint government and fishing industry efforts to rebuild the key resource of hake stocks. This has included setting fish targets in line with scientific advice, including total allowable catch limits; maintaining high levels of observer coverage on their trawl and longline fleets; and minimising seabird bycatch. As a result of these sustainability endeavours, hake fish stocks have doubled in size.

Namibia's Marine Resources Act of 2000 is regarded as one of the world's most successful fishing policies. Further, in 2022, Namibia unveiled new voluntary guidelines for the sustainable management of the country's small-scale fisheries with a view to implementing its National Plan of Action for Small-Scale Fisheries. The Plan's objective is to empower vulnerable and marginalised small-scale fisheries actors in the sector. It further aims to empower women in the small-scale fisheries food system by strengthening post-harvest processing and trade, and building the capacity of women to improve their skills.

3.6.2 Rewarding sustainable fishing practices

While the global community is working to prevent the depletion of global fishing stocks, governments in major export markets have been adapting their regulatory environments by devising regulations and policy frameworks to incorporate sustainability considerations. The EU's enhanced Generalised Scheme of Preferences (GSP+) offers zero tariff rates in exchange for implementation of certain international conventions related to labour, environmental and climate protection, as well as good governance. Some of these regulations have been introduced to satisfy consumer-driven demand for sustainable seafood production, such as ensuring that there is no use of forced labour.

Tariff preferences and other trade concessions for sustainably sourced ocean-products, such as tuna, can encourage wider adoption of these techniques and help make progress towards SDG 14. Conversely, if unsustainably sourced fish is rewarded with better market access and a higher premium (owing to more favourable tariff concessions), fisherfolk employing more sustainable fishing practices may be incentivised to revert to more harmful, mechanised fishing practices to maintain

Box 3.8 The UK's efforts to promote sustainable fisheries

The UK government has implemented a range of policies and initiatives to address sustainability challenges in fishing. These include setting catch limits, implementing gear restrictions, protecting sensitive habitats and working with fishers to develop more sustainable fishing methods. One of the key initiatives in this area is the Common Fisheries Policy, which is a set of regulations established by the EU to manage fish stocks and promote sustainable fishing practices in European waters. The UK played a significant role in developing this policy and has continued to implement its principles even since leaving the EU in 2020.

The quota management system is another key measure to promote sustainable fishing. The UK sets catch limits for different fish species based on scientific advice. This helps ensure that fish stocks are not over-fished, and that fishers can continue to fish in a sustainable way. The UK has introduced regulations to encourage the use of selective fishing gear, which helps reduce bycatch and damage to the seabed. It has also established a network of MPAs around the coast, which protect important fish habitats and promote biodiversity. The government provides support for fishers to transition to more sustainable fishing practices, including funding for new fishing gear and training in sustainable fishing methods. It is investing in research and innovation to develop new fishing technologies and practices that reduce environmental impacts and promote sustainability.

In addition to government initiatives, many UK fishers and fishing organisations have taken their own steps to promote sustainability. For example, some fishers have voluntarily implemented gear modifications to reduce bycatch and protect sensitive habitats. Others have adopted more selective fishing practices to target only specific species and sizes of fish.

competitiveness in the global market, further exacerbating pressure on fish resources and ultimately accelerating the depletion of fish stocks.

Providing positive trade incentives for sustainably sourced fish can encourage sustainability. However, granting tariff concessions solely on the grounds of sustainability may not be so straightforward under WTO trade rules. Therefore, many countries trend to offer trade concessions in exchange for sustainability practices in bilateral or regional trade agreements (Widmer, 2022).

3.6.3 Promoting aquaculture

Sustainable aquaculture development remains critical to supply the growing demand for aquatic foods (FAO, 2022). Demand for fish and fishery products is expected to increase worldwide in the coming years but fish capture is projected to remain static

Box 3.9 Commonwealth Blue Charter Action Group on Sustainable Coastal Fisheries

With 49 out of 56 countries having marine coastlines, most Commonwealth countries are heavily reliant on coastal fisheries resources for food, livelihoods and employment, and to provide diverse trading opportunities to strengthen national economies. In order to promote sustainability, Kiribati has championed the Action Group on Sustainable Coastal Fisheries under the Commonwealth Blue Charter as a means to co-operatively contribute to the ecologically sustainable management of coastal marine resources. At its first meeting in 2020, Maldives stepped forward to co-champion the Action Group. The main aim of the Action Group is to support ongoing fisheries programmes, efforts and approaches to ensure sustainable coastal fisheries, including alignment of actions towards international, regional and national obligations. Key achievements so far include the establishment of a Kiribati National Taskforce, which has held an initial workshop to generate lessons to be shared with other member countries and to facilitate activities under the Action Group.

The Group has also developed case studies on 'Community-Based Fisheries Management in Kiribati,' 'Lyme Bay Fisheries and Conservation Reserve in the UK' and 'Individual Transferable Quotas for Cod Fisheries in Iceland.' Nearly 70 government officials from 16 Commonwealth countries attended an introductory course on legal, policy and management elements to ensure regulatory compliance for coastal fisheries. Further, all Commonwealth countries with a coast have reported at least once on progress implementing the FAO Code of Conduct for Responsible Fisheries.

Looking forward, the Action Group aims to create a plan of action to drive progress: members agreed a terms of reference at the last meeting, convened in May 2022. It seeks to promote good practices for coastal fisheries, such as the reporting of both catch and effort using available technology and local capacity. The Group also aims to prioritise capacity-building for developing countries, including to revise fishery laws and policies, enhance data collection to better manage stocks, and support initiatives to end harmful fishery subsidies. Additionally, the Champions are driving research projects that advance fishery science as well as monitoring, control and surveillance. The Commonwealth Secretariat is developing a virtual training for the effective enforcement of coastal fisheries.

Source: Commonwealth Secretariat.

or even decline. Aquaculture presents an attractive alternative for fisheries-dependent countries to increase food security, ensure consistent sources of protein nutrition, improve rural incomes and employment, diversify from agriculture production, increase foreign exchange earnings and reduce high food import bills.

Box 3.10 Sustainability regulations in the Maldivian fishing industry

Maldives, a nation consisting of 99 per cent sea, relies heavily on the ocean economy. The country comprises 26 coral atolls and 1,200 islands. Its strong national commitment and regulatory support to the public sector have helped make sustainable fishing successful. The Fisheries Act of 2019 prohibits purse-seining, gillnets, trawl nets and any other form of commercial fishing that uses a net, explosives or chemicals. Instead, the government encourages sustainable methods, including traditional pole and line methods, which result in zero bycatches, perpetuating indigenous techniques that have been in use for over a thousand years. Authorities further utilise Vessel Monitoring System tools to ensure compliance with the regulatory framework.

Such efforts have paid off, as evidenced by the MSC certification of the Maldives skipjack tuna fishery in 2012, the first to occur in the Indian Ocean fishing sector. Greenpeace has also recognised this selective technique as the world's most sustainable and equitable way of catching tuna. In 2022, the United Nations Office for South-South Co-operation recognised this as one of the best practices (Ali and Vickers, 2022).

Additionally, Maldives has successfully increased its efforts to reduce Indian Ocean yellowfin tuna catch by 2019, by under-fishing its RFMO quotas, resulting in larger fish sizes and reduced yellowfin catches by handline. The World Wildlife Fund has congratulated Maldives for its efforts and for taking a leadership role in the sustainable management of tuna fisheries in the Indian Ocean. Maldives has also committed to the Commonwealth Blue Charter and is a co-champion of the Commonwealth Blue Charter Action Group on Sustainable Coastal Fisheries.

Source: Commonwealth Secretariat.

Over the past two decades, aquaculture output has expanded rapidly, producing nearly half of all the fish people consume. Although this expansion has reduced some pressure on wild marine capture, aquaculture still has substantial untapped potential. FAO predicts that aquaculture growth could reach 100 million tonnes for the first time in 2027 and 106 million tonnes in 2030 (FAO, 2022). In the long term, aquaculture could eclipse wild capture fishing as a source of global seafood production.

However, the aquaculture sector has been subject to scrutiny with regard to various issues, including using marine wild capture fish or unsustainable raw materials as fish feed, value chain sustainability, labour conditions, indigenous peoples' rights, biosecurity threats from disease and parasites, climate risk and its overall environmental impact. Despite this, significant developments in this sector have been observed in Commonwealth member countries such as Belize and Jamaica. Many Caribbean countries, including Guyana, Haiti, Suriname, and Trinidad and Tobago, are also placing greater emphasis on harnessing its potential (Roberts, 2014).

3.6.4 Voluntary sustainability standards

VSS are privately established standards that define the requirements for products or processes to address key sustainability challenges, such as environmental impacts, climate change, biodiversity, and workers' and human rights. VSS organisations issue labels or certificates of such, subject to verification of compliance with their rules, rewarding economic actors for producing their goods or services sustainably, typically in the form of market access or price premiums for such goods or services (UNCTAD, 2023).

While not mandatory in all markets, retailers, particularly in Europe, often require sustainability certifications for seafood products on their shelves to reassure consumers about the product origins (CBI, 2022). Several advanced economies have also recently been working to improve seafood traceability as part of the fight against illegal fishing and irresponsible production practices (Milo-Dale, 2021).

The increasing consumer demand for information on the sustainability of fisheries resources and tracking the movement of seafood along fisheries supply chains drives some of these initiatives (CBI, 2022). The growing recognition of VSS by governments and significant support at the global level are also responsible for their adoption and prevalence. Many governments incorporate them in countries' market access regulations (UNCTAD, 2023). VSS also feature in bilateral trade agreements: the United Nations Forum on Sustainability Standards (UNFSS) Fourth Flagship Report identifies at least 19 FTAs that refer to VSS in an aspirational way (UNFSS, 2020). The International Trade Centre maps 42 standards related to aquaculture and fisheries.

VSS can potentially assist fishers in developing countries specifically to improve the sustainability elements of fish harvesting and processing, enabling export of higher value-added commodities that make their products more competitive in international markets (FAO, 2017b). However, the trade-enhancing effects of VSS are quite mixed. While VSS can generate positive sustainability impacts, their effectiveness varies depending on the context. There is some evidence that widespread adoption of VSS could create de facto binding measures, potentially impeding trade and putting some exporters, especially from low-income countries, at a disadvantage. Compliance with the varied VSS schemes in different export markets could lead to increased costs and lower-level producers in global supply chains may be pushed out (UNCTAD, 2023).

Marine Stewardship Council

A well-known seafood sustainability standard is the MSC, a multistakeholder organisation that certifies that a fishery meets international best practice for sustainable fishing. The MSC uses an ecolabel (MSC, nda) and a fishery certification programme (MSC, ndb) to contribute to the health of the world's oceans by recognising and rewarding sustainable fishing practices. Independent certification bodies assess fisheries practices and apply the blue fish label to fisheries certified with the MSC standard. Even though the MSC label is perceived to be a leading certification scheme for sustainable fisheries, it has attracted some criticism (Hillborn, 2015; McVeigh, 2021).

Global Sustainable Seafood Initiative

The GSSI, launched in 2013, is a public-private partnership among over 90 stakeholders along the seafood value chain, including FAO, to promote improvements in and lend credibility to, seafood certification schemes. It has created a seafood sustainability benchmarking tool to provide oversight and clarity regarding the multitude of sustainability certification schemes, to enable clear benchmarking of ecolabel standards and avoid green-washing (Sustainable Fisheries, 2015). The GSSI is based upon the FAO Code of Conduct for Responsible Fisheries and its guidelines for seafood certification and eco-labelling and includes performance indicators for governance, operational management, supply chain traceability and auditing. In 2017, the MSC became the first international seafood sustainability standard applicable to all wild caught seafood to achieve GSSI recognition (MSC, 2017). The GSSI has become a purchasing requirement for many major retailers and brand owners (UNFSS).

The Global Reporting Initiative

The GRI is a leading organisation promoting standardised economic, social and governance reporting standards for corporate entities to ensure transparency. In June 2022, it launched a new disclosure standard for the agriculture, aquaculture and fishing sectors, GRI 13: Agriculture, Aquaculture and Fishing Sectors 2022, to come into effect from 1 January 2024, with early adoption encouraged. This standardised reporting and information disclosure format aims to guide companies in the aquaculture and fishing sectors (as well as the crops and animal sectors) to communicate their impacts on key sustainability elements of the environment, economic development and social dimensions, including those on climate change, biodiversity loss and human rights. It provides a comprehensive template for standardised reporting on progress towards these goals, in alignment with the Accountability Framework and other guidance. Such initiatives appear to have contributed to the refusal of leading European retailers to source endangered fish species from certain regions (Holmes, 2020).

3.7 Conclusion

Global fish stocks are depleting over time, creating numerous sustainability challenges for the livelihoods of communities engaged in fishing. Over-fishing resulting from unsustainable and destructive fishing practices and challenges to marine ecosystems posed by climate change and marine pollution all present grave viability risks to many developing countries, including small states and SIDS. Besides risks to marine ecosystems, these risks threaten the food security of coastal communities and the incomes of poor and vulnerable fishers.

Maintaining healthy fish stocks that meet the requirements of current and future generations requires numerous actions at multilateral, regional and national levels. The adoption of the WTO's FSA could be a catalyst for countries to re-evaluate their economic incentives, enhance sustainable fisheries practices, and improve their fisheries management frameworks. The FSA Funding Mechanism could assist in

building capacity to implement the agreement and develop vital fisheries-related infrastructure.

Many Commonwealth member countries are already taking proactive measures at the national level to ensure the sustainability of their fisheries sectors and meet their environmental and developmental objectives. Governments can harness local communities' indigenous knowledge and innovative conservation and stewardship efforts for the sustainable, inter-generational growth of this sector. Concerted efforts to break down silos between ministries responsible for fisheries, economic affairs, labour and conservation issues would facilitate proper policy coherence and co-ordination. Some advocate that a stronger emphasis be placed on the contribution of fisheries and aquaculture sustainability in Nationally Determined Contributions.

Efforts by trade partners to positively incentivise sustainable production and trade in the fisheries sector will be important to complement international, regional and national sustainability efforts, allowing countries to sustainably trade their way towards a better economic future, whilst ensuring the viability and resilience of fish stocks for future generations. Trade partners can calibrate traditional trade policy instruments, such as tariffs, non-tariff measures and subsidies, to incentivise sustainable sourcing. Such trade measures, at the same time as protecting resources and consumer and human health, should not unduly impact market access and hence economic opportunities.

Alongside public sector measures, VSS like the MSC certification could drive sustainability efforts across the seafood supply chain. However, the effectiveness and impact of specific VSS requires further evaluation. Sustainable fishing requires considerable investment and aid flows into adaptation efforts, infrastructure and skills development in lesser-resourced countries, including in relation to fish production via sustainable aquaculture. Given the potential growth opportunity from aquaculture as a protein-rich alternative to wild capture fish, this sector can provide a viable, sustainable diversification alternative to build resilience in fisheries-dependent economies.

As highlighted in this chapter, women play a significant role in artisanal and subsistence fisheries, particularly in informal, unpaid and subsistence activities, including post-harvest operations. To accurately value their contributions at all stages of the fisheries value chain, including ancillary activities, it is crucial to collect and consolidate disaggregated data specifically on women's participation. Such efforts will provide a comprehensive understanding of women's contribution to the sector and the overall economy.

Annex 3.1 Protected marine area of Commonwealth countries

		Marine area (km²)			Land area (km²)	
Region/ group	**Country**	**Total**	**Protected**	**Protected area ratio**	**Total**	**Marine to land area ratio**
Developed	Australia	7,432,133	3,014,429	40.56	7,722,102	1.0
	Canada	5,698,083	165,311	2.9	9,955,033	0.6
	Cyprus	98,280	121	0.12	9,063	10.8
	Malta	55,697	3,496	6.28	325	171.4
	New Zealand	4,106,954	1,249,447	30.42	269,652	15.2
	United Kingdom	723,405	208,871	28.87	245,248	2.9
Africa	Botswana				581,163	-
	Cameroon	14,704	1,685	11.46	469,428	0.0
	Eswatini				17,336	
	Gabon					
	The Gambia	22,746	16	0.07	10,758	2.1
	Ghana	226,759	221	0.1	240,330	0.9
	Kenya	112,400	904	0.8	586,770	0.2
	Lesotho				30,495	-
	Malawi				118,860	-
	Mauritius	1,280,068	50	0	2,062	620.8
	Mozambique	574,410	12,821	2.23	791,082	0.7
	Namibia	562,728	9,646	1.71	827,465	0.7
	Nigeria	182,868	31	0.02	914,306	0.2
	Rwanda				25,452	-
	Seychelles	1,340,839	207,496	15.48	487	2,753.3
	Sierra Leone	160,453	863	0.54	72,709	2.2
	South Africa	1,542,560	186, 106	12.06	1,224,385	1.3
	Tanzania	243,130	7,330	3.02	947,253	0.3
	Togo					
	Uganda				243,145	-
	Zambia				755,640	-

Region/ group	Country	Marine area (km²)			Land area (km²)	
		Total	Protected	Protected area ratio	Total	Marine to land area ratio
Asia	Bangladesh	84,563	4,530	5.36	140,160	0.6
	Brunei Darussalam	25,698	52	0.2	5,962	4.3
	India	2,301,226	3,928	0.17	3,061,193	0.8
	Malaysia	451,742	6,978	1.54	331,701	1.4
	Maldives	926,827			300	3,090.0
	Pakistan	222,744	1,707	0.77	798,144	0.3
	Singapore	763	0	0.01	605	1.3
	Sri Lanka	534,085	399	0.07	66,632	8.0
Caribbean	Antigua and Barbuda	108,492	197	0.18	455	238.4
	The Bahamas	597,705	47,355	7.92	13,458	44.4
	Barbados	185,020	10	0.01	444	416.7
	Belize	36,250	3,654	10.08	22,298	1.6
	Dominica	28,749	10	0.03	766	37.5
	Grenada	26,282	23	0.09	374	70.3
	Guyana	136,910	17	0.01	211,200	0.6
	Jamaica	246,488	1,860	0.75	11,059	22.3
	St Kitts and Nevis	10,263	17	0.17	271	37.9
	Saint Lucia	15,560	34	0.22	622	25.0
	St Vincent and the Grenadines	36,511	80	0.22	410	89.1
	Trinidad and Tobago	75,798	37	0.05	5,213	14.5
Pacific	Fiji	1,293,035	11,959	0.92	19,155	67.5
	Kiribati	3,459,130	408,797	11.82	1,033	3,348.6
	Nauru					
	Papua New Guinea	2,407,382	4,585	0.19	467,406	5.2
	Samoa	132,306	115	0.09	2,894	45.7
	Solomon Islands	1,609,757	1,843	0.11	29,192	55.1
	Tonga	668,055	10,055	1.51	767	871.0
	Tuvalu	731,900	62	0.01	42	17,426.2
	Vanuatu	622,073	48	0.01	12,575	49.5

Source: United Nations Environment Programme/World Conservation Monitoring Centre using the May 2019 version of the World Database on Protected Areas.

Annex 3.2 Dependence on fish exports (US$ million)

		Merchandise exports (2019–2021 average)		
Region/ group	**Country**	**Total**	**Fish**	**Share (%)**
Developed	Australia	284,486	941.6	0.33
	Canada	445,023	5,841.5	1.31
	Cyprus	3,515	34.7	0.99
	Malta	2,991	137.8	4.61
	New Zealand	41,062	1,191.7	2.90
	United Kingdom	443,933	2,299.9	0.52
Africa	Botswana	5,526	0.8	0.01
	Cameroon	3,785	3.4	0.09
	Eswatini	2,005	0.0	0.00
	Gabon	5,947	23.0	0.39
	The Gambia	76	8.4	11.06
	Ghana	16,817	187.5	1.11
	Kenya	6,204	39.7	0.64
	Lesotho	961	5.2	0.54
	Malawi	861	0.3	0.04
	Mauritius	1,992	329.9	16.56
	Mozambique	4,521	53.3	1.18
	Namibia	6,166	807.0	13.09
	Nigeria	47,534	53.5	0.11
	Rwanda	1,217	2.5	0.20
	Seychelles	454	212.8	46.82
	Sierra Leone	574	36.4	6.35
	South Africa	99,107	594.7	0.60
	Tanzania	5,824	147.4	2.53
	Togo	1,006	1.8	0.18
	Uganda	3,971	139.3	3.51
	Zambia	8,637	10.8	0.12
Asia	Bangladesh	38,278	565.4	1.48
	Brunei Darussalam	8,237	9.0	0.11
	India	331,184	6,654.9	2.01
	Malaysia	257,831	835.4	0.32
	Maldives	311	266.5	85.80
	Pakistan	24,927	425.3	1.71
	Singapore	411,813	273.4	0.07
	Sri Lanka	12,004	290.0	2.42
Caribbean	Antigua and Barbuda	26	0.1	0.28
	The Bahamas	641	47.4	7.39
	Barbados	380	1.5	0.40
	Belize	355	41.2	11.61
	Dominica	19	0.0	0.02
	Grenada	31	6.3	19.96
	Guyana	2,879	100.7	3.50
	Jamaica	1,404	10.2	0.73
	St Kitts and Nevis	59	0.2	0.32
	Saint Lucia	71	0.0	0.02
	St Vincent and the Grenadines	53	1.5	2.83

		Merchandise exports (2019–2021 average)		
Region/ group	**Country**	**Total**	**Fish**	**Share (%)**
	Trinidad and Tobago	7,115	17.9	0.25
Pacific	Fiji	869	109.3	12.58
	Kiribati	10	7.4	71.90
	Nauru	68	41.7	61.05
	Papua New Guinea	10,549	396.4	3.76
	Samoa	38	12.3	32.11
	Solomon Islands	404	57.8	14.31
	Tonga	19	5.3	27.86
	Tuvalu	0	0.0	4.06
	Vanuatu	49	32.8	67.25
	Commonwealth total	2,553,818	23,314.7	0.91

Source: Authors using WITS.

Annex 3.3 Commonwealth countries' fisheries stocks in 1995 and 2018

	1995			2018			Change 1995–2018	
Region/group and country	**Fisheries**	**Total wealth**	**%**	**Fisheries**	**Total wealth**	**%**	**Fisheries**	**Total wealth**
Africa	**29.6**	**6,965**	**0.42**	**7.6**	**15,176**	**0.05**	**–74.13**	**117.87**
Botswana	–	80	–	–	182	–	–	127.1
Cameroon	–	244	–	0.5	597	0.09	–	144.4
Eswatini	–	32	–	–	54	–	–	69.9
Gabon	1.6	85	1.88	0.1	145	0.05	–95.5	70.5
The Gambia	0.3	10	2.96	0.1	18	0.46	–71.6	82.4
Ghana	–	366	–	2.1	948	0.22	–	159.0
Kenya	–	487	–	0.3	1,133	0.03	–	133.0
Lesotho	–	22	–	–	35	–	–	61.0
Malawi	–	58	–	–	143	–	–	147.8
Mauritius	0.5	59	0.90	0.1	125	0.05	–89.1	112.2
Mozambique	1.3	45	2.87	0.4	192	0.23	–66.5	327.9
Namibia	9.6	90	10.72	0.5	162	0.28	–95.3	80.7
Nigeria	–	2,430	–	2.3	5,606	0.04	–	130.7
Rwanda	–	33	–	–	139	–	–	323.1
Seychelles	0.0	–	–	0.2	–	–	570.1	–
Sierra Leone	0.7	29	2.34	0.3	70	0.50	–48.2	144.8
South Africa	14.7	2,152	0.68	0.5	3,719	0.01	–96.7	72.8
Tanzania	0.6	376	0.17	0.3	866	0.04	–49.8	130.6
Togo	0.2	45	0.46	0.0	107	0.02	–87.3	137.6
Uganda	–	127	–	–	445	–	–	249.5
Zambia	–	197	–	–	489	–	–	148.1
Asia	**82.6**	**15,149**	**0.54**	**18.4**	**49,749**	**0.04**	**–77.67**	**228.40**
Bangladesh	–	905	–	3.6	3,109	0.12	–	243.5
Brunei Darussalam	0.0	–	–	0.0	–	–	–6.9	–
India	–	9,082	–	9.0	32,601	0.03	–	259.0
Malaysia	76.2	1,984	3.84	2.9	5,277	0.05	–96.2	166.0

	1995			2018			Change 1995–2018	
Region/group and country	**Fisheries**	**Total wealth**	**%**	**Fisheries**	**Total wealth**	**%**	**Fisheries**	**Total wealth**
Maldives	1.1	7	14.49	0.1	26	0.20	–95.0	253.8
Pakistan	–	1,571	–	2.5	3,476	0.07	–	121.2
Singapore	0.1	1,377	0.00	0.0	4,612	0.00	–82.0	235.0
Sri Lanka	5.2	223	2.32	0.4	649	0.06	–92.3	191.3
Caribbean	**6.4**	**342**	**1.86**	**0.7**	**426**	**0.16**	**–89.36**	**24.50**
Antigua and Barbuda	0.0	–	–	0.0	–	–	–4.1	–
The Bahamas	0.4	–	–	0.1	–	–	–69.0	–
Barbados	0.0	–	–	0.0	–	–	–8.1	–
Belize	2.5	11	23.32	0.3	15	1.79	–89.7	34.5
Dominica	0.1	–	–	0.0	–	–	–89.8	–
Grenada	0.1	–	–	0.0	–	–	–94.8	–
Guyana	2.0	50	4.03	0.2	49	0.31	–92.5	–2.7
Jamaica	0.9	185	0.47	0.0	199	0.02	–96.2	7.3
Saint Lucia	0.1	–	–	0.0	–	–	–95.6	–
St Kitts and Nevis	0.0	–	–	0.0	–	–	–66.9	–
St Vincent and the Grenadines	0.2	–	–	0.0	–	–	–99.6	–
Trinidad and Tobago	0.1	96	0.10	0.1	164	0.04	–37.1	70.9
Developed	**17.9**	**49,322**	**0.04**	**11.1**	**84,110**	**0.01**	**–38.05**	**70.53**
Australia	2.9	9,539	0.03	1.1	20,673	0.01	–61.0	116.7
Canada	9.2	17,813	0.05	6.3	30,475	0.02	–31.4	71.1
Cyprus	0.7	–	–	0.0	–	–	–98.8	–
Malta	0.1	58	0.15	0.2	144	0.11	86.5	147.1
New Zealand	1.8	–	–	1.6	–	–	–13.7	–
United Kingdom	3.1	21,911	0.01	1.9	32,818	0.01	–40.4	49.8
Grand total	**136.4**	**71,779**	**0.19**	**37.8**	**149,462**	**0.03**	**–72.25**	**108.22**

Note: This dataset covers 47 Commonwealth countries; information is missing for nine Pacific member countries.
Source: Authors using data from the World Bank's Changing Wealth of the Nations dataset.

Chapter 4

Forestry

Brendan Vickers

4.1 Introduction

The world's forests play a crucial role in sustainable development and human well-being. They cover nearly one-third of the Earth's land surface and provide a habitat for 80 per cent of terrestrial biodiversity, as well as serving as a source of livelihood for over 1.6 billion people, including more than 2,000 indigenous cultures (FAO, 2022; UN, 2022). Despite their immense economic, social and environmental benefits, forests are rapidly disappearing around the world, although at a slightly slower rate compared with in previous decades.[1] There is a marked divide in the state of the world's forests. In most rich countries across Europe, North America and East Asia, forest cover is increasing, while it is decreasing in many low- to middle-income countries (Ritchie, 2021).

The main drivers of this loss are deforestation and forest degradation. Deforestation is the complete removal of trees for the conversion of forest to another land use, such as agriculture, mining, infrastructure, or towns and cities. It results in a permanent conversion of forest into an alternative land use, whereby the trees are not expected to regrow. By contrast, forest degradation is a thinning of the canopy – a reduction in the density of trees in the area – but without a change in land use. The changes to the forest are often temporary and the trees are expected to regrow (Ritchie and Roser, 2021).

The world passed 'peak deforestation' in the 1980s and rates have been on the decline since then (Ritchie and Roser, 2021). During 1990–2020, 420 million ha of forest were lost to deforestation, mainly in the tropics, especially Brazil and Indonesia (FAO, 2022). Land use change is the primary driver of this, specifically the clearing of forests and woodlands to create pasture for cattle; croplands for soy, palm oil and cocoa; and tree plantations for timber. Both domestic demand and international trade contribute to deforestation, but the relative importance of each factor varies depending on the region and the commodity in question. International trade is responsible for approximately 20-25 per cent of global deforestation, mainly through the production and export of various 'forest risk' commodities in global supply chains. However, most tropical deforestation is driven by local demand for food, fuel and

1 The rate of deforestation is declining over time but was still considerable, at about 10 million ha per year, in 2015–2020. Forest conservation measures such as afforestation and natural forest expansion, estimated at about 5 million ha per year, fell short of deforestation over the same period. As a result, the proportion of forest area in total land area has fallen marginally, from 31.9 per cent in 2000 to 31.2 per cent in 2020 (FAO, 2022).

fibre consumed within domestic markets, as well as land use change for settlement and infrastructure (Ritchie and Roser, 2021).[2]

Achieving sustainability in large forest countries, especially in the developing world, requires a mutually reinforcing relationship between economic and social development and environmental protection. Deforestation has far-reaching consequences for economies, societies and the planet, related to climate change, human rights (especially of indigenous peoples) and global health through increased risk of zoonotic diseases. However, a well-regulated forestry industry can contribute to sustainable development and improved environmental conservation, while creating employment opportunities and facilitating diversification into high value-added and productive activities, supporting the structural economic transformation of many developing countries. For these reasons, Sustainable Development Goal (SDG) 15 seeks to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss (UN, 2015). However, despite some progress in sustainable forest management, the global community did not achieve its goal of ending deforestation by 2020.[3]

In the Commonwealth, forest cover varies widely: countries such as Australia, Canada and Papua New Guinea have extensive forest areas while the small island developing states (SIDS) have limited forest coverage. Sustainable forest economies here can make a significant contribution to achieving a green recovery from the COVID-19 pandemic and tackling environmental crises, including climate change and biodiversity loss. This can be achieved by pursuing three inter-related forest-based pathways: halting deforestation and maintaining forests; restoring degraded lands and expanding agroforestry; and sustainably using forests and building green value chains (FAO, 2022). The pursuit of these pathways can generate sustainable economic and social benefits for countries and their rural communities, help sustainably meet increasing global demand for materials and address environmental challenges. This chapter examines the sustainable production and trade of wood-based goods in Commonwealth countries, which are historically the main products derived from forests and for which established domestic and international markets exist.[4]

The chapter consists of eight sections. The next section presents a brief overview of the forest coverage and wealth of timber resources in the Commonwealth. Section 4.3 examines the Commonwealth's trade in timber and wood products. Sections 4.3–4.4 assess three inter-related dimensions of sustainable development in the timber industry, namely economic, environmental and social sustainability.

2 Ritchie (2021) estimates that 71 per cent of tropical deforestation is driven by demand in domestic markets, and the remaining 29 per cent to produce goods that are traded. 40 per cent of traded deforestation ends up in high-income countries, meaning consumers in these wealthy countries are responsible for 12 per cent of deforestation (see Hoang and Kanemoto, 2021).

3 Target 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally (UN, 2015).

4 The chapter does not cover manufacturing of wood products, like furniture, or paper and pulp.

Section 4.7 discusses the different global, regional, national and voluntary governance arrangements for promoting sustainable forestry production and trade. The chapter concludes with some observations on how to holistically integrate and strengthen economic, environmental and social considerations for the sustainable development of the Commonwealth's forestry sector.

4.2 The Commonwealth's forest coverage and wealth

Forests cover 31 per cent of the Earth's land surface (4.06 billion ha). Commonwealth countries accounted for 23 per cent of this total global forest area in 2020, with forests covering just over 900 million ha. The distribution of this forest coverage varies greatly among Commonwealth regions and countries. Developed countries have the largest percentage of forests, at 55 per cent, followed by Africa (28 per cent), Asia (11 per cent), the Pacific (4 per cent) and the Caribbean (2 per cent). In absolute terms, Canada and Australia have the largest forest areas. However, when measured as a ratio of forested area to land area, most Commonwealth developing countries, especially small states and SIDS, have higher percentages compared with developed countries. Seventeen Commonwealth countries have a forested area that makes up more than 50 per cent of their land area. Guyana, Gabon and Solomon Islands have the highest percentage of forest cover, at over 90 per cent (see Table 4.1). Lesotho, with its mountainous terrain, has the lowest ratio, at 1 per cent.

Table 4.1 Commonwealth countries with more than 50 per cent forest cover, 2020

Country	Forest area		Small state	SIDS	LDC
	km²	% of land area			
Guyana	184,153.4	93.6	x	x	
Gabon	235,306.0	91.3			
Solomon Islands	25,229.7	90.1	x	x	x
Papua New Guinea	358,557.6	79.2	x	x	
Seychelles	337.0	73.3	x	x	
St Vincent and the Grenadines	285.4	73.2	x	x	
Brunei Darussalam	3,800.0	72.1	x		
Dominica	478.7	63.8	x	x	
Fiji	11,400.2	62.4	x	x	
Zambia	448,140.3	60.3			x
Malaysia	191,140.4	58.2			
Samoa	1,616.7	58.2	x	x	
Belize	12,770.5	56.0	x	x	
Jamaica	5,968.9	55.1	x	x	
Grenada	177.0	52.1	x	x	
Tanzania	457,450.0	51.6			x
The Bahamas	5,098.6	50.9	x	x	

Note: LDC=least developed country.
Source: Author using World Bank WDI.

Box 4.1 The Commonwealth Forestry Association

The Commonwealth Forestry Association (CFA) aims to promote the sustainable management of forests and woodlands for the benefit of both people and the environment. Membership of the CFA is open to nationals of all countries and not just Commonwealth members. It includes researchers, foresters, policy-makers and practitioners in the forestry sector.

The CFA's activities focus on five main areas: publishing world-class science in its peer-reviewed forestry journal, the *International Forestry Review*, and the latest global forestry news and views in the *CFA Newsletter*; facilitating networking of professional members and organisations and exchange of knowledge; encouraging professional excellence and promoting career development using a range of awards (e.g., The Queen's Award for Forestry, the Young Forester Award and the Young Scientist Research Award); conducting specific projects in the field; and promoting capacity building by helping to organise training courses, workshops and conferences.

Source: CFA (nd).

Commonwealth countries, like the rest of the world, have been affected by deforestation and forest degradation, and there is strong pan-Commonwealth co-operation to promote sustainable forestry management (see Box 4.1). During the past two decades, many of these countries have seen a decline in forest cover. However, it is encouraging that several, including Australia and India, have managed to increase their forest cover during this period. Additionally, it is worth noting that most of the other countries that have seen an increase in forest cover are small states and SIDS (see Annex 4.1).

According to the World Bank's Changing Wealth of Nations database, Commonwealth countries hold 20 per cent of the world's forestry assets. This includes 27 per cent of global timber assets and 19 per cent of non-timber resources.[5] The value of the world's forests is estimated to have been US$10 trillion in 2018. Commonwealth countries' share of this wealth is valued at $2.08 trillion, with almost half of this held in developed country members. This wealth of forest assets and comparative advantage in natural resources presents the abundantly forested countries of the Commonwealth with significant opportunities for trade in timber, specifically raw and processed wood, as discussed next.

5 This is calculated from World Bank (2021). Timber resources are valued according to the present discounted value of rents from the production of timber over the expected lifetime of standing timber resources. It includes timber production from coniferous and non-coniferous industrial roundwood, and wood fuel. The non-timber category includes three sub-groups of forestry ecosystems services: minor non-wood forest products; recreation, hunting and fishing; and watershed protection (World Bank, 2021).

4.3 The Commonwealth's trade in timber and wood products

Global exports of raw and processed wood products were valued at almost US$155 billion annually during the period from 2019 to 2021, representing about 0.8 per cent of total world merchandise exports.[6] Commonwealth countries are a significant contributor to these exports, accounting for about one-fifth of the total. During this period, these countries' annual wood exports were valued at around $30 billion. When trade in other forest products, such as paper and furniture, is included, the export value more than doubles, to around $70 billion.[7] Commonwealth countries account for 27 per cent of global raw wood exports and 12 per cent of processed wood exports.

Approximately two-thirds of the wood exported by Commonwealth countries is in raw form, valued at US$21 billion (see Table 4.2). This suggests significant potential for increasing the value of these exports through further processing (see Box 4.2). The two largest export categories are simple wood products such as sawn, chipped and sliced wood, including railway or tramway sleepers and planks, and rough wood. Veneer and plywood make up a large part of processed wood exports.

Table 4.2 Commonwealth countries' wood exports, 2019–2021 average (US$ billion)

Code	Wood product	World Value	Commonwealth	
			Value	Share (%)
24	Raw wood	79.9	21.3	26.6
	Of which			
245	Fuel wood, charcoal	1.9	0.3	14.6
246	Wood chips, waste	11.4	2.3	20.6
247	Wood in rough, squared	17.4	6.2	35.7
248	Wood simply worked	48.9	12.4	25.5
63	Processed wood	74.2	9.1	12.3
	Of which			
634	Veneer, plywood	40.0	6.0	15.0
635	Wood manufactures n.e.s.	32.5	3.1	9.4
	Total	154.1	30.4	19.7

Note: Products identified per SITC classification Rev.4 of forest products under Divisions 24 and 63.

Source: Author using WITS.

6 The percentage of wood in merchandise exports from Commonwealth countries is 1.5 times greater than the worldwide average (1.21 per cent versus 0.8 per cent).

7 Global trade in all forest products contributed around 2.3 per cent of the value of global exports and imports in 2020 (FAO, 2022). This trade was valued at over US$300 billion in 2019 and includes a wide range of products such as sawn wood, paper, pulp, furniture and other wood-based products (FAO and UNEP, 2020).

Box 4.2 Sustainable forestry management and wood processing in Gabon

Gabon, a small state that is almost 90 per cent forested, has taken significant steps to combat illegal logging and protect its forests. In 2009 Gabon placed a logging ban on four key species, followed in 2010 by a total ban on log exports. The ban, implemented as part of Gabon's National Forest Strategy, has had a positive impact on the local forestry industry, in terms of both the conservation of Gabon's forests and development of the wood processing sector. Today, Gabon boasts one of the world's most sustainable forestry industries, permitting just 1 or 2 trees to be harvested per hectare every 25 years to allow the forest to regenerate naturally.

The ban on the export of raw logs has been effective in reducing illegal logging in Gabon. By prohibiting the export of raw logs, Gabon has made it more difficult for illegal loggers to profit from their activities. This has led to a decrease in illegal logging and an increase in legal logging, as well as the protection of Gabon's forests.

The ban has also had a positive impact on the development of the local wood processing industry. Prior to the ban, most of Gabon's timber was exported as raw logs, with very little value-added in the country. The ban has encouraged the development of a domestic wood processing sector, which has led to the creation of jobs and increased income for local communities. By one estimate, 40 per cent of urban women are employed in the timber processing industry. The government has made efforts to attract investment in this sector and create jobs through initiatives such as the establishment of the Nkok Special Economic Zone. The establishment of this zone has increased the country's wood industrial capacity by 29 per cent, with projected annual production of 500,000 m^3 of veneer in the future. Gabon is the sixth-largest producer of tropical veneer globally, accounting for 6 per cent of global production in 2016. The country is set to become the second-largest exporter of tropical veneer after Vietnam.

Macro-economic analysis shows that the implementation of this industrialisation and economic diversification strategy is encouraging, with overall sector contributions to gross domestic product (GDP) moving from 2.8 per cent in 2010 to 3.7 per cent in 2017 for forestry, 3.6–5 per cent for agriculture and 3.7–6 per cent for minerals.

The Gabonese ban has reportedly caused some forest management organisations to move operations to other Congo Basin countries, such as Cameroon and Central African Republic. Seven member countries of the Economic and

Monetary Community of Central Africa (CEMAC)[8] have therefore announced a collective export ban and developed a Sustainable Industrialisation Strategy of the Timber Sector in the Congo Basin. This collective ban in the CEMAC zone is intended to prevent displacement of deforestation from one Congo Basin nation to another.

Sources: Interview with Lee White, Minister of Environment (17 August 2021); ANRC (2021); Mba (2021).

Canada is the largest Commonwealth exporter of wood by a significant margin and also holds the top position globally as the leading exporter of softwood lumber, having exported US$16.4 billion in 2021 (Natural Resources Canada, 2022). Collectively, Canada, New Zealand, Malaysia, Australia and Cameroon account for around 85 per cent of the value of the Commonwealth's total wood exports, although this does not constitute a significant share of their overall merchandise exports to the world, with the exception of Cameroon (Figure 4.1) When measured as a share of merchandise exports, Solomon Islands has the highest dependence on the forestry sector, at around 70 per cent of exports. For The Gambia and Sierra Leone, this is more than 20 per cent of exports. Collectively, the Commonwealth's small states and least developed countries (LDCs) have a higher dependence on wood products in their overall merchandise exports compared with the global average.[9] This highlights the importance of the forestry sector for these vulnerable countries, and of sustainable forestry management to ensure long-term economic, social and environmental sustainability.

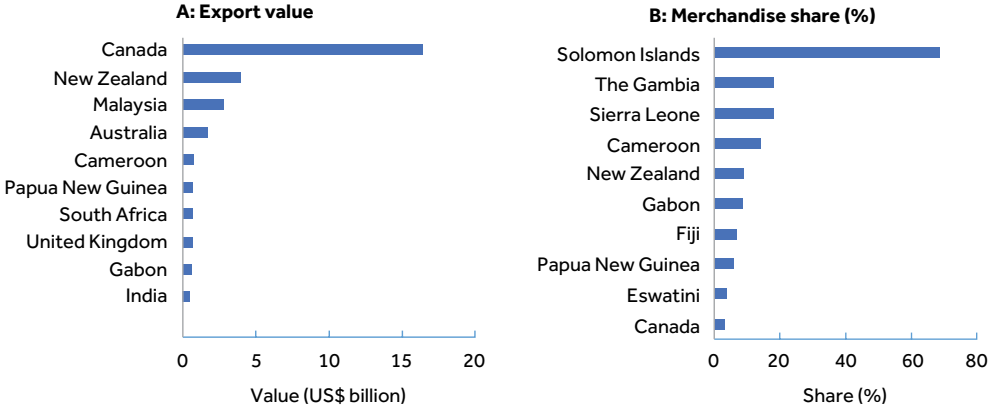
The USA imports nearly 50 per cent of raw wood from the Commonwealth, primarily from Canada (Table 4.3 and Box 4.3). However, the two countries are involved in a trade dispute under the Canada-United States-Mexico Agreement (CUSMA) as a result of the USA imposing anti-dumping and countervailing duties on Canadian softwood lumber (Global Affairs Canada, 2022). Overall, China is the largest importer of unprocessed wood globally, including almost a quarter of the Commonwealth's timber. It is also the biggest producer and consumer of most categories of wood-based products (Hoare and Uehara, 2022). Japan and the EU are also large importers of raw wood from the Commonwealth.

Table 4.4 shows overall global and Commonwealth investors (greenfield foreign direct investment [FDI]) in forestry and logging in Commonwealth countries, over the period 2010–2022. It is noteworthy that the UK, China and Australia are also among the top 10 importers of raw wood from the Commonwealth, as Table 4.4 shows.

8 This group includes Cameroon, Central African Republic, Chad, Republic of Congo, Democratic Republic of Congo, Equatorial Guinea and Gabon.

9 Small states rely on wood products for 2.9 per cent of their merchandise exports, while LDCs rely on them for 1.3 per cent. This is higher than the global average of 0.7 per cent.

Figure 4.1 Commonwealth countries' dependence on wood exports, 2019–2021 average (%)



Note: Products identified per SITC classification Rev.4 of forest products under Divisions 24 and 63.
Source: Author using WITS.

Table 4.5 presents the top 10 investors (greenfield FDI) in the broad wood products sector (which includes furniture, homeware and related products, forestry and logging, and other wood products) in Commonwealth countries over the period 2010–2022. In this case, the USA, China, the UK, South Korea, India and Japan are also among the top 10 importers of raw wood from the Commonwealth (2019–2021) and there may be some linkages in terms of investments in value chains involving processing of raw wood into wood products.

Table 4.3 Top 10 importers of raw wood from the Commonwealth, 2019–2021 average

	Value (US$ billion)	Share (%)
United States	13.94	45.6
China	6.85	22.4
Japan	2.67	8.7
European Union	1.60	5.2
India	0.75	2.4
South Korea	0.62	2.0
United Kingdom	0.55	1.8
Australia	0.39	1.3
Vietnam	0.38	1.2
Netherlands	0.32	1.1
Total	**30.6**	

Note: Products identified per SITC classification Rev.4 of forest products under Divisions 24 and 63.
Source: Author using WITS.

Box 4.3 Canada's sustainable forest sector and wood exports

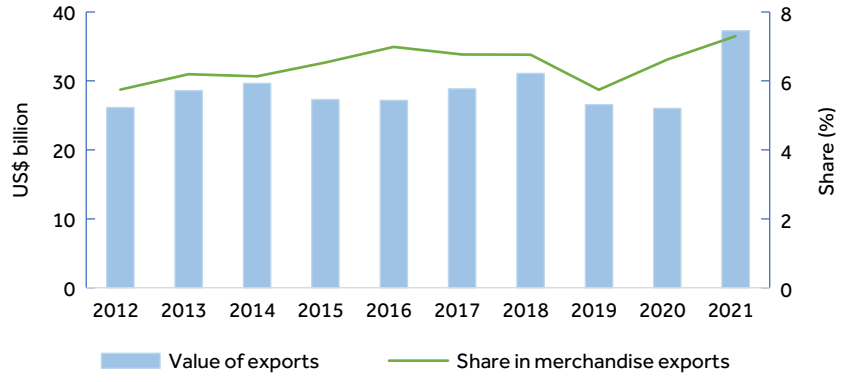
Canada is one of the world's leading exporters of wood and wood products, with a particular focus on softwood lumber – accounting for 14 per cent of global exports of raw and processed wood in 2021 – and pulp and paper (see Figure 4.2). The country's vast forests and well-developed forestry industry make it a significant player in the global wood market.

About 90 per cent Canada's forests are publicly owned (federal, provincial, territorial and municipal) and forests harvested on public lands must be regenerated. Canada has 158 million ha of forest certified to third party standards of sustainable forest management, such as the Forest Stewardship Council (FSC) or the Canadian Standards Association. This represents 35 per cent of the world's certified forest area

The Canadian wood industry is also a significant contributor to the country's economy, providing jobs and income to rural communities. The forest sector contributed US$34.8 billion (1.5 per cent) to Canada's nominal GDP in 2021, a 33 per cent increase from 2020. In 2021, Canada's forest sector directly employed 205,365 people, including an estimated 12,000 indigenous peoples. Exports of forest products accounted for about 7.3 per cent ($44.9 billion) of Canada's total exports in 2021.

The Canadian government is supporting the drive toward sustainability through new and innovative forest products such as building materials (e.g., cross-laminated timber), biofuels that can substitute for fossil fuels, biodegradable replacements for single-use plastics, and various personal care products. The government's Forest Innovation Programme and Investments in Forest Industry Transformation programme support the transformation of

Figure 4.2 Canada's exports of wood and paper products, 2012–2021



Note: Products identified per SITC classification Rev.4 of forest products under Divisions 24 and 63.
Source: Author using WITS.

the Canadian forest sector through research and development, the adoption of innovative technologies and the expansion of value-added forest products, while the Green Construction through Wood programme encourages greater use of wood in construction projects.

Source: Natural Resources Canada (2022).

Table 4.4 Sources of announced greenfield FDI in forestry and logging in Commonwealth countries, 2010–2022 (cumulative value of capital investment, US$ million)

Source country	Host country	Value (cumulative, US$ million)	Share (%)
Finland	Mozambique	2,684.7	93.5
UK	Ghana, Sierra Leone (both US$50.9 million)	101.8	3.5
China	Gabon (US$17.9 million), Malaysia ($37.3 million)	55.2	1.9
Malaysia	Papua New Guinea	22.0	0.8
Australia	New Zealand	7.9	0.3
Total inflows		**2,871.6**	**100.0**

Source: Author using Financial Times fDI Markets dataset.

4.4 Economic sustainability in the forestry sector

The forestry sector is an important contributor to the economy in many countries around the world, including for several members of the Commonwealth, providing employment, income and livelihoods for millions of people, particularly in rural areas. Forestry provides a wide range of products and services that support various industries, including construction, furniture and manufacturing (e.g., paper, lumber, plywood and other products). Additionally, forests offer a wide range of recreational opportunities, such as hiking, camping and hunting, which can attract tourism and generate additional economic benefits.

The formal forestry sector contributed (directly, indirectly and induced) more than US$1.5 trillion to world GDP in 2015 (FAO, 2022). This highlights the significant economic importance of the sector, not only for the countries where it is a major industry but also for the global economy. Additionally, developing countries and LDCs with abundant forest resources can potentially use this comparative advantage to drive structural transformation through strategies for industrialisation (see Box 4.4). Given that many forested countries in Africa that export mostly primary processed wood products also import huge volumes of secondary and tertiary processed forest products, there may be some opportunities for import substitution industrialisation (ANRC, 2021).

Two major challenges for achieving economic sustainability relate to the ways timber is traded, whether through illicit transactions or through legal and sustainable global supply chains. These challenges are briefly discussed next.

Table 4.5 Sources of announced greenfield FDI into the wood products sector in Commonwealth countries, 2010–2022 (cumulative value of investment, US$ million)

Source country	Value (cumulative, US$ million)	Share (%)
Finland	2,704.7	51.6
Ireland	526.5	10.1
Canada	483.7	9.2
United States	325.1	6.2
China	266.1	5.1
United Kingdom	197.4	3.8
South Korea	126.4	2.4
Austria	98.2	1.9
India	79.3	1.5
Japan	77.6	1.5

Source: Author using Financial Times fDI Markets dataset.

Box 4.4 Central Africa's sustainable industrialisation of timber strategy

The Economic and Monetary Community of Central Africa (CEMAC) has developed a sustainable industrialisation of timber strategy to promote responsible and sustainable management of the Congo Basin's forests. The CEMAC zone is home to some of the world's most diverse and valuable forests, which play a vital role in the region's economy and biodiversity. However, these forests are under increasing pressure from illegal logging, land conversion and climate change. The CEMAC strategy aims to address these challenges and ensure that the Congo Basin's forests are managed sustainably for the benefit of present and future generations. The strategy includes several key components:

- creating special economic zones to incentivise investment into timber processing industries;
- establishing a regional committee for industrialisation to provide guidance and co-ordinate the implementation of the log ban and industrialisation policy;
- defining rules for plantation development to ensure an increase in plantation timber availability to meet the demand of the growing processing industry and avoid increased pressure on natural forests; and
- creating a school for training professionals in the sector to ensure the skills are created for the next generation of timber sector professionals.

Overall, CEMAC's sustainable industrialisation of timber strategy is an important step. However, the CEMAC countries will need to work together to put in place the necessary laws, regulations and institutions to ensure the strategy is implemented successfully.

Source: Mba (2021).

4.4.1 Trade and illegal logging

Illegal logging remains a major obstacle to sustainable development in the forestry industry. It includes the unauthorised harvesting, transportation, processing or trade of timber in violation of national or international laws. It is believed that between 10 per cent and 30 per cent of globally traded timber is illegal, with tropical timber trading as high as 90 per cent (May, 2017). The illegal timber trade is valued at approximately US$51–152 billion annually (USAID, nd). As noted earlier, China is the world's largest importer of unprocessed wood and is the destination of more than three-quarters of Africa's timber exports. This demand has raised concern about the environmental and socio-economic impacts of Chinese timber supply chains in Africa (Weng et al., 2014). Beijing's traditional stance has been to avoid interfering in the internal affairs of other countries and to accept any goods they export. However, in recent years, it has taken some measures to prevent the import of illegal timber (Hoare and Uehara, 2022). Other major importers, such as some countries in South Asia and the Middle East, need to make greater efforts to regulate this trade (ibid.).

Illegal logging has a significant impact on the economy, the environment, and local communities and indigenous populations. It can also negatively affect the trade of wood products by oversupplying the market and depressing prices, making it difficult for legal and sustainable operations to compete. It is estimated that illegal logging depresses world timber prices by between 7 per cent and 16 per cent per year and causes a global loss of revenue of around US$15 billion per year. Governments also lose fiscal resources through lost revenue from taxes and duties, as well as the cost of managing illegal logging (Greentumble, 2021). Furthermore, illegal logging undermines the credibility of legally and sustainably harvested wood products, making it difficult for consumers to make informed choices.

4.4.2 International trade and sustainable forestry

The relationship between international trade and deforestation is complex and multi-dimensional, and it can vary depending on the specific commodity and context. On the one hand, trade contributes to the loss of forests when land is permanently converted for cropland, pastures and plantations to expand export-oriented commodity trade.[10] This deforestation is embedded in international trade and supply chains (Pendrill et al., 2019; Hoang and Kanemoto, 2021). By one estimate, 40 per cent of traded deforestation ends up in high-income countries through imports of beef, vegetable oils, cocoa, coffee and paper, which has been produced on deforested land (Ritchie and Roser, 2021).[11]

10 When prices for agricultural products rise, or trade agreements create new market access opportunities for agricultural and food products, there is an incentive for countries with this comparative advantage to intensify deforestation to increase output. The evidence of the effect of the global timber trade on deforestation is more ambiguous because trade can lead to both cutting and planting trees to meet global demand (Bacchus, 2022).

11 For many developed countries as well as China and India, their consumption of commodities such as beef, palm oil and soy induces more deforestation abroad than domestically. Indeed, according to Hoang and Kanemoto (2021), consumption patterns of G7 countries drive an average loss of 3.9 trees per person per year. Each G7 country has a unique deforestation footprint.

However, trade can also play a positive role in promoting more responsible production and consumption of forestry products, which aligns with SDG 12.

To ensure sustainability, large forest countries, especially in the developing world, must derive economic benefits from adopting protective forest policies, despite the pressures to cut down trees for economic growth, job creation, local livelihoods and foreign exchange earnings (*The Economist*, 2023b). One approach to achieve this is by developing more sustainable supply chains for products that can be sold at higher prices in international markets and provide more significant benefits to local populations. For instance, certified wood can be a sustainable option, as discussed later. Another example is sustainable mass timber for the green construction and renovation of buildings, which can provide economic benefits to forest countries while also reducing the carbon footprint of infrastructure. The use of cross-laminated timber in construction is regarded to be the first major structural innovation since the invention of reinforced concrete more than 150 years ago (Henry, 2021). Countries can also monetise their forests through the sale of carbon credits (see Box 4.8). This also relates to environment sustainability, which is discussed next.

4.5 Environmental sustainability in the forestry sector

The production and trade practices of the agriculture and forestry sectors have a direct and significant impact on the environment when not managed sustainably. Forests are rich in biodiversity, including ecosystems, species and genetic diversity (FAO, 2022). They play a crucial role in filtering the air and water, stabilising soils and reducing the risk of natural disasters. However, they are continuously threatened by deforestation and forest degradation caused by human activities.

Globally, around 10 million ha of forest are lost every year, which is an area about the size of Portugal (Ritchie and Roser, 2021). As noted earlier, agricultural expansion is the primary cause of deforestation, accounting for almost 90 per cent of global deforestation, with cropland accounting for 49.6 per cent and livestock grazing for 38.5 per cent (UN, 2022). This land use change has multiple underlying drivers, including poverty and unsustainable production practices and consumption patterns (FAO, 2022). Additionally, there is growing demand for wood and wood products used for fuel, construction and manufacturing.

Forests are both a sink and a source of greenhouse gas emissions: they absorb carbon dioxide via photosynthesis when standing or regrowing and release it when cleared or degraded. Protecting, restoring and expanding forests is therefore crucial for combating climate change and achieving the goal of keeping global temperature rise below 1.5°C compared with pre-industrial levels.[12] Conserving old growth or primary forests is especially important given the significant amount of carbon they

12 Forests contain 662 billion tonnes of carbon, which is more than half the global carbon stock in soils and vegetation. Despite a continued reduction in area, forests absorbed more carbon than they emitted in 2011–2020 due to reforestation, improved forest management and other factors (FAO, 2022). Tropical trees alone are estimated to provide about 23 per cent of the climate mitigation that is needed to offset climate change (World Resources Institute, 2018).

store, which has accumulated over centuries. If released, this extra carbon cannot be captured by younger new growth forests in our lifetime (Pugh, 2020; Harris et al., 2021).[13]

Recent estimates suggest that forests absorb a net 7.6 billion metric tonnes of carbon dioxide per year (Harris et al., 2021).[14] Tropical rainforests play a significant role by absorbing and storing more carbon than temperate or boreal forests.[15] The three most significant tropical rainforests in the world are situated in Southeast Asia, the Congo Basin and the Amazon Basin, which happens to be the world's largest rainforest and absorbs an estimated 5 per cent of all global carbon emissions annually (Bacchus, 2021). However, the expansion of agriculture has led to the destruction of these forests. A recent study suggests that, over the past decade, the Brazilian Amazon has released nearly 20 per cent more carbon dioxide into the atmosphere than it has absorbed (Agence France-Presse, 2021).

Deforestation produces significant amounts of greenhouse gases in the process. In fact, deforestation is the second-largest source of these anthropogenic emissions, behind only the burning of fossil fuels. Deforestation and forest degradation account for about 7-17 per cent of global greenhouse gas emissions, with deforestation alone contributing around 10 per cent of the world's carbon dioxide emissions (IPCC, 2019). If tropical deforestation specifically were considered a country, it would be the third-highest emitter of carbon emissions in the world after China and the US (Seymour and Busch, 2016). The countries with the highest emissions from deforestation are Brazil, Indonesia and Malaysia, which together account for over half of global emissions from deforestation (ibid.). This highlights the urgent need to address deforestation and protect forests as a crucial measure in combating climate change (IPCC, 2019).

The world is making progress towards sustainable forest management, and Commonwealth countries are playing a significant role in this effort (see Box 4.5). Certification, discussed in the next section, is one of the important tools in ensuring that wood and wood products come from responsibly managed forests that provide environmental, social and economic benefits. Between 2010 and 2020, the global share of forests under certification schemes, the proportion of forest within protected areas and the percentage of forests under long-term management plans all increased. Furthermore, more than 700 million ha of forest, which is 18 per cent of the total forest area, are now in legally established protected areas (FAO, 2022). Looking specifically at the Commonwealth, the certified forest area is approximately 215 million ha,

13 Much of the forested area in pre-industrial developing countries is old growth, while in developed countries, except for Canada and the USA, forested areas tend to be new growth, owing to reforestation efforts aimed at undoing the damage of deforestation during industrialisation (Pugh, 2020).

14 According to this research, the world's forests sequestered about twice as much carbon dioxide as they emitted between 2001 and 2019. Forests emitted an average of 8.1 billion metric tonnes of carbon dioxide into the atmosphere each year due to deforestation and other disturbances and absorbed 16 billion metric tonnes of carbon dioxide per year (Harris et al., 2021).

15 The environmental impact of losing three Amazonian trees is estimated to be more severe than the loss of 14 trees in a boreal forest in a country like Norway (Hoang and Kanemoto, 2021).

Table 4.6 Commonwealth countries' certified forest area, 2019 (ha)

Region/country	Voluntary sustainability standard	
	FSC	PEFC
Developed countries		
Australia	1,214,510.69	11,365,106.00
Canada	48,440,537.17	137,112,056.00
New Zealand	1,283,138.10	626,508.00
United Kingdom	1,621,230.87	1,577,258.00
Africa		
Cameroon	341,708.00	
Eswatini	132,972.65	
Gabon	2,061,190.00	596,822.00
Ghana	21,430.34	
Mozambique	118,003.00	
Namibia	726,252.00	
Rwanda	10,002.00	
Sierra Leone	6281.00	
South Africa	1,434,056.88	
Uganda	42,784.55	
Asia		
India	518,824.34	
Malaysia	710,235.28	4,376,622.00
Sri Lanka	19,688.40	
SIDS		
Belize	197,122.00	
Fiji	83,368.18	
New Zealand	1,283,138.10	626,508.00
Papua New Guinea	15,016.50	
Solomon Islands	39,346.50	
Total	**59,037,698.45**	**155,654,372.00**

Note: FSC=Forest Stewardship Council; PEFC=Programme for the Endorsement of Forest Certification.
Source: ITC (nd).

which is around 24 per cent of the total forest area, a much higher percentage than the global figure (see Table 4.6).

Recycled wood is an environmentally sustainable alternative to traditional wood products that can help reduce pressure on natural forests and promote the circular economy. Recycled wood can reduce waste and avoid the need to cut down additional trees.[16] Additionally, the process of recycling wood requires less energy and produces fewer greenhouse gas emissions compared with the production of virgin wood products. Recycled wood can be used for a variety of applications, including furniture, construction materials and paper products.

16 Recycled wood is made from waste wood products that would otherwise be discarded, such as sawdust, offcuts and old furniture.

Box 4.5 The Queen's Commonwealth Canopy

The Queen's Commonwealth Canopy (QCC) was launched at the Commonwealth Heads of Government Meeting in Malta in 2015, with the vision of creating a pan-Commonwealth network of forest conservation projects. It is the only environmental initiative that the late Queen Elizabeth II gave her name to. The QCC is led by the Royal Commonwealth Society in partnership with charity Cool Earth and the CFA (see Box 4.1).

The QCC is a voluntary initiative that aims to promote conservation, sustainable land use and the protection of biodiversity. Additionally, it helps support the livelihoods and well-being of the communities that depend on these forests. The QCC encourages a wide range of activities, including reforestation, forest restoration and the protection of endangered species.

The QCC operates by encouraging Commonwealth countries to dedicate forests or other wooded areas as protected areas, and then connecting these areas to form a network of protected forests spanning the entire Commonwealth. Collectively, these countries have dedicated more than 115 sites and projects to the QCC, conserving almost 12 million ha of indigenous forests around the Commonwealth. They include the Bulburin National Park (Australia), Great Bear Rainforest (Canada), Emalu Forest Project (Fiji), N/a'an ku sê Forest Regeneration Project (Namibia), Mount Terako (New Zealand), Orangerie Bay Community Forest (Papua New Guinea), Central Forest Reserve National Park (St Kitts and Nevis), Botanic Gardens and Bukit Timah Nature Reserve (Singapore), Garden Route National Park (South Africa) and Forest of Marston Vale (UK).

Source: Royal Commonwealth Society (nd).

4.6 Social sustainability in the forestry sector

Forests play a vital role in the lives of over a billion people, providing essential resources such as shelter, jobs, food, medicine, fuel and security (Derouin, 2022). In many tropical countries, forest-adjacent people earn about one-quarter of their income from the forest resources (FAO, 2022). Deforestation, particularly illegal logging, thus has a direct impact on their lives and livelihoods, particularly indigenous and rural communities, where poverty levels and social marginalisation are already high. To achieve sustainable development, forests must be managed in a way that ensures long-term social benefits for local communities and society as a whole through sustainable harvesting of trees and woodlands.

The forestry industry can have a significant impact on human rights, including the rights of workers and indigenous people. Globally, around 33 million people are estimated to work directly in the formal and informal forest sector,[17] accounting for

17 The estimated combined direct contribution of the formal and informal forest sector to employment in 2017–2019 was 33.3 million jobs (based on 185 countries representing 99 per cent of the global forest area; data exclude furniture manufacture) (FAO, 2022).

1 per cent of global employment.[18] In most countries, men dominate employment in this sector, although the share of female employment is higher in some countries, particularly in Africa. Most of this female employment is informal, often related to the gathering and production of wood fuel and non-timber forest products.[19]

Forestry is linked to SDG 8 on decent work and economic growth, but it is also one of the most hazardous industrial sectors in many countries (ILO, 1998). Working conditions in the forestry sector can be challenging, particularly in developing countries where regulations and enforcement are weak. There are several issues affecting workers in the forestry sector, including inadequate safety measures, low wages, long working hours, lack of social protection and limited access to healthcare. Forestry work often involves heavy physical labour, exposure to dangerous heavy equipment and the risk of injury from falling trees or other hazards. Workers may also be exposed to pesticides, herbicides and other chemicals used in forestry management, which can have long-term health effects. In addition to physical risks, workers in the forestry sector may also face social and economic challenges. Many are employed on a seasonal or temporary basis, with little job security or access to benefits such as sick leave or paid vacation time. Wages can be low, particularly for those engaged in manual labour, and women and migrant workers are often paid even less than their male counterparts (ILO, 1998; Cloutier and Laflamme, 2011). Certifications such as the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC), discussed later, are designed to ensure forest products are produced in a sustainable and socially responsible manner. This includes ensuring decent working conditions for forest workers.

The International Labour Organization (ILO) has developed several regulations to protect workers in the forestry sector. In particular, ILO Convention No. 186 on safety and health in forestry work sets out minimum requirements for the safety and health of workers engaged in this sector, including logging and related activities. The convention calls on member states to develop national policies on forestry safety and health, to provide appropriate training and protective equipment to workers, and to establish procedures for reporting and investigating accidents and incidents (ILO, 1998).

There is increasing recognition of the role and rights of indigenous peoples and forest communities in forest governance, management and conservation (Hoare and Uehara, 2022). As of 2017, 447 million ha of forests were legally recognised as owned by local, tribal and indigenous communities (FAO, 2022). The evidence suggests that indigenous-managed lands have significantly lower rates of deforestation and forest

18 Worldwide, more than 19.2 million people were estimated to have been directly employed in the formal forest sector in 2015, with the four subsectors (forestry and logging, solid wood products, pulp and paper, and furniture manufacturing) contributing roughly similar quantities of jobs. More than half the formal jobs worldwide were in Asia, especially East Asia (FAO, 2022).

19 An estimated 3.2 million women were employed in the forest sector in 68 countries for which data were available in 2017–2019, which was 23 per cent of total forest-sector-related employment in those countries. Fewer women than men are employed in the forest sector in most countries, with a participation rate of 4–49 per cent of total forest-related employment (FAO, 2022).

degradation compared with lands under state or private ownership (ibid.). This is because indigenous communities often have a strong conservation ethic and a long-term perspective on resource use. Additionally, many indigenous communities have legal rights to their lands and resources, which gives them a stronger ability to defend against illegal logging and other forms of resource extraction.

However, deforestation activities also have profound impacts on these communities. The most significant effect is displacement from ancestral lands, which can lead to the loss of traditional sources of food, medicines and livelihoods, as well as culture and spiritual practices. Furthermore, deforestation projects, such as logging or mining, are often carried out without the informed consent of local communities, violating their right to participate in decision-making processes that affect their lands, lives and livelihoods. Sustainable production and trade practices in the forestry sector should recognise that indigenous communities have the right to maintain their traditional ways of life and to use and manage the resources they depend on (see Box 4.6).

Deforestation also has impacts on global health and may contribute to raising the threat of pandemics in the future. The destruction of natural habitats and the displacement of wildlife can increase contact and interaction between humans and wild animals. There is a risk of the emergence and spread of zoonotic diseases that can be transmitted from animals to humans, given that approximately 60 per cent of all emerging infectious diseases are zoonotic in origin (Jones et al., 2008). Diseases like Ebola, bird flu, SARS, Zika, Lyme disease and, most recently COVID-19 are examples of zoonotic diseases. Farmers on the frontier and workers hired to clear forest, often people who live in poverty, are most exposed to the risk of

Box 4.6 Indigenous communities, land rights and the Gwaii Haanas Park in Canada

The United Nations Declaration on the Rights of Indigenous Peoples, adopted in 2007, recognises the right of indigenous peoples to their lands, territories and resources, and calls for the protection of indigenous peoples' rights to use, develop and control their lands, territories and resources and to maintain and strengthen their institutions, cultures and traditions. In practice, however, the rights of indigenous communities are often not respected and protected in cases of deforestation. It is important that governments and companies consider the rights and perspectives of indigenous communities and engage them in decision-making processes related to forest management and conservation. For example, the co-management arrangement between the Haida Nation and the Canadian government for the Gwaii Haanas Park in Canada includes a successful forestry programme. The Haida Nation uses traditional practices to manage the forest, including selective harvesting and replanting, resulting in sustainable forestry practices and a thriving ecosystem. The Canadian government provides support for the programme, including training and funding.

Source: Thomlinson and Crouch (2012).

zoonosis (Rainforest Alliance, 2020). There are ways to reduce the risks of zoonotic disease, such as implementing sustainable land use practices (e.g., sustainable forest management to protect natural habitats and biodiversity), preventing illegal hunting and trade of wild animals, and increasing surveillance and monitoring of potential zoonotic diseases.

4.7 Governance arrangements for sustainable forestry production and trade

In the past 30 years, there has been a significant increase in public awareness and international and national efforts aimed at sustainably managing and harvesting forestry resources. Initially, during the 1990s, attention was given to voluntary initiatives, including certification schemes, to manage forests sustainably and improve product supply chains. Despite these efforts, the impact on forest management was limited. While sales of certified products increased, they remained relatively small and confined to niche markets. Certification systems were also easier to implement in developed countries compared with developing countries, where coverage was and remains limited (Hoare and Uehara, 2022).

In the early 2000s, the focus shifted to forest law enforcement and governance, including illegal logging. It was increasingly recognised that tackling the illegal timber trade required efforts from both producing and consuming countries, as well as mechanisms to differentiate legal from illegal timber products. This focus on timber legality – rather than sustainability, for which there is no single definition – was viewed as being more politically acceptable and respectful of a country's sovereignty, as well as more practical and easier to implement because it was based on national legal frameworks (Hoare and Uehara, 2022).

In recent years, there has been renewed discussion on whether to focus international reform efforts on timber legality or sustainability, including forest degradation (Hoare and Uehara, 2022). As discussed earlier, this recognises that illegal logging is not the sole or even main factor contributing to deforestation. Conversion of forests to agricultural land is a more significant contributor to forest loss globally than either illegal or legal logging for wood products. The main policy focus has shifted to tackling deforestation associated with the production and trade of forest-risk commodities, like cocoa, discussed in Chapter 5.

Overall, the past three decades have evolved a range of global and inter-governmental initiatives, national laws and regulations, and voluntary sustainability programmes, to tackle deforestation. These are briefly highlighted below.

4.7.1 Global and inter-governmental initiatives

Several global agreements already exist to support deforestation efforts. These include the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the three Conventions, on Biodiversity, Climate Change and Desertification, that are connected to the Commonwealth's Living Lands Charter (see Box 4.7). However, there is no effective global agreement focused solely on forests

and tackling deforestation. The 1992 Earth Summit in Rio de Janeiro had aimed to establish one but ultimately produced only the Global Forest Principles under a new norm of sustainable forest management. The New York Declaration on Forests, a multi-stakeholder partnership and action plan established at the 2014 UN Climate Summit, produced the first global timeline to slow and end forest loss.

There is also significant international co-operation around specific forest biomes. The International Tropical Timber Organisation (ITTO) is an inter-governmental organisation established under the International Tropical Timber Agreement (ITTA) to promote the sustainable management and conservation of tropical forests, as well as the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests. ITTO develops internationally agreed policy guidelines and norms to encourage sustainable forest management and sustainable tropical timber industries and trade; assists tropical members to adopt such guidelines; and promotes sustainable tropical timber supply chains. ITTO's membership represents about 90 per cent of the global tropical timber trade and more than 80 per cent of the world's tropical forests (ITTO, nd).

The Montreal Process is another international working group of twelve countries from the southern and northern hemispheres committed to sustainable management of temperate and boreal forests. The member countries use common set of science-based criteria and indicators to measure progress toward the conservation and sustainable management of 90 per cent of the world's boreal and temperate forests (Montreal Process, nd).

Deforestation has become a critical issue in the United Nations Framework Convention on Climate Change (UNFCCC) because of forests' vital role in mitigating and adapting to climate change and the emissions generated by the global trade of forest-linked products. The UNFCCC addresses this issue through two key instruments: the Reducing Emissions from Deforestation and Forest Degradation (REDD+) programme and the Land Use, Land Use Change and Forestry (LULU) mechanism, together with financing mechanisms. REDD+ aims to provide financial incentives for developing countries to reduce emissions from deforestation and promote

Box 4.7 Commonwealth Living Lands Charter

The Commonwealth Living Lands Charter was officially adopted at the Commonwealth Heads of Government Meeting in Kigali, Rwanda in June 2022. The Charter is an agreement by all 56 member countries to safeguard global land resources, take co-ordinated action to address climate change, biodiversity loss and land degradation or desertification, and promote climate-resilient and sustainable land use and management. The Charter provides a framework for countries to collaborate and share knowledge and best practices in the management of their land resources.

Source: Commonwealth Secretariat.

Box 4.8 Forest finance and carbon credits under REDD+

Countries can monetise their forests through climate finance and carbon credits under REDD+. Carbon credits allow companies to compensate for their greenhouse gas emissions. Forest countries and communities can propose and implement a project to protect and restore their forest, instead of cutting them down for logging mining, and industrial agriculture, which releases millions of tonnes of carbon dioxide into the atmosphere in the process. One carbon credit is issued for every tonne of carbon dioxide that would have otherwise been released. Commonwealth countries like Gabon, Guyana and Kenya have used carbon credits.

However, the current carbon market fails to reward countries for their overall environmental performance in protecting their existing forest assets. Countries such as Gabon are keen to capitalise on their forest conservation efforts. Gabon absorbed approximately 1 billion tons of carbon dioxide from the atmosphere between 2010 and 2018. Under REDD+, Gabon aims to produce 187 million carbon credits, out of which almost half (90 million) could be sold on the offsets market. This would be the most significant issuance in history and could generate approximately US$2 billion or more for the country.

Source: Bloomberg News and Forbes sources.

sustainable forest management practices (see Box 4.8). LULU ensures transparency and accountability in the use of funds through reporting and verification procedures. These initiatives are funded through governments, the private sector and carbon markets.

The Glasgow Leaders' Declaration on Forests and Land Use was announced at the 26th Conference of the Parties (COP26) to the UNFCCC held in Glasgow in 2021 (United Nations Climate Change Conference UK, 2021). More than 100 countries pledged to end and reverse deforestation by 2030 and to support restoration and sustainable production and consumption. A dozen countries that signed the pledge promised to provide US$12 billion between 2022 and 2025 to mitigate the damage to forests from wildfires, to restore land and to assist indigenous communities.[20] Other donors in the private sector pledged $7.2 billion to support the development of agriculture strategies that do not rely on deforestation. At COP27 in the following year, 26 countries and the EU – which together account for over 33 per cent of the world's forests and nearly 60 per cent of the world's GDP – launched the Forest and Climate Leaders' Partnership, co-chaired by Ghana and the USA, to accelerate implementation of these commitments (Cabinet Office, 2022).

20 It is reported that public donors have already spent US$2.67 billion of the $12 billion committed in 2021 to protect and restore forests. At COP27, a further $4.5 billion from public and private donors was committed (Cabinet Office, 2022).

As COP26 President, the UK also launched the Forest, Agriculture and Commodity Trade Dialogue, with Indonesia as co-chair. This government-to-government dialogue is bringing together the largest producers and consumers of internationally traded agricultural commodities (such as palm oil, soy, cocoa, beef and timber) to protect forests and other ecosystems while promoting sustainable trade and development and addressing the climate and biodiversity crises. It has adopted a roadmap covering four key and related areas of work encompassing trade and market development; smallholder support; traceability and transparency; and research, development and innovation.

In December 2022, the Conference of the Parties to the Convention on Biological Diversity adopted the Kunming-Montreal Global Biodiversity Framework. This historic Framework sets out an ambitious pathway to reach the global vision of a world living in harmony with nature by 2050. One of the Framework's targets for 2030 is to ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity (CBD, nd).

The World Trade Organization (WTO) does not have a direct role in addressing deforestation, but trade policies and agreements under the agency can have indirect impacts on deforestation by affecting demand for forest products and by providing incentives for sustainable forest management. Some countries use trade measures to restrict imports of products linked to deforestation. The WTO rules allow such measures to be taken, if they are based on scientific evidence and not used as a means of arbitrary discrimination or a disguised restriction on trade. Additionally, the WTO regulates trade in forest products through various agreements, such as the Agreement on Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade. On the other hand, Bacchus (2022) makes an argument for the WTO to negotiate new multilateral rules to help protect the world's forests, drawing on the experiences of recent bilateral and regional trade agreements, as discussed later.

The Committee on Trade and Environment (CTE) of the WTO serves as a platform for multilateral discussions among members regarding environmental measures related to trade, including the effects of such measures on exports from developing countries. The Trade and Environmental Sustainability Structured Discussions (TESSD), involving some WTO members, offers another platform for discussion and co-operation on trade and environmental issues, including those related to forestry. The CTE and TESSD could focus on topics like sustainability standards, certification and eco-labelling, as well as trade and investment issues related to forests and other natural resources. The TESSD provides a space for information exchange and stakeholder engagement on these issues and aims to promote sustainable trade and environmental practices (WTO, nd).

4.7.2 National laws and regulations

Many forest producing countries have adopted laws to regulate logging activities and enforce penalties for illegal logging. Additionally, many consuming countries have laws that prohibit the import of illegally harvested wood and wood products. These include Australia's Illegal Logging Prohibition Act, Canada's Illegal Logging Prohibition Act, China's Forest Law, the EU's Timber Regulation (see Box 4.9), the

Box 4.9 The EU's Green New Deal and efforts to combat deforestation

The Commonwealth includes two EU member countries, Cyprus and Malta. The EU's FLEGT Action Plan was adopted in 2003. A core element of this is the negotiation of bilateral voluntary partnership agreements (VPAs) between EU and timber-producing countries. As of March 2023, seven countries have ratified a VPA with the EU, including two Commonwealth countries, Cameroon and Ghana, and Central African Republic, Republic of Congo, Indonesia, Liberia and Vietnam. The EU offers incentives in the form of trade preferences for timber products that are licensed as legal (i.e., that obtain a FLEGT licence).[21] Additionally, the Action Plan includes commitments to consider additional legislative options to prohibit the import of illegal timber; encourage voluntary industry initiatives and government procurement policy to limit purchases to legal sources; and encourage financial institutions to scrutinise investments in the sector. The EU Timber Regulation entered into force in March 2013 and prohibits the placing of illegal timber on the EU market.

More recently, as part of its Green New Deal, the European Commission (EC) announced its plan to improve due diligence requirements in supply chains for imports into the EU market, or exports from it, of palm oil, cattle, soy, coffee, cocoa, timber and rubber as well as derived products (such as beef, furniture and chocolate). A company will have to guarantee that such a product placed on the EU market is not linked to an area that was deforested after 31 December 2020 (EC, 2022). However, in September 2022, the European Parliament proposed to extend this to include charcoal, corn, natural rubber, poultry, printed paper products, sheep and goats, and swine, and to tighten the cut-off date by one year to 31 December 2019.

The EU's proposed plan has raised various concerns, including about the cut-off date, applying a single definition of 'forest' for all countries and biomes, and failure to differentiate between legal and illegal production. This could unfairly penalise exports from many developing and least developed countries, while Canada has raised concerns that 'burdensome' requirements will hurt trade between Canada and the EU (BBC News, 2022). Karsenty (2022) proposes an alternative 'graduated response' model that incorporates considerations of timber legality, modulated tariffs on imported products, information and guarantees from sector actors, and certification by independent bodies.

Sources: BBC News (2022); EC (2022); Hoare and Uehara (2022); Karsenty (2022); FLEGT (nd).

UK's Environment Bill (Department for Environment, Food & Rural Affairs, 2020) and the USA's Lacey Act, among others.[21]

21 Of the 15 exporting countries involved in the FLEGT process, Indonesia is the only one able to issue a licence. This suggests that the FLEGT initiative is failing, particularly given the financial commitment made by the EU (Karsenty, 2022).

Forest governance has significantly improved in several countries over the past decade. However, this progress has been mainly in supply chains for export markets, rather than in domestic markets. Although forest protection laws are typically stringent on paper, they may not be effectively enforced due to a lack of political will or weak institutional support (*The Economist*, 2023a). Greater efforts are required to enhance domestic market regulation, such as strengthening property rights and land titling, implementing public procurement policies for timber (already drafted by Cameroon and Ghana, while Papua New Guinea has a new amended law), improving law enforcement, combating corruption and reforming artisanal and small-scale logging (Hoare, 2020; *The Economist*, 2023a).

4.7.3 Trade agreements

Parties to bilateral or regional trade agreements can include forest conservation-related provisions to address environmental objectives. By one count, there are nearly 300 different types of environmental provisions in 730 trade agreements.[22] According to Larrea et al. (2021), these provisions fall into three categories of substantive law.

The first are declarative clauses, whereby most agreements simply reference Article XX of the General Agreement on Tariffs and Trade or Article XIV of the General Agreement on Trade in Services, together with their wording, 'necessary for the protection of human, animal and plant life and health.' Some free trade agreements (FTAs) involving Commonwealth countries, like the China-Pakistan FTA or the Australia-New Zealand-Association of Southeast Asian Nations FTA, contain preambular language with references to the environment or sustainable development (Ibid.).

The second are co-operation provisions, especially in a series of FTAs involving Latin American countries. These include the identification of priority areas – such as forest management – for which specific work programmes must be established. Some examples involving Commonwealth countries are the Canada-Colombia FTA and the Chile-Malaysia FTA (Larrea et al., 2021).

The third are specific commitments in forest-related articles. More recent EU trade agreements include a full and separate chapter on 'Trade and Sustainable Development,' which contains legally binding commitments by the parties for a range of multilateral environmental agreements and conventions of the International Labour Organization. The EU-Canada Comprehensive Economic and Trade Agreement and the EU-Mercosur FTA encourage trade in 'forest products from sustainably managed forests and harvested in accordance with the law of the country of harvest.'[23] Other EU trade agreements require, among others, the effective implementation of CITES, the development of verification systems or the use of certification schemes (Cordonier Segger, 2021; Larrea et al., 2021).

22 There are at least 19 free trade agreements (FTAs) that mention voluntary sustainability standards (VSS) or related terms such as 'eco-labelling', 'sustainability standards' or 'certifications' (Larrea et al., 2021).

23 The EU initially refused to ratify the EU–Mercosur FTA, which includes Brazil, unless the country committed to do more to save the Amazon rainforest.

The USA-Peru Trade Promotion Agreement includes a Forest Annex, which contains provisions for Peru to reduce illegal logging through law enforcement and monitoring. The USA has provided financial and technical assistance to meet these goals. In other agreements, the USA has provided direct financial aid to address illegal logging. The USA-Indonesia FTA contains a Working Group on Combating Illegal Logging and Associated Trade, which promotes the legal trade of timber products (Larrea et al., 2021).

The European Free Trade Association-Indonesia Comprehensive Economic Partnership Agreement is the first trade agreement to contain a regulatory distinction between conventional and sustainable production. It conditions preferential market access for all vegetable oils and their derivatives based on environmental and social sustainability.[24] While this agreement raises some issues about WTO compatibility, especially by using process and production methods to differentiate between products,[25] it could offer a potential template for sustainability provisions in future trade agreements.

Overall, however, the extent to which these environmental provisions are enforceable and have an impact on forestry practices varies greatly among trade agreements. Their effectiveness also depends on the implementation and enforcement of the relevant provisions by the parties.

4.7.4 Voluntary sustainability programmes

Forest certification is a voluntary, market-based mechanism whereby an independent third party audits the quality of forest management and production against a set of predetermined performance-based standards and assures the chain of custody from forest to the final product (UNCTAD, 2021).[26] These standards address a wide range of economic, social environmental and technical aspects of forest management, including the well-being of workers and of families living in and around the forest area subject to certification.

Forest certification schemes can also provide a way for consumers to identify and purchase products that come from responsibly managed forests, through associated labelling and branding. In some cases, certification may be essential for maintaining

24 Articles 8.10(2) a and 8.10(2):e require these products to be traded in accordance with the 'laws, policies and practices aiming at protecting primary forests, peatlands, and related ecosystems, halting deforestation, peat drainage and fire clearing in land preparation, reducing air and water pollution, and respecting rights of local and indigenous communities and workers.'

25 The WTO has seen several disputes related to the use of process and production methods. The dispute settlement system provides a means for resolving these disputes and ensuring that trade policies are based on legitimate objectives and are not more trade-restrictive than necessary.

26 There are two types of forest certification. The first is certification of forest management, which assesses whether forests are being managed according to a specified set of standards. The second involves certification of the chain of custody, which verifies that certified material is identified or kept separate from non-certified or non-controlled material through the production process, from the forest to the final consumer. Certification of a final product requires both forest management certification and chain-of-custody certification (FAO, nd; Nussbaum and Simula, 2018; Upton and Bass, 2019).

access to some markets, especially developed countries. There is also an assumption that certified wood products will attract higher prices in the market and thus provide a financial incentive for sector actors adhering to environmentally and socially responsible forest operations. However, it has been found that certified forest products do not always obtain higher prices compared with uncertified products (Nussbaum and Simula, 2018; Upton and Bass, 2019). Ensuring the authenticity of certified wood is crucial to maintaining sustainable forestry practices but there are risks of fraud and non-compliant timber entering supply chains. To combat this, technology such as blockchain is being utilised to ensure traceability in sustainable forestry supply chains.[27]

There are also various costs when seeking certification, which may adversely affect small and medium enterprises, and other small-scale operators in the timber sector, including traditional or community-based operations. Direct costs include fees paid to certifiers for assessments, audits, stakeholder consultations and report preparation. Achieving certification standards may also require investments in machinery, staff training, infrastructure and logistics. Indirect costs, which may be more significant than direct costs, can arise from the gap between current management quality and the standards required for certification. Direct costs are usually fixed, and they decrease relative to the amount of wood produced or forest area. Indirect costs, on the other hand, increase as operations grow, in response to the need to improve practices across larger areas (Nussbaum and Simula, 2018; Upton and Bass, 2019).

The FSC and the PEFC are the most widely recognised certification systems for wood products. The FSC is the oldest certification scheme (in place since 1993) and verifies that the wood used in a product comes from responsibly managed forests that meet specific environmental and social standards. The FSC system also includes chain of custody certification. The FSC has 10 principles to ensure sustainable forestry management, and they are relevant to different kinds of forest ecosystems and diverse cultural, political and legal settings. The FSC has certified around 440 million ha, comprising around 10.7 per cent of all global forests and almost 30 per cent of industrial roundwood production (Bacchus, 2022).

The PEFC was established in 1999 to promote sustainable forest management through independent third-party certification. PEFC is the largest certification framework in terms of forest area, accounting for about two-thirds of the total certified area worldwide, while the FSC is the fastest-growing scheme (by certified area). By 2013, the FSC and the PEFC combined had issued more than 10,000 certificates for nearly 400 million ha of forest, of which approximately 90 per cent was in Europe and North America.

The FSC and PEFC have different approaches to certification. The FSC accredits certifiers that audit forest operations to ensure compliance with FSC standards, and

27 The FSC uses wood identification technologies to determine the species and origin of harvest locations, and these technologies can be used to identify the specific forest where the wood product originates if there are other wood samples the scheme has collected for comparison purposes. Additionally, the FSC is piloting FSC Blockchain Beta to ensure products sold along the supply chain comply with its standards and to confirm their authenticity (Larrea et al., 2021).

forest enterprises certified in this way can use the FSC label. In contrast, the PEFC endorses national certification systems (e.g., the Australian Forestry Standard), which develop their own standards and accredit certifiers; forest operations certified in this way can use the PEFC label (see Box 4.10).

Box 4.10 Comparing the FSC and PEFC schemes

While the FSC and the PEPC focus specifically on timber and wood products, several other voluntary sustainability standards (VSS) have been established for forest risk commodities, to protect the environment, prevent deforestation and encourage reforestation. These VSS include Fairtrade (cocoa), Rainforest Alliance (cocoa, palm oil), Organic (cocoa, palm oil, soy), Roundtable on Sustainable Palm Oil, International Sustainability and Carbon Certification (palm oil, soy), Roundtable on Responsible Soy and ProTerra (soy). While Chapter 5 discusses the use of these VSS in the cocoa sector, Larrea et al. (2021) note that they have had mixed results in preventing deforestation. To improve outcomes, one approach is to build stronger synergies between VSS and trade agreements.

FSC principles	PEFC criterion
1. Comply with all applicable laws; 2. Maintain or improve the social and economic well-being of workers; 3. Uphold the rights of indigenous peoples; 4. Maintain or improve the social and economic well-being of local communities; 5. Manage their products and services in a way that maintains or improves their long-term economic viability, social benefits and environmental benefits; 6. Maintain, conserve and/or restore the ecosystem services and environmental values of managed forests; and also avoid, repair or mitigate negative environmental impacts; 7. Establish a management plan that outlines their economic, environmental and social policies and objectives; 8. Demonstrate progress towards meeting these objectives; 9. Maintain or improve high conservation values; 10. Ensure that all management activities comply with FSC principles and criteria.	1. Maintain and enhance forest resources and their contribution to the global carbon cycle; 2. Maintain the forest ecosystem health and vitality; 3. Maintain and encourage productive functions of forests (wood and non-wood); 4. Maintain, conserve and enhance biological diversity in forest ecosystems; 5. Maintain and enhance protective functions in forest management (notably soil and water); 6. Maintain other socio-economic functions and conditions; 7. Comply with legal requirement.

Source: https://fsc.org/; https://pefc.org/

Today, there are more than 50 certification schemes addressing a wide variety of forest types, tenure and management regime (FAO, nd). Some countries have developed their own national forest certification standards, procedures and agencies, usually based on an international model. This raises a risk that so many schemes will confuse consumers and thus jeopardise one of the primary goals of certification, which is to provide consumers with accurate and trustworthy information about the status of forests from where their wood purchases originate.

4.7.5 Industry-specific initiatives

In the manufacturing sector, several large furniture companies have adopted their own sustainability standards to ensure their products are environmentally friendly and ethically sourced. One such company is IKEA, a multinational corporation that designs and sells ready-to-assemble furniture, home accessories and kitchen appliances.

In 2010, IKEA implemented a new code of conduct for its suppliers covering forest-related issues, as well as working conditions, and later developed its own IKEA Forestry Standard (IFS), which specifies requirements for responsible forest management, biodiversity conservation and social responsibility. The IFS is aligned with internationally recognised forest certification schemes such as the FSC and the PEFC and ensures that the wood used in IKEA products comes from responsibly managed forests. In 2020, the company achieved its goal of only using wood certified by the FSC or recycled wood. In January 2021, IKEA presented its new forest agenda to improve global forest management by 2030. The aim is to enhance biodiversity, mitigate climate change and promote innovations that make it possible to use wood more smartly (IKEA Museum, nd).

4.8 Conclusion

The Commonwealth's diverse forest cover presents both challenges and opportunities for sustainable development. The forestry industry in many Commonwealth countries generates employment and enables diversification into high value-added and productive activities. This can contribute significantly to achieving a green recovery from the COVID-19 pandemic and tackling environmental crises such as climate change and biodiversity loss. However, Commonwealth countries also face the challenges of tackling deforestation and forest degradation.

Sustainable forestry management, and production and trade practices are critical for ensuring long-term economic viability and preserving the ecological, social and economic benefits of forests. Sustainable forest management is crucial to achieving SDG 15 and addressing environmental challenges such as climate change and biodiversity loss. While progress is being made, there is still much work to be done to ensure sustainable forest management globally.

Deforestation is a pressing issue that requires concerted efforts at the national, regional and global levels. To effectively address this challenge, it is crucial to implement various measures. At the national level, strengthening domestic market regulations

is critical. This includes strengthening property rights and land titling, implementing public procurement policies for timber, improving law enforcement to deter illegal logging, combating corruption, and reforming artisanal and small-scale logging activities. At the regional level, a ban on illegal logging and the adoption of regional industrialisation strategies for the timber sector could yield significant benefits. These measures could promote sustainable forest management practices and contribute to the conservation of forest ecosystems. At the global level, collaboration between governments, industry and civil society, including indigenous peoples and forest communities, is essential to protect forests. While there is no dedicated international agreement to address deforestation, there are various opportunities to co-operate and address this issue. This includes supporting sustainable forest management practices, promoting reforestation efforts and providing financial incentives for the conservation of forests.

Achieving sustainability in large forest countries, particularly in the developing world, requires a mutually reinforcing relationship between economic and social development and environmental protection. It is imperative for these countries to derive economic benefits from adopting protective forest policies, despite the pressures to cut down trees for economic growth, job creation, local livelihoods and foreign exchange earnings. This could entail encouraging the development of green value chains by supporting local communities, and small and medium-sized enterprises involved in forest-based industries, or promoting responsible trade and consumption of forest products, including through certification schemes that ensure sustainable sourcing and production. Furthermore, carbon credits can provide financial incentives for forest countries to reduce deforestation rates and promote sustainable forest management, contributing to climate change mitigation.

Technology can support these efforts. Satellite imagery and machine learning algorithms can help in monitoring deforestation in real time and detecting illegal logging activities. Drones are also used to gather data on forest health, while blockchain technology can improve supply chain transparency and traceability, ensuring timber comes from sustainable sources.

The impact of agricultural commodities for export, such as cocoa, on deforestation is a significant issue that requires urgent attention to promote sustainable forest management and protect forest ecosystems. Cocoa farming has been a primary driver of deforestation in many tropical regions, especially in West Africa, where it is a vital cash crop. This is examined in the following chapter.

Annex 4.1 Forest area of Commonwealth countries

		2000			2020			Changes during 2000–2020	
		Forest area		Forest rent	Forest area		Forest rent		
Region/group	Country	Million ha	% of land	% of GDP	Million ha	% of land	% of GDP	Million ha	% of land (pp)
Developed	Australia	131.8	17.2	0.18	134.0	17.4	0.18	2.19	0.26
	Canada	347.8	38.8	0.20	346.9	38.7	0.07	−0.87	−0.10
	Cyprus	0.17	18.6	0.00	0.17	18.7	0.00	0.00	0.10
	Malta	0.00	1.1	–	0.00	1.4	–	0.00	0.34
	New Zealand	9.9	37.4	0.96	9.9	37.6	1.14	0.04	0.16
	United Kingdom	3.0	12.2	0.00	3.2	13.2	–	0.24	0.98
Africa	Botswana	17.6	31.1	0.30	15.3	26.9	0.31	−2.37	−4.17
	Cameroon	21.6	45.7	2.66	20.3	43.0	2.62	−1.26	−2.66
	Eswatini	0.5	27.5	2.78	0.5	28.9	3.82	0.02	1.41
	Gabon	23.7	92.0	4.00	23.5	91.3	3.28	−0.17	−0.66
	The Gambia	0.4	35.3	2.26	0.24	24.0	2.82	−0.11	−11.33
	Ghana	8.8	38.9	9.73	8.0	35.1	3.75	−0.86	−3.79
	Kenya	4.0	7.0	3.29	3.6	6.3	1.20	−0.35	−0.62
	Lesotho	0.03	1.1	3.46	0.03	1.1	5.10	0.00	0.00
	Malawi	3.1	32.7	10.03	2.2	23.8	3.96	−0.84	−8.91
	Mauritius	0.04	20.7	0.01	0.0	19.1	0.00	−0.00	−1.56
	Mozambique	41.2	52.4	6.21	36.7	46.7	7.44	−4.44	−5.65
	Namibia	8.1	9.8	0.36	6.6	8.1	0.83	−1.42	−1.73
	Nigeria	24.9	27.3	2.32	21.6	23.7	1.04	−3.27	−3.59
	Rwanda	0.3	11.6	5.03	0.3	11.2	3.90	−0.01	−0.45
	Seychelles	0.03	73.3	0.11	0.03	73.3	0.16	0.00	0.00
	Sierra Leone	2.9	40.6	14.26	2.5	35.1	7.78	−0.39	−5.47
	South Africa	17.8	14.7	0.82	17.1	14.1	0.81	−0.73	−0.60
	Tanzania	53.7	60.6	3.51	45.7	51.6	2.39	−7.93	−8.95
	Togo	1.3	23.3	7.14	1.2	22.2	2.95	−0.06	−1.09
	Uganda	3.2	15.8	12.05	2.3	11.7	7.27	−0.83	−4.17
	Zambia	47.1	63.3	8.45	44.8	60.3	7.61	−2.24	−3.01

		2000			2020			Changes during 2000–2020	
		Forest area		Forest rent	Forest area		Forest rent		
Region/group	Country	Million ha	% of land	% of GDP	Million ha	% of land	% of GDP	Million ha	% of land (pp)
Asia	Bangladesh	1.9	14.8	0.20	1.9	14.5	0.09	−0.04	−0.28
	Brunei Darussalam	0.4	75.3	0.07	0.4	72.1	0.06	−0.02	−3.23
	India	67.6	22.7	0.34	72.2	24.3	0.19	4.57	1.54
	Malaysia	19.7	59.9	4.26	19.1	58.2	1.85	−0.58	−1.76
	Maldives	0.0	2.7	0.01	0.00	2.7	0.00	0.00	0.00
	Pakistan	4.5	5.9	0.17	3.7	4.8	0.17	−0.79	−1.02
	Singapore	0.02	25.4	0.00	0.02	21.7	0.00	−0.00	−3.71
	Sri Lanka	2.17	34.5	0.19	2.11	34.2	0.09	−0.05	−0.39
Caribbean	Antigua and Barbuda	0.01	21.5	–	0.01	18.5	–	−0.00	−3.02
	The Bahamas	0.51	50.9	0.01	0.51	50.9	0.02	0.00	0.00
	Barbados	0.01	14.7	0.00	0.01	14.7	0.01	0.00	0.00
	Belize	1.46	64.0	0.27	1.28	56.0	0.43	−0.18	−7.99
	Dominica	0.05	63.8	0.02	0.05	63.8	0.05	0.00	0.00
	Grenada	0.02	52.1	–	0.02	52.1	–	0.00	0.00
	Guyana	18.6	94.3	7.99	18.42	93.6	3.85	−0.15	−0.76
	Jamaica	0.52	48.1	0.12	0.60	55.1	0.21	0.08	7.01
	St Kitts and Nevis	0.01	42.3	–	0.01	42.3	–	0.00	0.00
	Saint Lucia	0.02	34.4	0.01	0.02	34.0	0.02	−0.00	−0.39
	St Vincent and the Grenadines	0.03	73.2	0.02	0.03	73.2	0.03	0.00	0.00
	Trinidad and Tobago	0.24	46.1	0.02	0.23	44.5	0.07	−0.01	−1.65
Pacific	Fiji	1.01	55.1	0.60	1.14	62.4	1.06	0.13	7.31
	Kiribati	0.00	1.5	0.03	0.00	1.5	0.05	0.00	0.00
	Nauru	-	-		-	-	-	0.00	0.00
	Papua New Guinea	36.28	80.1	3.62	35.86	79.2	2.10	−0.42	−0.93
	Samoa	0.17	60.5	0.45	0.16	58.2	0.30	−0.01	−2.38
	Solomon Islands	2.54	90.7	5.09	2.52	90.1	19.03	−0.01	−0.52
	Tonga	0.01	12.4	0.03	0.01	12.4	0.04	0.00	0.00
	Tuvalu	0.00	33.3	-	0.00	33.3	-	0.00	0.00
	Vanuatu	0.44	36.3	0.80	0.44	36.3	0.62	0.00	0.00

Source: Author using World Bank WDI.

Chapter 5

Cocoa

Collin Zhuawu and Kimonique Powell

5.1 Introduction

The cocoa sector is a source of livelihood for millions of people globally and for several Commonwealth member countries. About US$50 billion of cocoa beans and cocoa products are exported each year, with Commonwealth countries contributing 20 per cent (about $10 billion) of this global trade. Close to 50 million people worldwide depend directly on cocoa production for their livelihoods. This is particularly true for smallholder farmers living in tropical regions like Asia, Latin America and the Caribbean, and West Africa, where the hot and humid climate is well suited to growing cocoa trees. Smallholder cocoa farmers are the main producers, accounting for about 84 per cent of the world's 570 million farms (Farmforce, nd). Most of these smallholder farmers use 'agroforestry' production, which involves the selection of forests that are thinned so that cocoa can be planted beneath the remaining canopy of native trees (Franzen and Borgerhoff Mulder, 2007; Owusu et al., 2018).

However, the global cocoa sector has not been operating sustainably for decades, as reflected in the poor living and social conditions of farmers, human rights concerns (especially child and forced labour), unfair trade practices and impacts on the environment, especially deforestation (Global Cocoa Agenda, 2012; Lescuyer and Bassanaga, 2021). This has led to growing concerns about the sector's long-term future, particularly whether cocoa can be produced and traded sustainably to meet growing demand (Krauss, 2017; Bermudez et al., 2021) and guarantee the industry's long-term viability (Barrientos, 2014).

As the global economic and trading landscape experiences increased production, consumption and trade, new demands are being placed on the environment and scarce resources are being depleted rapidly. Consequently, there has been a strong call from a trade perspective for producers and consumers to embrace more sustainable production and consumption of cocoa, and at the same time to ensure traceability of sustainability across the cocoa value chain. This aligns with Sustainable Development Goal (SDG) 12 of the UN 2030 Agenda for Sustainable Development.

This has raised the need to design appropriate production and trade rules and policies that reflect these new realities and help ensure sustainable cocoa production and trade. As a result, there has been a growing need to make cocoa production commercially viable for growers and, at the same time, address the global social and environmental challenges associated with growing cocoa. This is accentuated by increasing demands from consumers for cocoa and cocoa products that are sustainably certified, traceable and safe, which has led to some countries – such as the members of the EU – adopting

initiatives to promote more responsible and sustainable production and consumption of cocoa.

There are several challenges to achieving sustainable production and fairer trade in cocoa, especially for smallholder farmers. The market price of cocoa obtained by these farmers within cocoa value chains remains unsustainable and fails to enable them to realise a decent standard of living. This also undermines production, as farmers are unable to take proper care of their farms, and the younger generation of farmers seek livelihoods elsewhere (ICCO, nd). Their situation is worsened by the market concentration of the cocoa industry near the top of the supply chain, which limits the bargaining power of farmers, raising concerns relating to the sustainability of the cocoa economy (Gayi and Tsowou, 2016). Given their importance in forming the backbone of the cocoa industry, there is considerable scope to ramp up support for cocoa farming to address these sustainability challenges and attain a sustainable cocoa sector. This can contribute to the SDGs and the objectives of the International Cocoa Agreement 2010, which aims to develop a sustainable world cocoa economy that meets economic, social and environmental requirements (UN, 2010).

This chapter examines sustainable production of and trade in cocoa in Commonwealth countries. It consists of six sections. The next section provides a brief outline of cocoa production globally and in the Commonwealth. Section 5.3 examines Commonwealth trade in cocoa and cocoa preparations. Section 5.4 unpacks the economic, social and environmental sustainability challenges in the cocoa sector. Section 5.5 explores the various measures and initiatives adopted and implemented at national, regional and multilateral levels as well as by the private sector to address the sustainability challenges facing the cocoa sector. The chapter concludes by highlighting the need for a systematic approach with a view to achieving sustainable production and fairer trade in cocoa, while adopting complementary policies and measures to maximise the benefits of cocoa production and trade, and helping mitigate potential environmental and social losses that arise.

5.2 Cocoa production globally and in the Commonwealth

Cocoa production contributes significantly to the economies of many countries, including several Commonwealth member countries. Côte d'Ivoire and Ghana are the largest producers of cocoa, with average annual values of production of US$2,933 million and $720 million between 2018 and 2020, respectively (Table 5.1). Together, they account for more than 60 per cent of global cocoa production (ICCO, 2022a). Three Commonwealth countries – Cameroon, Ghana and Nigeria – are in the top 10 cocoa producing countries in the world, with annual average production values of $588 million, $720 million and $106 million between 2018 and 2020, respectively.

While global cocoa production grew from US$7 billion in 2018 to $8 billion in 2020, it was expected to decline by 6 per cent for the 2021/22 season (4.9 million tonnes compared with 5.2 million tonnes in 2020/21) (ICCO, 2022b). The decline was

Table 5.1 Top 10 cocoa-producing countries by value of production, 2020 (constant 2014–2016 US$ '000s)

Country	2018	2019	2020	Average 2018–2020
World	7,919,751	8,282,073	8,153,009	8,118,278
Côte d'Ivoire	2,840,216	3,003,993	2,956,894	2,933,701
Indonesia	1,426,726	1,439,584	1,375,038	1,413,783
Ghana	777,569	697,637	687,582	720,929
Ecuador	556,072	670,742	775,305	667,373
Cameroon	538,561	603,430	624,981	588,991
Brazil	371,900	403,187	419,162	398,083
Peru	310,885	327,272	370,010	336,056
Dominican Republic	226,600	200,570	204,702	210,624
Nigeria	105,278	107,893	105,328	106,166
Mexico	67,206	67,331	69,644	68,060

Source: Authors using FAOSTAT.

against forecasted grinding requirements[1] that were estimated to increase by almost 2 per cent to 5.048 million tonnes, creating a shortfall (ibid.).

The decline was the result mainly of a shortfall in Ghanaian production (ICCO, 2022c), and was expected to be exacerbated by the conflict between Russia and Ukraine, which disrupted trade in fertiliser and increased its price. Russia is the major supplier of fertilisers to most cocoa-producing countries, particularly Côte d'Ivoire and Ghana. Such disruptions affect the earnings of smallholder farmers and the livelihoods of their families since most cocoa trees in producing countries are old and require fertilisers. In addition, the imports of cocoa beans and cocoa semi-finished products by Russia and Ukraine decreased, which affected the incomes of cocoa producers. The situation worsened as a result of the drop in imports of semi-finished products, particularly in Europe, which were down by 11 per cent year on year at the end of the second quarter of 2022 (ICCO, 2022d).

Of the major Commonwealth cocoa-producing countries, Ghana and Cameroon are the two largest producers (Table 5.2). In 2020, they produced about 8.9 per cent and 7.3 per cent of world output, respectively. The cocoa sector contributes about 10 per cent to Ghana's gross domestic product.

The sector has experienced growth in several Commonwealth countries over the past two decades (Table 5.3). Between 2000 and 2010, Togo experienced the highest growth rate, of 1438 per cent, followed by Dominica at 300 per cent and Tanzania at 181 per cent, albeit off small production bases. In the more recent period between 2011 and 2020, Fiji experienced the highest growth rate, of 1200 per cent, followed by

1 Cocoa grinding is the process of breaking down cocoa beans into cocoa powder. This is done to achieve the desired particle size and texture. Depending on the type of cocoa product being produced, the grinding requirements may vary. Generally, the finer the grind, the better the quality of the cocoa powder. The size of the grind also affects the flavour, texture and colour of the cocoa powder.

Table 5.2 Cocoa production in major Commonwealth cocoa-producing countries, 2018–2020 average (US$ '000s)

Country	2018	2019	2020	Average 2018–2020	Share of world %
World	7,919,751	8,282,073	8,153,009	8,118,278	100
Ghana	777,569	697,637	687,582	720,929	8.9
Cameroon	538,561	603,430	624,981	588,991	7.3
Nigeria	105,278	107,893	105,328	106,166	1.3
Togo	15,029	21,241	20,039	18,770	0.2
Vanuatu	5,848	5,848	5,848	5,848	0.1
Sri Lanka	5,122	3,630	3,524	4,092	0.1
Malaysia	1,840	2,265	1,572	1,892	0.02
Grenada	1,959	1,224	1,224	1,469	0.02
Jamaica	438	684	500	541	0.002
Belize	383	383	390	385	0.005
St Vincent and the Grenadines	382	385	387	385	0.005
Saint Lucia	41	48	43	44	0.0005
Fiji	32	34	18	28	0.0003

Source: Authors using FAOSTAT.

Sierra Leone at 973 per cent and Belize at 334 per cent. Production in Fiji and Belize had previously contracted by 73 per cent and 14 per cent, respectively, in the period between 2000 and 2010, while Sierra Leon experienced growth of 64 per cent.

Cocoa is also used in some cocoa-producing countries as an input for further downstream processing, including in activities such as roasting, winnowing, grinding, pressing, conching and tempering, increasing their participation in higher value-added, higher productivity activities within the cocoa value chain.[2] Some Commonwealth countries, such as Ghana, Saint Lucia, and St Vincent and the Grenadines, have existing downstream processing capacities (Box 5.1). However, the distribution of gains from cocoa production in these countries is highly unequal. In most instances, the bulk of the profits go to the large cocoa exporters, processors and retailers, while the farmers who cultivate the cocoa beans receive a small fraction. In some cases, farmers may not even receive the full market price for their cocoa beans, owing to the exploitative practices of intermediaries (Ogunkunle et al., 2022). Additionally, the economic benefits of cocoa production are often unevenly distributed within countries, as certain regions may benefit more from the crop than others.

2 Roasting cocoa beans is an important step in processing cocoa as it brings out the flavour and aroma of cocoa, making it more palatable for consumption. Winnowing involves the removal of husks from the beans. Grinding, as discussed above, involves using machines to crush the cocoa beans into cocoa powder and paste. Pressing is the process of extracting cocoa butter from cocoa liquor. Conching involves the refining and smoothing of cocoa liquor. Tempering is the heating and cooling of the cocoa liquor to a specific temperature to give the chocolate a glossy finish and a smooth texture.

Table 5.3 Cocoa production growth rate in Commonwealth cocoa-producing countries (%)

Country	Growth rate (%)	
	2000–2010	2011–2020
Belize	−14	334
Cameroon	115	21
Dominica	300	234
Fiji	−73	1200
Gabon	−80	−83
Ghana	45	14
Grenada	−58	−29
Guyana	48	17
India	103	81
Jamaica	24	−46
Malaysia	−78	−85
Nigeria	18	−13
Papua New Guinea	−16	−20
Saint Lucia	147	−62
St Vincent and the Grenadines	23	8
Samoa	−7	9
Sierra Leone	64	973
Solomon Islands	132	−31
Sri Lanka	−53	−11
Togo	1438	−93
Trinidad and Tobago	−56	−7
Uganda	280	94
Tanzania	281	−26
Vanuatu	9	67
Average for Commonwealth countries	44	10

Source: Authors using WITS.

Box 5.1 Examples of downstream processing in selected Commonwealth countries

Ghana

- Ghana Cocoa Processing Company Ltd processes cocoa beans into cocoa butter, cocoa cake, cocoa liquor, and other cocoa products.
- Ghana Cocoa Beans Company processes cocoa beans into cocoa powder, cocoa butter and other cocoa products.
- Ghana Cocoa Grading Board is responsible for the grading and quality control of cocoa beans in Ghana.

Saint Lucia

- Windward & Leeward Brewery Ltd produces cocoa powder, cocoa butter and cocoa liquor.

- Lucian Chocolate Ltd produces cocoa-based products such as chocolate bars, truffles and cocoa powder.
- Caribbean Cacao Ltd produces cocoa-based products such as dark chocolate, cocoa powder, cocoa butter and cocoa liquor.

St Vincent and the Grenadines

- St Vincent Chocolate Company specialises in high quality, bean-to-bar chocolate products. The company also has a sister company, Island Chocolate, which makes chocolate and has an office in the UK.
- Vincent Granola Ltd produces a range of cocoa-based products such as cocoa powder, cocoa butter, cocoa liquor and cocoa cake. Caribbean Cocoa produces cocoa mass, cocoa butter and cocoa liquor.

5.3 The Commonwealth's trade in cocoa

The cocoa sectors in Commonwealth countries contribute significantly to global trade in cocoa and cocoa preparations (Table 5.4). Commonwealth countries contribute about 16 per cent of global exports of cocoa and cocoa preparations. In turn, about 62 per cent of global exports of cocoa butter fats and oil and 24 per cent of global exports of cocoa beans (whole or broken or roasted) comes from Commonwealth countries.

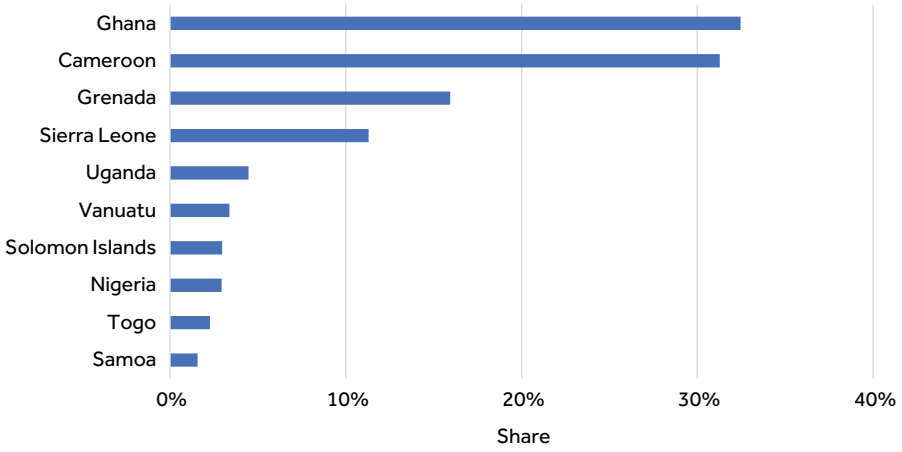
In addition, cocoa makes up a significant share of several Commonwealth countries' export baskets (Figure 5.1). In Ghana and Cameroon, for instance, cocoa contributes

Table 5.4 Commonwealth exports of cocoa and cocoa preparations, 2019–2021 average

	World	Commonwealth	
	Value (US$ billion)	Value (US$ billion)	Share (%)
All cocoa and cocoa preparations	**45.84**	**7.19**	**15.69**
Cocoa beans, whole or broken, raw or roasted	5.57	1.35	24.27
Cocoa shells, husks, skins and other cocoa waste	0.46	0.01	2.3
Cocoa paste, whether or not defatted	2.68	0.36	13.28
Cocoa butter, fat and oil	5.07	3.12	61.51
Cocoa powder, not containing added sugar or other sweetening matter	2.46	0.48	19.4
Chocolate and other food preparations containing cocoa	29.74	3.96	13.31

Source: Authors using WITS.

Figure 5.1 Cocoa share of merchandise exports in selected Commonwealth countries, 2019–2021 average (%)



Source: Authors using WITS.

32 per cent and 31 per cent, respectively, of merchandise exports, generating significant amounts of foreign exchange earnings.

The major export destinations for the cocoa produced by Commonwealth countries are the EU, the USA and the Netherlands, which import about 32 per cent, 22 per cent and 14 per cent of Commonwealth cocoa, respectively (Table 5.5).

Despite some cocoa-producing countries having downstream processing capacities, most of them are limited to exporting cocoa beans – contributing 24 per cent of global exports (Table 5.4) – rather than processed products because they face several trade barriers. They encounter the problem of tariff escalation in some of their major markets. For example, while there is no tariff for cocoa beans entering the EU market, products such as cocoa powder and chocolate crumb containing cocoa butter face a

Table 5.5 Major export destinations for Commonwealth cocoa, 2010–2021

	Value (US$ billion)	Share (%)
European Union	3.12	32.1
United States of America	2.18	22.4
Netherlands	1.42	14.5
Malaysia	0.51	5.2
Japan	0.48	5.0
France	0.42	4.3
Germany	0.42	4.3
Indonesia	0.32	3.3
Ireland	0.30	3.1
Singapore	0.28	2.9
Total	**9.73**	

Source: Authors using WITS.

7.7 per cent and a 15 per cent ad valorem duty, respectively. The same applies to the Japanese and USA markets, which charge no duty on cocoa beans but do apply duties on processed products such as cocoa paste, cocoa powder and chocolate products (FAO, nd). On the other hand, some developing countries, such as Brazil, India and Egypt, also impose higher tariffs on cocoa beans, to the tune of 12.5 per cent, 20 per cent and 35 per cent, respectively (ibid.).

5.4 Towards sustainable production and trade practices in the cocoa sector

The biggest challenge facing the cocoa industry is how to increase cocoa production and boost trade to meet growing demand without expanding the area under cultivation. As discussed in this section, sustainable cocoa production and fair trade faces several economic, social and environmental challenges.

5.4.1 Economic sustainability

Cocoa accounts for a large share of employment, exports and foreign exchange earnings in producing countries. This means more sustainable cocoa production and fairer trade would help boost economic growth, improve farmers' incomes, earn foreign exchange and create employment opportunities. It would also help improve farmers' prosperity, empower communities and enhance environmental protection (World Cocoa Foundation, 2022). Nevertheless, there are several challenges to achieving economic sustainability in the sector.

Trade diversification and participation in value chains

According to the Hinrich Foundation Sustainable Trade Index 2020, most countries that pursue sustainable trade ensure robust trade diversification (The Economist Intelligence Unit, 2020). Examining the contribution of non-oil exports to the Nigerian economy, Adebile and Amusan (2011) argued that cocoa exports had the potential to contribute considerably to the transformation of socio-economic activity in the country and sustainable development. However, effective and well-informed trade policy that takes into account sustainability issues is necessary for cocoa-producing countries like Nigeria to take advantage of global trade opportunities and increased trade in cocoa.

Cocoa-producing countries can also take advantage of their unique conditions to create a brand that can contribute to the country's merchandise exports and help develop downstream processing capacities to increase higher value-added exports, as demonstrated in the case of São Tomé and Príncipe (Box 5.2). This is despite the highly unequal distribution gains of doing so, as discussed above.

Box 5.2 Organic cocoa in São Tomé and Príncipe

The islands of São Tomé and Príncipe (STP) were once the largest producers of cocoa in the world, owing to their rich volcanic soil and tropical location

(Stratton, 2019). STP, once nicknamed the 'chocolate islands,' has favourable conditions to produce organic, high-quality premium cocoa, which represents almost 90 per cent of the country's total merchandise exports.

Farmers use 'agroforestry' production, which allows them to avoid clearing vegetation and adding chemicals. Further, emphasis is put on the handling of fragile tropical soil – leaving it covered with handpicked leaves for 'organisms to grow underneath them so the soil remains soft, airy, permeable and full of life' (Financial Times, 2020).

Today, STP's market strategy is not to compete in quantity with large cocoa-producing countries. In fact, STP is only the 38th-largest exporter of cocoa in the world (OEC, 2020). Rather, farmers and co-operatives focus on adding quality, which gives them a comparative advantage – by making chocolate with cocoa beans that produce less but deliver more flavour to the final product (IFAD, 2020), and producing organic cocoa for a niche market (Financial Times, 2020).

However, the cocoa value chain in STP is very fragmented, containing approximately 3,300 organic producers, with almost 70 per cent cultivating cocoa in plots of less than 2 ha (Prazeres et al., 2021). Despite measures to support cocoa production, these small producers and their associated co-operatives suffer from several challenges, including limited access to global value chains, market price instability and lack of bargaining power, leading to low incomes for producers. Owing to the distinctive quality of cocoa attributable to STP's geographical location and method of production, there has been increasing support from cocoa producers to protect local cocoa and promote its unique characteristics in the form of a Protected Geographical Indication (PGI) (Satocao Chocolate, nd). High-quality cocoa beans certified under both Organic and PGI schemes would provide greater empowerment and control to producers. The expectation is that a PGI would help small farmers and co-operatives to achieve better prices, increase farmer profits and reduce poverty. It would also prevent control of the world market by a few players, explicitly recognise the added quality of STP cocoa, increase consumer trust and further incentivise national authorities to protect their organic cocoa markets (Prazeres et al., 2022).

Source: Financial Times (2020); OEC (2020); Prazeres et al.(2021); Satocao Chocolate (nd); Stratton (2019).

In many cases, export diversification, including within the cocoa sector, and the prospects for cocoa farmers to participate in downstream processing are hindered by tariff escalation in importing countries, which discourages processing activities, as discussed above. Compliance with sustainable production standards and regulations, addressed in detail below, also affects exports, as some cocoa fails to comply.

The situation is worsened by cocoa farmers having limited access to credit, which hinders their ability to invest in improved production practices and use better tools

and processing equipment. Farmers also often lack resources and training to diversify their sources of income, which can make them more vulnerable to changes in the cocoa market. In addition, smallholder farmers have limited ability to compete in the international market and generate higher profits. For many cocoa farmers, effective participation in cocoa value chains remains a pipe dream, rendering them losers in such value chains (Box 5.3).

Box 5.3 Winners and losers in the global cocoa value chain

The cocoa value chain involves various actors from cultivation to retail, including farmers, traders, exporters, processors, chocolate-makers and retailers. However, the value chain is highly asymmetric, with manufacturers and retailers receiving the most turnover, accounting for approximately 90 per cent of the total margins generated by a tablet of dark chocolate (Fountain and Huetz-Adams, 2020; Bermudez et al., 2022). Traders and grinders, on the other hand, have low profit margins of around 7–8 per cent – but they are compensated by the large volumes of cocoa traded (Fountain and Huetz-Adams, 2020).

Retailers try to get the lowest price possible from chocolate producers so they can maximise their profit margins (Climate-Smart Cocoa, 2022). The downstream value created by manufacturers and retailers is mostly intangible assets such as brand reputation, marketing, product elaboration and distinction, which often overshadow the origin of cocoa, farmers' work and the well-being of communities (Bermudez et al., 2022).

Small-scale cocoa producers tend to benefit the least from trade in cocoa and cocoa products, owing to their limited participation in cocoa value chains. For every tonne of cocoa sold, farmers receive less than 7 per cent of the value, while manufacturers capture an estimated 35 per cent share and retailers up to 44 per cent. The commercialisation of cocoa in producing countries has attracted many intermediaries between farmers and exporters, reducing farmers' margins even further (Bermudez et al., 2022).

The market concentration of the cocoa industry near the top of the supply chain limits producers' bargaining power, and most cocoa farmers cannot counter price volatility, as they need to sell their beans quickly and often lack adequate storage facilities. This unsustainable position in cocoa value chains fails to enable small-scale cocoa producers to realise a decent standard of living.

Source: Bermudez et al. (2022); Fountain and Huetz-Adams (2020).

Employment creation and improved livelihoods

As mentioned above, cocoa is mainly grown by smallholder farmers, with more than 90 per cent of these farmers having farms between 2 and 5 ha. It is also labour-intensive, as beans are harvested and processed by hand. In Côte d'Ivoire and Ghana, approximately 2 million small-scale farmers and their families depend on cocoa

(Voora et al., 2019). [3] Cocoa plays a very significant economic role for small farmers, generating the income that is necessary for their livelihoods. Growing cocoa beans or working on cocoa farms is often regarded as the best, if not the only, option for rural households in these countries to earn cash income. In Cameroon, traditional agroforestry systems have been the mainstay of local smallholder livelihoods and created employment for family members for more than 50 years. An estimated 80–90 per cent of the cash income for farmers in Côte d'Ivoire and Ghana is earned solely from cocoa (Waarts and Kiewisch, 2021). In addition, agroforestry systems include annual crops and fruit and timber trees, along with other trees left from the forest where the farm was first cultivated, which play an important role for food, medicine and biodiversity conservation (Magne et al., 2014).

The incomes of cocoa farmers have largely remained stagnant, and most cocoa farmers continue to live under very low living standards. Many cocoa farmers earn US$1 or less per day, which is well below the World Bank's extreme poverty line of $2.15 per day (World Bank, 2022). In Ghana, for instance, the average cocoa farmer earns just $1 per day. The situation is far worse in Côte d'Ivoire, where farmers reportedly earn a daily wage of $0.78, which is 63 per cent less than the 2018 Fairtrade and True Price living wage estimate of $2.51 per day for that country (Fairtrade Foundation, 2019; Walk Free Foundation, 2018).[4]

Low wages in the sector are directly linked to market prices and low yields from cocoa farms and the position of farmers in cocoa value chains. With regard to prices, cocoa farmers find it challenging to influence the price they receive for their produce (Box 5.4). In addition, the overall return for farmers is affected by the yield from cocoa farms. In West Africa, harvests from smallholder farms of about 2–4 ha have remained stagnant over the years, averaging around 400 kg per year (Van Vliet and Giller, 2017). This is less than half of these farms' potential output.

Box 5.4 The cocoa market

Cocoa prices are determined primarily by the commodities market and are driven by demand and supply. A limited supply of cocoa will lead to higher prices, while an influx of cocoa in the market will depress prices. Additionally, unforeseen events such as political or weather-related challenges, pest infestation and other unexpected occurrences in major supply markets can also affect prices (Foodcircle, nd).

3 Over 90 per cent of the world's cocoa is grown on small farms by 5–6 million farmers. A further 14 million rural workers depend directly on the traded commodity for their livelihoods, part of the 50 million worldwide who depend on the produce to sustain their livelihoods.

4 A 2018 study by True Price and Fairtrade considered the cost of a decent standard of living for a rural household in Côte d'Ivoire, accounting for expenses associated with food, housing, clothing, work, taxes and healthcare, among others. The living income for a typical eight-member rural household is estimated to be US$7,318 per year, equating to $2.51 per day or, for an adult without dependants, $828 per year, or $2.27 per day (True rice and Fairtrade, 2018).

The futures/terminal market also has an impact on the price of cocoa. To stabilise prices, cocoa is traded on the futures market[5] through hedging, which allows buyers to use forwarding contracts to guarantee that the price of cocoa will remain the same for a set amount of time. This agreed reference price often serves as the basis for price negotiations. Price negotiations also consider other factors, such as country differentials, which could include logistics costs as well as the quality of the cocoa being supplied (Waarts and Kiewisch, 2021).

There is a significant price difference between the Forastero variety, or 'bulk cocoa,' produced mainly in West Africa and the higher-grade cocoa of the Criollo and Trinitario varieties, commonly produced in Latin America and the Caribbean. In 2017, bulk cocoa was sold at around US$1,500 per tonne, while higher-grade cocoa commanded prices of around $5,000 per tonne (Jewell, 2017). This price differential partly explains why poverty in the sector is more severe in West Africa than in other regions.

Source: Foodcircle (nd); Jewell (2017); Waarts and Kiewisch (2021).g

In[5] West Africa, Côte d'Ivoire and Ghana have tried to boost prices by introducing the Living Income Differential (LID)[6] (Box 5.5), which will guarantee farmers US$400 per metric tonne of cocoa beans (Kwarteng, 2021). They have also initiated the formation of a cocoa cartel – dubbed 'COPEC' – to negotiate better terms with buyers, which could potentially lead to higher prices for cocoa beans. However, the cartel initiative faces several challenges. Climate change affects cocoa production through frequent droughts that cause supply constraints. In addition, a cartel would find it difficult to change the price of cocoa haphazardly because cocoa buyers make contracts months or a year in advance to secure prices for huge quantities of cocoa. Furthermore, it will be challenging to regulate the price of a commodity that takes many years to grow from planting to production, and to influence farmers to produce less or more at a given time, particularly if their livelihoods depend on cocoa.

Box 5.5 Living Income Differential policy

To improve the livelihoods of cocoa farmers, the Governments of Côte d'Ivoire and Ghana, through Conseil du Café-Cacao and the Cocoa Marketing Board (COCOBOD), respectively, introduced the LID in 2019. LID raises the farm-gate price of cocoa by introducing a US$400 per tonne mark-up on the price of cocoa. That is, the LID increases the minimum price of cocoa exports from $2,200 per tonne to $2,600, commencing in the 2020/21 harvest season. The

5 There are two main commodities markets, the spot market and the derivatives market. The spot market is a market where goods are bought and sold for immediate delivery, while the derivatives market is a market for trading futures, options and swaps.

6 A living income is defined as sufficient income to afford a decent standard of living for all household members – including a nutritious diet, clean water, decent housing, education, healthcare and other essential needs, plus a little extra for emergencies and savings – once farm costs are covered.

policy is complemented by a stabilisation fund in which excess capital will be stored when the market price exceeds $2,900. This excess will then be used to pay for the shortfall when the export price, including the LID, falls below $2,600, guaranteeing a more stable price for farmers. Under the LID, farmers have been promised a 70 per cent share of the floor export price of $2,600 per tonne, a 20–30 per cent increase in their earnings from previous growing seasons (Boysen et al., 2021; Business & Human Rights Resource Centre, 2019). The price increase not only guarantees higher returns for farmers as they look to capture a greater share of the value of the global chocolate industry but also enables them to move much closer to attaining a decent standard of living.

Source: Boysen et al. (2021); Business & Human Rights Resource Centre (2019).

5.4.2 Social sustainability

As mentioned above, the cocoa sector is the 'bread and butter' for millions of people globally and within the Commonwealth. Millions of small-scale farmers, and their families, depend on cocoa production in Cameroon, Ghana, Nigeria and Togo. The cocoa sector is therefore of great socio-economic significance; however, it continues to be marred by a range of social ills, such as inequality, exploitation and injustice. Many cocoa farmers live in abject poverty, and child and forced labour have prevailed throughout the industry, threatening its long-term sustainability. This section explores the social issues and challenges to increasing sustainability within the cocoa sector.

Systematic poverty and inequality

As alluded to above, poverty is rife throughout the cocoa sector, especially among cocoa farmers. This is despite the profitability of the global chocolate industry, which records revenues of up to US$4 billion per year in the UK alone (Fairtrade Foundation, 2019). As discussed earlier, farmers do not earn a living income and are deprived of their ability to adequately cover the cost of food, water, housing, healthcare, education and other essential needs, including making provision for unexpected events. Women cocoa workers fare worse, as the gender pay gap in the sector is acute (ibid.). Female-headed farming households in Ghana, for example, reportedly earn a third less income than male-headed households. In addition, many female farmers are often excluded from savings and credit systems, are under-represented in farmers' associations and are discriminated against when it comes to securing leadership roles in these organisations (ibid.). As a result, they are unable to negotiate just wages and are locked into a perpetual cycle of poverty.

The widespread absence of advanced farming practices mentioned above affects overall productivity and earnings. In addition, many cocoa trees on small-scale farms are long past the 20-year mark for peak productivity and so their harvest continues to decline. As wages and incomes remain low, small farmers are unable to invest in the resources needed to increase yields and to foster sustainable cocoa production (Fairtrade Foundation, 2019). Many farmers therefore find it much more cost-effective to source cheap labour, including child and forced labour.

Box 5.6 Pricing cocoa: the case of Ghana

Ghana's COCOBOD directly or indirectly controls all purchases, sales and exports of cocoa. It sets cocoa farm-gate prices once per year in a multi-stakeholder approach around the start of the harvesting season in October. All buyers of cocoa beans must pay the fixed price to the farmers, without room for negotiation (EC, 2021), thereby shielding farmers from bargaining power issues.

The price determination process begins after 60 per cent to 70 per cent of the predicted main harvest has been forward sold (Vigneri and Kolavalli, 2017). First, the expected cocoa revenue is calculated from predictions for the year of the gross free on board (FOB) export price in US dollars, the cedi to US dollar exchange rate, and the harvest. Then, an amount is deducted to cover the cost of several services, such as cocoa research, jute sacks, disease and pest control, scholarship funds, actions to reduce child labour and certification, and the net FOB price per tonne is calculated. Finally, the net FOB price is divided between all agents involved in cocoa production and marketing, including COCOBOD and the government, where the farmers' share has typically amounted to around 60–70 per cent in recent years (Bymolt et al., 2018). While Ghana does not explicitly levy taxes on cocoa bean exports, the mechanism to fix the producer price leads to a high implicit taxation on all cocoa bean sales, including selling to domestic processing companies (WTO, 2014). This pricing mechanism provides a degree of price stability to the farmers while allowing for some transmission of international market price changes (Quarmine et al., 2014).

Source: Bymolt et al.(2018); EC (2021); Quarmine et al. (2014); Vigneri and Kolavalli (2017)

To help reduce poverty, some governments play a role in price-setting. In Ghana, the COCOBOD, sets a farm-gate price[7] for cocoa (Box 5.6). While the mechanism provides some degree of stability to farmers, it is often insufficient to ensure that farmers capture a larger share of the value of cocoa.

Child labour

As mentioned above, farmer poverty contributes to farmers resorting to more cost-effective sources of cheap labour. Consequently, child labour has become endemic throughout the sector. Children as young as five years old are being recruited to work as labourers on their family farms and, in some instances, on plantations belonging to outside parties. Between 2008 and 2019, close to 1.6 million children aged 5–17 were in child labour on cocoa farms in Côte d'Ivoire and Ghana (NORC, 2020). Of this total, more than 40 per cent were engaged in hazardous work, also classified among

7 The farm-gate price is a minimum price to be paid to cocoa workers per kilogram of cocoa. It is based on international market pricing, the movements of which workers are not shielded from.

the 'worst forms of child labour' (ibid.). Children are made to use sharp tools such as machetes to open cocoa pods, are exposed to agro-chemicals and must lift heavy loads, clear lands and work at night or extremely long hours (Walk Free Foundation, 2018; NORC, 2020). Likewise, many children working on cocoa farms often do so at the expense of attending school (NORC, 2020).

Eliminating child labour in the sector is an uphill battle. The participation of children in cocoa agriculture and other types of agricultural work has become an acceptable social norm in Africa and other regions. It is viewed as necessary to help children acquire essential skills for their adult years and is often regarded as merely 'helping out.' This argument is bolstered by the International Labour Organization (ILO) C138 Minimum Age Convention 1973, Article 5, paragraph 3, which permits the employment of children in 'family and small-scale holdings producing for local consumption and not regularly employing hired workers.' However, despite the relevance of children's engagement in light work as part of their development, work in agriculture rarely, if at all, involves 'light work.' Agricultural work can easily turn into child labour as working conditions can be hazardous, interfering with the health, safety and personal development of children involved.

Forced labour

Although rare in cocoa farming, there is also a growing concern about forced labour or modern-day slavery.[8] In recent years, there has been a surge in the trafficking of both adults and children from countries like Burkina Faso and Mali to work on cocoa plantations across West Africa, which has captured the headlines of numerous media reports. Between 2013 and 2017, approximately 0.4 per cent of all adult cocoa labourers in Côte d'Ivoire were reportedly in forced labour, whereas 0.17 per cent of children were forced to work on cocoa farms (Scobey, 2019).[9] Although these percentages are low, it is likely that the number of victims could be higher given the size of the cocoa labour force in that country. Furthermore, human trafficking and forced labour remain largely hidden and are therefore likely to be significantly higher than reported.

While forced labour can affect any group of labourers, it is believed that recently arrived migrants are most affected. Migrant workers who have recruitment-related debt or those who have been employed for one to three years are at a greater risk of forced labour (Verité, 2019). They are often bonded to workplaces until the debt is repaid, making it difficult for them to leave even if the working conditions are unacceptable. Furthermore, they are paid significantly less and can hardly meet their basic needs and, rely heavily on their employers for the provision of basic necessities such as food and shelter, of which they are occasionally deprived (ibid.).

8 Forced labour refers to 'all work or service which is exacted from any person under the threat of a penalty and for which the person has not offered himself or herself voluntarily.' (ILO, nda)

9 Though the practice of forced labour is more common in Côte d'Ivoire, the challenge is not exclusive to this country. Other cocoa-producing countries like Ghana have also reported incidences of forced labour.

Labour exploitation and gender inequality

Whereas both male and female cocoa workers are susceptible to labour exploitation, women are disproportionately affected. Women workers tend to experience more severe forms of exploitation, including physical and sexual violence (LeBaron and Gore, 2019). This is mainly because of societal gendered norms and divisions of labour, payment practices and income inequalities, and household and family practices, which render women workers disproportionately vulnerable to severe labour exploitation. Moreover, cocoa is traditionally viewed as a 'male crop,'[10] and, as such, women are hired for less arduous tasks or are paid less for doing similar tasks as men based on the assumption that they are less competent. The vast majority of female workers in the industry are also hired on a temporary basis (as day or contract workers), putting them at greater risk of being underpaid or receiving no wages. Moreover, where women work with their husbands, the spouse receives the payment for both, increasing the likelihood of women receiving less than their fair share of the wage (Ibid.).

The issues of labour exploitation, including forced and child labour, are worsened by the unregulated nature of the agriculture sector in many countries. Where legislation on labour exploitation exists, it is often less stringent in agriculture compared with other sectors, like textiles and garments (discussed in Chapter 6). Similarly, children as well as adult workers in agriculture are often exempt from general safety and health laws. Likewise, even where national legislation covers these and other issues, it sometimes does not extend to work on family farms, where the majority of exploited labour is found. This increases the challenge of eliminating exploited labour, especially child labour, in agriculture more broadly and cocoa agriculture specifically (ILO, nda).

5.4.3 Environmental sustainability

Cocoa is often produced and processed at the expense of the environment. Deforestation, loss of biodiversity and water pollution resulting from the use of fertilisers and pesticides are common environmental effects of cocoa production. Cocoa pods, which are largely waste, also present serious disposal problems,[11] while the use of fossil fuels to convert the cocoa beans into finished and semi-finished products (i.e., cocoa liquor and cocoa butter and chocolate) also has severe impacts on the environment. This section highlights the major implications of cocoa production for the environment and the consequences of climate change for cocoa production.

Implications of cocoa production for the environment

One of the leading environmental concerns associated with cocoa production is that of deforestation (see Chapter 4). Generally, cocoa production drives deforestation,

10 There is a preference for male workers attributed to the perception that men will be able to undertake more arduous physical labour on the farm; this also reflects historical gender norms in agriculture.

11 In recent years, some innovative uses for the waste from cocoa pods have been developed. One example is using cocoa pod husks to create a bio coal that can be used as an energy source. This bio coal has been found to be an effective alternative to traditional coal and can be used to generate electricity or heat.

as the crop is produced mainly in rainforests that are cut down to make way for cocoa monoculture – whereby it is often the only crop being cultivated on the plot of land. This method of cultivation (i.e., monocropping, or the unshaded system) encourages deforestation as farmers clear forests to generate higher yields (Box 5.7). As cocoa trees take about four years to produce cocoa beans, and their yields decline after about 18 years owing to a loss of soil fertility, and pest and disease infestation, it is not uncommon for farmers to shift production grounds in search of fertile land and the promise of greater yields. The clearing of forest for new fertile land allows farmers to continue generating income from existing trees while waiting for newer trees to mature. This process is continuous and threatens the long-term sustainability of forests.

Between 1988 and 2008, cocoa accounted for an estimated 2–3 million ha, or 1 per cent of global forest loss (Hoare et al., 2017). In 2020 alone, more than 47,000 hectares of forest cover was lost in Ivory Coast due to cocoa farming (Aboa, 2021). It has also contributed to driving deforestation in Cameroon, Ghana and Nigeria, and the Guinean rainforest has been reduced by 18 per cent of its original size in the past two decades (Merem et al., 2020). Unlike other crops, the sector's impact on deforestation is continuous, threatening biodiversity and the long-term sustainability of forests. According to some, if urgent action is not taken, some current cocoa-producing regions like Lagunes and Sud-Comoe in Côte d'Ivoire may no longer be suitable for cocoa production in the next 30 years (Läderach et al., 2013).

Box 5.7 Shaded vs full-sun cocoa

Cocoa was first cultivated as a shade crop underneath the canopies of native trees. However, higher-yielding, full-sun monocultures eventually superseded this as pressure to produce higher yields intensified. The presence of shade trees provides direct competition for nutrients and prevents light from reaching the crop; therefore, the removal of these constraints makes sense in order to maximise profit.

But scientists and environmentalists have realised the error of this switch for the ecology of cocoa plantations. There is evidence suggesting shade cultivation provides benefits for biodiversity, soil fertility and carbon absorption. Shade trees help regulate temperature and humidity around the crops and are able to help keep harmful organisms in check. In these heterogeneous environments, diseases spread less quickly, and fluctuations in temperature can be buffered by shade, creating more stable yields over time (Baker, 2018).

Today, most smallholder cocoa farmers use 'agroforestry' production methods, which involve the selection of forests that are selectively thinned so that cocoa can be planted beneath the remaining canopy of native trees (Esche et al., 2022). In Bolivia, agroforestry systems achieved higher cocoa yields than monoculture mainly because of agroforestry farmers' enhanced knowledge regarding cocoa cultivation, promoted by local organisations facilitating organic certification

(Jacobi et al., 2013). In addition, agroforestry systems were found to have higher carbon stocks compared with monocultures, and certified organic cocoa farms had greater richness of tree species than non-certified farms (Jacobi et al., 2014). In Cameroon, traditional cocoa agroforests managed under high levels of shade from trees presented lower levels of carbon stocks (Magne et al., 2014).

Source: Baker (2018); Esche et al. (2022); Jacobi et al. (2013); Jacobi et al. (2014); Magne et al. (2014).

The expansion of cocoa plantations leads to ecosystem disturbances, including soil erosion, siltation of rivers and the spread of cocoa plant diseases, to the detriment of communities and the environment (Merem et al., 2020). It also contributes to the disappearance of biodiversity and higher levels of carbon discharge. On the other hand, Ghana and other countries where cocoa-producing areas also host gold deposits have experienced increased artisanal mining activities as cocoa famers let their land for mining or undertake mining activities to supplement their income from cocoa, resulting in more land loss and degradation for cocoa farming (Box 5.8). In addition, the use of mercury to extract gold poses a serious threat of environmental degradation, contaminating fresh water and making it unsafe for use or irrigation (ibid.).

Demands for more environmentally friendly production pose a significant barrier to trade in cocoa. Cocoa plantations drive deforestation, which affects trade in cocoa

Box 5.8 Impact of artisanal mining in cocoa-producing regions in Ghana

In Ghana, artisanal and small-scale gold mining has had disastrous effects on cocoa farming and the environment, resulting in loss of crops and incomes for farmers and contamination of the environment, especially water bodies, threatening wildlife.

To sustain the cocoa sector, which is considered the mainstay of the economy, Ghana's COCOBOD joined hands with the government to fight illegal gold mining on cocoa farms and discourage farmers from undertaking mining activities. COCOBOD invested about US$200 million in the rehabilitation of farms, irrigation, fertiliser subsidies, and public sensitisation and education on sustainable production. It also committed to pay compensation to farmers whose farms had been destroyed in areas where mining was inevitable. It also urged the government to come up with legislation related to sustainable land and water management systems in areas where cocoa growing had been interrupted by illegal mining – for example the introduction of sanctions against illegal mining in cocoa-producing areas and the non-issuance of mining licences in these areas.

Source: COCOBOD (2021a).

Box 5.9 Traceability in the Côte d'Ivoire cocoa value chain

The Cargill Cocoa Promise Programme in Côte d'Ivoire aims to enable bar coding bag-based traceability back to the individual farmer in a supply chain to help mitigate sustainability challenges and ensure farmers meet certification requirements. The programme has equipped Cargill with clear information on farm operations across the country, benefiting 130 co-operatives with over 250,000 smallholder cocoa producers, as well as providing farmers and their customers with a sense of security and confidence that cocoa is sustainably sourced in the Côte d'Ivoire (Cargill, 2019).

On the other hand, Tony's Open Chain helps chocolate brands transform their cocoa supply chains and become sustainability frontrunners. Tony's Open Chain has set up five sourcing principles, including full traceability of cocoa beans from known partner co-operatives and known farmers, which ensures no illegal or child labour is used, and paying higher prices to address poverty (Ben & Jerry's, 2022). To this end, Ben & Jerry's, which adopted Tony's Open Chain principles, initiated discussions to purchase cocoa beans from eight co-operatives in Côte d'Ivoire. This enables Ben & Jerry's to know the farmers who produce the cocoa beans that go into their factory and the social and environmental circumstances in which the cocoa beans are produced. In addition, it helps support farmers to meet high social and environmental standards in the production of cocoa.

Source: Cargill (2019); Ben & Jerry's (2022).

in major markets that have introduced trade policies to mitigate climate change and promote environmental sustainability. For example, cocoa is one of the products targeted under EU regulations to promote the consumption of deforestation-free products, as discussed in Chapter 4 (EC, 2021). Cocoa producers must comply with cocoa production traceability if they are to supply the EU market or participate in value chains that supply the EU market. However, most producers find it challenging to comply with these required standards and are forced to rely on assistance from buyers (Box 5.9).

Implications of climate change for the cocoa sector

Cocoa plantations are likely to be affected by climate change impacts, including from heat waves, droughts, floods and plant diseases (Jacobi et al., 2013). The clearing of forests has climate change implications, which put small-scale cocoa producers at risk, especially considering that they are highly sensitive to changes in climate as cocoa is susceptible to droughts, which affect growth and production (ibid.). For example, Côte d'Ivoire and Ghana often experience lack of rainfall coupled with dry winds, which have adverse impacts on cocoa production (ICCO, 2022e). In Ghana, the occurrence of extreme dry weather has compelled COCOBOD to initiate irrigation schemes (COCOBOD, 2019). That said, increased trade in cocoa can

generate income that can be used for adaptation and building resilience to cope with climate change effects.

Cocoa production is also often hindered by disease, pests and other environmental factors resulting from climate change, which can reduce yields and increase production costs. At the same time, while mass spraying of insecticides – as is done in Ghana – can increase the national output and that of individual farmers, and reduce poverty (COCOBOD, 2021b), it can also contribute to damaging the environment.

Addressing deforestation is paramount not only because it leads to biodiversity loss[12] but also because it is a major contributing factor to climate change. As trees store a great deal of the greenhouse gases like carbon dioxide, their removal leads to an accumulation of these gases in the atmosphere, which, in turn, warm the planet (see Chapter 4). To address issues of deforestation and mitigate climate change, cocoa farmers could use fertilisers and pesticides to increase yields; however, as these inputs are quite expensive, many farmers opt to clear new lands with fertile soil. A lack of advanced farming practices and adequate farming technologies to improve the productivity of existing farmlands means farmers resort to expanding production by increasing the total planted area, often by encroaching into forests (Fairtrade Foundation, 2019; Brack, 2020; Waarts and Kiewisch, 2021).

5.5 Measures supporting cocoa sustainability

Several measures and initiatives have been adopted at the national, regional and multilateral levels as well as by the private sector to address the sustainability challenges facing the cocoa sector.

5.5.1 National initiatives

As discussed in Box 5.5, Côte d'Ivoire and Ghana have introduced the LID to improve the livelihoods of cocoa farmers. Several chocolate traders and manufacturers have supported the LID initiative and cocoa beans sales in these two countries. However, the policy has triggered a series of concerns. Chief among them is how the new prices will affect the sourcing decisions of some manufacturers and the extent to which manufacturers might pass on the higher cost of beans to consumers. The introduction of the LID at a time when there was an increase in the premiums on certified cocoa beans *vis-à-vis* the Fairtrade premium meant that traders buying Fairtrade-certified beans were hit with two price increases (Stanbury and Webb, 2020). This, Stanbury and Webb argue, may have pushed some manufacturers to seek alternate markets. Similarly, some manufacturers may opt to pass on the cost of the LID to consumers by raising the cost of chocolate bars.

12 Biodiversity is all the different kinds of life you will find in one area – the variety of animals, plants, fungi and even microorganisms like bacteria that make up our natural world. Each of these species and organisms work together in ecosystems, like an intricate web, to maintain balance and support life. Biodiversity supports everything in nature that we need to survive: food, clean water, medicine and shelter.

Transparency is another key issue, as very little is known on how exactly the LID is being collected, where the money is being stored or how funds will be disbursed. There are also nuances surrounding the proposed stabilisation fund. As Stanbury and Webb (2020) argue, for the stabilisation fund to be effective, surpluses from the high price years will need to be ring-fenced.[13] Clarity is yet to be provided on how this will be executed. The lack of transparency could also fuel corruption, especially as the governance structures within these countries remain flawed. Despite both countries ranking reasonably well on measures of corruption – Ghana ranking 78th and Côte d'Ivoire 105th out of 180 countries on Transparency International's Corruption Perceptions Index – they perform poorly when it comes to governance. The World Economic Forum Competitiveness Report puts Ghana in 111th place out of 141 countries and Côte d'Ivoire in 118th position. These circumstances have sparked questions on how exactly the funds raised from the LID will make their way into farmers' pockets and improve the lives of ordinary farming families (ibid.).

5.5.2 Multilateral initiatives

To regulate and safeguard against the use of child and forced labour in cocoa agriculture and other sectors, several international agreements or conventions have been devised, to which Commonwealth cocoa-producing countries[14] are signatories. Notable among them are the United Nations Convention on the Rights of the Child and the ILO Conventions that is, No. 138 on Minimum Age, No. 182 on the Worst Forms of Child Labour and the Forced Labour Convention of 1930 (No. 29 and No. 105) (Table 5.6). These instruments, though not exclusive to the cocoa sector, have been a useful reference point for actions taken to prevent and eliminate child labour and forced labour in the sector. In Ghana, for example, the Labour Act of 2003 and the Children's Act of 1998 draw heavily on these conventions.

The World Trade Organization (WTO) plays an important role in cocoa trade. It sets rules governing global trade and ensures countries abide by these. WTO members are required to eliminate trade barriers, such as tariffs and tariff escalations, that protect domestic industries from foreign competition. This helps countries increase their exports of cocoa. The WTO also seeks to reduce trade distortions, such as non-tariff measures, which can have a negative impact on cocoa production and sustainability (e.g., through the WTO Agreement on Technical Barriers to Trade and the Agreement on the Application of Sanitary and Phytosanitary Measures). The Trade and Environmental Sustainability Structured Discussions among some WTO members offer an opportunity to discuss co-operation on environmental sustainability issues related to the cocoa sector. At a pan-Commonwealth level, the

13 A ring-fence is a virtual barrier that segregates a portion of an individual's or company's financial assets from the rest. This may be done to reserve money for a specific purpose, to reduce taxes on the individual or company, or to protect the assets from losses incurred by riskier operations.

14 The Commonwealth cocoa-producing countries are Belize, Cameroon, Dominica, Gabon, Ghana, Grenada, Guyana, India, Jamaica, Nigeria, Papua New Guinea, Samoa, Solomon Islands, Sri Lanka, St Vincent and the Grenadines, Tanzania, Trinidad and Tobago, Uganda and Vanuatu (see World Population Review, 2023).

Table 5.6 Status of international legal instruments governing child labour and forced labour in the top five Commonwealth cocoa-producing countries

Convention/ policy measure	Ghana	Nigeria	Cameroon	Uganda	Papua New Guinea
UN Convention on the Rights of the Child	Ratified February 1990	Ratified April 1991	Ratified January 1993	Ratified August 1990	Ratified March 1993
ILO Convention 182 on the Worst Forms of Child Labour (1999)	Ratified June 2000	Ratified October 2002	Ratified June 2002	Ratified June 2001	Ratified June 2002
ILO Minimum Age Convention 138 (1973)	Ratified June 2011	Ratified October 2002	Ratified August 2001	Ratified March 2013	Ratified June 2000
Minimum age for work (years)	15, 19 for hazardous work	Under 15 cannot work in commerce and industry; no more than 8 hours/ day allowed for agriculture or domestic work	14	14	16
Exception or younger age for agriculture	Under 15 may perform light agriculture tasks under family supervision	No minimum age for light agriculture work	No minimum age for light agriculture work	No minimum age for light agriculture work	No minimum age for light agriculture work
ILO Convention 184 on Safety and Health in Agriculture (2001)	Ratified June 2011	-	-	-	-

Source: Authors using ILO (ndb, ndc); UN (nd).

Commonwealth Living Lands Charter, the Commonwealth Forestry Association and the Queen's Commonwealth Canopy, discussed in Chapter 4, also work indirectly to support sustainable cocoa production.

Established by key stakeholders, the Harkin-Engel Protocol, commonly known as the Cocoa Protocol, was introduced in response to growing incidence of child labour in the sector, specifically targeted at eliminating the worst forms of child labour in cocoa agriculture. Since its inception, steps have been taken towards eliminating the worst forms of child labour in cocoa agriculture, including by implementing child labour-free certification programmes and conducting surveys on the practice of child labour and posting the results publicly. Nevertheless, these actions have fallen short of achieving the Protocol's target of a 70 per cent reduction in the worst forms of child labour by 2020. Instead, the number of children working on cocoa farms has increased by around 14 per cent since the agreement was last amended in 2010 (NORC, 2020). The voluntary, non-binding and non-legislative nature of the agreement pose a challenge to driving sufficient action towards elimination of the worst forms of child labour . In addition, legislating against child and forced labour is only one piece of the puzzle and does not address the core issue of poverty, making it imperative to introduce legislation in tandem with poverty reduction measures throughout the sector.

While many certification labels for sustainable cocoa exist, as discussed below, they are usually specific to only one aspect of sustainability and differ in their approach to achieving this. In a bid to capture all three aspects of sustainability (economic, environmental and social) under one umbrella, as well as to streamline the efforts of existing standard requirements, the International Organization for Standardization (ISO) in partnership with the European Committee for Standardization developed and launched the international standard for sustainable cocoa (ISO 34101) in 2019. ISO 34101 is the first international standard for sustainable cocoa and is intended to, among other things, raise awareness of what it means to grow cocoa beans sustainably and enhance the efforts of existing labels and certifications. It consists of four key components: (i) management systems for cocoa sustainability that focus on improving the quality of cocoa beans and preserving the environment; (ii) sustainability criteria (environmental, economic and social); (iii) traceability (to help buyers and consumers identify sustainably sourced cocoa); and (iv) an evaluation methodology for determining sustainably produced cocoa.

5.5.4. Regional initiatives

Some free trade agreements (FTAs) have provisions addressing labour standards and environmental protection in the cocoa sector. For example, the US-Peru Trade Promotion Agreement requires signatory countries to 'adopt and enforce appropriate labour laws and regulations concerning the cocoa sector in their respective countries' (USTR, nda). Some FTAs include language that encourages the parties to support sustainable cocoa production and trade. For example, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership includes provisions that could help create the necessary environment for sustainable cocoa trade. These include

measures to facilitate trade, protect intellectual property rights, combat corruption and promote good governance. In other cases, FTAs have included specific provisions related to cocoa sustainability. The US-Colombia Trade Promotion Agreement requires the two countries to develop a joint programme to promote sustainable cocoa production. The programme must include measures to support the conservation of biological diversity, promote the use of environmentally sustainable practices and support the production of organic cocoa (USTR, ndb).

While the major producers of cocoa in the Commonwealth are not parties to any FTAs with substantial labour provisions, cocoa producers of the Commonwealth Caribbean are signatories to the EU-Caribbean Forum (CARIFORUM) Economic Partnership Agreement (EPA) EPA and the UK-CARIFORUM EPA, which include labour protection. Both EPAs see parties reaffirming their commitment to internationally recognised core labour standards, as defined by the relevant ILO Conventions, including the abolition of forced labour, elimination of the worst forms of child labour and non-discrimination in respect to employment.[15]

Focusing on Africa, Côte d'Ivoire and Ghana have agreed to establish an African Regional Standard for sustainable cocoa (ARS 1000), aimed at creating a common standard for sustainable cocoa production. The standard will be applicable to all cocoa value chain actors, providing an alternative to the existing voluntary sustainability programmes. This initiative comes as both countries have argued that voluntary sustainability standards (VSS) and other third-party schemes have not had a tangible impact on farmers' revenues or living standards. The ARS will not eliminate existing VSS; instead, voluntary initiatives will have to meet the requirements set by the ARS 1000. Approval from the regulator will also be required if they are establishing criteria that go beyond ARS 1000.

5.5.5. Private sector initiatives

The private sector is also playing a critical role in addressing the sustainability challenges facing the cocoa sector. The sector has witnessed the emergence of VSS designed to ensure cocoa products are produced, processed or transported sustainably in order to contribute to specific environmental, social and economic targets. The practices are assessed and verified by a certification body such as Fairtrade or Rainforest Alliance and are meant to safeguard cocoa sustainability, as well as provide consumers with more sustainable cocoa purchasing options as distinguished by a label on the products (Table 5.7). About 23 per cent of the world's cocoa is certified, with four VSS – namely, Fairtrade, Organic, Rainforest Alliance and UTZ[16] – being the most widely used standards throughout the sector (FiBL et al., 2021).

VSS play a key role in generating action towards the achievement of SDG 12, which targets sustainable production and consumption patterns. They are used by several companies to meet their sustainable sourcing commitments and to improve the

15 For further information see EU (2008).

16 UTZ means 'good' in the Maya language and is since 2018 part of Rainforest Alliance (Rainforest Alliance, nd).

Table 5.7 Leading VSS within the cocoa sector and other sectors

Certification label	Year launched	Areas of sustainability targeted	Details
UTZ	2002	Social	UTZ emphasises training of farmers, farm development and addressing issues such as child and forced labour. The programme commits to working closely with farmers' organisations and leveraging efforts through public and private partnerships with the aim of improving the livelihoods of farmers and their communities. There is no minimum price paid to farmers. However, the UTZ system includes a premium, which is an additional cash amount paid above the market price but leaving buyers to negotiate the amount.
Fairtrade (VSS)	1988	Economic, social	Fairtrade offers a guaranteed minimum price for cocoa producers, thereby seeking to ensure more stability for farmers in times of volatile commodity prices. Farmers also receive an extra sum of money, the Fairtrade Premium, to invest in improving the quality of their lives. There are two options for cocoa: the 'label on pack model,' whereby a chocolate bar carries a blue and green logo (with ingredients other than cocoa, such as sugar, nuts or vanilla, being certified); and the Fairtrade Sourcing Programme, with a company purchasing a quantity of cocoa under Fairtrade conditions and processes it in its chocolate products, which the producer can advertise with a specific logo. UTZ and the Rainforest Alliance also offer this type of approach.
Rainforest Alliance	1986	Social	Under the Rainforest Alliance certification scheme, there are no set prices (unlike under Fairtrade). There is no official premium structure but farmers are said to be paid above the conventional market price. The Rainforest Alliance is based on the concept that improved farmer knowledge can result in better implementation of good agricultural practices, higher productivity, higher net income and more satisfied farmers.
Organic	-	Environmental	The Organic certification label guarantees consumers that the farming of the product they buy has limited environmental impact. That is, it excludes the use of most synthetic chemicals and farming techniques, and sustains the health of soils, ecosystems and people.

Source: Authors using ITC (nd); TDC (2019).

Table 5.8 VSS covering the cocoa sector in the Commonwealth

Label	Country	Crop	Area harvested (ha)	Share of total for the commodity (%)	Production covered by VSS (MT)
Fairtrade	Ghana	Cocoa	275,697	18.65	84,473
Fairtrade total			**275,697**		**84,473**
Organic	Cameroon	Cocoa	0	0.00	85
	Ghana	Cocoa	18,260	1.24	7,020
	Grenada	Cocoa	80	5.81	41
	Tanzania	Cocoa	14,940	81.43	5,618
	Uganda	Cocoa	9,220	12.74	10,243
Organic total			**42,500**		**23,006**
Rainforest	Ghana	Cocoa	329,482	22.29	117,519
	Nigeria	Cocoa	11,941	0.88	5,461
	Papua New Guinea	Cocoa	3,180	2.83	1,527
Rainforest total			**344,603**		**124,506**
UTZ	Cameroon	Cocoa	60,494	8.99	27,283
	Ghana	Cocoa	713,576	48.26	300,560
	Nigeria	Cocoa	243,045	17.95	116,958
UTZ total			**1,017,116**		**444,801**

Source: Authors using ITC (nd).

reliability of their cocoa supplies. They also provide a competitive edge for companies as they can differentiate their products in the marketplace and appeal to consumers who want to address sustainability challenges such as income disparities, child and forced labour, and deforestation through their purchasing decisions (Voora et al., 2019). In the Commonwealth alone, some 592,313 metric tonnes of cocoa is VSS-compliant (Table 5.8). UTZ is the most widely used standard, covering 35 per cent of cocoa production in Ghana and 33 per cent of the sector in Nigeria.

In addition, several companies have adopted sustainability programmes and initiatives to address economic, social and environmental challenges in the cocoa supply chain (Box 5.10). These initiatives are often aimed at improving the livelihoods of cocoa farmers, protecting the environment and ensuring the long-term viability of the cocoa industry.

The private sector has also initiated the Climate-Smart Cocoa[17] approach to develop a common strategy and clear investment pathways to increase industry engagement and investments in climate-smart agriculture (CSA). The main objectives are to map and model current and potential impacts of climate change on the cocoa sector, develop strategies to stimulate private sector investment and engagement in

17 Climate-smart cocoa is a typical type of cocoa that is grown with specific practices to protect the environment and increase the resilience of the cocoa crop to climate change. It includes practices such as agroforestry, crop diversification, integrated pest management, soil fertility management and water harvesting. Such practices can also help reduce the greenhouse gas emissions associated with cocoa production, enhance soil fertility and water retention, and improve the income of farmers.

Box 5.10 Examples of companies that have taken meaningful action to address social and environmental challenges affecting the cocoa sector

Mars, a leading global manufacturer of chocolate and confectionery, has several programmes in place to promote sustainable cocoa production. These includes its Cocoa for Generations initiative, which aims to improve the lives of cocoa farmers and their communities, protect the environment and ensure the long-term viability of the cocoa industry Mars, 2021).

Nestlé, a global food and beverage company, has a Cocoa Plan that aims to promote sustainable cocoa production, protect children's rights and improve the lives of cocoa farmers. The company has also set a goal to source 100 per cent of its cocoa from sustainable sources by 2025 (Nestle, nd).

Hershey, a leading manufacturer of chocolate and confectionery products, has several programmes in place to promote sustainable cocoa production. This includes its Good & Fun initiative, which aims to improve the lives of cocoa farmers, protect the environment and ensure the long-term viability of the cocoa industry (Hershey, nd).

Lindt & Sprüngli, a Swiss chocolate manufacturer, has a sustainability programme called Lindt & Sprüngli Cocoa Responsibility, which aims to promote sustainable cocoa production and improve the lives of cocoa farmers. The company has also set a goal to source 100 per cent of its cocoa from sustainable sources by 2025 (Lindt & Sprüngli, 2021).

Mondelēz International, a global snack producer, has a Cocoa Life programme that aims to promote sustainable cocoa production and improve the lives of cocoa farmers. The company has also set a goal to source 100 per cent of its cocoa from sustainable sources by 2025. In 2022, the company committed US$600 million in sustainability funding until 2030 (Mondelēz International, 2022).

Source: Hershey (nd); Lindt & Sprüngli (2021): Mars (2021); (Mondelēz International (2022); Nestle (nd).

the sector, and design and implement innovations in CSA to be adopted by private sector partners. It has helped raise awareness of the impacts of climate change on the cocoa sector, allowed for better analysis on the best ways to invest and manage risk in a cocoa market increasingly affected by climate change, created strategic alignment among private and public sector actors on climate-smart objectives, and supported new or enhanced linkages between value chain actors incorporating CSA and better alignment with sustainable consumer demands. New services and tools that increase private sector engagement and CSA practices among farmers have also been introduced (Feed the Future, 2020).

Furthermore, the private sector, in collaboration with governments and non-governmental organisations, has developed and implemented sustainability

programmes. The Cocoa & Forests Initiative is one such example, showing commitment by top cocoa-producing countries (Colombia, Côte d'Ivoire and Ghana) and leading chocolate and cocoa companies to end deforestation and restore forest areas, through no further conversion of any forest land for cocoa production (IDH, nd). Launched in 2017, the initiative has more than 30 signatories. It focuses on:

1. Conservation of national parks and forested land, as well as restoration of forests that have been degraded by cocoa farm encroachment;
2. Sustainable intensification and diversification of income in order to increase farmers' yields and livelihoods, to grow 'more cocoa on less land' and thereby reduce pressure on forests;
3. Engagement and empowerment of cocoa-growing communities, particularly in relation to the mitigation of social impacts and risks of land use changes on affected cocoa farmers and their communities.

The Frameworks for Action under this initiative have been adopted by the Governments of Côte d'Ivoire and Ghana, in their national implementation plans, released in June/July 2018 (IDH, nd). The plans specify timelines, roles and responsibilities, monitoring and evaluation, and governance arrangements. Similarly, cocoa producers who are signatories were required to draft individual action plans spelling out the specific actions each company would take in the period 2018–2022 to deliver on their commitments set out in the Frameworks for Action. Each company action plan has been aligned to the national implementation plan.

5.6 Conclusion

In the past, trade-driven growth strategies were intended to promote trade, then seek to mitigate the negative fallout for consumers, the planet and adversely affected sectors. This approach is no longer viable, given the new demands placed on the environment and depleting resources. This has led to strong calls from a trade perspective for producers and consumers to embrace more sustainable production and consumption patterns.

The cocoa sector has demonstrated a state of rapid evolution as governments, non-governmental organisations and companies increasingly recognise the sustainability implications of cocoa supply chains and take steps to ensure cocoa is produced in a socially and environmentally responsible manner. In addition, efforts are being made to ensure that cocoa farmers are adequately compensated for their labour and have access to the resources and training needed to improve crop yields and quality. As more governments, non-governmental organisations and companies recognise the need to improve the sustainability of cocoa supply chains, sustainable cocoa production and trade is likely to continue to evolve in the coming years.

The social, economic and environmental challenges posed by production and trade in cocoa are intertwined, and require a systematic approach with complementary policies that are developed to simultaneously maximise the benefits of cocoa production and trade while helping mitigate potential environmental and social losses that arise.

Chapter 6

Textiles and Garments

Neil Balchin

6.1 Introduction

The textile and garment industries form a major part of the global economy. Their worldwide revenues collectively top US$1.5 trillion annually (Textile Exchange, 2021). This is underpinned by rapidly expanding production and trade. The number of shirts and shoes produced globally has more than doubled over the past 25 years (Pucker, 2022). Similarly, worldwide production of fibres increased nearly twofold between 2000 and 2020, from 58 million to 109 million tons (Textile Exchange, 2021). Over the same period, global exports of textiles and clothing more than doubled, from $354 billion to $777 billion.

Growth in these exports in the early 2000s coincided with liberalisation of trade in textiles and garments through integration into the multilateral trading system, first with the Agreement on Textiles and Clothing (ATC), a transitional period during which quota restrictions on textile and garment exports were phased out, and ultimately via the end of the Multifibre Arrangement (MFA) in 2005.[1] This significantly changed the structure of global trade in textiles and garments, presenting new opportunities for large export-focused developing countries (Manoj and Muraleedharan, 2016; Ayoki, 2017; Alam et al., 2019).

The expansion of garment manufacturing and trade over the past two decades has also been driven by rising consumption and the emergence of 'fast fashion.' The latter has given rise to a linear fashion model wherein most clothing items are bought, worn and quickly discarded. This has contributed to significant over-production and accumulating inventories, meaning a large share of clothes end up being sold at markdown prices. High levels of competition coupled with global over-supply have fuelled expanding trade in garments and led to further declines in prices (ILO, 2014). New technologies and business systems have also made it possible to produce clothes with shorter lead times, thereby enabling rapid turnover and frequent introduction of new clothing lines (Pucker, 2022).

These trends have also contributed to rapid increases in trade in second-hand clothing. The value of worldwide exports of used textiles and garments increased nearly three-fold between 2005 and 2021, and the corresponding value of second-hand clothing

1 Under the MFA, quantitative restrictions in the form of quotas were imposed on the volume of garments developing countries were allowed to export to developed countries. These quotas were applied on a discriminatory basis and differed in both product coverage and the level of restrictiveness across countries (Manoj and Muraleedharan, 2016). They were intended to restrict low-cost textile and garment exports to developed economy markets.

imports more than doubled (see Figure 6.3 in Section 6.4). While trade in second-hand clothing can improve the environmental sustainability of the garment industry by prolonging the useful life of garments, the reality that large volumes of second-hand clothing are exported to developing countries effectively shifts the eventual burden of disposal onto these countries. Sharp growth in second-hand clothing imports in some countries also threatens the viability of their domestic textile and garment industries, thereby affecting jobs and livelihoods and undermining long-term social sustainability.

Other sustainability concerns relating to labour conditions and the industries' environmental impacts are partly a function of the existing structure of production and trade in textiles and garments. The garment industry operates under a buyer-driven model wherein leading retail brands – often located in developed countries – hold dominant positions and mostly exert significant control over producers, many of which are situated in developing economies. This gives rise to power asymmetries along textile and garment supply chains, with many producers facing significant competitive pressures to produce low value-added inputs or items at low-cost (Azarhoushang et al., 2015).

In addition, the scale, fragmentation and complexity of these supply chains, in which production is geographically dispersed and involves multiple actors, means they are often characterised by a lack of transparency. Few clothing brands own upstream factories, and outsourcing and sub-contracting are commonplace at various stages of the production process (Pucker, 2022). Low-income countries operate primarily in the upstream segments of the value chain engaging in labour-intensive activities, where challenges to identify, prevent and mitigate sustainability issues are often most acute, whereas their high-income counterparts are mostly engaged in the downstream segments, where there tends to be greater capital investment; more consumer orientation through design, branding and retail; and more emphasis on post-consumption activities (UNECE, 2022).

There is a strong push from within the industry, as well as from consumers and activists, to embrace more sustainable production and consumption patterns, while also improving traceability and transparency across the value chain. This chapter examines progress made, and remaining challenges, in shifting to more sustainable production and trade in the textile and garment industries. It considers sustainability within these industries from the perspectives of their contribution to, and implications for, economic growth and transformation, inclusion and social development, and environmental sustainability. Where relevant, specific reference is made to experiences and sustainability initiatives involving Commonwealth countries.

6.2 Supporting economic growth and transformation

The textile and garment industries have the potential to serve as important vehicles for economic growth and transformation. Garment production involves relatively less onerous requirements in terms of capital intensity, technological inputs, start-up investment costs and skills, meaning developing countries can leverage foreign (and domestic) investment to begin producing garments relatively quickly and, in

the process, expand employment and grow exports. Over time, garment-producing countries may be able to upgrade within the value chain by boosting their capabilities to produce and export higher value-added products through more sophisticated production processes, especially if they are able to promote locally embedded foreign direct investment (FDI) alongside domestic investment or utilise revenues generated by the industry to finance imports of more advanced technologies (Keane and te Velde, 2008; Calabrese and Balchin, 2022). Consequently, the sector is widely regarded as a stepping-stone for developing countries on the path to broader export-oriented industrialisation (Gereffi, 2002; Calabrese and Balchin, 2022).

6.2.1 Growing and diversifying exports

For many countries, especially small states (e.g., Mauritius), least developed countries (LDCs) (e.g., Bangladesh and Lesotho) and island economies (e.g., Sri Lanka), the textile and garment industries offer significant opportunities for export diversification and play a crucial role in supporting their integration into the global economy through trade. Trade preferences – including those provided through the US African Growth and Opportunity Act and the EU's Everything But Arms scheme – have helped facilitate this integration, providing opportunities for some garment-producing countries to move up the value chain and upgrade to higher valued-added production and exports (e.g., the Asian Tigers, Mauritius, Costa Rica) and helping others develop an export-oriented manufacturing base built initially around light manufacturing capabilities (e.g., Bangladesh, Lesotho, Malawi and Mauritius (Box 6.1)) (Keane and te Velde, 2008).[2]

Box 6.1 Trade in textiles and garments, global policy dynamics and the diversification of the Mauritian economy

The Mauritian government took advantage of a favourable international trading regime to move away from a heavy reliance on sugar exports and pursue an export-oriented development strategy focused on textiles and garments. Export processing zones (EPZs) were established in the 1970s to attract investment in labour-intensive manufacturing for export (UNDP et al., 2020). Mauritius' textile and garment exports benefited from preferential access to European markets through the Lomé Convention and to the USA under its Generalised System of Preferences, as well as restrictions on competitors' exports to developed countries through discriminatory quotas under the MFA. This provided a platform to pursue a mixed trade policy involving both import substitution[2] and export incentives to boost economic growth and diversify the economy, while supporting the development of backward integration into textile production (Peedoly, 2009).

2 The domestic textile and garment industries in Mauritius enjoyed a high level of protection in the 1970s and 1980s, with a restrictive import regime featuring high tariffs and quantitative restrictions through import licensing (Subramanian, 2001). In turn, inputs could be imported duty free to bolster the competitiveness of the export sector.

The high level of protection afforded to domestic textile and garment producers was gradually reduced through successive waves of trade liberalisation. This, in combination with EPZ incentives and preferential access to key export markets, as well as major government investment in education, infrastructure and business climate reforms, enabled rapid expansion of the textile and garment industry (Nowbutsing and Ancharaz, 2011; Sannassee et al., 2014; UNDP et al., 2020).

The emergence and growth of export-oriented textile and garment production served as a catalyst for industrial development and economic transformation, playing a major role in strengthening Mauritius' manufacturing base and creating larger numbers of jobs, especially for women.

In the early 2000s, however, the industry came under considerable strain through the erosion of trade preferences, which exposed it to competition from low-cost producers in countries such as Bangladesh, China, India, Indonesia and Sri Lanka, resulting in factory closures and large-scale job losses (Peedoly, 2009; UNDP et al., 2020). This necessitated a shift in focus to niche production of higher value-added products for the high-end fashion market, with some firms relocating low-end operations to cheaper production locations in Southern Africa. This led to a consolidation of the industry, which is now dominated by a few large players.

It also necessitated further diversification of the economy into higher value-added sectors, which saw the gradual emergence of exportable services – particularly financial, tourism and IT-enabled services and business process outsourcing – as new growth sectors. This has been accompanied by increases in real gross domestic product per capita as well as sustained improvements in human development indicators and falling inequality.

In 2021, Commonwealth countries collectively exported US$135.6 billion worth of textiles ($43.6 billion) and clothing ($92 billion), accounting for 15 per cent of global exports of these products. Textiles and clothing are major components of several Commonwealth countries' export baskets and account for large shares of merchandise exports, particularly in Bangladesh, Pakistan, Sri Lanka and Lesotho (panels A and B in Figure 6.1).

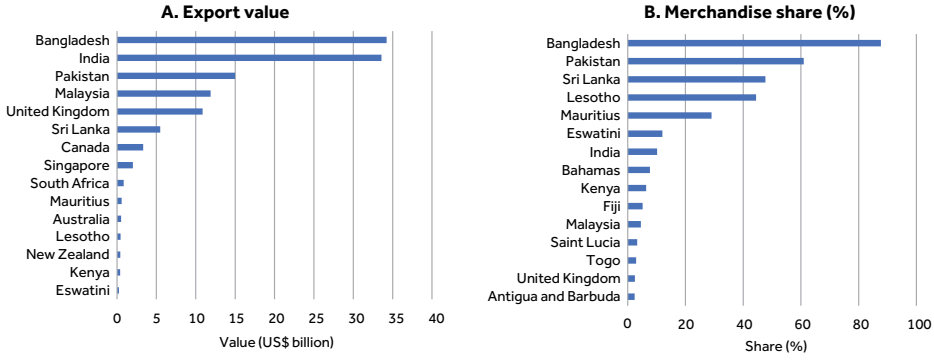
6.2.2 Contributing to growth and manufacturing value-added

The textiles and ready-made garments industries are key contributors to economic growth in many developing countries as well as some developed economies, including several Commonwealth members. Textiles and apparel collectively accounted for more than half of Bangladesh's total manufacturing output in 2020, one-third in Sri Lanka and nearly 29 per cent in Mauritius (Table 6.1). Output from these industries has also expanded rapidly in recent years in some Commonwealth countries.

Textiles and clothing are major contributors to manufacturing value-added in a number of Commonwealth countries (Figure 6.2), especially Bangladesh (57 per

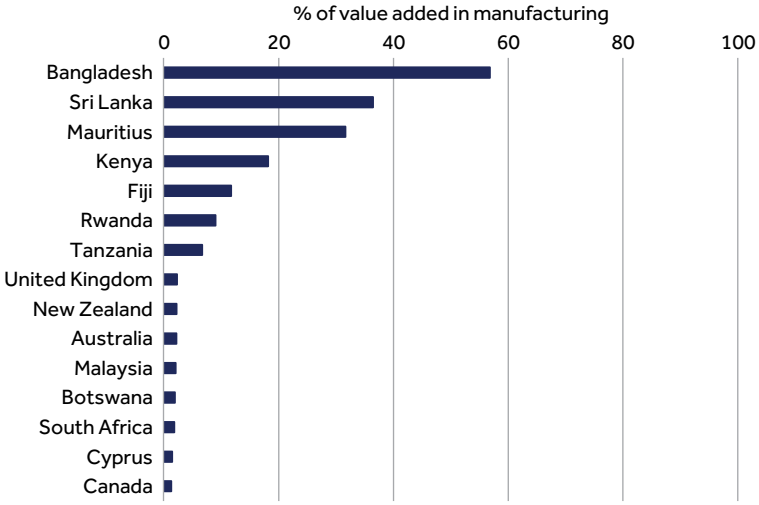
cent), Sri Lanka (36 per cent) and Mauritius (32 per cent), underlying the industries' importance in driving the development of manufacturing capabilities, particularly in LDCs and low-income developing countries.

Figure 6.1 Major Commonwealth textile and clothing exporters, by value and share of total merchandise exports, 2019–2021 average



Source: Author using WTO Stats.

Figure 6.2 Shares of textiles and clothing in manufacturing value-added in selected Commonwealth countries, 2020 (%)



Source: Author using World Bank WDI.

6.2.3 Creating jobs

The textile and garment industries employ around 75 million people worldwide (Textile Exchange and KPMG, 2018). They represent a crucial source of employment in low-income countries, particularly for unskilled and low-skilled workers, thus playing a vital role in supporting poverty eradication. Moreover, a large share of textile and garment jobs are held by women, many of whom are young with limited skills. Around

Table 6.1 Textile and apparel output in selected Commonwealth countries, 2020

	TEXTILES				APPAREL		
	Value at basic prices (US$ million)	**Share of total manufacturing output (%)**	**Average growth 2015–2020**		**Value at basic prices (US$ million)**	**Share of total manufacturing output (%)**	**Average growth 2015–2020**
Bangladesh	18,077	11.2		Bangladesh	69,554	43.1	
Rwanda	160	6.9	28.3	Sri Lanka	7,234	29.6	0.3
Mauritius	149	6.6	–7.7	Mauritius	501	22.2	–8.6
Kenya	1,557	6.1	7.7	Fiji	85	7.4	–0.6
Sri Lanka	824	3.4	1.9	Kenya	699	2.8	7.7
South Africa	3,565	2.7	2.0	Tanzania	229	2.7	2.2
Tanzania	187	2.2	–8.6	Malaysia	2,153	0.7	2.3
New Zealand	1,363	2.0	6.3	Australia	1,659	0.6	–5.0
Botswana	47	1.5	–3.5	Malta	18	0.6	24.0
UK	7,070	1.0	–2.2	UK	3,146	0.5	–5.8

Source: Author using UNIDO INDSTAT 2 (2022).

80 per cent of garments produced worldwide are made by women aged between 18 and 24 (Reichart and Drew, 2019). Women account for 68 per cent of the global garment workforce and 45 per cent of the textile workforce worldwide (BSR, 2017).

The jobs created extend beyond those directly employed in the production of textiles and garments to include a vast number of indirect jobs in industries linked to these value chains. In India, each job in the textile industry is estimated to create an additional 1.2 jobs in associated industries (Textile Exchange and KPMG, 2018). Globally, an estimated 300 million people are employed across the garment value chain (Ellen MacArthur Foundation, 2017).

Large numbers of people are employed directly in the textile and garment industries in several Commonwealth countries. In Bangladesh, nearly three-quarters of all manufacturing workers are employed in the production of either textiles or wearing apparel, with the latter employing more than 3.5 million people and contributing 60 per cent of total manufacturing employment (Table 6.2). The textiles industry is also a major contributor to overall manufacturing employment in Pakistan (30.4 per cent), Kenya (11.9 per cent) and India (10.7 per cent), while apparel accounts for more than half of all manufacturing employment in Sri Lanka, 45 per cent in Mauritius, 22.5 per cent in Rwanda and more than 10 per cent in Pakistan and Kenya.

Table 6.2 Employment in textiles and apparel in selected Commonwealth countries, 2020 or latest available year

	TEXTILES			APPAREL	
	Number employed	Share of total manufacturing employment (%)		Number employed	Share of total manufacturing employment (%)
India	1,668,634	10.7	Bangladesh	3,515,076	60.1
Pakistan	757,699	30.4	India	1,195,044	7.7
Bangladesh	710,023	12.1	Sri Lanka	621,869	53.0
UK	51,612	2.2	Pakistan	292,934	11.7
Sri Lanka	42,003	3.6	Malaysia	55,369	2.5
Kenya	41,992	11.9	Lesotho	49,089	7.6
South Africa	32,536	2.9	Kenya	37,810	10.7
Malaysia	28,443	1.3	South Africa	35,415	3.1
Canada	15,300	1.0	Mauritius	24,531	45.3
Australia	13,884	1.7	Canada	21,004	1.4
Tanzania	10,064	6.8	UK	19,240	0.8
New Zealand	5,422	2.0	Rwanda	16,516	22.5

Notes: Data for India and Pakistan are for 2018.
Source: Author using UNIDO INDSTAT 2 (2022) and ILO Stat (Lesotho).

6.3 Social dimensions of sustainability in the textile and garment industries

The textile and garment industries provide an opportunity for millions of workers to earn a formal wage, often in labour markets otherwise dominated by informal

employment. In some instances, jobs in these industries present the first opportunity for women to enter the formal economy with work outside of the household or informal sector (Nordås, 2004). They thus have the potential to be key drivers of women's economic empowerment and poverty reduction. Moreover, wages earned are often higher than in alternative forms of employment, particularly for unskilled and low-skilled workers (Keane and te Velde, 2008). The sector can therefore make an important contribution to creating decent work opportunities and promoting social development, particularly in LDCs and low-income economies.

6.3.1 Social sustainability challenges in the textile and garment industries

Despite its positive socio-economic contributions, parts of the sector remain beset by poor working conditions and other problematic social issues and occupational health and safety concerns, as elaborated below.

Low wages and limited access to benefits

Low pay and large gender wage gaps are commonplace in textile and garment factories. Competitive pressures to keep production costs down, particularly in low value-added segments of the value chain, exert downward pressure on workers' wages (Fontell and Heikkilä, 2017). Low wages are often exacerbated by insufficient or non-existent payment for overtime as well as underpayment when workers are paid based on the number of pieces they produce (a 'piece rate') or for specific tasks, and where levels of compliance with and/or enforcement of wage legislation are low (ILO, 2014, 2016; C&A, 2018).

Low wages are often compounded by a lack of access to benefits such as health insurance, maternity leave, antenatal care and affordable childcare. Even when they are available, workers may have to accept reduced salaries to enjoy these benefits (BSR, 2017; ILO, 2018).

Forced or bonded labour and child labour

The workplace rights of some textile and garment industry workers are also undermined by abusive labour practices. Instances of forced labour have been documented in the leather industry in Brazil, Paraguay and Vietnam as well as in cotton supply chains in China, Turkmenistan and Uzbekistan (Fashion Revolution, 2020). Bonded labour, whereby young women are recruited by labour brokers and contracted to work in textile and garment factories with the promise of a lump sum payment at the end of their contract, is still practised in India (Shift, 2018). Sumangali – a form of bonded labour – is prevalent in some textile mills in southern India and involves employing young women on multi-year contracts with the promise of a bulk payment to cover their dowry for marriage. However, 'their wages are often held back, if they receive them at all, and they are not allowed to leave or return to their homes' (C&A, 2018: 33).

Reports of widespread use of child labour have dogged the garment industry for many years. In India, for instance, children are frequently sub-contracted to undertake

piecework tasks such as beading, embroidery and embellishment, where dexterity is important (Fashion Revolution, 2020).

Gender biases and discrimination

Women working in the textile and garment industries are often disproportionately exposed to abusive labour practices. Gender biases are commonplace and range from discrimination against women in the assignment of jobs, wage rates, promotions and working hours, to under-representation in supervisory and other senior roles (ILO, 2016; Textile Exchange and KPMG, 2018). Technological advances and increasing automation have exacerbated some of these biases, with male workers and supervisors increasingly favoured, often because of real or perceived gender-related digital divides (BSR, 2017; ILO, 2018; Textile Exchange and KPMG, 2018).

Workplace harassment and violence

In addition to discrimination, instances of workplace harassment and violence against female textile and garment workers are widely documented. As many as 60 per cent of women garment workers in Bangladesh and India may have been subjected to some form of harassment (BSR, 2017; ILO, 2014). Most women working in these industries are young, and many have moved from rural areas into their first formal job. They often hold low-power positions with little influence, making them vulnerable to exploitation, sexual harassment and other forms of violence (ILO, 2016).

Unsafe working conditions

The textile and garment industries have a generally poor reputation in relation to worker health and safety. Occupational health and safety concerns continue to be uncovered in factories in many parts of the value chain, headlined by high-profile incidents such as the devastating factory fires in Bangladesh and Pakistan and the Rana Plaza factory collapse in Bangladesh (Box 6.2). Occupational health and safety standards are insufficient in some factories and unevenly applied in others, and workers are often exposed to chemicals and other harmful substances or operate potentially dangerous equipment without access to suitable personal protective equipment. Remuneration practices may also compromise worker safety, especially when workers are paid a piece rate wage, which incentivises them to work faster (ILO, 2016).

Insufficient transparency and fragmented responsibility

A lack of transparency along textile and garment supply chains makes it challenging to identify and rectify the social issues contributing to poorly remunerated, exploitative and unsafe working conditions. This is especially problematic further down the supply chain beyond the first tier of suppliers and manufacturers used by major brands and retailers, where supply chain disclosures remain limited. A recent study by the United Nations Economic Commission for Europe (UNECE) revealed that just one-third of fashion companies were implementing tracking and tracing processes in their supply chains and, even among the ones that did, the tracking generally did not extend beyond their first-tier suppliers (UNECE, 2020). The widespread use of outsourcing and sub-contracting within textile and garment supply chains complicates efforts

to improve transparency and leads to fragmentation of responsibility for upholding labour standards and addressing other issues affecting social sustainability.

6.3.2 Improving labour conditions and addressing social sustainability challenges in the textile and garment industries: conventions, initiatives and best practices

In recognition of these challenges, a range of public, private and multilateral frameworks, standards and initiatives have been introduced across the world to better regulate the labour market and improve conditions for textile and garment workers.

The International Labour Organization (ILO) has published several standards and conventions detailing guidelines and principles to uphold international labour standards and workers' rights, a raft of which are relevant to the textile and garment industries (Table 6.3). They cover a range of areas, from gender-based violence and forced labour to wages, working hours and broader topics related to social policy, social justice and the formal economy.

Beyond these core ILO conventions, national legislation and agreements are in place in many countries to regulate labour conditions in the manufacturing sector, including some specifically focused on the textile and garment industries. In Bangladesh, for example, several new and innovative labour agreements were introduced following devastating fires in garment factories and the Rana Plaza factory collapse (Box 6.2).

Table 6.3 ILO conventions covering social sustainability issues relevant to the textile and garment industries

Focus area	Convention	Highlights
Forced labour	ILO Forced Labour Convention, 1930; Abolition of Forced Labour Convention, 1957	Commitment by ratifying members to suppress and avoid any form of forced or compulsory labour
Formalisation	ILO Recommendation No. 204, 2015	International labour standard to help guide transitions from informal to formal economies
Multinational enterprises	ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy, amended in 2006	Global instrument providing guidance to multinational (and national) enterprises on social policy and inclusive, responsible and sustainable workplace practices
Violence and harassment	ILO Convention No. 190, 2019	Recognises the right for everyone to work in an environment free from gender-based and other forms of violence and harassment
Social justice	ILO Declaration on Social Justice for a Fair Globalization, 2008	Institutionalises ILO's decent work concept and promotes policies that advance opportunities for decent and productive work underpinned by freedom, equity, security and human dignity

(*continued*)

Table 6.3 (*Continued*)

Focus area	Convention	Highlights
Wages	Protection of Wages Convention, 1949 (No. 95) and Recommendation, 1949 (No. 85)	Outlines protections to workers to ensure regular payments without undue deductions and the freedom to dispose of their wages without limitations
	Minimum Wage Fixing Convention, 1970 (No. 131) and Recommendation, 1970 (No. 135)	Protects wage-earners against unduly low wages, with special reference to developing countries, and provides provisions regarding minimum wage fixing machinery and related challenges
	Protection of Workers' Claims (Employer's Insolvency) Convention, 1992 (No. 173) and Recommendation, 1992 (No. 180)	Sets out rules to protect workers' remuneration in cases of employer insolvency
	Constitution of the ILO, 1919: Preamble of the Charter Declaration of Philadelphia, International Labour Conference, 1944 ILO Declaration on Social Justice for a Fair Globalization, 2008	Establish the right to a living wage
Working hours	Hours of Work (Industry) Convention, 1919 (No. 1) Weekly Rest (Industry) Convention, 1921 (No. 14) Forty-Hour Week Convention, 1935 (No. 47) Holidays with Pay Convention (Revised), 1970 (No. 132) Reduction of Hours of Work Recommendation, 1962 (No. 116) Night Work Convention, 1990 (No. 171) and Recommendation, 1990 (No. 178)	Outline core standards on working time

hese agreements were motivated, in part, by pressure from key sourcing companies and other players in global markets (Koenig and Poncet, 2019).

Private sector and industry-led initiatives

There are also numerous examples of private sector and industry-led initiatives to develop and enforce labour standards and principles for the textile and garment industries and improve transparency across the supply chain. The Gender Equality Principles and Women's Empowerment Principles, for instance, recommend standards

Box 6.2 Factory disasters in Bangladesh and Pakistan spark regulatory reform and collaborative action

In 2012, more than 350 garment workers were killed in devastating factory fires in Bangladesh at Tazreen Fashions and in Pakistan at Ali Enterprises. Many more workers suffered major disabilities as a result of the two fires. A year later, the Rana Place building collapsed in Bangladesh on 24 April 2013, killing 1,134 garment workers and injuring more than 2,500, making it the deadliest garment factory accident in history (Shift, 2018). These tragic accidents exposed severe shortcomings in factory health and safety procedures as well as deteriorating conditions and a lack of investment in factory infrastructure, all of which contributed to dangerously unsafe working conditions. They also highlighted a notable lack of oversight of garment supply chains by government and businesses (ibid.).

The tragic incidents served as a catalyst for a strong drive across multiple stakeholders – including international brands, traders and governments – to improve labour conditions in Bangladesh's garment factories. They also sparked the introduction of several new and innovative labour agreements.

The *Accord on Fire and Building Safety in Bangladesh* was signed on 13 May 2013 as a legally binding agreement between trade unions and global brands (McMullen et al., 2014). Initially, 150 international companies signed the Accord voluntarily, encompassing more than 2 million workers spread across 1,700 factories (ILO, 2014). Under its terms, brands are required to disclose (confidentially) information on their supplier factories to a Steering Committee, which, in turn, publicises information on the names of factories covered by the Accord as well as their performance with respect to building safety (Clean Clothes Campaign et al., 2016).

The *National Tripartite Plan of Action on Fire Safety and Structural Integrity in the Ready-Made Garment Sector of Bangladesh*, between the government and employers' and workers' organisations, provides a framework for improving working conditions across the country's garment industry. The plan prioritises assessments of the structural integrity and fire safety of garment factory buildings, along with stronger labour inspections, training for workers and factory management on occupational health and safety and workers' rights, and assistance to workers with disabilities (ILO, 2014). The plan is monitored, implemented and updated by a high-level tripartite committee chaired by the secretary of the Ministry of Labour and Employment in the Government of Bangladesh (ibid.).

In the wake of the Tazreen Fashions factory fire and the Rana Plaza building collapse, some clothing brands also took the initiative to co-operate to improve the safety of workers in Bangladesh's garment factories. The *Alliance for Bangladesh Worker Safety* was launched in July 2013 as a purely industry-driven initiative

by several North American retailers and clothing brands (ILO, 2014). Through a collaborative process involving the US and Bangladeshi governments as well as representatives of non-governmental organisations (NGOs), civil society and organised labour, the Alliance members made a legally binding five-year commitment to improve safety in Bangladesh's ready-made garment factories by upgrading factories, educating workers and management, and building institutions to enforce and maintain safety requirements.

Worker safety was further prioritised through ILO's programme on *Improving Working Conditions in the Ready-Made Garment Sector in Bangladesh*, with emphasis on training. This includes occupational health and safety awareness training for workers, supervisors and managers; stronger labour inspections and building and fire safety assessments; and capacity-building to improve the effectiveness of fire and building inspections through assistance to develop legislation and policies and provide training on inspection systems and procedures (ILO, 2014). The second phase of the programme, which runs from 2017 to 2023, focuses on providing technical assistance to the Government of Bangladesh to monitor non-compliance with safety requirements in factory buildings along with support to enhance capacity for labour inspections.

Finally, the *Global Sustainability Compact* between the Governments of Bangladesh, Canada and the USA, the European Commission and ILO, along with employers, trade unions and other stakeholders, contains commitments to continuously improve labour rights and factory safety in Bangladesh's garment industry. The Compact is built around three pillars promoting respect for labour rights, structural integrity of buildings and occupational health and safety, and responsible business conduct. These commitments are linked to preferential access to export markets in the EU, Canada and the USA as well as development assistance. Progress under the Compact is monitored on a regular basis and reported annually during high-level meetings.

in areas related to worker rights and working conditions, including employment and compensation, work–life balance and career development, health and safety, and management and governance (Textile Exchange and KPMG, 2018). At a broader, cross-sectoral level, and not specific to the textile and garment industries, the United Nations Guiding Principles on Business and Human Rights provide guidelines to help companies prevent, address and rectify human rights abuses connected to their business practices, and urge them to publicise their efforts to address their human rights impacts (Clean Clothes Campaign et al., 2016).

Moving from principles to action, global framework agreements (GFAs) emerged in the late 1980s as mechanisms to regulate industrial relations, bringing together fundamental principles, workers' rights and core ILO conventions into unifying frameworks. GFAs typically include standards governing wages, health and safety, and skills training and are implemented, monitored and negotiated in collaboration with workers' representatives (ILO, 2014). They can thus serve as important instruments

to allocate and ensure accountability for upholding labour standards and protecting workers' rights.

Outside of collective agreements, many multi-stakeholder programmes and company-led initiatives seek to improve working conditions and combat breaches of workers' rights. For instance, in Vietnam, Nalt Enterprises has built a free kindergarten for workers' children adjacent to its garment factory as well as an accredited healthcare clinic for workers and their families. The company also funds annual school fees for the children of workers. Elsewhere in Vietnam, ILO's Better Work programme has established worker–management committees in participating factories, tasked with improving working conditions (ILO, 2014). The programme also provides assessments and advisory services to impart knowledge directly to factories on best practices in the use of contracts (ILO, 2016). In Lesotho, training provided through ILO's Better Work initiative has contributed to improvements in occupational health and safety conditions in garment factories (ibid.). In India, the Ethical Trading Initiative (ETI)'s South India Ethical Trading Platform provides support to brands, manufacturers and trade unions – working in tandem with local stakeholders and governments – to uphold internationally recognised standards and improve working conditions in the supply chain (C&A, 2018).

Some initiatives seek to combat bad labour practices or violence and harassment in textile and garment factories. The Fair Wear Foundation, working with local NGOs in Bangladesh and India, has helped establish anti-harassment committees to support compliance with anti-harassment laws in garment factories (BSR, 2017). Penguin Apparel has launched reforms to recruitment and management systems in Tamil Nadu in India to combat Sumangali schemes. Inditex, a Spanish multinational clothing company, has sought to eliminate risks to women's health in the workplace and prevent harassment and abuse through training and system improvements introduced via the Sakhi Health and Gender Equity Project.

Many initiatives include a strong focus on women's empowerment. In India, the Self Employed Women's Association established Ruuab – a garment production company run by women – in 2010. Women producers manage and own all garment sourcing and production for Ruuab and work with a range of multinational buyers including C&A, GAP, Primark, Monsoon and Zara (BSR, 2017). On a larger scale, the ILO Better Work's Supervisory Skills Training programme has helped achieve productivity improvements in the garment industry while also addressing gender biases and pay gaps and reducing incidents of sexual harassment.

Many brands, retailers, NGOs, charities and other organisations have sought to introduce wage commitments or innovations to ensure workers are paid fair wages. Some brands have adopted a 'brand bonus' approach wherein workers are paid a separate bonus payment to top up their wages (McMullen et al., 2014). The Swiss brand Switcher, for example, set up an internal 'solidarity fund' in factories in Bangladesh, which collected 1 per cent of the free on board price of each order to distribute once a year to factory workers as an additional bonus payment (ibid.). Similarly, Lidl has paid factory workers in Bangladesh a bonus lump sum twice a year to top up their wages (ibid.).

Several brands and retailers, often through firm-level strategies or multi-stakeholder initiatives, have made commitments to ensure workers in textile and garment factories are paid living wages. H&M launched a Fair Living Wage Strategy in 2013 focused on workplace dialogue to facilitate communication and negotiation, and has devised methods to account for skills, experience and performance when setting wages (Shift, 2018). Egedinez Textile engaged with brands thought its Living Wage Project to negotiate a premium (€0.18 per garment) on its purchases, which funded a 14 per cent wage increase for workers receiving the lowest monthly wages (ibid.). The ETI and the Fair Wear Foundation require members to commit to paying living wages, and the latter has established a wage ladder monitoring tool to benchmark living wages and evaluate wage levels within factories (McMullen et al., 2014). The Action, Collaboration, Transformation initiative promotes industry-wide collective bargaining agreements with the goal of ensuring living wages are paid to textile and garment workers in key sourcing countries.

Transparency is key for demonstrating these commitments. While apparel companies are increasingly adopting measures to improve transparency in their supply chains, there remains considerable variation in the level of detail available on their suppliers (Clean Clothes Campaign et al., 2016). Some large multinational brands publish the names of their suppliers: H&M has released the names and locations of 300 textile mills providing yarns and fabrics to its suppliers, and Nudie Jeans has named all of its tier two suppliers (Fashion Revolution, 2020).

There is a strong business case for companies operating in the textile and garment sector to enhance transparency along their supply chains. Greater transparency can provide a competitive advantage by making it easier to track unauthorised subcontracting, identify bottlenecks and inefficiencies, mitigate harmful labour and human rights abuses, enable cross-company collaboration, enhance brand reputation and comply with regulations promoting social and environmental sustainability (Fashion Revolution, 2020).

The ability to demonstrate sustainable business practices can also help countries, and the firms operating in them, to benefit from positive discrimination through unilaterally granted preferences in trade agreements, often by adhering to sustainability provisions contained in such agreements. Textile and garment producers in Cambodia, for example, benefited from trade preferences into the US market after demonstrating improvements in factory conditions (Box 6.3). Similarly, commitments to uphold labour rights and enhance factory safety are tied to Bangladesh's preferential access to export markets in the EU, Canada and the USA through the Global Sustainability Compact (Box 6.2). In the USA, the Preferential Tariff Project for Benefit Fibres has lobbied for legislation to reduce or eliminate tariffs on sustainable fibres to incentivise their use in textiles exported to the country. Partners to the initiative include major apparel brands such as Levi Strauss & Co, Nike, Eileen Fisher, Lenzing and Vandegrift.

A number of global apparel brands have committed to the Transparency Pledge, established by Human Rights Watch to assist key players in the sector to achieve

Box 6.3 Sustainability provisions in trade: the case of the US–Cambodia Textile Trade Agreement

The United States–Cambodia Textile Trade Agreement (USCTTA) came into force in January 1999 and expired in 2004, coinciding with the end of the ATC. It introduced an innovative quota-based incentive system whereby Cambodia's textile and garment exports would receive enhanced access to the US market in exchange for compliance with national laws and internationally recognised labour standards in a range of areas including child labour, forced labour, sexual harassment, hours of work, minimum wages and freedom of association (Wells, 2006; Berik and Rodgers, 2010). Under the terms of the agreement, there was scope to raise the quotas on 12 categories of textile and garment products by up to 14 per cent per year (increased to 18 per cent in 2001), on top of a regular 6 per cent annual increase (ILO and IILS, 2015; Velut et al., 2022). During the course of the agreement, the actual quotas increased from 9 per cent in 2000 and 2001 to 12 per cent in 2002, 13 per cent in 2003 and 18 per cent in 2004 (Wells, 2006).

This novel approach helped strengthen alignment between the Cambodian government and its private sector to implement and verify improved labour practices with a view to accessing larger export quotas. Targeted factory-level monitoring was performed independently by ILO, with participating factories inspected up to six times a year; and the Cambodian government made participation in the monitoring programme a mandatory condition for receiving an export licence (Adler and Woolcock, 2010; Ebert and Posthuma, 2011; Velut et al., 2022). The involvement of ILO helped enhance transparency, and buyers were able to access the compliance reports online and factor them into their decisions on the selection of suppliers (Oka, 2010; Ebert and Posthuma, 2011).

The USCTTA has been credited with helping improve labour conditions in Cambodia's textile and garment industry. Gradual progress in compliance was accompanied by some improvements to standards governing wages, working conditions and respect for worker rights, including freedom of association and collective bargaining (Polanski, 2004; Wells, 2006; Sibbel and Bormann, 2007; Miller et al., 2008; Berik and Rodgers, 2010; Robertson et al., 2011). The agreement also played a role in boosting employment and wages. Employment in the garment industry grew rapidly from 19,000 direct employees in 1998 to 270,000 in 2004, while the increased trade stemming from the larger quotas helped drive up wages (Velut et al., 2022).

The agreement facilitated the creation of the ILO Garment Sector Working Conditions Improvement Project in Cambodia to provide direct monitoring and factory inspections as well as technical assistance and capacity-building, including to develop indicators for evaluating compliance in factories. The factory monitoring programme was renamed Better Factories Cambodia in 2005 and continued after the trade incentives expired, expanding in scope to include new training programmes, capacity-building and remediation (Berik and Rodgers, 2010).

Box 6.4 Monitoring and enforcing labour standards and responsible business practices in garment supply chains

Social standards and certification systems introduced by private and/or non-profit organisations provide the means to independently verify that labour standards and other responsible business practices are being upheld within supply chains. GoodWeave, for example, has implemented a traceability system and monitoring standard geared towards achieving child-free supply chains in the carpet industry (BSR, 2017; C&A, 2018). Several organic and sustainable cotton certifications exist providing traceability from the growing stage to production of the final product, including Fairtrade's cotton mark, the Global Organic Textile Standard and the Textile Exchange's Content Claim Standard (Fashion Revolution, 2020).

Internal or third-party audits provide a way to test and demonstrate compliance with core labour standards, national legislation and, in the case of upstream suppliers, private standards and requirements imposed by downstream buyers. C&A, for example, has conducted unannounced audits of its suppliers' factories since 2019, which the company claims has enabled it to better detect problematic issues such as unauthorised subcontracting (C&A, 2018). At the industry level, ILO's Better Work compliance assessments involve regular unannounced audits of participating factories to ensure they comply with the global body's core labour standards as well as relevant national legislation (ILO, 2016). Similarly, the SA8000 auditing standard requires certified factories to pay a living wage (McMullen et al., 2014).

a common minimum standard to disclose information on factories in their supply chains (C&A, 2018). Specific instruments have also been created to monitor the appropriateness, implementation and effectiveness of efforts to improve labour conditions in garment value chains (Box 6.4).

6.4 Environmental sustainability in the textile and garment industries

The harmful environmental impacts associated with the production and disposal of textiles and garments are well documented. Estimates of these industries' overall contribution to global carbon emissions range from 4 to 10 per cent, and some forecasts suggest this could rise to 26 per cent by 2050 (Textile Exchange and KPMG, 2018; Pucker, 2022). In 2015, total greenhouse gas emissions from textile production alone were estimated at 1.2 billion in carbon dioxide equivalent, exceeding the combined global emissions from international flights and maritime shipping (Ellen MacArthur Foundation, 2017). Available quantitative estimates of the textile and garment industries' specific impacts on the environment point to considerable adverse implications for environmental sustainability (Table 6.4).

Table 6.4 Estimates of the worldwide environmental impacts of textile and garment production

Environmental impacts	Quantified estimates
Populating landfills	• 44–144 billion square yards of fabric sent to landfills each year
Depleting and polluting water resources	• 93 billion cubic metres of water used annually to produce textiles • 5 trillion litres of water used annually for dyeing processes • 200 tons of water used by a single mill to produce each ton of fabric during dyeing processes • 20 per cent of industrial water pollution worldwide produced by dyeing and finishing fabrics
Discharging harmful substances and chemicals	• 280,000 tons of non-biodegradable dyes discharged annually (to wastewater treatment plants or directly into the environment) • Up to 72 toxic chemicals released into the water supply
Polluting oceans	• 0.5 million tonnes a year (equivalent to 50 billion plastic bottles)

Sources: Greer et al., (2013); World Bank (2014); Ellen MacArthur Foundation (2017); Textile Exchange and KPMG (2018).

Aside from greenhouse gas emissions, substantial quantities of resources are used at various stages of the production process for textiles and garments. In the upstream segments of the value chain, large volumes of raw materials, many of which are non-renewable resources, are required to produce the synthetic fibres and other inputs used for manufacturing textiles and garments. For example, around 70 million barrels of oil are required annually to produce the polyester fibres used to make clothes (Ro, 2020).

Water is also used intensively at various stages, from growing raw materials to producing textiles and washing finished garments. Water usage is especially intensive across the life cycle of products made from cotton. Between 7,500 and 10,000 litres of water are required to produce 1 kg of cotton (Ro, 2020). Further downstream, approximately 2,700 litres of water – enough drinking water to last one person three years – are needed to produce a single cotton t-shirt (C&A, 2018). Around 3,000 litres of water are required to produce one pair of jeans (WWF and H&M, 2015).

While less water is used in the production of synthetic materials, these processes are more energy-intensive, use greater volumes of non-renewable natural resources and are more polluting. Producing a shirt using polyester (5.5 kg of carbon dioxide) has double the carbon footprint compared to a cotton shirt (2.1 kg of carbon dioxide) (Ro, 2020). Manufacturing processes using synthetic materials can use between two and four times as much energy as cotton (Putt del Pino et al., 2017).

Overall, energy use is one of the main contributors to greenhouse gas emissions associated with the textile and garment industries. Energy is used especially intensively in the wet processing stages of the value chain, where it is required – and often obtained from sources with high emission intensities (e.g., coal or natural gas) – to create steam to heat water and for drying fabrics.

The reliance on large volumes of carbon-emitting natural resources at several stages of the value chain translates into sizeable carbon footprints for many clothing products. According to estimates by Levi Strauss & Co. (2015), a pair of Levi's 501 jeans produces the equivalent of 33.4 kg of carbon dioxide across its lifespan. One-third of these emissions come from the production of fibre and fabric, 8 per cent from cutting, sewing and finishing, 16 per cent from packaging and transport and 40 per cent from consumer use (Ro, 2020).

6.4.1 Challenges to addressing the textile and garment industries' adverse impacts on environmental sustainability

There remain considerable challenges to addressing these adverse impacts. At present, only limited volumes – estimated at less than 1 per cent – of the materials used in garment production are recycled (Ellen MacArthur Foundation, 2017). When the value chain is considered in its entirety, only 13 per cent of material inputs undergo some form of recycling, with large volumes destined for landfills (ibid.).

Even when clothing materials and other inputs are recycled, the benefits may be limited. Recycling used garments can reduce the quality and durability of the resulting raw materials by shortening the staple length of the fibres and undermining their softness and strength (Bain, 2015). Moreover, the positive environmental impacts of garment recycling are sometimes overplayed. For example, purchasing a pair of jeans and eventually disposing of it is believed to have a similar impact on climate change as upcycling it into a new pair (Pucker, 2022).

Trade in used clothing can also have unintended consequences. When second-hand clothing is exported from developed to developing countries, it effectively shifts the problem of what to do with the eventual textile waste to the latter (Fontell and Heikkilä, 2017). Developing countries are often less well equipped to process, recycle or discard materials in environmentally sustainable ways. Many countries lack the requisite infrastructure to collect and process textiles and garments after consumers no longer wish to use them (UNECE, 2022). Similarly, some countries lack suitable traceability systems to locate discarded textiles or garments in sufficient volumes and divert them to recycling plants or alternative uses.

A lack of viable options to substitute in more environmentally friendly inputs and processes represents a further challenge. This is evident in the case of chemicals, where there are few cost-effective and safe alternatives (C&A, 2018). In certain cases, these difficulties are exacerbated by a lack of information on the chemical formulations present in some chemicals used in production processes as well as limited capacity to assess chemical properties (ibid.).

6.4.2 Best practices for promoting environmental sustainability in the textile and garment industries

Notwithstanding these challenges, a multitude of innovative programmes, initiatives and measures – some of which are discussed below – have been introduced to counter the textile and garment industries' negative environmental impacts and direct them to a more sustainable future, as envisaged, for instance, through the Fashion Industry Charter for Climate Action (Box 6.5).

Box 6.5 The Fashion Industry Charter for Climate Action

The need for urgent action against the fashion industry's climate-related impacts is recognised by key stakeholders through the Fashion Industry Charter for Climate Action. The Charter was launched at the 24th Conference of the Parties (COP24) in Katowice in December 2018 and renewed at COP26 in Glasgow and aims to achieve net-zero greenhouse gas emissions by no later than 2050. Signatories to the Charter – which include more than 130 brands, retailers and suppliers – have committed to sourcing 100 per cent of electricity from renewable sources and environmentally friendly raw materials and phasing out coal from their supply chains by 2030. They are expected to demonstrate their actions towards meeting these and other goals annually and to release public reports on progress against interim and long-term targets at least once a year.

Source: UN Climate Change (2021); UNFCCC (2022).

Voluntary sustainability standards

Different standards have been developed to help producers and consumers track materials and inputs used in textile and garment production from their origin through manufacturing stages and transport to customers as final products. These include voluntary chain of custody, processing and product standards (Table 6.5).

Sustainable inputs and materials

A key element of efforts to lessen the environmental impacts of trade in textiles and garments is to shift from non-renewable resources to more sustainable fibres, materials and inputs in production. These include bio-based materials, recycled materials and 'preferred' fibres, such as biodegradable textile and non-woven cellulose fibres or fibres derived sustainably from animals, including regenerative natural fibres such as wool (Hashempour, 2023). Some leading garment manufacturers and brands, including Lee Jeans, Lenzing, Levi Strauss and Patagonia, are pioneering new methods to use sustainable inputs and materials (Table 6.6).

Greater emphasis is being placed on protecting and managing scarce resources required for production, with a particular focus on water. The World Wildlife Fund (WWF) and H&M launched a joint water stewardship initiative to transform internal water management processes at H&M and ensure water was used responsibly throughout the company's value chain. An internal standard was developed for all H&M's water operations and staff were trained to improve water awareness (WWF and H&M, 2015). Other elements included water training for supplier factories using wet processes, and use of more water-efficient equipment and sustainable cotton (ibid.).

Water conservation was also a central consideration in the design of the Hawassa Industrial Park in Ethiopia, built through a joint venture by the Ethiopian Industrial Parks Development Corporation and PVH, an American luxury apparel brand. The Hawassa Industrial Park houses a liquid discharge effluent treatment facility and a water treatment plant to produce recycled wastewater that can be reused.

Table 6.5 Examples of voluntary sustainability standards for products and processing in the textile and garment industries

Area	Standard	Detail
Chain of custody	Content Claim Standard	Provides a tool for companies to verify whether specific input materials are included in a final product
	Recycled Content Standard	Outlines requirements for third-party certification of recycled content and chain of custody
	Global Recycling Standard	Similar to the Recycled Content Standard but includes additional criteria for social and environmental practices and chemical restrictions
Product standards	Cradle to Cradle Certified Product Standard	Independent third-party certification assessing the safety of materials and certifying that products are safe for human and environmental health
	Responsible Down Standard	Independent global standard following chain of custody from farm to product and seeking to ensure down and feathers are sourced from animals that are not harmed
	Responsible Wool Standard	Voluntary global standard aiming to safeguard the welfare of sheep and their grazing land
Processing standards	Global Organic Textile Standard	Voluntary global standard covering all post-harvest activities for processing home textiles and apparel manufacturing from organic fibre; prohibits the use of genetically modified organisms, hazardous chemicals and child labour
	OEKO-TEX Standard	Worldwide, independent testing and certification system covering the processing of raw, semi-finished and finished textile products and associated materials

Source: Textile Exchange and KPMG (2018).

Innovative manufacturing practices and technologies

Innovative new production techniques and technologies are helping reduce the environmental impacts of textile and garment production by limiting waste, substituting non-renewable resources for sustainably grown or sourced alternatives and maximising resource use. These include:

- technologies enabling water-free dyeing and finishing of textiles;
- biodegradable dyes, threads and inks;
- biotechnology to replace the use of chemicals; and

- advances in design to increase the useful life of clothing and reduce washing cycles.

Table 6.6 Examples of innovative uses of environmentally sustainable inputs and materials in textile and garment production

Category	Manufacturer/ brand	Innovation/best practices
Bio-based materials	Multiple	Biocouture – using waste from wood, fruit and other natural materials to manufacture textiles
	GumDrop	Uses gum to produce new rubber for shoes
Biodegradable materials	Lee Jeans	Fully biodegradable jeans in its 'Back to Nature' range that can be placed in a compost bin when discarded
	Lenzing	Uses inputs certified by the Forest Stewardship Council
Recycled materials	Patagonia	Scaling up the use of recycled polyester and nylon; uses polyester from recycled bottles to manufacture fleece jackets; reportedly reduced the carbon intensity of its products by 17 per cent using environmentally preferred materials
	Levi Strauss and Evrnu	Created a pair of blue jeans using recycled T-shirts
	Ecoalf	Uses ocean plastic collected from 33 ports in multiple countries to produce shoes, clothing and bags
	Wintervacht	Uses blankets and curtains sourced from second-hand stores and donations to produce coats and jackets
	Tonlé	Uses surplus fabric obtained from clothing manufacturers to produce zero-waste fashion collections
	Pure Waste Textiles	Uses cutting waste from clothing factories to manufacture yarn, knitwear and fabrics for new clothes
	Target	Focuses on packaging, using fewer materials and more recycled content to produce 160 packaging designs that are also recyclable themselves; also committed to paper-based packaging for brands it owns, sourcing from sustainably managed forests by 2022, and added a How2Recycle label to all of this packaging

Sources: Fontell and Heikkilä (2017); Putt del Pino et al. (2017); UNEP (2018); Ro (2020); Textile Exchange (2021).

Some leading brands have developed their own innovative technologies and report promising results. Nike's Flyknit technology, for example, uses lightweight strands of yarn and different knit patterns woven into a single piece covering the upper part of their shoes. This has reportedly enabled a 60 per cent reduction in manufacturing waste per shoe (Putt del Pino et al., 2017).

New tools to assess environmental impacts can help evaluate the effectiveness of these innovations. The Sustainable Apparel Coalition has developed the Higg Index – and,

specifically, the Higg 3.0 Facility Environment Module – as a centralised standard for assessing environmental impacts across the garment supply chain. The Index enables companies to measure the environmental and social impacts of their products and services (Putt del Pino et al., 2017).

There is evidence to suggest that the use of more sustainable inputs and materials, alongside broader shifts to less resource-intensive and environmentally harmful manufacturing practices, can produce significant environmental benefits. C&A has reportedly managed to reduce water usage by around 1 billion m^3 – approximately 37 per cent of its total usage – by sourcing more sustainable cotton (C&A, 2018). In the UK, the Sustainable Clothing Action Plan (SCAP) reported noteworthy success from commitments to reduce the industry's water, waste and carbon impacts (Box 6.6).

Box 6.6 The Sustainable Clothing Action Plan: uniting brands in the UK to reduce the clothing industry's environmental footprint

The SCAP, which ran from 2012 to 2020, brought together more than 90 brands, retailers, recycling and reuse companies, charities, trade associations and universities in the UK with the goal of reducing the environmental footprint of textile and clothing production. Signatories to the initiative made specific commitments to reduce the water, waste and carbon impacts generated across their supply chains, organised around actions in seven areas:

1. measuring the environmental impacts of all products sold and tracking changes over time using a SCAP Footprint Calculator;
2. using fibres and fabrics that reduce the environmental footprint of production;
3. collaborating with supply chain partners to reduce environmental impacts of manufacturing processes;
4. extending the useful life of clothes and reducing their impact through innovative product design and services;
5. encouraging consumers to reduce environmental impacts through messaging, including via a 'Love Your Clothes' campaign;
6. boosting clothing reuse and recycling;
7. devising ways to keep clothing out of landfills through better collection and separation systems and by developing markets for reuse and recycling.

Using 2012 as a baseline, the SCAP reported reductions of 21.6, 18.2 and 2.1 per cent in the industry's carbon, water and waste footprints, respectively, up to 2020. The share of clothing in household waste also fell by 4 per cent from the baseline in 2012, albeit much less than the initial target of 15 per cent by 2020. After establishing a baseline for clothing waste in 2015, signatories to the programme reportedly collected 690,000 tonnes of clothing for reuse or recycling.

Using more sustainable cotton fibres and regenerated cellulosic fibres, alongside lower impact factory processes, was credited with lowering greenhouse gas emissions and reducing water usage. In turn, changes to the electricity mix powering production and adjustments to washing and usage behaviours reportedly helped reduce carbon emissions.

Looking ahead, Textiles 2030, a circular clothing action plan developed to continue the work initiated during the SCAP and bring together the UK's textile and clothing industries, aims to scale up efforts to develop a circular textile economy in the country through the decade to 2030. The plan is working towards a broad target to reduce the industry's greenhouse gas emissions by 50 per cent in line with the Paris Agreement on climate change.

Source: SCAP (2021).

Traceability

Traceability makes it possible to track the full life cycle of a product from the initial extraction of raw materials to the delivery of the finished product and after sale disposal or recycling. It thus plays a critical role in helping suppliers and brands meet consumer and regulatory requirements for transparency, demonstrate compliance with import requirements and/or voluntary sustainability standards, monitor conditions within their supply chains and assess performance against environmental and social governance parameters.

Innovative digital platforms and traceability tools enable the collection of data on sustainability metrics within supply chains at a very granular level, covering companies and products and even individual batches of textile or garment products. Among these, blockchain-based platforms are becoming increasingly prevalent and create 'an auditable and tamper-proof record of the chain-of-custody across a product's lifecycle from fibre to finished garment – almost like a digital passport' (Fashion Revolution, 2020: 33). Textile Genesis has developed digital blockchain-based tokens named Fibrecoins that enable manufacturers at different levels of the supply chain to document details of fibres, filament, fabrics, yarn or garments in a digitised format (Online Clothing Study, 2020).

Other innovative technologies have been developed to track and trace material inputs at an even more granular level. FibreTrace, for instance, uses nanotechnology particles embedded in cotton and other cellulosic fibres to track the use of these fibres along the entire supply chain (Fashion Revolution, 2020).

Circular business models and initiatives

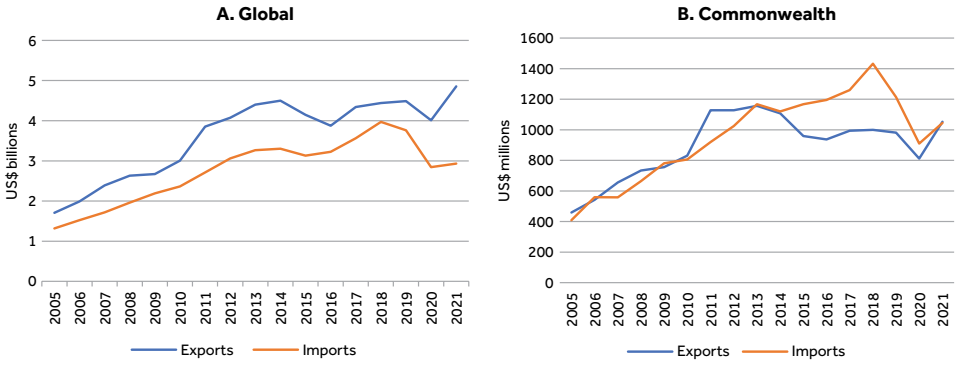
Innovative new business models and technologies focused on reuse and recycling are helping lengthen the useful life of clothing and ensure that discarded clothes and textiles do not end up in landfills. Rapidly expanding mobile connectivity, coupled with growing consumer awareness and prioritisation of environmental issues, have fuelled growth in apparel re-commerce and created a thriving market for second-hand clothes.

Global trade in used textiles and clothes has increased significantly since 2005, beginning with the end of discriminatory quotas restricting imports into developed countries from some developing countries under the MFA. The value of used textile and garment exports worldwide climbed from US$1.7 billion in 2005 to $4.9 billion in 2021, and imports rose from $1.3 billion to $2.9 billion (panel A in Figure 6.3). Over this same period, Commonwealth countries' worldwide exports of used textiles and clothes grew from $459.3 million to $1.1 billion and their imports rose from $409.4 million to more than $1 billion (panel B in Figure 6.3). Several Commonwealth countries exported and/or imported large quantities of used textiles and clothing in 2021. Combined exports from the UK, Pakistan, Canada, India, Malaysia and Australia topped $1 billion and contributed more than one-fifth of global exports of used textiles and clothing (first three columns of Table 6.7). In turn, Pakistan, Kenya, Tanzania, Malaysia, India and the UK collectively imported $938 million worth of used textiles and clothing, representing close to one-third of the global total (last three columns of Table 6.7).

To help alleviate concerns around fast fashion and the trend of purchasing and quickly discarding new clothes, a number of brands have launched rental and subscription services based on sharing economy principles. MUD Jeans allows customers to lease jeans and benefit from free repairs (Putt del Pino et al., 2017). Gwynnie Bee provides a subscription service offering members the opportunity to rent and continuously exchange between one and three items of clothing (ibid.). Rent-the-Runway provides an e-commerce platform enabling subscribers to select an array of designer clothes and rent a defined number of items at any given time to keep for as long as they wish. Renting clothes is estimated to reduce carbon dioxide emissions by 3 per cent in comparison with purchasing new clothes (Pucker, 2022).

Programmes to support reusing and recycling clothes are also gaining momentum. In the UK, as much as 620,000 tonnes of used textiles were collected to be either reused or recycled in 2019 (WRAP, 2021). Some retailers have launched 'take-back' programmes, often in partnership with charities and other organisations (Table 6.8), and the growth of online reuse and recycling apps such as regain, Thrift+ and Reskinned.clothing has made it easier for consumers to return unwanted items or offload them to others.

Figure 6.3 Trade in used textiles and second-hand clothes, 2005–2021



Note: The data cover trade in textiles, worn clothing and other worn articles (HS 6309).
Source: Author using UNCOMTRADE data.

Table 6.7 Top 10 Commonwealth exporters and importers of used textiles and clothing, 2021

EXPORTS			IMPORTS		
Country	**Value (US$ million)**	**Share of global exports (%)**	**Country**	**Value (US$ million)**	**Share of global imports (%)**
UK	397.9	8.2	Pakistan	401.5	13.7
Pakistan	276.6	5.7	Kenya	172.7	5.9
Canada	140.8	2.9	Tanzania	105.9	3.6
India	85.1	1.8	Malaysia	97.2	3.3
Malaysia	63.8	1.3	India	81.9	2.8
Australia	63.7	1.3	UK	78.6	2.7
New Zealand	12.0	0.2	Canada	52.2	1.8
Togo	8.5	0.2	Togo	32.8	1.1
Tanzania	1.4	0.0	Australia	6.2	0.2
Kenya	1.4	0.0	Belize	4.5	0.2

Note: The data cover trade in textiles, worn clothing and other worn articles (HS 6309).
Source: Author using UNCOMTRADE data.

Table 6.8 Examples of clothing take-back and recycling schemes involving private companies

Type	Brand and partners	Programme	Details
Charity partnership	M&S and Oxfam	Clothes Exchange Campaign (rebranded to Shwopping in 2012)	Allows members of the public to donate to M&S or Oxfam stores all types of unwanted clothing as well as linens and other soft furnishings in any condition purchased from any retailer. Donated clothes are either sold by Oxfam, reused or sent to reprocessing companies for recycling into carpet underlay or mattress filling.
	REBus and IKEA	Textile take-back service	Piloted in Cardiff, Wales. Members of the public can bring unwanted textiles to IKEA, which passes them on to YMCA to be reused (by community members in need) or recycled.
	Zara	Life clothes collection	Collaboration with 12 non-profit organisations across the world to collect used clothes, which are delivered to sorting centres run by the organisations and donated to charities working with the British Red Cross.

(*continued*)

Table 6.8 (*Continued*)

Type	Brand and partners	Programme	Details
Commercial partnership	H&M and I:CO	Global garment collection programme	Programme to collect, sort, reuse and recycle used textiles, clothes and footwear. Customers returning items receive a discount voucher for their next purchase at H&M. More than 85,500 tonnes of textiles, clothes and footwear have been collected globally through this programme.
	Tesco F&F and SOEX UK	Detox your wardrobe	Clothing take-back trial launched in 2019 in more than 80 stores across the UK, allowing customers to donate textiles, clothing and shoes from any brand via in-store collection units.
Own take-back initiatives	Patagonia	Worn Wear	Allows customers to trade-in used Patagonia items at their stores and receive credit towards a purchase of a used or new garment. Items returned through the initiative are repaired (if necessary) and made available through Patagonia stores for reuse or recycled if deemed to be beyond repair.
	Eileen Fisher	Renew	Takes back clothing from customers, who receive a US$5 credit via Renew Rewards for each item. The returned clothing is sorted to be resold, donated or remade into new designs. Resold or donated items are cleaned using a closed-loop cleaning system.
	Filippa K	Clothing Collect service	Provides a 15 per cent discount voucher to customers returning used clothes in good condition. Returned items deemed too worn out for resale in their second-hand stores are donated to local charities for alternative uses.
	The North Face	Clothes the Loop	Allows people to drop off unwanted clothing and footwear at The North Face retail and outlet stores in Canada, Germany and the USA. These items are sorted at a recycling centre and repurposed for reuse or recycled into raw materials to be used in insultation, carpet padding, stuffing for toys or fibres for new clothing. Customers dropping off items receive a US$10 reward towards their next purchase of $100 or more at The North Face.

Sources: WRAP (2021); Eileen Fisher (nd); Patagonia (nd); The North Face (nd).

The EU is prioritising efforts to transition to sustainable and circular textile value chains, along with new technological solutions and innovative business models that reduce the environmental footprint of textiles throughout their life cycle. Under its Strategy for Sustainable and Circular Textiles, the European Commission seeks to ensure that, by 2030, all textile products on the EU market are durable and recyclable, primarily made of recycled fibres, free of hazardous substances and produced by respecting social rights and the environment (EC, 2022). The Strategy proposes, among other actions, to:

- introduce mandatory product-specific eco-design regulations to increase the durability, reusability, reparability and recyclability of textiles;
- halt the destruction of unsold or returned textiles;
- combat microplastics pollution from synthetic textiles through binding design requirements for synthetic fibres, measures targeting pre-washing and manufacturing processes, and promotion of the use of innovative materials;
- introduce a Digital Product Passport for textiles, with mandatory information requirements on circularity and other environmental aspects;
- improve information available to consumers relating to durability and repair as well as the validity of environmental claims made by manufacturers, brands and retailers; and
- devise harmonised EU extended producer responsibility rules for textiles with eco-modulation of fees.

While these measures are likely to enhance the environmental sustainability of the textile industry, they may create barriers to trade for some developing country producers and smaller producers within the EU, which may lack the capacity to comply with the more stringent regulatory requirements. In this way, the Strategy may have unintended negative consequences for economic and social sustainability in the industry.

6.5 Conclusion

Significant changes are required to shift the textile and garment industries onto a more sustainable path. They remain among the most polluting in the world, and segments of the value chain in certain countries are still plagued by poor and unsafe working conditions and abuses of workers' rights.

A plethora of initiatives, often led by the private sector, civil society or NGOs and with the backing of major global brands and retailers, are seeking to develop a more sustainable industry. There is a strong business case behind these efforts. Garment workers operating under better working conditions and in safer working environments tend to be more productive (ILO, 2016). It is also easier to recruit and retain workers when their rights are respected. Moreover, brands, retailers and other companies championing social and environmental sustainability are likely to

benefit from reputational advantages that help them reap profitable gains in domestic and export markets, particularly given the increasing consumer awareness and prioritisation of sustainability.

Meaningful change in favour of more sustainable production and trade in the textile and garment sector is contingent on decoupling business growth from resource use and harmful environmental and social impacts. The relentless rise of fast fashion and the competitive pressure on suppliers to produce low-cost garments in high volumes complicate this objective. Moreover, in many garment-producing developing countries, digital divides, skills shortages and limits to technical capabilities make it more difficult to develop, adapt or adopt technologies and other innovative solutions aimed at reducing negative environmental and social externalities. As a result of these, and other, contributing factors, developing countries are often stuck in the upstream segments of the value chain, unable to diversify into higher value-added garment production and exports.

Several solutions to these social and environmental sustainability challenges involve efforts to develop and implement international conventions, norms and standards to govern production and trade along the value chain. These are often complemented by initiatives to improve transparency and traceability, with some using innovative digital technologies such as blockchain to enable traceability at a very granular level. Suppliers of raw materials, inputs and finished textiles and garments, particularly those located in LDCs and low-income developing countries, and especially micro, small and medium enterprises, will need support to implement internationally accepted minimum levels, standards and systems for value chain traceability and transparency. This is particularly the case since demonstrating compliance with these norms and standards is increasingly used as a condition to supply global brands and retailers and to gain preferential market access for exports.

In addition to transparency and traceability, efforts to address the industries' negative environmental impacts are increasingly focused on sustainable product standards, more sustainable materials and manufacturing practices, and technologies to reduce pressure on non-renewable resources and extend the useful life of clothing products. There has been a strong push to move away from traditional linear production models in favour of circular business models emphasising reuse and recycling. There remains considerable scope to develop new advances in these areas and ensure they are implemented more widely across the textile and garment value chain. To enable further progress, strong incentives are required to support investment in the development of new recycling technologies, methods and innovations, and encourage producers to embrace renewable energy and reduce their use of non-biodegradable materials. There is also great potential to scale up innovations such as clothes rental and resale and boost their uptake among consumers.

Innovative new policy approaches can help tip the balance in favour of more environmentally and socially sustainable practices in the textile and garment industries. These could include new ways of pricing negative externalities (e.g., by appropriately taxing carbon and water usage to reflect their social impacts) or

by introducing a tax on polyester and other synthetic materials to ensure natural materials are more price-competitive (Pucker, 2022).

Further regulatory and legislative interventions can also contribute to more sustainable industries. Extended producer responsibility legislation would put the onus on garment producers to pay upfront for the costs associated with disposal of their items and accessories. Formal legislation could also be introduced by countries to ensure garment brands abide by social and environmental commitments and standards in their supply chains.

Finally, trade policy can play a more proactive role in reducing the industries' environmental impacts. Countries can apply preferential tariffs on materials that do less harm to the environment – such as organic cotton or recycled natural fibres – to incentivise their use over traditionally cheaper non-biodegradable synthetic materials that are derived from non-renewable sources. This would also help incentivise suppliers further upstream to develop environmentally friendly materials. In this way, a sustainability-based preferential tariff regime would help level the playing field for companies committed to sourcing environmentally preferred materials through their supply chains.

Chapter 7

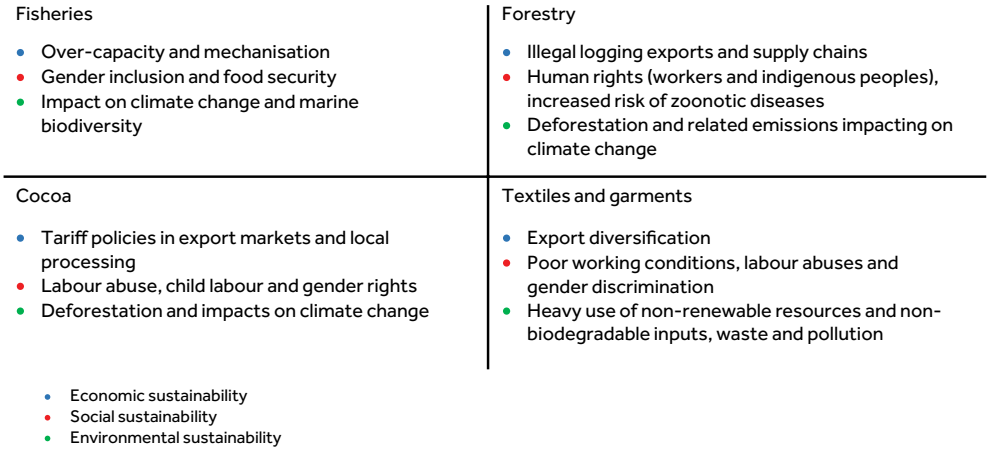
Conclusions: Common Challenges, Possible Solutions and Way Forward

Kartikeya Garg

The sectoral analyses in this book reveal that each sector faces unique socio-economic and environmental sustainability challenges. For example, the textiles and garments industries face significant challenges along their respective value chains. These include balancing business growth and resource use, managing waste and pollution, improving transparency and traceability, and implementing circular business models. These challenges may be less prevalent in the other three primary sectors. In turn, harmful capacity-enhancing subsidies pose a significant challenge to achieving a more sustainable fisheries sector but less of a threat to sustainability in other sectors. Illegal logging in the forestry sector is a major threat to the economy, environment and local communities, while the cocoa sector faces tariff escalations in importing countries that hinder export diversification and restrict cocoa farmers from participating in downstream processing.

A common thread among the four sectors is that they are all 'buyer-driven' and characterised by labour-intensive production, with producers having little or no control over product prices or distributional share in the supply chain (Chantrill, 2017). As a result, these sectors face similar challenges (as outlined in Figure 7.1) and require similar approaches to improve sustainability. This concluding chapter identifies common sustainability issues across the four sectors and discusses potential ways for Commonwealth members to address them.

Figure 7.1 Main economic, social and environmental sustainability challenges



7.1 Common sustainability issues faced in the four sectors

All four sectors examined in this book face challenges that hinder the goal of achieving sustainable production and trade, which aims to promote 'the preservation and reuse of environmental resources or reduce poverty and inequality' (Jones et al., 2021). These challenges include over-utilisation of resources, weak labour rights and lack of gender mainstreaming, and harmful impacts on climate change and the environment.

7.1.1 Over-exploitation of natural resources

Mechanisation of capturing techniques and large subsidies in the fisheries sector have resulted in over-fishing and increasing problems of bycatch, resulting in a depletion of Commonwealth members' fish stocks by about 72 per cent from 1995 to 2018 (as outlined in Box 3.2 of the fisheries chapter). Moreover, harmful fishing practices, such as lost fishing nets and damage to the seabed from large trawling practices, destroy natural habitats and coral reefs, with negative impacts on aquatic ecosystems (Jaleel and Smith, 2022).

Forests are under threat from agricultural expansion, which accounts for almost 90 per cent of global deforestation, and the increased demand for wood products for fuel, construction and manufacturing. These factors exacerbate the threat of illegal logging, leading to over-exploitation of forest resources and negatively affecting the trade of wood products by over-supplying the market and depressing prices. Cocoa production also drives deforestation, as farmers clear vast forest lands to increase their yields.

The textile and garment industries are extremely water- and energy-intensive, from growing raw materials and producing textiles to washing finished garments. Producing 1 kg of cotton requires between 7,500 and 10,000 litres of water (Ro, 2020). The production of synthetic materials uses less water but is more energy-intensive, taking up a higher share of non-renewable natural resources and generating more pollution.

7.1.2 Labour practices and gender mainstreaming

The four sectors covered in this book have been subject to criticism for labour practices, working conditions and gender inclusion issues. In the fisheries sector, there has been growing attention to the exploitation of workers, including abuse and employer malpractices, which can amount to slavery at sea. Additionally, there are concerns about gender inclusion, as women make up just over 46 per cent of the total workforce in the fisheries and aquaculture processing sector, with limited participation in the initial stages of the value chain and a focus on post-harvest phases.

Workers in the forestry sector, which accounts for approximately 1 per cent of global employment, often face precarious working conditions, including exposure to dangerous equipment, low wages, lack of overtime pay and job insecurity. In addition, most female employment in the sector is informal and often related to gathering and production of fuelwood and non-timber forest products. This is also true for the

cocoa sector, with most female workers hired as daily or contract workers, putting them at a far greater risk of being fired or underpaid or receiving no wages at all. Instances of abusive labour practices in the textile and garments industry, including forced and bonded labour, have been documented in many countries. A range of gender biases are also present across these industries, ranging from discrimination against women in the assignment of jobs, wage rates, promotions and working hours to under-representation in supervisory and senior roles (ILO, 2016; Textile Exchange & KPMG, 2018).

7.1.3 Impacts on climate change and the environment

The activities within the four sectors covered in this book have a range of negative impacts on the environment. Mechanised fishing practices, for example, damage marine habitats, coral reefs and aquatic ecosystems, and accounted for nearly 0.5 per cent of total global carbon dioxide emissions in 2012. Deforestation causes loss of biodiversity, displaces wildlife and reduces carbon capture and storage, making it the second-largest emitter of global greenhouse gas emissions (Pendrill et al., 2019). Cocoa plantations also cause ecosystem disturbances, such as soil erosion and siltation of rivers. The discovery of gold deposits in cocoa-producing areas has led to an increase in artisanal mining activities, resulting in more land loss and contamination of water owing to mercury runoffs used in extraction processes. Global carbon emissions produced by the textiles and garments sector range from 4 to 10 per cent, with some forecasts suggesting this could rise to 26 per cent by 2050 (Textile Exchange & KPMG, 2018; Pucker, 2022).

These four sectors – mechanised fishing, deforestation, cocoa plantations and textiles and garments – have vast environmental footprints and contribute significantly to accelerating climate change globally. As such, there is an urgent need to scale back these adverse impacts and promote more sustainable and equitable production and trade practices in these sectors.

7.2 Promoting sustainability

7.2.1 Recognising the rights and sustainable practices of small-scale fisheries, indigenous peoples, small farmers and producers

Small-scale and artisanal fisheries employ over 90 per cent of the world's capture fishers and contribute about half of the global fish catch. Some of these fishers use non-mechanised fishing techniques, such as pole and line fishing, which is less fuel-intensive and produces less bycatch. However, environmental challenges and a lack of incentives could force these fishers to modify their fishing techniques. Recognising indigenous and traditional practices and developing strategies to adapt to climate change could ensure that the most vulnerable benefit from the adaptation responses.

There is growing recognition of the role and rights of indigenous peoples in forest governance. In 2017, almost 447 million ha of forests were legally recognised as being owned by local, tribal and indigenous people. Anecdotal evidence suggests such land has significantly lower rates of deforestation compared with state- or

privately owned land (FAO, 2022). This is because these communities typically have a strong conservation ethic, supported by legal rights to their land and resources. As such, recognising and respecting the land rights of indigenous peoples is crucial for sustainable forest management and the conservation of natural resources.

Small-scale farming is a vital component of the cocoa sector, with more than 90 per cent of cocoa grown on farms ranging between 2 and 5 ha. In Côte d'Ivoire and Ghana alone, approximately 2 million small-scale farmers contribute to and depend on the cocoa sector.

Proposed reforms to better integrate these farmers into existing value chains have focused on creating farmer organisations to increase their bargaining power, improving their access to finance and promoting product differentiation to help farmers obtain higher prices (Gayi and Tsowou, 2016). Integrating small farmers into the value chain would raise their incomes and help promote economic and social sustainability.

Similarly, a significant number of small and medium-sized enterprises operate across the textile and garment value chains, including small-scale cotton producers, yarn and fabric manufacturers, and dyeing facilities. These enterprises typically employ a larger number of women and rural migrants, who often remain marginalised in formal employment (Notten, 2020). Efforts to drive sustainability across the textile and garment industries, such as removing entry barriers for smaller farmers upstream and producers downstream; rewarding sustainable practices; harmonising guidelines and standards; and boosting co-operation, funding and collaboration must prioritise the needs and interests of these groups (ibid.).

7.2.2 Incorporating specific sustainability provisions into trade agreements

Incorporating sustainability provisions in bilateral and regional trade agreements can promote sustainability across the four sectors. These provisions could take the form of declarative clauses, where agreements refer to Article XX of the General Agreement on Tariffs and Trade or Article XIV of the General Agreement on Trade in Services, stating that measures may be necessary for the protection of human, animal and plant life and health. Several free trade agreements (FTAs) involving Commonwealth countries, such as the Australia-New Zealand-Association of Southeast Asian Nations FTA and the China–Pakistan FTA, contain preambulatory language referencing sustainable development.

Some FTAs include specific provisions containing legally binding commitments on improving labour standards and environmental protection. Parties to the EU–Caribbean Forum (CARIFORUM) and the UK-CARIFORUM agreements reaffirm their commitments to core labour standards defined by relevant International Labour Organization (ILO) conventions, including the abolition of forced and child labour and non-discrimination in terms of employment. Similarly, the Tunis Declaration adopted in September 2022 highlights the need to include labour provisions in the African Continental FTA to ensure compliance with international labour standards.

Environmental provisions in FTAs can take the form of protecting natural resources, complying with international standards, conserving biodiversity and reducing pollution. While some EU trade agreements require the effective implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the development of verification systems or the use of certification schemes, the Pacific Agreement on Closer Economic Relations Plus allows countries to depart from their liberalisation commitments to protect, among others, public health and the environment.

Sustainability provisions can also take the form of co-operation clauses that identify priority areas for establishing specific work programmes. The Canada-Colombia FTA and the Chile-Malaysia FTA, for instance, contain work programmes for forestry management, while the US-Colombia Trade Promotion Agreement requires countries to develop a joint programme to promote sustainable cocoa production.

Countries may also enter into sector-specific bilateral or regional agreements to promote sustainability standards. For instance, the US-Cambodia Textile Trade Agreement incorporated a quota-based incentive system whereby textile and garment exporters in Cambodia would receive enhanced market access for compliance with internationally recognised labour standards. Similarly, the Nauru Agreement in the Pacific adopts novel sustainability measures under the Vessel Day Scheme to protect against bycatch and ensure a sustainable tuna purse seine fishery.

7.2.3 Enhancing transparency and traceability across supply chains

Traceability is a critical aspect across all four sectors, as it assists suppliers in meeting their regulatory requirements related to transparency, demonstrates compliance with standards, monitors supply chain conditions, and assesses and addresses environmental impacts associated with production.

In the forestry sector, for instance, the Economic and Monetary Community of Central Africa's proposed sustainable industrialisation of timber strategy seeks to ensure sustainable sourcing and combat illegal logging by enhancing transparency and traceability in the supply chain. Most traceability systems in the forestry sector also incorporate a variety of datasets along the supply chain, including forest inventories, permitted concessions, transportation and processing and payment of taxes, marked with barcodes or radio-frequency identification tags (Grant et al., 2021). The importance of traceability and transparency in the forestry sector is also highlighted in the recently launched Forests, Agriculture and Commodity Trade Dialogue, chaired by the UK. This initiative aims to combat illegal deforestation and promote sustainable supply chains by bringing together governments, businesses and civil society to work towards a common goal of reducing deforestation and promoting sustainable forestry practices.

Increasing demand from consumers for sustainably sourced cocoa has led to countries adopting initiatives to ensure sustainably certified, traceable and safe cocoa. In 2019, the International Organization for Standardization launched ISO 34101, the first international standard for sustainable cocoa, which aimed at improving the quality

of cocoa, enhancing efforts of existing labels and certifications, and improving traceability. To help mitigate sustainability challenges and ensure farmers meet certification requirements, the Cargill Cocoa Promise Programme in Côte d'Ivoire implemented a bar coding bag-based traceability requirement back to the individual farmer in the supply chain.

Textile and garment supply chains are also using innovative digital platforms that enable traceability-related data collection at granular levels. For instance, the creation of blockchain-based tokens by Textile Genesis enables manufacturers at different segments of the supply chain to document details of fibres and garments in a digitised format. Similarly, the increasingly innovative technologies used by FibreTrade to track material inputs, such as the use of nanotechnology particles embedded in fibres to track their use along the supply chain, can further improve traceability and transparency.

The use of certifications and voluntary sustainability standards (VSS) is becoming increasingly prevalent in the fisheries sector. The Global Sustainable Seafood Initiative included various international performance indicators on governance and supply chain traceability to improve the performance of seafood certification schemes. The use of digital traceability tools and blockchain technology is also gaining popularity in the fisheries sector. Norwegian company Atea's use of the IBM Blockchain Transparent Supply network, for instance, helps create a permanent record of transactions that enters its ledger and distributes this function across several organisations. This, in turn, results in no individual having complete control over the data, while assuring its authenticity (Braathe, 2020).

7.2.4 Introducing and implementing voluntary sustainability standards

VSS, in the form of private standards, certifications or labelling, are commonly used across all four sectors covered in this book at various phases of their respective supply chains (Figure 7.2). These standards specify requirements that producers and traders need to meet to ensure sustainable and responsible production practices.

7.3 The way forward

7.3.1 Learnings from sectors

Strengthening/advancing pan-Commonwealth alliances in the four sectors

There has been strong pan-Commonwealth co-operation to promote sustainable forestry and fishery management. The Commonwealth Forestry Association (CFA) aims to promote the sustainable management of forests and woodlands for the benefit of both people and the environment. It includes researchers, foresters, policy-makers and practitioners in the forestry sector from Commonwealth and non-Commonwealth countries. The Queen's Commonwealth Canopy has the vision of creating a pan-Commonwealth network of forest conservation projects. It is led by the Royal Commonwealth Society in partnership with charity Cool Earth and the CFA. The Commonwealth Living Lands Charter was also recently adopted, in 2022; this contains

a set of principles aimed at promoting sustainable land use and management, and providing a framework to collaborate and share best practices. These Commonwealth forestry measures also work indirectly to support sustainable cocoa production. By advancing collaboration and knowledge-sharing, such pan-Commonwealth initiatives can make an important contribution towards improving sustainability.

Figure 7.2 Selected VSS used in the cocoa, fisheries, forestry, and textiles and garments sectors

Fisheries	Forests
• Global Reporting Initiative • Global Sustainable Seafood Initiative • Marine Stewardship Council	• Forest Stewardship Council • Programme for the Endorsement of Forest Certification • ProTerra • Roundtable on Responsible Soy • International Sustainability and Carbon Certification • Roundtable on Sustainable Palm Oil
Cocoa	**Textiles and Garments**
• UTZ certification • Fairtrade • Rainforest Alliance • Organic	• Content Claim Standard • Recycled Content Standard • Global Recycling Standard • Cradle To Cradle Certified Product Standard • Responsible Down Standard • Responsible Wool Standard • Global Organic Textile Standard • OEKO-TEX Standard

The Commonwealth Blue Charter Action Group on Sustainable Fisheries supports fisheries programmes, efforts and approaches to ensure sustainable coastal fisheries. It also supports resilient coastal fisheries in the face of climate change (The Commonwealth, nd). The Commonwealth Climate Finance Access Hub helps countries develop and implement climate change-related projects in a range of areas, including for fisheries. It has unlocked over US$250 million in vital finance for 64 projects in several vulnerable countries, which would otherwise struggle to access it, with close to $1 billion in the pipeline. The Hub has also undertaken 111 capacity-building initiatives and trained more than 2,000 officials in 15 member countries. These projects cover a range of areas pertaining to sustainable fishing practices, including marine protected areas, conservation programmes and the use of renewable energy sources in the fishing industry to reduce greenhouse gas emissions.

Private sector and industry-led initiatives to promote social sustainability in the textiles and garments sector

Excluding VSS, the textiles and garments sector also contains various private sector and industry-led initiatives to improve transparency of labour conditions across supply chains. Examples include the Fair Wear Foundation operating in Bangladesh and India to combat bad labour practices and help establish anti-harassment committees in garment factories, and the Sakhi Health and Gender Equity Project launched by Inditex, a Spanish clothing multinational, to help address sexual

harassment grievances in factories. Enhancing transparency about labour conditions across supply chains in the four sectors examined in this book could help companies identify bottlenecks and inefficiencies, mitigate harmful labour and human rights abuses, enhance brand reputation and also benefit from positive discrimination through unilaterally granted preferences in trade agreements.

Co-operative formation in the cocoa sector

The chapters in this book have highlighted the extreme dependence that all four sectors have on small-scale farmers and producers and their workforces, all of whom, despite their invaluable contributions, suffer from low income and poor standards of living. To improve the livelihoods of cocoa farmers, the governments of Côte d'Ivoire and Ghana launched the Living Income Differential in 2019. This policy added a US$400 premium to the price of cocoa per tonne in order to increase farmers' incomes and move them closer to a better standard of living. Despite concerns around transparency and manufacturers potentially shifting markets (Stanbury and Webb, 2021), initiatives of this nature could promote more economically and socially sustainable sectors by improving the livelihoods of small-scale farmers, artisanal fisheries and indigenous people.

7.3.2 Tariff reform and promotion of processing industries in source countries

A major challenge for producers in the four sectors is tariff escalation, whereby tariff rates in export markets for processed and manufactured goods are higher than those for raw materials and other unprocessed products (Birkbeck, 2021). This can be especially detrimental for developing countries, since this escalation may constrain exports of processed agricultural products, undermining the growth of processing industries and employment therein, and constraining efforts to promote structural economic transformation. For instance, developed countries impose substantial tariff escalation in both bound and applied tariffs in cocoa value chains: cocoa beans are imported duty free by these countries, whereas food preparations containing cocoa have an average duty of more than 8 per cent (FAO, 2017a). According to a study by the ILO (2018), processing 40 per cent of Ghana's cocoa beans prior to export could create an additional 4,000 permanent processing jobs (in Voora et al., 2019).

Addressing tariff escalation could reduce environmental pressures arising from the status quo, where the limited scope for value-added processing means that many developing country exporters over-exploit natural resources and the environment in order to maintain foreign exchange earnings though large-scale exports of raw materials and unprocessed products (Birkbeck, 2021). For instance, fish products from developing countries face tariff escalation with respect to processed products, thus exerting pressure on fishers in these countries to switch to more mechanised and unsustainable methods to expand their catches in order to maintain their export market shares.

The benefits of promoting domestic processing industries are visible in Gabon, which has banned the export of raw logs and witnessed the growth of a local wood processing industry, in the process creating new jobs and increasing income for local communities. In 2021, the Ghanaian president also stated that Ghana intended to stop

exports of raw cocoa beans to Switzerland and rather focus on enhancing agricultural productivity by processing more of its cocoa domestically (PlusTV Africa, 2021). The benefits of enhancing local processing and value-adding capabilities are also visible in the textile and garment industries, helping drive the development of light manufacturing capabilities, especially in least developed countries and low-income developing countries, and in the process serving as a stepping-stone on the path towards broader export-oriented industrialisation.

7.3.3 Rewarding sustainable practices

Trade policy can support efforts to reduce the negative environmental impacts of industries more proactively through the application of tariff preferences and concessions for sustainably sourced material and sustainably produced products. For instance, preferential tariffs on organically sourced cotton or recycled natural fibres would incentivise their use over traditionally cheaper non-biodegradable synthetic materials in textile and garment production, also encouraging suppliers further upstream to develop environmentally friendly materials. Similarly, tariff preferences and improved market access for sustainably sourced fish and downstream value-added/processed fish products could encourage fishers to employ more sustainable practices, help replenish fish stocks and contribute to the socio-economic development of fishing communities.

The United Nations Framework Convention on Climate Change (UNFCCC) rewards sustainable forest management practices through the Reducing Emissions from Deforestation and Forest Degradation (REDD+) programme and the Land Use, Land Use Change and Forestry mechanism. The Ghana Cocoa Forest REDD+ Programme, for instance, was one of the first emission reduction programmes, aiming to develop the cocoa supply chain, increase private sector investments and channel non-carbon benefits to farmers that adopt climate-smart policies (Ghana Forestry Commission, 2020). In 2020, rural communities in Niger earned US$450,000 in the form of carbon credit payments for greenhouse gases sequestered by 7,200 ha of Acacia senegal trees planted and raised on once-abandoned land. These trees not only have good soil-restorative properties but also produce Arabic gum, used as a stabiliser in the food industry, and thereby provide a source of income for the community as well (World Bank, 2020).

7.3.4 Collaboration and participation in multilateral initiatives

All four sectors covered in this book have complex transboundary supply chains and, as a result, face sustainability issues that transcend national borders and can be effectively addressed only through international co-operation. Multilateral initiatives, many of which have been undertaken in order to achieve the Sustainable Development Goal targets set in 2015, can help mobilise the scale of international co-operation required to address these issues. These include general environmental treaties, such as the UNFCCC, CITES and the Convention on Biological Diversity, which seek to reduce emissions, protect endangered species and conserve natural biodiversity, respectively. In addition, the recently negotiated High Seas Treaty aims at protecting marine biodiversity and ecosystems outside national jurisdictions (McVeigh, 2023).

There are also a range of sector-specific initiatives operating multilaterally, such as the recently concluded Fisheries Subsidies Agreement under the World Trade Organization (WTO), which aims at prohibiting harmful subsidies and conserving global fish stocks (WTO, nda), and the UNFCCC Fashion Industry Charter for Climate Action. The latter aims to ensure the textile and garment industries reach net-zero emissions by no later than 2050 and has established working groups to identify best practices and facilitate stakeholder collaboration to achieve climate-related targets (UNFCCC).

The cross-cutting dimensions of sustainability have also been the subject of discussions at the WTO. The Informal Working Group on Micro, Small and Medium-Sized Enterprises was created to increase the participation of small businesses in international trade, through non-tariff barrier reduction, knowledge transfer and access to finance (WTO, ndb). The Informal Working Group on Trade and Gender was established in 2020 to strengthen WTO members' efforts to increase women's participation in global trade. Member-led initiatives at the WTO focusing on environmental issues, such as the Trade and Environmental Sustainability Structured Discussions (TESSD), the Informal Dialogue on Plastic Pollution and Environmentally Sustainable Plastics Trade (IDP) and Fossil Fuel Subsidy Reform (FFSR), are further evidence of increasing dialogue aimed at promoting sustainability – across sectors and in all forms – in order to meet the SDGs.[1]

7.3.5 Ideas for further research

This book examined the sustainability challenges associated with production and trade in four important economic sectors across the Commonwealth. In order to establish a robust evidence base on best practices in sustainable production and trade, it is crucial to conduct further research in other sectors, such as coffee and tea, bananas, small-scale manufacturing and critical minerals, which hold equal importance for many Commonwealth members. Similarly, a comparable analysis is required to examine the sustainability challenges prevalent in services sectors, specifically in tourism and transport-related services. Given the rapid rise in the provision of digital services in recent years, future work could also investigate the sustainability of such services, covering issues such as the energy-intensive nature of digital technologies, as well as the proper disposal and recycling of digital devices. Improving data collection and measurement methods is another critical aspect that should be prioritised in future research endeavours. This improvement in data collection is necessary to generate comparable sustainability metrics and obtain accurate estimates of the embodied carbon in traded goods. It is also important to examine the long-term benefits of implementing a circular economy model for sustainability and resource conservation. By exploring these aspects, we can gain valuable insights into the sustainability challenges faced by various sectors and work towards developing effective strategies to address them.

1 TESSD provides a platform for interested member countries to discuss trade and environmental issues and identify areas of co-operation. The IDP aims to promote collaboration among interested member countries to address plastic pollution in the oceans, while the FFSR initiative seeks to promote the removal of subsidies for fossil fuels that contribute to environmental degradation.

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The Commonwealth

International trade can be an engine for growth and sustainable development. However, for trade to be truly sustainable, it must generate benefits across all three dimensions of sustainable development: economic, social and environmental. This book analyses sustainable production and trade practices in the cocoa, fisheries, forestry, and textiles and garments sectors. It sheds light on the sustainable practices and governance arrangements employed by Commonwealth countries, the private sector and other organisations, while also highlighting the challenges they face and the potential to make production and trade more sustainable in the future.

Sustainable Production and Trade: Perspectives from the Commonwealth provides valuable insights into some of the dynamics, opportunities, challenges and policy options to engage more holistically with trade and sustainability at the national, regional and global levels.

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