

Trade and gender

Addressing barriers to women's decent work through trade policy

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* This chapter represents the opinions of an individual staff member of the World Trade Organization (WTO) and is the product of professional research. It is not meant to represent the position or opinions of the WTO or its Members, or the official position of any staff members of the WTO. It focuses on outlining current policy trends adopted by WTO Members with regard to trade, gender and decent work. This analysis is based on information provided by the WTO through Members' Trade Policy Reviews, the WTO Aid for Trade Monitoring and Evaluation Exercises, and Members' notification of their free trade agreements and regional trade agreements to the WTO. This chapter also looks at some provisions of WTO agreements and development-related decisions through a gender lens. In no way does it provide an interpretation of these rules and decisions; it simply provides a gender perspective on how trade rules and policies could support women, and how WTO Members have actually been using them and translating them into their national trade policies, as reported in their Trade Policy Reviews.



► Introduction

Women are key economic agents. They greatly contribute to countries' labour workforce – even if, overall, their participation is often lower than that of men – as is shown by decades of evidence gathered nationally, regionally and internationally. Worldwide, a gender gap in employment exists and persists; less than 47 per cent of women globally hold a formal job, compared with 72 per cent of men (ILO 2022a). This is, however, an oversimplification of the picture. In many countries and export-oriented sectors, employed women outnumber male workers, and sometimes more than half of the job holders are female.¹

In fact, the evidence shows that firms that engage in trade employ more women than those companies that remain focused on the domestic market. The average representation of female permanent employees in export firms is 33 per cent, compared with 24 per cent in non-exporting firms and 28 per cent in non-importing firms. Moreover, women make up 36 per cent of employees in firms engaged in global value chains (GVCs) and 38 per cent in foreign-owned firms (WTO and World Bank 2020). Indeed, in some countries, the female share of employees in exporting firms is even higher; for example, “in Morocco, Romania, and Vietnam, women represent 50 per cent or more of the employees of exporting firms, which have created jobs for more than 5 million women, roughly 15 per cent of the female population working in these countries” (WTO and World Bank 2020, 36).

Nevertheless, overall, women still face numerous barriers that hinder their integration into the formal employment market, including jobs in export firms, because they lack access to safe transport, or carry most, if not all, of the burden of unpaid care work, among many other reasons. Also, when they are employed, they may find themselves working in difficult environments (this is explored further in section 7.3.4 below). This situation is mostly due to negative gender social norms,² which often adversely affect women's economic empowerment.³ For example, because of these norms, women

1 For examples, see Appendix, Policy table, Part 1.

2 Negative gender social norms are defined here as cultural mindsets and stereotypes that determine societal values and define roles *between* men and women; these norms hinder and limit women's economic life by preventing them from accessing *economic* opportunities, developing their entrepreneurial activities, and reaping the benefits of trade (der Boghossian forthcoming).

3 World Bank (2022a) estimates that “a woman has just three-quarters of the rights of men”, impeding women's economic empowerment and therefore creating economic barriers.

tend to experience greater financial dependence and earn lower salaries in comparison to men (WTO 2022a); and they frequently have limited access to certain jobs and opportunities and face obstacles to retention (WTO 2022b, 99).

Some governments are addressing these negative gender social norms through their regional trade agreements (RTAs) (WTO 2022c). They establish a link between trade, social norms and gender equality. Two, in particular, include provisions that focus on “eliminating customs that are discriminatory against women through legislation with the objective to abolish prejudices against women and promote gender equality”.⁴ Others, more broadly, recognize the importance of cooperating on trade-related aspects of social policies in order to achieve the objectives of the RTA,⁵ or refer to the implementation of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)⁶ as a means to increase “the equal participation and opportunities for men and women in all sectors of political, economic, social and cultural life”.⁷

It is crucial to focus on these norms when trade is concerned because obstacles based on gender bias or negative social norms could constitute a new type of trade barrier, limiting women’s access to economic and job opportunities created by trade and in turn limiting development and poverty reduction (der Boghossian, forthcoming). An example of a chain of effects that may lead to such trade barriers is illustrated in figure 7.1.

Figure 7.1 Chain of effects in property rights, access to finance and trade due to negative gender norms



Source: der Boghossian (forthcoming)

4 Treaty for the Establishment of the East African Community (EAC), Ch. 22: “Enhancing the role of women in socio-economic development”, Art. 121: “The role of women in socio-economic development”; Treaty Establishing the Common Market for Eastern and Southern Africa (COMESA), Ch. 24: “Women in Development and Business”, Art. 154: “Role of Women in Development”.

5 Framework Agreement Establishing a Free Trade Area between the Republic of Korea and the Republic of Turkey, Ch. 5: “Trade and Sustainable Development”, Art. 5.10: “Cooperation”; in force since 2013.

6 CEDAW was adopted by the United Nations General Assembly on 18 December 1979.

7 Agreement Establishing an Association between the European Union and its Member States, on the one hand, and Central America on the other, Part III: “Cooperation”, Title III: “Social Development and Social Cohesion”, Art. 47: “Gender”; in force since 2013.

For this reason, it is not just about how many women participate in the workforce; it is mostly about the quality of those jobs, and if they are skilled, high-level and high-paying. In fact, when working in export-oriented sectors, women are largely confined to low-paid, low-level and unskilled jobs, putting them in vulnerable economic situations; about 80 per cent of female workers in firms that export hold medium- and low-skilled jobs (WTO and World Bank 2020). Examples are provided in section 7.2.2 below. It is also about supporting women to enter formal employment and leave the informal sector, where they face many risks because they lack access to social benefits and protection, among other reasons (OECD and ILO 2019).

Within this context, governments are using various trade policies, ranging from national development strategies and sectoral national trade policies to RTAs and Aid for Trade programmes, to foster women's access to formal employment in export-oriented sectors (der Boghossian 2023a). However, governments tend to work in "policy silos", for two reasons: first, because there is a lack of inter ministerial collaboration, which is especially important for gender issues as they are cross-cutting by nature; and second, because they adopt various types of trade policy without making a connection between them and using them in a combined and integrated manner.

In the literature, trade policy is defined as the use by governments of import/export tariffs, as well as non-tariff measures such as quotas and antidumping duties, to regulate the trade of goods and services (WTO 2020; WTO and UNCTAD 2012). This, however, is not the focus of the current chapter. Instead, it explores four types of trade policy instruments: (i) national trade policies or strategies (including domestic sectoral trade policies, such as tourism or textile and garment); (ii) gender provisions in free trade agreements (FTAs) and RTAs; (iii) Aid for Trade programmes; and (iv) provisions in World Trade Organization (WTO) agreements, including development-related decisions adopted by the WTO.

In fact, the types of trade policy enumerated above, could, if combined, be used to form a supportive and transformational web of measures that not only supported women's access to formal employment but also promoted decent work for female workers and created sound working conditions for them. This is a new concept developed by the current author, who calls it the "blended approach" to gender-responsive trade policymaking (der Boghossian 2023b). Figure 7.2 shows how this mix of trade policies could be used to design gender-responsive national trade policies, which lie at the centre of the blended approach, allowing the measures adopted and implemented to produce policy efficiency and concrete impacts.

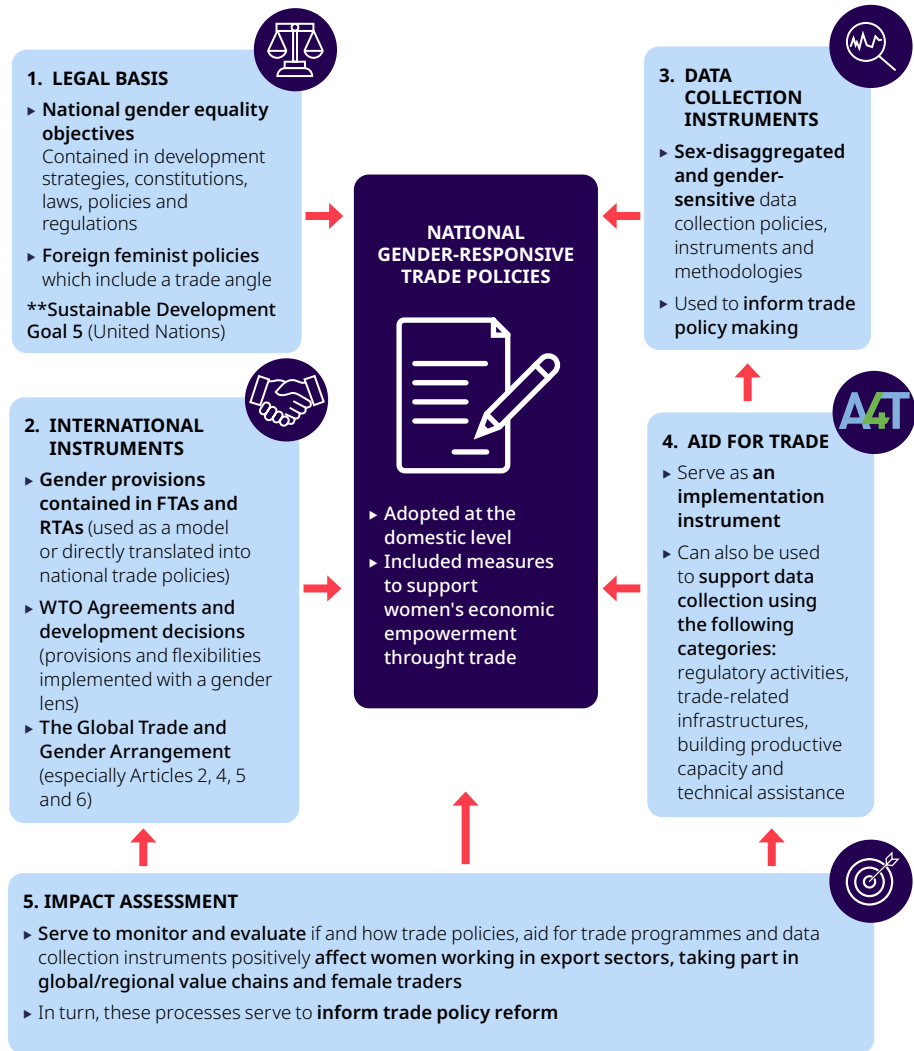
In recent years, governments have taken steps to develop gender-responsive trade policies. The measures include addressing employment barriers for women in trade-related sectors, improving women's working conditions, reducing or eliminating pay discrimination, and enhancing women's skills to access better-paid, high-level jobs and decision-making positions. Sometimes, they may also address issues related to gender-based violence in and outside the workplace, and give additional support to female workers by providing them with better access to healthcare (targeting mothers and childcare, in particular). By doing so, some governments have implicitly established a clear link between trade policies and more socially oriented complementary measures to specifically reinforce and sustain women's economic empowerment through trade.

The purpose of this chapter is to outline these various types of trade policy and to explore how they have been combined with socially oriented measures to support formal employment for women. Given the cross-cutting nature of gender issues, more and more governments have come to realize that, unless this policy combination is translated into their gender-responsive trade measures, it will be difficult to satisfactorily achieve the United Nations Sustainable Development Goals (SDGs) and their poverty reduction objectives.⁸

The chapter is structured as follows. Section 7.1 outlines how women's economic empowerment implicitly sits at the centre of the WTO objectives and explores the link between women's extensive roles in the economy and trade. Section 7.2 looks at how trade policy implemented by WTO members can foster employment opportunities for women. It shows that women, while taking advantage of these policies, remain in low-level, low-paid jobs. This leads on to section 7.3, which explores how existing trade policy solutions tackle these gender gaps in export-led employment, by improving women's skills and addressing difficult labour conditions, pay discrimination and gender-based violence. Section 7.3 then goes on to consider how trade policy fosters women's participation in male-dominated sectors, thereby improving their economic strength. Finally, sections 7.4 and 7.5 examine how some WTO members have implemented WTO agreements and development decisions with a gender focus, favouring women's decent work, and how the WTO has institutionalized the gender issue in recent years. Section 7.6 concludes.

8 United Nations, "The Sustainable Development Agenda".

► **Figure 7.2 The blended approach to gender-responsive trade policymaking**



Source: der Boghossian 2023b

► 7.1 Social improvement through economic development and trade: The links between the WTO objectives, decent work and women's economic empowerment

The WTO was established in 1995 after the Uruguay Round of multilateral trade negotiations (1986–94) and following the adoption of the Marrakesh Agreement (the WTO Agreement);⁹ it incorporates the rules of the General Agreement on Tariffs and Trade (GATT 1947), as well as its objectives.¹⁰ The Preamble of the GATT stipulates that trade should be “conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income”.¹¹ The WTO Agreement inherited these objectives and added that trade should be “conducted allowing for the optimal use of the world’s resources in accordance with the objective of sustainable development”.¹²

According to the United Nations (UN), sustainable development includes notions of inclusivity and resilience (UN 2022). To be achieved, inclusive and equitable economic growth, social inclusion, and environmental protection would need to be combined.¹³ The concept of sustainable development was similarly described in the 1987 Bruntland Commission Report.¹⁴

9 Marrakesh Agreement Establishing the World Trade Organization, 15 April 1994, 1867 UNTS 154, 33 ILM 1144 (1994) [Marrakesh Agreement or WTO Agreement].

10 The original General Agreement on Tariffs and Trade (GATT 1947), signed in October 1947, was updated in 1993 (GATT 1994), incorporating the creation of the WTO. While the GATT focused on trade in goods, the WTO also covers trade in services and intellectual property.

11 First recital, Preamble, General Agreement on Tariffs and Trade 1994, 15 April 1994, 1867 UNTS 187, 33 ILM 1153 (1994) (GATT 1994).

12 First recital, Preamble, Marrakesh Agreement.

13 United Nations, “The Sustainable Development Agenda”.

14 United Nations, *World Commission on the Environment and Development, “Our Common Future”, 1987 (Brundtland Report)*, Section 3: “Sustainable Development”, Art. 27.

The ILO defines decent work as:

opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for all, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.¹⁵

Decent work is also part of the UN Sustainable Development Agenda. In particular, SDG 8 promotes sustained, inclusive and sustainable economic growth, full and productive employment, and decent work. SDG target 8.a provides for an increase in Aid for Trade, portraying the initiative as an instrument to implement this goal. The Aid for Trade Initiative was launched in 2005¹⁶ and operationalized in 2006¹⁷ by a set of recommendations developed by the Task Force on Aid for Trade. Interestingly, these recommendations include “gender equality” as a cross-cutting issue throughout the Initiative. All these definitions and concepts are in line with the WTO’s objectives, so trade could contribute, as an economic agent, to populations’ social well-being and therefore indirectly to decent work. In fact, when it comes to supporting women’s economic empowerment, many trade policies include provisions and measures, or are accompanied by socially oriented policies, that support female workers in export-oriented sectors.

Women are at the centre of multilateral issues and play a key role in the achievement of the SDGs, as highlighted by the UN and SDG 5.^{18,19} Women are sustainable economic growth drivers. Globally, there are over 500 million female entrepreneurs who are actively engaged in various forms of entrepreneurship, including established business ownership, startup ventures, and informal private sector activities. These women play a

¹⁵ ILO, “Decent Work”, accessed 12 July 2023.

¹⁶ The WTO [Hong Kong Ministerial Declaration](#) stipulates that “Aid for Trade should aim to help developing countries, particularly LDCs (least developed countries), to build the supply-side capacity and trade-related infrastructure that they need to assist them to implement and benefit from WTO Agreements and more broadly to expand their trade” (Para. 57).

¹⁷ The Task Force on Aid for Trade, composed of WTO members, presented its report and recommendations ([Recommendations of the Task Force on Aid for Trade](#)) on the operationalization of the Initiative at the General Council meeting on 27 and 28 July 2006.

¹⁸ United Nations, “The Sustainable Development Agenda”: “At the core of the 2020–2030 decade is the need for action to tackle growing poverty, empower women and girls, and address the climate emergency.”

¹⁹ United Nations, SDG 5: “Gender Equality”.

significant role in enhancing the productive capacity of their respective countries (GEM 2022). They act as job creators, especially for other women, thereby contributing to poverty reduction.²⁰ They are also innovators, and about 30 per cent of female entrepreneurs globally offer innovative products. There is also evidence that firms led by female chief technology officers (CTOs) demonstrate greater levels of innovation than those led by male CTOs (Wu et al. 2021).

In addition, as highlighted in statements made at the World Trade Congress on Gender in December 2022:

“Women are also climate change mitigators, and in developing countries they are managers of natural resources. Through this role, women have actually become experts in maintaining biodiversity on land and at sea by developing eco-friendly techniques. Women are, indeed, circular economists, and they are agents of food security. Female farmers mostly work in subsistence agriculture. As cross-border traders, they play a key role in food security, nutrition and health, as they mostly deal in essential food products for poor consumers, thereby supporting balanced diets in populations. Through their trade, they also deliver food to places where supply is lacking. In West Africa, for example, female informal traders in essential food represent about 30 per cent of total trade in the region. Women also are peacebuilders. Gender-equal participation in peacebuilding processes results in longer and lasting peace post-conflict. All women’s roles bring them back to trade that can strengthen them economically and in turn reinforce their social roles”.²¹

Therefore, by adopting sustainable development as one of its key objectives, the WTO has implicitly put women’s empowerment at the centre of trade. And the key element in making trade work for women is understanding how these objectives translate into trade policies and development strategies; how governments explicitly include measures supporting women’s decent economic empowerment in their trade policies; and how they use WTO agreements, implementing provisions using a gender lens for the economic

20 Fifty-seven per cent of workers employed in micro companies owned and led by women are female, according to an unpublished WTO survey of more than 800 women entrepreneurs in Latin America, South Asia and East Africa, conducted in 2019 and 2020 (“Assessing Women Entrepreneurs’ Knowledge Gap on Trade in East Africa, South Asia, and Latin America”). Also, according to the survey, 50 per cent of women entrepreneurs were motivated to create their business in order to create jobs for others, and 41 per cent in order to be their own bosses.

21 [Closing speech given by the current author](#), in her capacity as Head of the WTO Trade and Gender Office, World Trade Congress on Gender, 7 December 2022.

and social benefit of women.

► 7.2 How trade policy creates opportunities for women to enter the economy and the workforce

7.2.1 Using trade policy to promote women's access to formal employment in export sectors

Today, most governments have largely acknowledged that trade can support women's economic empowerment and that it can be a catalyst for women's formal employment. They also recognize that, if they invest in women, women will, in return, support their growth and poverty reduction objectives (Fernández et al. 2021). About 92 per cent of developing countries include women's economic empowerment as a priority in their national or regional development plans and objectives (WTO and OECD 2022). Most governments now include gender equality objectives in their trade policies, Aid for Trade programmes (der Boghossian 2019b) and RTAs (Bahri 2021). Some have explicitly acknowledged that closing the gender gap is crucial for per capita income, growth, development and poverty reduction.²²

Interestingly, in some countries that are geographically isolated and highly dependent on international trade for their economic survival, women are at the centre of their trade strategies. In fact, trade and women are seen as moving hand in hand, as two major parts of economic and trade development. For instance, most small island developing States acknowledge that women's economic empowerment fosters their export expansion and their integration in global markets, and that gender issues should be an integral part of their trade policies (der Boghossian 2023a). While this may be a new trend starting to emerge among some WTO Members, it is not the first time that governments have invested in women to boost their trade. Some have already done so to remedy an economic crisis or a decline in trade in the country.²³

²² For examples, see Appendix, Policy table, Part 1.

²³ For examples, see Appendix, Policy table, Part 1.

In their national trade and investment initiatives, the vast majority of governments prioritize women's economic empowerment and labour force participation.

Some governments have designed national trade policies that are intended to support economic growth and development, and address employment gaps in export-oriented sectors or key sectors that lack foreign investment. These policies are designed to be gender-responsive and encourage women's employment. Other governments provide financial incentives to the private sector to employ women. Such incentives are typically very specific; they may, for instance, target unemployed women or women who have been on career breaks, or they may provide tax credits to support small enterprises to provide jobs to "career-disconnected women" (der Boghossian 2019a). Sometimes, employment of women can also constitute one criterion for grant eligibility for cooperative enterprises.²⁴

In addition to national trade policies, in most of their RTAs, governments have adopted provisions to enhance the participation of women in employment, essentially through equal access to job opportunities. In these cases, access to employment is linked to decent work conditions, in contrast to national trade policies, which are more often concerned with encouraging women to access employment (with some exceptions, highlighted in sections 7.3.2 and 7.3.3 below). In fact, many RTAs contain labour chapters that include such provisions.²⁴

Similarly, some Aid for Trade programmes follow this trend and include objectives to eliminate gender discrimination in employment that go beyond adopting supportive measures to integrate women in the economy.²⁴

7.2.2 Why fostering access to poverty-reducing jobs is not enough

As outlined above, women are better paid in trade-related sectors as they move from informal to formal employment, but they are often employed in the lowest level of positions (WTO and World Bank 2020). This is the case in many export-oriented and trade-related sectors, such as tourism, healthcare and the air transport industry (to name but a few). Statistics reveal that in these three sectors, taken as examples, women are often relegated to low-level, low-skilled and therefore low-paid jobs.

In the tourism sector, about 54 per cent of workers are women, and they are under-represented in senior management. While employment in tourism is

²⁴ For examples, see Appendix, Policy table, Part 2.

low-paid for both genders, women earn 10–15 per cent less than men for equivalent work (UNWTO 2019).

Similarly in the healthcare sector, 70 per cent of formal health and social workers worldwide are women, but they are concentrated in low-level and low-paid jobs. Globally, 90 per cent of nurses and midwives are women (WHO 2020). Women working in this sector earn 11 per cent less than men (in similar jobs and working similar hours). In the global healthcare sector and industry, women hold 25 per cent of senior leadership roles (senior management, board membership, executive positions) (Women in Global Health 2023).

Lastly, in the air transport industry, women rarely hold senior or high-skilled positions. Only 6 per cent of the world's commercial airline pilots are female (Ahn and Jakub 2020). According to the International Air Transport Association, the proportion of women holding C-level (high-level) roles in the industry is just 3 per cent (IATA 2022; Egnatia Aviation 2023). Most air traffic controllers are male: in the United States, about 17 per cent are female (RGN 2021). Thus, women remain concentrated in low-level jobs, such as flight attendants, airport cleaners and duty-free shop assistants.

Overall, while there is a strong economic demand for female workers in many trade-related sectors, especially in the post-COVID-19 world, women's economic contributions to these industries are often not valued to the same extent as men's, in the wages they earn or the positions they hold. Women also frequently engage in unsafe and discriminatory working environments. Responding to this situation, some trade policies address these gaps and other barriers that women face in accessing decent employment and working conditions.

► 7.3 Using trade policies to address gender gaps in employment

7.3.1 Tackling female workers' participation gaps through skills enhancement and trade policy

While designing their domestic trade policies, many governments integrate capacity-building programmes or include training elements in their trade promotion measures targeting women (der Boghossian 2019a). While many, if not most, target women entrepreneurs and traders, they also focus on female workers in export-oriented sectors. Some governments have established training programmes targeting female workers in export sectors or supporting their access to employment in trade.²⁵

Some RTAs also integrate gender-focused education provisions. About 15 per cent of RTAs notified to the WTO integrate education, training and capacity-building provisions targeting women, either directly or indirectly. In fact, RTAs essentially approach the gender education gap in a broader sense, rather than focusing solely on trade aspects.

RTAs include provisions that generally target women's lack of education and focus mainly on giving them equal access to education and encouraging their capacity-building and skills enhancement. Sometimes these provisions target women at work and in business. A few trade agreements include more targeted trade-related provisions that focus on women's capacity-building in specific sectors and areas, such as fisheries or agriculture.²⁶ Also, some RTAs include provisions on training women in financial literacy;²⁷ on improving women's technical and industrial employment through vocational and on-the-job training programmes;²⁸ on women's and girls' access to education

25 For examples, see Appendix, Policy table, Part 3.

26 For examples, see Appendix, Policy table, Part 3.

27 [Argentina–Chile FTA](#), Ch. 15: “Género y comercio”, Art. 15.3: “Actividades de cooperación”. [Brazil–Chile FTA](#), Ch. 18: “Comercio y género”, Art. 18.3: “Cooperation Activities”.

28 [Treaty Establishing the Common Market for Eastern and Southern Africa \(COMESA\)](#), Ch. 24: “Women in Development and Business”, Art. 155: “Role of Women in Business”; [Treaty for the Establishment of the East African Community \(EAC\)](#), Ch. 22: “Enhancing the Role of Women in Socio-Economic Development”, Art. 122: “The Role of Women in Business”.

in science, technology, engineering and mathematics (STEM) that could yield high-paying jobs for women's;²⁹ and on strengthening women's digital skills.³⁰ Also, interestingly, the Comprehensive Economic Partnership Agreement between the European Free Trade Association (EFTA) States and Indonesia aims to protect the welfare of women through education and training on sustainability.³¹ Some RTAs also mention CEDAW, which includes provisions on equal access to education (Art. 10).³² Lastly, a few RTA provisions target education for women on health issues, a key imperative for women's decent work.³³

Looking at Aid for Trade programmes, very few focus on women's skills enhancement.³⁴ In fact, while most national trade policies and Aid for Trade programmes do include training and skills enhancement schemes for women, they mostly target female entrepreneurs and farmers, their knowledge gap of trade rules or their digital skills. They seldom address issues related to female workers in export-oriented sectors.

Of course, by supporting women entrepreneurs, these policies also indirectly support female workers, as they constitute much of the workforce of companies owned and led by women, including in the informal economy (as highlighted in section 7.1 above).

7.3.2 Addressing gender issues related to labour conditions in trade

As described above, integrating women in formal employment and in export-related sectors reinforces countries' trade growth, development and

29 [United Kingdom–Australia FTA](#), Ch. 24: "Trade and Gender Equality", Art. 24.2: "Trade and Gender Equality Cooperation Activities"; [Brazil–Chile FTA](#), Ch. 18: "Comercio y género", Art. 18.3: "Cooperation Activities"; [United Kingdom–New Zealand FTA](#), Ch. 25: "Trade and Gender Equality", Art. 25.5: "Cooperation".

30 [United Kingdom–Australia FTA](#), Ch. 24: "Trade and Gender Equality", Art. 24.2: "Trade and Gender Equality Cooperation Activities"; [United Kingdom–New Zealand FTA](#), Ch. 24: "Small and Medium Enterprises", Art. 24.3: "Cooperation to Increase Trade and Investment Opportunities for SMEs".

31 [Comprehensive Economic Partnership Agreement \(CEPA\)](#), Ch. 8: "Trade and Sustainable Development", Art. 8.5: "Social Development".

32 [EU–Central America Association Agreement](#), Part III: "Cooperation", Title III: "Social Development and Social Cohesion", Art. 47: "Gender". [Canada–Israel FTA](#), Art. 13.2: "International Agreements"; [Canada–Chile FTA](#), Art. N bis 02: "International Agreements". [United Kingdom–New Zealand FTA](#), Art. 25.4: "International Instruments".

33 [EU–Central America Association Agreement](#), Part III: "Cooperation", Title III: "Social Development and Social Cohesion", Art. 44: "Public Health".

34 For examples, see Appendix, Policy table, Part 3.

poverty reduction, and boosts GDP expansion. However, while employed, female workers face complex labour conditions which may prevent them from remaining in their formal jobs. This is why some governments use their national trade policies to improve working conditions for women in export sectors, with the objective of removing the discrimination they face in employment or in pay.³⁵

About 15 per cent of RTAs notified to the WTO include provisions focusing on improving women's labour conditions, overall and in export-led sectors, as described in section 7.2 above. The provisions mostly establish a principle of non-discrimination regarding access to employment, linking it to equal treatment in the workplace and decent work for both men and women.

In their RTAs, most State parties have reaffirmed their commitment to international instruments focusing on decent work, and it is becoming common practice for parties to integrate ILO Conventions that protect women at work in their trade agreements. Moreover, many RTAs reference the ILO Decent Work Agenda, which has a strong gender focus,³⁶ and provide for cooperation activities on trade-related aspects of the ILO agenda. Similarly, 70 per cent of RTAs integrate labour provisions and refer to the ILO Declaration on Fundamental Principles and Rights at Work, which includes commitments to the "elimination of discrimination in respect of employment and occupation" and to provide "a safe and healthy working environment".³⁷

Also, interestingly, some provisions contained in RTAs and addressing working conditions of women can be very specific. For example, such provisions may focus on the adoption of employment policies creating better jobs and working conditions in the informal sector,³⁸ consider protective measures in employment of pregnant women or recent mothers,³⁹ establish

35 For examples, see Appendix, Policy table, Part 4.

36 In the context of the [Decent Work Agenda](#), the former ILO Director-General Juan Somavia declared that "the primary goal of the ILO today is to promote opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and human dignity".

37 [ILO Declaration on Fundamental Principles and Rights at Work](#).

38 [Comprehensive and Enhanced Partnership Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and the Republic of Armenia, of the other part](#), Title V: "Other Cooperation Policies", Ch. 15: "Employment, Social Policy and Equal Opportunities", Art. 85(b).

39 [Trade and Cooperation Agreement between the European Union and the European Atomic Energy Community, of the one part, and the United Kingdom of Great Britain and Northern Ireland, of the other part](#), Annex 31: "Transport of goods by road", Section 2: "Posting of drivers", Art. 4: "Terms and conditions of employment".

“job-protected leave for birth or child adoption”,⁴⁰ or recognize and value women’s unpaid care work through policies supporting flexible working arrangements or access to affordable childcare.⁴¹

Access to healthcare is also a key aspect in fostering women’s decent work, especially when it comes to maternity and childcare issues. As detailed in the Appendix, some national trade policies are accompanied by social programmes supporting lactating mothers at work or introducing nutrition programmes in export-led firms.

According to the *World Medical Journal*, “gender is a social determinant of health and health problems” (WMJ 2019), while a “lack of gender representation and diversity within the medical profession may lead to female patients and their children not having equitable access to health care” (WMA 2021). Many women and girls fail to access healthcare because of gender-based bias. Similarly, in many countries, social norms make it difficult for female doctors and nurses to practise their profession. A vast majority of women work in the informal sector without the protection of health insurance, maternity benefits or paid sick leave. Even some women working in formal sectors, mostly in part-time jobs or as foreign immigrants, may have no or restricted access to health cover and maternity benefits. Some RTAs include various provisions on healthcare, ranging from maternity benefits to childcare and compulsory access to medical insurance (Bahri 2020).

Lastly, and interestingly, in one agreement State parties commit to “sharing data insights, lessons, and best practices for analysing gender segregation in the labour market, and on the working conditions of women in export-oriented industries and sectors impacted by trade”.⁴²

7.3.3 Reducing pay discrimination through trade policy

In employment, globally, pay discrimination between men and women exists and persists (ILO 2022a). In fact, it is one of the two most persistent gender

40 United States–Mexico–Canada Agreement, Ch. 23: “Labour”, Art. 23.9: “Discrimination in the Workplace”; Iceland–Liechtenstein–Norway–United Kingdom FTA, Ch. 13: “Trade and Sustainable Development”, Section 13.2: “Trade and Labour”, Art. 13.14: “Non-Discrimination and Equality in the Workplace”; United Kingdom–New Zealand FTA, Ch. 23: “Trade and Labour”, Art. 23.8: “Non-Discrimination and Gender Equality in the Workplace”.

41 United Kingdom–New Zealand FTA, Ch. 23: “Trade and Labour”, Art. 23.8: “Non-Discrimination and Gender Equality in the Workplace”.

42 United Kingdom–New Zealand FTA, Ch. 25: “Trade and Gender Equality”, Art. 25.5: “Cooperation”.

gaps in employment (World Bank 2022a), so removing gender barriers to equal wages, including in export sectors, is one of the key objectives in trade policy action for governments when supporting women.

First, some national trade policies foster women's participation in male-dominated sectors, often to address workforce shortages in trade-related and export-led industries that are driving countries' economies and attracting foreign investment. Such jobs provide women with higher pay (they can earn 2–3 times more than in the traditional sectors in which they are concentrated), where they require specialized skills and therefore occupy higher-level positions. Second, some of these policies focus on reducing pay discrimination.⁴³

A few RTAs also include provisions specifically affirming equal pay between men and women⁴⁴ and protecting women against pay discrimination.⁴⁵ Some provisions are highly specific and outline ways to implement equal pay, such as “developing analytical and enforcement tools related to equal pay for equal work or work of equal value”,⁴⁶ or give an extended definition of the gender pay gap.⁴⁶

Aid for Trade programmes do not generally focus on pay discrimination, although there are some exceptions.⁴⁷

7.3.4 How trade policy is starting to address gender-based violence in trade

By addressing the poor working conditions of female workers, trade policies build a first foundation to tackle violence against women; they can make

⁴³ For examples, see Appendix, Policy table, Part 5.

⁴⁴ United States–Mexico–Canada Agreement, Ch. 23: “Labour”, Art. 23.12: “Cooperation”. [Agreement on the European Economic Area](#), Part V: “Horizontal Provisions Relevant to the Four Freedoms”, Ch. 1: “Social Policy”, Art. 69; Consolidated version of the Treaty on the Functioning of the European Union, Part III: “Union Policies and Internal Actions”, Title X: “Social Policy”, Art. 157 (ex Art. 141 TEC); United Kingdom–Australia FTA, Ch. 21: “Labour”, Art. 21.8: “Non-Discrimination and Gender Equality in the Workplace”; [Taiwan, China–Nicaragua Agreement](#), Part 7: “Labor and Environment”, Ch. 18: “Labor”, Annex 18.01, Art. 18.02: “Enforcement of Labor Laws”; United Kingdom–New Zealand FTA, Ch. 23: “Trade and Labour”, Art. 23.8: “Non-Discrimination and Gender Equality in the Workplace”.

⁴⁵ United States–Mexico–Canada Agreement, Ch. 23: “Labour”.

⁴⁶ Agreement on the European Economic Area, Part V: “Horizontal Provisions Relevant to the Four Freedoms”, Ch. 1: “Social Policy”, Art. 69; Consolidated version of the Treaty on the Functioning of the European Union, Part III: “Union Policies and Internal Actions”, Title X: “Social Policy”, Art. 157 (ex Art. 141 TEC).

⁴⁷ For examples, see Appendix, Policy table, Part 5.

women's work environment more secure and put them in less vulnerable employment conditions. Such policies can indeed constitute preventive measures against gender-based violence in the workplace.

Gender-based violence exists in trade-related sectors. In some Latin American countries, female workers in the banana or pineapple industry, which are heavily export-oriented, face sexual harassment in the workplace, which is often justified by local and industry culture. Also, women as internet users are increasingly targeted in cybercrime incidents, including cyber harassment. For example, in India, according to National Crime Records, the number of cybercrime incidents in 2021 had gone up by 18.4 per cent since 2019, and the number of such cases against women had increased by 28 per cent (Sawhney 2022). Women are increasingly threatened over the internet, especially in financial data loss and violations of security and privacy, which can affect their income and employment. In fact, cyber insecurity can prevent women from using new technology and thereby cause them to miss opportunities to gain skills that could support them in accessing higher-paid jobs.

Trade policies are starting to address these issues, but they remain few. A limited number of RTAs focus on gender-based violence. Some provisions are very broad and aim to shape programmes addressing violence against women, often focusing on prevention. Others link efforts to build good working conditions with the elimination of sexual harassment and gender-based violence. Also, some RTAs explicitly refer to CEDAW, an international instrument that can support the elimination of gender-based violence, and State parties have reaffirmed or recalled their commitments under CEDAW. In June 2019 the ILO adopted the Violence and Harassment Convention (Convention 190), which came into effect two years later, in June 2021. It is the first Convention to establish international commitments preventing and responding to violence and harassment in employment. Some RTAs have actually made references to Convention 190.⁴⁸

No specific national trade policy addresses violence against women. The issue is included mostly in countries' development strategies or action plans, which also apply to trade-related sectors.⁴⁹

Aid for Trade strategies have started to focus on violence against women (WTO and OECD 2022). Some countries have included objectives to eliminate gender-based violence, including child marriage, in their Aid for Trade initiatives, as it constitutes an obstacle to their development goals. While

48 ILO [Labour Provisions in Trade Agreements Hub](#).

49 For examples, see Appendix, Policy table, Part 6.

programmes often focus on addressing violence faced by female cross-border traders, some include activities to promote “women’s rights in trade” and at the same time reduce their “vulnerability to violence and exploitation” (Netherlands). Other Aid for Trade initiatives require that projects include activities to address gender-based violence, with the particular aim of making jobs free from sexual harassment (Australia).

Private companies heavily integrated in global value chains are also addressing this issue, sometimes in direct collaboration with workers. One transnational company in the garment sector has been working with trade unions at the local level, and with suppliers in the value chain, to raise awareness of gender-based violence in the industry. It has also provided workers and management with specific training tools to enable employees to resolve issues. The company is currently working on designing joint global guidelines for its supply chain, clearly outlining how suppliers should act when it comes to creating a safe workplace environment and ending gender-based violence and harassment (H&M Group 2016).

In the Latin American banana industry, COLSIBA, the Regional Coordinating Body of Latin American Banana and Agro-industrial Product Unions, has organized campaigns promoting the elimination of gender-based violence in the sector and was successful, for example, in getting a big multinational corporation to introduce the first sexual harassment policy in the Latin American banana sector.

These private sector initiatives, combined with government trade policies, could play an essential part in limiting, if not eradicating, gender-based violence, as both public and private sectors can reinforce each other’s initiatives.

7.3.5 Using trade policies to foster women’s participation in sectors where they are less represented

With a few exceptions, most trade policies include measures that support women in export-oriented sectors where they are already relatively well represented. Very few look to foster women’s participation in industries where they are less represented and could earn more, thus reducing pay discrimination. For instance, as described in section 7.3.3 above, a few policies include programmes to integrate women into male-dominated sectors. Some policies also look to increase the number of female workers in sectors that drive their economy and are non-traditional industries for

women, such as the business process outsourcing (BPO) or information and communications technology (ICT) sectors (der Boghossian 2023c).

Also, a few RTAs include provisions that support women and girls' education in STEM subjects, with the objective of improving their access, participation, leadership and education in these fields,⁵⁰ as well as in innovation, e-commerce and other high-income economic areas.⁵¹ Such provisions could open up opportunities for better employment and better pay for women in new areas of work, such as artificial intelligence (AI) and cybersecurity, where there is globally a workforce shortage of more than 3 million professionals (Xie 2023). The evidence shows that STEM workers earn more than double the pay of non-STEM workers (Özdemir 2023). However, women currently account for only two out of every ten cybersecurity professionals (World Bank 2022b).

► 7.4 Using flexibilities and policy space in WTO agreements and development decisions to support women's decent work

7.4.1 Examples of flexibilities in the WTO Agreement on Agriculture: The “green” and “development” boxes

The WTO Agreement on Agriculture, which came into force at the time of the establishment of the WTO in 1995, “allow[s] governments to support their rural economies, but preferably through policies that cause less distortion to trade. It also allows some flexibility in the way commitments are implemented” (WTO n.d.).

⁵⁰ United Kingdom–New Zealand FTA, signed in 2022.

⁵¹ Chile–Paraguay FTA, signed in 2021.

This flexibility is regulated by the Agreement on Agriculture, which includes three types of subsidy or (in WTO jargon) “boxes”.⁵² Annex 2 of the agreement⁵³ includes a provision that stipulates that domestic subsidies qualify as “green box” subsidies if they do not “distort trade, or at most cause minimal distortion”.⁵⁴

Some governments have used their “green box” flexibility to design training programmes for small producers in agriculture which include gender bias issues, or for female farmers with the objective of increasing productivity and production (der Boghossian 2019a). Others have established various types of agricultural support programme, using their “green box” for training and educating women in rural areas to assist them in land development (der Boghossian 2019a).

Also, the Agreement on Agriculture includes other flexibilities that could be used for the benefit of female farmers if implemented using a gender lens, depending on a country’s needs at the national level. Article 6.2 of the agreement, also named the “Development Box”, allows developing countries to provide input subsidies (following certain criteria) to their “low-income or resource-poor producers”. Evidence shows that female farmers lack access to productive resources often because they lack capital to buy them (Van De Velde, Stanley and Stickler 2020). According to the Food and Agriculture Organization, if women had access to productive resources at the same level as men do, they would increase their production by 20–30 per cent (FAO 2011; Van De Velde, Stanley and Stickler 2020). Therefore, Article 6.2 could work for female farm-workers, who precisely lack support in accessing such resources. In 2016, The Gambia donated bags of fertilizer to women, on a very limited scale and in response to an emergency situation (WTO 2018, 53). This example shows that WTO rules could be translated into national policies for the benefit of women, depending on the country’s needs at the national level.

52 The WTO refers to agricultural subsidies as “boxes”, which are colour-coded (amber, blue or green) depending on how much they distort trade. WTO legal texts – [Marrakesh Agreement](#).

53 WTO, [Agreement on Agriculture](#), Annex 2: “Domestic Support – the Basis for Exemption from the Reduction Commitments”.

54 “They have to be government-funded (not by charging consumers higher prices) and must not involve price support. They tend to be programmes that are not targeted at particular products, and include direct income supports for farmers that are not related to (are ‘decoupled’ from) current production levels or prices. They also include environmental protection and regional development programmes. ‘Green box’ subsidies are therefore allowed without limits, provided they comply with the policy-specific criteria set out in Annex 2.” WTO, [Domestic Support in Agriculture: The Boxes](#).

7.4.2 Multilateral development decisions in support of women's economic empowerment: The LDC services waiver and “special and differential treatment” provisions

In recent decades, the WTO has adopted decisions to support developing countries and least developed countries (LDCs) in integrating in the global market, with the aim of using trade as a development and poverty reduction agent. One such initiative is the LDC Services Waiver. Adopted at the 2011 WTO Ministerial Conference,⁵⁵ it allows governments to “grant preferential treatment to services and service suppliers from LDC members”.⁵⁶ The waiver's objective is to improve LDCs participation in the global services market. So far, 51 WTO Members have granted such preferences to LDCs.

Such flexibility and preference could be to the advantage of female workers because they tend to be more involved in the services sector. In low- and lower-middle-income countries, women make up about 40 per cent of workers in the services sector workforce (WTO and World Bank 2020), while in low-income countries only, the share of female employment in services is 30 per cent (World Bank data, modelled on ILO estimates 2019). Therefore, preferences granted to LDCs in this sector could benefit women and boost their employment, bringing them better-quality jobs in the services sector. It could also help women to enter formal employment as, in LDCs, they are heavily represented in informal employment, holding vulnerable jobs (ILO 2022b).

The WTO agreements contain provisions that grant special rights to LDCs and developing countries. These “special and differential treatment” provisions can offer these Members longer time periods to implement their WTO commitments, allow them to adopt measures to increase their trading opportunities, or give them support to help build capacity to carry out WTO work, address potential disputes and implement technical standards. For example, the GATT 1994 includes 25 special and differential provisions, contained in Articles XVIII, XXXVI, XXXVII and XXXVIII.⁵⁷ In particular, the provisions aimed at increasing the trade opportunities of developing countries,⁵⁸ especially those that “promote the establishment of a particular

55 WTO, *Preferential Treatment to Services and Service Suppliers of Least-Developed Countries*, WT/L/847.

56 WTO, *Services Negotiations: Trade in Services and LDCs*.

57 WTO, *Special and Differential Treatment Provisions in WTO Agreements and Decisions*, WT/COMTD/W/271.

58 Arts XXXVI.2, XXXVI.3, XXXVI.4, XXXVI.5, XXXVII.1(a), XXXVII.4, XXXVIII.2(c) and (e).

industry with a view to raising the general standard of living”, could potentially be implemented with a gender approach, targeting women in certain economic sectors or fostering women’s participation in new industry areas, where wages could be higher. Also, technical assistance provisions could support governments’ efforts to integrate gender issues in their trade policies. Furthermore, the WTO Secretariat, based on Members’ requests,⁵⁹ has set up a dedicated training programme with this objective (see section 7.5 below). Lastly, supporting developing countries in implementing technical standards, the work of the Standards and Trade Development Facility (STDF) on sanitary and phytosanitary standards includes a gender component that supports female farmers in complying with these standards and gaining access to export markets.

► 7.5 Gender equality, trade policymaking and the WTO

Gender equality is part of the WTO’s work programme, and a group of WTO Members (constituting 85 per cent of the membership) institutionalized the issue in the Organization by establishing the Informal Working Group in Trade and Gender (IWG) in September 2020 (der Boghossian 2023c).⁶⁰ As part of its four work pillars, IWG members work on sharing their trade policy experience, practices and methodologies on women’s economic empowerment. They build each other’s trade policymaking capacity, exploring issues such as female entrepreneurship, e-commerce, the impact of FTAs on women, COVID-19 mitigation measures focusing on women, and policies of micro, small and medium-sized enterprises (MSMEs), with a focus on female small entrepreneurs.⁶¹ The IWG also focuses on understanding how to collect sex-disaggregated data in trade, which is key to informing trade policymaking; and on how to better integrate gender issues in Aid for Trade programmes and to mainstream gender issues in the daily work of the WTO and in the work of regular WTO committees, with the emphasis mainly on policymaking.

59 Since 2018 the Biennial Technical Assistance and Training Plans have included requests from WTO Members to establish and conduct such trainings on the topic.

60 WTO, *Interim Report Following the Buenos Aires Joint Declaration on Trade and Women’s Economic Empowerment*, WT/L/1095/Rev.1.

61 *Progress Report on WTO Members and Observers Technical Work on Women’s Economic Empowerment*, 9 November 2021, INF/TGE/R/1.

At the multilateral level, WTO Members have adopted the *12th Ministerial Conference (MC12) Outcome Document*, in which they recognize the importance of women's economic empowerment and the work of the WTO in this field.⁶²

Operating in parallel, the WTO Trade and Gender Office supports Members in this work, seeking to build Members' policymaking capacity and to integrate gender issues in their trade policies.⁶³ To this end, it has established dedicated training programmes for government representatives and is creating gender-responsive trade policy tools. These initiatives aim to assist WTO Members in data collection, monitoring, reporting, and the promotion of inclusive trade policies. The WTO Secretariat also supports Members' work on Aid for Trade, gathering evidence on how gender is integrated in Aid for Trade programmes and developing specific indicators to support Members in including gender issues in them. The Trade and Gender Office has also mapped out the gender provisions in RTAs to support Members' negotiations, providing existing models of provisions they could use in the design of their RTAs. Similarly, the Office is working on categorizing all the national trade policies adopted by WTO Members to support their policymaking work.

► 7.6 Conclusion

Overall, in recent decades, governments have increasingly integrated gender issues in their trade policies, recognizing the link between trade and women's economic empowerment and acknowledging female workers' contribution to the economy, development growth and poverty reduction. For this purpose, they have used a wide variety of policy instruments, ranging from adopting trade policies domestically, negotiating gender provisions in their RTAs, and designing Aid for Trade programmes that include a targeted gender focus, to transferring some of the flexibilities in WTO agreements into their national trade policies and adopting measures that support women.

⁶² WTO, *12th Ministerial Conference (MC12) Outcome Document*, 22 June 2022, WT/MIN(22)/24, WT/L/1135, Para. 13.

⁶³ The Trade and Gender Office was established in the WTO Secretariat in May 2022, but the Secretariat's work on trade and gender started in 2016, when the former Director-General Roberto Azevêdo became an International Gender Champion. He commissioned an internal study to understand the links between trade, gender and development, and in 2017 appointed a trade and gender focal point in the WTO Secretariat to lead the work in the Organization. In 2017 the Secretariat adopted its first Action Plan on Trade and Gender 2017–19 and is now working on the basis of its second Action Plan for 2021–26.

Often developed and adopted in "policy silos", these policies, if combined, could be more effective and impactful in supporting women's entry into the formal workforce and addressing issues related to decent work and working conditions for them. For policy efficiency, governments could apply this "blended approach" to gender-responsive trade policymaking.

Additionally, governments could potentially explore how to focus their national trade policies and Aid for Trade programmes more directly on female workers and their access to skills. This is especially important in the current context of future automation in trade-related sectors where women work the most (such as the garment industry), threatening their jobs and livelihood. For this purpose, they could use the gender provisions contained in their RTAs, which do focus on these issues, referencing ILO Conventions and its Decent Work Programme, as well as CEDAW; these could be translated into national trade policies using the "blended approach" described above.

While these policies focus mainly on female entrepreneurs and farmers, they also include measures and provisions that support women's employment in export-oriented sectors. These policy trends are very clearly established. Another policy trend shows that governments, at the same time as devising support measures to foster female employment in exporting firms, integrate socially oriented issues in order to secure these positions for women and ensure that they remain in their jobs. They may, for instance, integrate social issues in their trade policy or adopt other policies that complement trade policies promoting female workers. These social measures range from providing female employees in export-led sectors with adequate working conditions and supporting their equal access to training and education, to reducing pay discrimination and addressing gender-based violence in the workplace.

These various trends show that governments intend to safeguard women's working conditions in exporting firms and implicitly recognize, in some sense, that women's contribution to the economy and poverty reduction could be impaired without such social support. In this way, trade policies are aligned with SDG 8, especially targets 8.3 and 8.5, promoting sustained, inclusive and sustainable economic growth, with full and productive employment and decent work for all.⁶⁴ Given the cross-cutting nature of gender issues, this

⁶⁴ Target 8.3: "Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro, small- and medium-sized enterprises, including through access to financial services."

Target 8.5: "By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value."

is the best recipe to successfully realize the impact of these policies and to achieve SDG 5 (“Achieve gender equality and empower all women and girls”), which is, in reality, at the centre of all development goals.

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► Appendix. Policy table: examples of gender-responsive trade policies

Type of trade policy	Policy area/focus	Country, region or customs territory	Description
PART 1. WOMEN'S EMPLOYMENT RATE, WOMEN'S INTEGRATION IN THE WORKFORCE, TRADE AND ECONOMIC GROWTH			
Data collection	Women's participation in the economy	Barbados	In 2021 the labour force participation rate was 65.3 per cent for men and 57.5 per cent for women, of which more than 48 per cent were employed workers. But in some sectors, such as health, finance, insurance and food services, employed women outnumbered male workers, and sometimes more than half of the job holders were female. ¹
National policy	Gender mainstreaming/link between gender, social and economic development	Argentina	Argentina's "policy philosophy" shows how economic, social and gender issues are intertwined. The Government outlined that: a productive system that fails to use women's talents loses opportunities for growth, innovation and improved productivity. Hence, the Government understands that productive policies must necessarily include incentives to increase equal opportunities in the labour market and to reduce stereotypes (through awareness-raising campaigns) that currently obstruct women's access to strategic branches for development. Greater diversity within these branches will help to create a wider range of ideas and approaches in enterprises, increasing the likelihood of innovation and business growth. In this regard, Argentina aims to create guidelines for the introduction of cultural changes in the operation of enterprises, by encouraging greater opportunities for women, eliminating gaps in equality and creating environments that prevent and penalize any kind of gender-based discrimination or violence. ²
National policy	Gender mainstreaming/link between gender, social and economic development	Dominican Republic	The Dominican Republic highlights that the rationale underpinning its National Multi-Year Public Sector Plan is to ensure that policies take into account their impact on people's quality of life to improve gender equity (among others). ³ The Government stipulated that "ultimately, quality of life has become one of the Dominican Republic's core development objectives".

1 2021 Employment by Industry and Sex. Data produced by the Barbados Statistical Service; WTO, *Trade Policy Review: Barbados*, WT/TPR/M/431/Add.1, 3, 21 February 2023.

2 WTO, *Trade Policy Review: Argentina*, WT/TPR/G/412, 20, 11 August 2021.

3 WTO, *Trade Policy Review: Dominican Republic*, WT/TPR/G/435, 10, 24–26 January 2023.

►Appendix (cont'd)

Type of trade policy	Policy area/focus	Country, region or customs territory	Description
Economic strategy	Women's participation in the economy	Peru	Peru's per capita income has increased while gender inequality has decreased, as measured by the gender inequality index. The massive entry of women into the Peruvian workforce, largely caused by a shift in the role of women in society, has driven economic growth and human development in the country. ⁴
National trade policy (foreign trade strategy)	Link between trade growth and women's economic empowerment	Dominican Republic	The Government highlights that its integration into international markets is dependent on women's empowerment and leadership in trade. ⁵ In its foreign trade strategy, it outlines its goals to develop women's trade culture in order to lift the country's overall exports and "turn women into drivers of growth and poverty reduction". ⁶
National trade policy	Link between trade growth and women's economic empowerment	Solomon Islands	Investing in women's productive potential is a crucial step towards enhancing its trade performance. ⁷
National Trade Policy and National Export Promotion Strategy (2019–2023)	Link between trade growth and women's economic empowerment	Zimbabwe	Between 2011 and 2017 the importance of trade in the Zimbabwean economy fell from 89.5 per cent to 50 per cent. To remedy this trend, the Government included gender mainstreaming in its National Trade Policy and National Export Promotion Strategy (2019–2023) by extending preferential access to finance, providing trade support in general for women and delivering trade information for women and young people. ⁸
PART 2. WOMEN'S ACCESS TO EMPLOYMENT THROUGH TRADE; FILLING WORKFORCE SHORTAGES IN EXPORT SECTORS			
National policy	Industry policy (Industrial Transformation Agenda)	Ghana	Promotes gender inclusion as a key objective. ⁹
National policy	Foreign investment strategy	Nigeria	Through the creation of vocational and technical training centres, the Government fostered women's participation in the construction sector, a male-dominated sector, to develop their skills and fill a workforce shortage in the sector. ¹⁰

⁴ Statement made by the WTO Ambassador of Peru at the 26 February 2021 meeting of the WTO Informal Working Group on Trade and Gender.

⁵ WTO, *Trade Policy Review: Dominican Republic*, WT/TPR/S/435, 8, 24–26 January 2023.

⁶ WTO, *Trade Policy Review: Dominican Republic*, WT/TPR/S/435, 39, 24–26 January 2023.

⁷ WTO, *Trade Policy Review: Solomon Islands*, WT/TPR/G/349, 5, 13–15 December 2016.

⁸ WTO, *Trade Policy Review: Zimbabwe*, WT/TPR/M/398/Add.1, 47, 1 December 2020.

⁹ WTO, *Trade Policy Review: Ghana*, WT/TPR/427, 12, 17 May 2022.

¹⁰ WTO, *Trade Policy Review: Nigeria*, WT/TPR/G/356, 11, 7 May 2017.

►Appendix (cont'd)

Type of trade policy	Policy area/focus	Country, region or customs territory	Description
National policy	Tourism policy	Djibouti	Between 2001 and 2010 the policy aimed to boost women's participation in economic development, which employs mostly women. ¹¹ Developing the tourism industry in Djibouti remains a key objective of the Government, with the aim to train skilled and unskilled workers, among them women, to become integrated in the sector, to gain jobs and to boost the country's economy. ¹²
FTA	Access to employment	Canada–United States–Mexico Agreement (CUSMA)	Chapter 23 of the USMCA promotes the elimination of discrimination in employment, and equality for women in the workplace. The agreement also provides that policies should be implemented to “protect workers against employment discrimination on the basis of sex, pregnancy, and caregiving responsibilities” among others.
FTA	Access to employment	UK–Australia	In this FTA, the State parties commit to “non-discrimination in employment, occupations, and places of work, and to take measures to advance anti-discrimination practices and address discriminatory practices, including those related to workplace sexual harassment, gender-based violence, gender pay gaps, and flexible working arrangements, as well as improve women's access to decent work”. ¹³
Aid for Trade	Eliminating employment discrimination	Australia	Supports initiatives that eliminate discrimination against women and girls, overall and more specifically in employment. Australia also supports developing countries in the Indo-Pacific region in designing policies and practices and in developing a work culture that is more favourable to women and their safety, incomes and career progress. ¹⁴ One of Australia's Aid for Trade programmes in Fiji targets obstacles that women face related to “time poverty” which are often ignored in trade policy. Through its Aid for Trade plans, Australia also invests in the ILO Better Work programme, which helps improve labour standards and reduce gender discrimination in garment factories in developing countries ¹⁵ with respect to sexual harassment and pay discrimination, and to encourage women's leadership and participation in decision-making. ¹⁶

11 WTO, *Trade Policy Review: Djibouti*, WT/TPR/S/305, 51, 52, 17 September 2014.

12 WTO, *Trade Policy Review: Djibouti*, WT/TPR/G/430, 11, 7 September 2022.

13 UK–Australia FTA, Ch. 21: “Labour”, Art. 21.8: “Non-discrimination and gender equality in the workplace”.

14 WTO, “Australia's Investing in Women”, WT/COMTD/AFT/W/92, 2 May 2022.

15 Cambodia, Indonesia, Pakistan and Viet Nam, WT/COMTD/AFT/W/92, 2 May 2022.

16 Joint OECD–WTO Aid for Trade Monitoring and Evaluation Exercise for the Global Review 2022, WT/COMTD/AFT/W/92, 2 May 2022.

►Appendix (cont'd)

Type of trade policy	Policy area/focus	Country, region or customs territory	Description
Aid for Trade	Eliminating employment discrimination	EU	EU Aid for Trade Strategy includes the four pillars of the Decent Work Agenda ¹⁷ and advocates for the EU's Aid for Trade to build its new FTAs to support labour rights and the Decent Work Agenda, through binding social and environmental provisions contained in the trade and sustainable development chapters. ¹⁸
Aid for Trade	Eliminating employment discrimination	Sweden	Sweden focuses its Aid for Trade programmes on female employment and occupation. Through its International Development Cooperation Agency (Sida), it supports its partners in promoting non-discrimination in the workplace, both in the formal and informal sectors. Sida's global aid also contributes to the ILO's Women at Work initiative. ¹⁹
PART 3. ENHANCING WOMEN'S SKILLS TO PARTICIPATE IN THE EXPORT SECTOR AS WORKERS			
National policy	Promoting female formal employment in trade/capacity-building	Mauritius	With its "Back to Work" programme adopted in 2014, Mauritius provided training opportunities for women who wished to rejoin the labour force in 15 occupations, including export sectors. ²⁰
National and sectoral policy	Textile and apparel/ Promoting female formal employment in trade/capacity-building	Pakistan	Pakistan's economic and trade strategy aims to increase women's labour force participation, through skills development, targeting women coming from all social backgrounds in the country. ²¹ In its Textile and Apparel Policy 2020–25, Pakistan launched a "mass level training in industrial stitching for women", ²² Pakistan also created Women Empowerment Centres, where free training sessions are delivered to widows, orphans and poor girls in various skills, such as drafting, cutting, sewing, knitting, and hand and machine embroidery. ²³ These plans correlate with the Ministry of Commerce export projections and goals in the textile and apparel sectors for 2021–25. ²⁴

17 Standards and rights at work, employment creation and enterprise development, and social protection and social dialogue.

18 Joint OECD–WTO Aid for Trade Monitoring and Evaluation Exercise for the Global Review 2022, WT/COMTD/AFT/W/92, 2 May 2022.

19 Joint OECD–WTO Aid for Trade Monitoring and Evaluation Exercise for the Global Review 2022, WT/COMTD/AFT/W/92, 2 May 2022.

20 WTO, *Trade Policy Review: Mauritius*, WT/TPR/M/304/Add.1, 10. 11 February 2015.

21 WTO, *Trade Policy Review: Pakistan*, WT/TPR/M/424/Add.1, 31. 7 June 2022.

22 Pakistan, Ministry of Commerce, Textile Wing, *Textiles and Apparel Policy, 2020–25*, 7: "Export projections", 23, section 4: "Human resource development".

23 Government of Pakistan, "Women Empowerment Centres".

24 The Government intends to grow from US\$20 billion of exports of textiles products in 2021–22 to US\$40 billion in 2024–25. For this purpose, the Government needs skilled workers and is investing in women.

►Appendix (cont'd)

Type of trade policy	Policy area/focus	Country, region or customs territory	Description
FTA	Promoting female formal employment in trade/capacity-building	China-Peru	The China-Peru FTA includes a training provision for professionals in agriculture, including women, focusing on the use of new technologies for enhanced productivity and improved value-added product competitiveness. ²⁵
Aid for Trade	Promoting female formal employment in trade/capacity-building	Australia	Australia's Aid for Trade initiatives aim to increase women's access to training opportunities in order to create new employment opportunities in non-traditional and high-paid sectors for women, such as the green energy industry and digital trade. ²⁶
Aid for Trade	Promoting female formal employment in trade/capacity-building	Germany	Germany's Aid for Trade supports the Government's "Employment and Skills for Development in Africa" (E4D) initiative to improve employment situations in seven African countries. Six projects under E4D focus on women and one key priority is the promotion of green jobs. ²⁷
PART 4. ADDRESSING WOMEN'S LABOUR CONDITIONS IN EXPORT SECTORS			
National policy	Textiles and apparel sector/ Labour conditions/ Promoting women's formal employment in export sector	Pakistan	Pakistan's Textiles and Apparel Policy 2020-25 contains measures to foster women's employment in the sector. Therefore, as part of its policy, the Ministry of Commerce is reviewing/reforming its labour laws to allow women to work in three shifts, to support women's employment and human resources development in this export-led sector. ²⁸

²⁵ China-Peru FTA, Art. 164: "Agricultural cooperation".

²⁶ Joint OECD-WTO Aid for Trade Monitoring and Evaluation Exercise for the Global Review 2022, WT/COMTD/AFT/W/92, 2 May 2022.

²⁷ Joint OECD-WTO Aid for Trade Monitoring and Evaluation Exercise for the Global Review 2022, WT/COMTD/AFT/W/92, 2 May 2022.

²⁸ Pakistan, Ministry of Commerce, Textile Wing, [Textiles and Apparel Policy, 2020-25](#), 7: "Export projections"; section 4, 23: "Human resource development".

►Appendix (cont'd)

Type of trade policy	Policy area/focus	Country, region or customs territory	Description
National policy	Business process outsourcing (BPO) sector/ Labour conditions/ Promoting women's formal employment in export sector	Philippines	In the Philippines, the ICT and BPO sectors employ many women. The Government's trade policy has granted the ICT sector various incentives (ICT buildings qualify as vertical economic zones) to support its development and secure jobs for women. This has led to employment gains. The Philippines labour law that prevented women from working night shifts was abolished to foster female employment (BPO employees have to deal with customers located in different time zones). In addition to these measures, the Philippines required that companies provide their female workers with sleeping/resting space, and requested that they organize mandatory transport services for those working at night, that they cater for working mothers and provide them with breastfeeding spaces, and that they include breastfeeding programmes as part of the companies' development plans. ²⁹
National policy	Promoting female formal employment in trade/Fostering paid work over unpaid labour	Japan	To foster women's participation in its economy, with the objective of fulfilling its general workforce shortages, Japan opened its social services sectors to foreign housekeepers, to meet their needs for housework assistance, and to promote medium- to long-term economic growth through their involvement in employment. As a result, Japan has transformed unpaid care and domestic work into paid work. ³⁰
PART 5. REDUCING PAY DISCRIMINATION			
National policy	Transport/ Integrating female workers in male-dominated sectors	France	In the transport sector, women account for only 5 per cent of truck drivers. To bring more women into the profession and alleviate a labour shortage, the national recruitment agency, in partnership with training organizations, launched "Acting for Women" in 2020, a training programme for women only to help them obtain heavy-goods driving licences. ³¹

²⁹ WTO, *Trade Policy Review: The Philippines*, WT/TPR/M/368/Add.1, 114, 28 May 2018.

³⁰ WTO, *Trade Policy Review: Japan*, WT/TPR/M/310/Add.1, question and answer session, 122.

³¹ "Transports routiers: des femmes pour sauver le manque de chauffeurs", news report from *TV5 Monde Info*, 23 April 2022.

►Appendix (cont'd)

Type of trade policy	Policy area/focus	Country, region or customs territory	Description
National policy	Mining/ Integrating female workers in male-dominated sectors	Zambia	Women are making their way in the mining industry, occupying more and more high-level positions and skilled and highly technical jobs. Women now work as lawyers, engineers, department heads, managers, laboratory technicians, truck drivers, control-room operatives and blast supervisors. A combination of new technologies, university education and policies is the reason for this shift. ³² Of course, women's participation in the sector remains low, ³³ but a shift in the industry has begun. One of the objectives of Zambia's National Mineral Resources Development Policy (2022–2027) is to mainstream gender in the mining sector and include more women in the value chain (among other vulnerable groups). ³⁴
National policy	Pay discrimination	Switzerland	In 2020, aiming to eliminate gender-based salary discrimination, the reformed 1995 Swiss law on gender equality ³⁵ required that all firms with more than 100 workers conduct independent gender equality audits focusing on pay gaps. ³⁶ Also, in its procurement policy, the Government added requirements that only companies that guarantee equal pay for women and men could be awarded public contracts. To ensure that equal pay is adequately implemented, implementation investigations are conducted, obliging companies that are at fault to review their practices. In some firms, this has resulted in salary increases for female workers. ³⁷
National policy	Pay discrimination	United Arab Emirates	In the United Arab Emirates, the law has established a principle of equal pay between men and women in all economic sectors (public and private), including trade-related areas. The Government has developed implementation processes and carried out controls to ensure that the law is enforced and work is carried out without gender discrimination. ³⁸

32 "First Lady of Zambia Calls for More Women in Mining", *Times of Zambia*, 22 July 2015.

33 ILO, "Zambia: Preliminary Analysis of ILO Mining Employment Data by Sex", 15 March 2022.

34 Maimbolwa Mulikelela, "A Glance into the 2022 National Mineral Resources Development Policy by Sydney Mwamba", *Zambia Monitor*, 13 December 2022.

35 Switzerland, *Federal Act of 24 March 1995 on Gender Equality*, RS 151.1.

36 WTO, *Trade Policy Review: Switzerland and Liechtenstein*, WT/TPR/S/425, 26, 23 March 2022.

37 Anoush der Boghossian, "Trade Policies Supporting Women's Economic Empowerment: Trends in WTO Members' Staff", WTO Working Paper ERS-2019-07, 2019.

38 WTO, *Trade Policy Review: United Arab Emirates*, WT/TPR/S/423, 14, 15 February 2022.

►Appendix (cont'd)

Type of trade policy	Policy area/focus	Country, region or customs territory	Description
National policy and data collection	Pay discrimination	New Zealand	In 2022 New Zealand conducted national research which demonstrated that larger gender wage gaps existed in exporting firms than in non-exporting companies. This led the Government to adopt its new equal pay law (Equal Pay Amendment Act 2020), which allowed employees and unions to issue a complaint against an employer in the event of systemic gender discrimination. ³⁹
Aid for Trade	Pay discrimination	Netherlands	The Netherlands' Aid for Trade programmes support projects on sustainable trade chains, including issues related to a living wage. ⁴⁰
Aid for Trade	Pay discrimination	Australia	As part of its Aid for Trade contribution to the ILO Better Work programme, Australia's investments help to reduce gender discrimination in garment factories in Cambodia, Indonesia, Pakistan and Viet Nam, with a special focus on the gender wage gap. ⁴¹
PART 6. ADDRESSING GENDER-BASED VIOLENCE IN TRADE			
National policy	Gender-based violence	Democratic Republic of the Congo	In the Democratic Republic of the Congo, the elimination of violence against women is a development policymaking objective. ⁴²
National policy	Gender-based violence	Madagascar	Within its National Gender and Development Action Plan and its Emergence Plan, Madagascar's objective is to enhance women's empowerment and protect them against violence. ⁴³
National policy	Gender-based violence	Pakistan	Pakistan has created by law a national women's ombudsperson and adopted its Workplace Harassment Act and Protection of Women against Violence Act, to specifically ensure that there is no gender discrimination in employment. ⁴⁴

39 WTO, *Trade Policy Review: New Zealand*, WT/TPR/G/426 19, 6 April 2022.

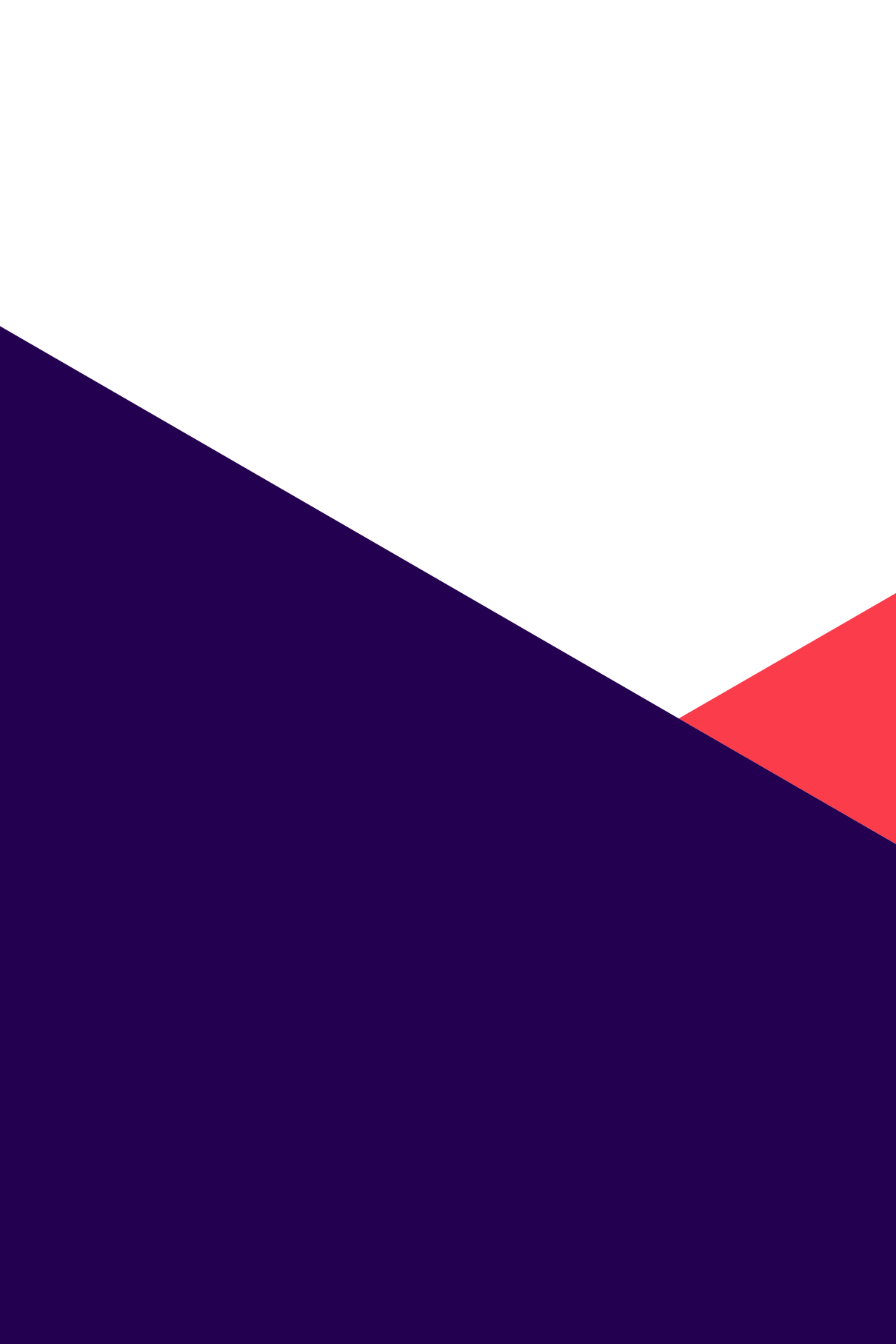
40 Joint OECD–WTO Aid for Trade Monitoring and Evaluation Exercise for the Global Review 2022, WT/COMTD/AFT/W/92, 2 May 2022.

41 Joint OECD–WTO Aid for Trade Monitoring and Evaluation Exercise for the Global Review 2022, WT/COMTD/AFT/W/92, 2 May 2022.

42 Joint OECD–WTO Aid for Trade Monitoring and Evaluation Exercise for the Global Review 2022, WT/COMTD/AFT/W/92, 2 May 2022.

43 Joint OECD–WTO Aid for Trade Monitoring and Evaluation Exercise for the Global Review 2022, WT/COMTD/AFT/W/92, 2 May 2022.

44 Joint OECD–WTO Aid for Trade Monitoring and Evaluation Exercise for the Global Review 2022, WT/COMTD/AFT/W/92, 2 May 2022.



Agriculture, trade and employment

A Global Green New Deal to address structural challenges

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► Introduction

No other sector is more entangled in the debate on development, employment and climate change than agriculture. Those who are feeling the dire consequences of such entanglement, exacerbated by the triple crisis of climate change, conflict and pandemics, mostly live in the developing world, accounting for 83 per cent of the world population (UNCTAD 2022a). According to the 2023 *State of Food Security and Nutrition* report, more than 3.1 billion people, or 40 per cent of the global population, cannot afford a healthy diet, 23 per cent of all children under 5 years old have stunted growth, and 828 million children went to bed hungry in 2021 (FAO et al. 2023). At the same time, 1.6 billion tonnes of food was wasted, and 675 million people – 13 per cent of the adult population – suffered from overeating in 2021.¹

Inseparable from the issue of food waste is the environmental dimension: “food wastage’s carbon footprint is estimated at 3.3 billion tonnes of CO₂ equivalent of GHG [greenhouse gas] released into the atmosphere per year... 1.4 billion hectares of land – 28 per cent of the world’s agricultural area – is used annually to produce food that is lost or wasted” (FAO 2013). The environmental impact of agriculture is not limited to wasted resources. The sector uses (and pollutes) a substantial part of the air, land and water: it is responsible for 20–37 per cent of anthropogenic greenhouse gases and uses 40 per cent of global land and 70 per cent of global fresh water (FAO 2019). The sector is also responsible for significant reductions in biodiversity through deforestation, land degradation, soil exhaustion and depletion of underground water resources (Clapp, Newell and Brent 2018; Dasgupta 2021; Duku et al. 2022; Springmann et al. 2018; Willett et al. 2019).

The agriculture sector is also beset by various labour market challenges and adverse working conditions. To start with, 45 per cent of the world’s poor live in rural areas of the developing world (IFAD 2023). Other challenges include exclusion of agricultural workers from national labour protections, meagre wages, hazardous working environments and wide prevalence of child and forced labour.² According to the ILO, of all the child workers in the 5–17 age group, 60 per cent work in agriculture, the majority of them as unpaid family labourers.³ Moreover, the sector is one of the most dangerous to work in, with a high incidence of work-related accidents and fatalities,

1 Unless otherwise stated, all figures refer to the year 2020 and were acquired from the FAOSTAT database (accessed 26 September 2021).

2 ILO, “Agriculture; Plantations; Other Rural Sectors” (n.d.).

3 ILO, “Child Labour in Agriculture” (n.d.).

and occupational health hazards. This symbiotic prevalence of widespread hunger, food waste and obesity, alongside environmental destruction and unsustainable labour practices, is the manifestation of an inefficient, unequal and unsustainable global order with significant structural problems.

These structural challenges in the sector must be addressed to ensure a sustainable future for the planet and its inhabitants, as it is crucial for food security, employment and environmental well-being, as well as economic development. Therefore, in recent years, researchers and policymakers have shown a growing interest in the sector. The existing research and policy dialogue on the issue can be divided into two main branches: one comprising the production side – how to increase food supply; the other considering the framework – how to organize the multilateral system, particularly international trade in agriculture, given the increasing importance of agricultural goods in international trade and the importance of international trade in food security through global value chains.

This chapter aims to contribute to the current dialogue on both fronts, with a focus on developing countries. It poses the following question: “Are existing finance and trade policies and agreements apt to solve the myriad challenges linked to food insecurity, food waste, labour and environmental issues?” It argues that existing policies, including trade and finance policies to address these developmental issues, are inadequate at best, and harmful at worst, for two main reasons: first, they fail to take into consideration the unique organizational features of agrarian production in developing countries; and second, existing narratives and policies fail to address long-standing and deep-seated structural issues.

The organization of the chapter is as follows. Section 8.1 provides a critical overview of the supply-side solutions put forward by current conventional thinking on how to address food security issues in agricultural production. Section 8.2 then zooms in on the particularities of agrarian production with a focus on labour. In section 8.3, there is a critical overview of trade policies, including some recent regional trade agreements, with respect to their effects on agriculture. Section 8.4 broadens the developmental perspective, by showing the implications of fractures and vulnerabilities in the economy that are created because of the interdependencies that exist between agriculture, finance, trade and the physical environment. It puts forward a more comprehensive framework, the so-called Global Green New Deal, that includes finance and trade policies that can be directed to the needs of ecological and economic sustainability for this essential sector. Section 8.5 concludes the chapter.

► 8.1 A critical look at existing narratives and policies in the agriculture sector

Much of what has been researched in the agriculture sector and carried forward into policy design and implementation has been limited in its approach, focusing mostly on increasing output without much regard to structural, distributional and labour issues. Indeed, the most understudied and overlooked aspect of agrarian production has been how labour engages within the larger framework of local, national, regional and global economic structures, and its role in food security. This is puzzling given that most of the world's food is produced by farmers in developing countries using labour-intensive production technologies.

Mostly, the literature focuses on well-known environmental, social and economic impacts of past production methods, such as the Green Revolution,⁴ without much concern for sustainable resource use, including labour (Joshi 1997).⁵ The proposed solutions to “fix” the sector rely mostly on risk management combined with upgrading production technologies through innovation, particularly biotechnology. This includes mass production of foods produced from microbes,⁶ or providing supply-side boosts, such as improving farming skills and water management systems, and supporting the environment in which micro- and medium-sized farms could adapt green technologies (IFAD 2021). The management of output risks, such as shocks to supply, are left to market mechanisms, such as farmers' insurance, or income diversification, and the consolidation of arable lands to achieve economies of scale. However, as will be shown in section 8.4, risk-based market mechanisms are simply transferring risk from one party to another, without addressing the underlying causes of the problem. Similarly, economic responses such as building scale without addressing the root causes of the problems will only breed new challenges for the future.

There are similar problems with the dominant narrative suggesting that increasing yields through technological innovations and “boosting nature-positive production” systems, combined with short-term strategies to deal

4 The Green Revolution was the adoption of high-yielding varieties, which required high investments in fertilizers and irrigation.

5 For a critique of the Green Revolution, see Boyce (1993).

6 For a detailed discussion of microbial foods, see Graham and Ledesma-Amaro (2023).

with risk such as storing food, can solve the issue of food security.⁷ While the rationale for such a response is understandable, especially to achieve the goal of tripling food production by 2050 to avoid a Malthusian demise, the single-minded focus on technology and short-term risk management brings multiple and significant problems.

One such problem is that these policies can harm small and medium-sized farmers through subsequent increases in supply, and decreases in output prices, thereby affecting their incomes. Even though lower food prices help to increase the profit rate of non-agricultural sectors through lower cost of wage goods, these sectors also suffer because of a reduction in effective demand due to a decrease in income in the agricultural sector (Storm and Rao 2002). Additionally, it is unclear what will happen to the estimated 4.5 billion people whose livelihoods are tied to food systems, especially in developing countries, when microbial biomass foods flood global markets.⁸ Section 8.4 below traces these impacts resulting from a physical shock to subsequent shocks in the economic and financial systems, showing that even policies implemented to address the problems can, if not coherent or synchronized, cause further unanticipated negative impacts.

A second problem is that none of these proposed solutions address the existing food puzzles: first, the mutually reinforcing existence of obesity, food waste and hunger, as mentioned above; and second, the extreme concentration of food content on the consumption side, because 85 per cent of our food comes from only four major grains (wheat, rice, maize and barley), while the global grain trade is dominated by four major companies. Together, they control a significant portion, ranging from 70 to 90 per cent, of the world's grain trade (UNCTAD 2023b). Despite countless studies and

7 Relevant in this context are Action Track No. 3 of the UN Food Systems Summit 2021 (UNFSS-21); the EU's [European Green Deal](#); the UK Labour Party's [Green New Deal](#); the OECD's [Agro-Food Productivity-Sustainability-Resilience Policy Framework](#).

UNFSS-21's five Action Tracks will investigate practical approaches to: (1) guaranteeing access to food that is both safe and nourishing; (2) transitioning towards sustainable patterns of consumption; (3) promoting production methods that benefit nature; (4) progressing towards fair livelihoods; and (5) enhancing the ability to withstand shocks and pressures.

8 Microbial biomass foods are produced by a technique called precision fermentation, a method that involves producing food from microbes and yields microbial biomass abundant in proteins and essential nutrients. This emerging technique offers several significant advantages. It allows the transition of food production from fields to factories, reducing the reliance on farmland and intensive agriculture. This, in turn, helps mitigate the environmental impact of food production and allows the repurposing of land for other beneficial uses. It is argued that precision fermentation proves to be more efficient than traditional agriculture. It boasts impressive caloric and protein yields per land area, surpassing staple crops by over ten times in protein yield and at least twice in caloric yield, as demonstrated in a study by Leger et al. (2021).

models on risk management, such an approach falls short of explaining why we should – through such concentrated global food chains – put all our eggs in the same food basket. Third, this approach ignores the distributional issues and fundamental national and international asymmetries. But it also falls short of identifying structural and long-standing issues in the global division of labour and international trade, and ignores accumulation and distribution dynamics within and between countries.

Finally, and more disturbing, the risk-technology approach distracts the development policy debates away from more prominent policy issues such as (biased) trade rules, (unfair and phenomenally costly) subsidy practices, (insufficient) investment in sustainable practices, (unfair) labour practices, (lack of) effective demand and – most prominently – (the absence of) the developmental state in agricultural production and its role in building a sustainable future. A developmental state is essential because only the State or public institutions have the perspective and mandate that open up a longer-term time horizon, involving patient capital and the ability to follow social, economic and ecological imperatives, as opposed to the market's short-term profit-seeking ones.

Hence, one can conclude that the current, dominant thinking on agriculture – trade policy in agriculture, how to increase food supply in agriculture, and other policies designed to mitigate the impact of climate change and food security issues – fails to recognize the existing and most pressing conundrums of hunger, unemployment and environmental destruction for what they really are: development problems that can only be solved when approached from a multidimensional perspective with labour at the centre.

► 8.2 Agrarian households, labour and its global discontents

It could be argued that the backbone of economic development is the evolution of labour productivity, moving from low- to higher-productivity activities without “immiserizing growth” (Lewis 1954; Ranis and Fei 1961; Johnston and Mellor 1961). Economic history shows us that failures of previous development practice emerge precisely from failing to achieve this, and unfortunately most, if not all, developing countries, trapped in debt with low labour productivity, are examples of this failure. For this reason, it is crucial to look at labour and its utilization in the context of agricultural

production, as this has significant implications for sustainable development (and particularly food security) and employment within the context of the global economic order, as transmitted through trade policy.

Trade policy plays a crucial role in agriculture and also in economic development through its effect on market access, division of labour, technology transfer, and employment and income opportunities, as well as by providing backward and forward linkages to other sectors, and thereby contributing to industrialization. Finance policy is also part of this, because whether (or not) farmers or countries have the productive capacity to benefit from trade policies and to access the markets they open depends in large part on whether they have access to sufficient finance to make the necessary investment in productive capacity. Finance needs to be provided at the required scale, on reasonable terms and on appropriate long-term maturities.

Hence, it is rather important for developing countries to design and implement trade and finance policies that strike a balance between promoting domestic agricultural interests, building capacity and integrating into global markets. Policy coherence, support for smallholder farmers, capacity-building and – maybe more crucially – addressing structural issues of inequality are critical elements in creating an enabling environment that benefits agriculture. Such policies are also crucial for creating employment and income opportunities in developing nations through economic diversification.

One of the most crucial aspects of designing the right policy depends on a realistic and accurate understanding of the micro and macro factors that affect agricultural production. Thus, this section will provide a brief elaboration of labour by agrarian households and the myth that “small is beautiful” in developing countries and policies in agriculture.

8.2.1 Labour in agricultural production

It is common knowledge among agricultural economists that agrarian households operate on a different mode when compared with non-agrarian households. Their decision to supply their labour is determined by rural factor markets and by how those markets function in distributing economic opportunities to households within which trade is a central element.

Labour, more often than not, is the only productive asset the rural poor possess. More importantly, it is often the most important factor of production in agriculture, as agrarian output responds very well to labour-intensive technologies, especially in countries where land and capital are scarce. Particularly in the case of developing countries, where the most abundant

factor of production is labour, understanding labour and its organization in factor markets is crucial for a sound economic policy in agriculture (Barrett, Sherlund and Adesina 2008; Mduma and Wobst 2005; Sadoulet, Key and de Janvry 2000; Skoufias 1994).

A distinctive feature of agrarian production in developing countries is that agrarian households have a dual character: they are both producers and consumers of the goods they produce and of the factors of production they use (such as land and labour). This dual character requires a different modelling of policy, including trade policy. Agricultural household models were developed to consider the simultaneous nature of decisions regarding production and consumption. This was in response to an unexpected discovery in Japan, where it was noticed that farmers did not notably raise their surplus for sale in response to higher prices (Taylor and Adelman 2003).⁹

A price change in output (farm gate prices for grains, for example) or input (wages) does not necessarily translate into changes in supply of output in an agrarian household. This is because consumption and production decisions are inseparable, as the farmer allocates their labour and non-labour inputs (land, capital and other inputs such as fertilizers) in production on their own farm while at the same time allocating income from farm profits and labour sales to the market. For example, if a food staple price is too high, the farmer may decide to consume it rather than sell it to the market. Similarly, the impact of higher input prices, such as a higher market wage, differs for agrarian households compared with non-agrarian households that provide labour to the market but do not demand it. The farmer may choose to work on their own farm, rather than hiring out their labour or hiring in labour for their farm. All these decisions will depend on transactions costs. If, for example, transport is too costly, the farmer would choose to work on their own farm as opposed to supplying their labour to the market. Only when markets have zero transaction costs and when perfect competition assumptions hold can agrarian households separate their consumption and production decisions. Yet most of the policies that are geared to increase food supply through price policies or by increasing market access, as in trade policies in

⁹ Taylor and Adelman (2003) present an excellent discussion of the development and extension of agricultural household models.

agriculture, ignore the inseparability of production and consumption and assume prevalence of perfect competition in developing-country markets.¹⁰

However, the assumption of perfect markets never holds because no developing-country market is truly complete with zero transaction costs (see Kankwamba in Volume 1).¹¹ On the contrary, missing or imperfect markets are often the norm. This failure to recognize the heterogeneity of agrarian households and the inseparability of production and consumption – combined with poor structural specification of rural markets in developing countries – has been reflected in trade policy globally. Another reason for poor policy design is related to the issue of small farmers, and how small farming is perceived.

8.2.2 Is small really beautiful?

In the development literature, it is a stylized fact that small farms have higher productivity per acre than large ones (Ünal 2008). Perhaps based on this observation, many interventions in the policy realm to increase yields in agriculture focus on increasing small-farmer productivity through innovation, education and other entrepreneurial interventions to ensure farmers are better connected to global markets.

10 In the realm of traditional agriculture, the division between consumption (relating to labour supply) and production (relating to labour demand) decisions within a farm household can only be realized within fully competitive markets. This stems from the fact that, given a fixed labour price, the choice between a peasant engaging in the labour market or tending to their own land yields identical outcomes. In this scenario, the total income remains unchanged, thereby aligning labour-supply determinations for agrarian households with those of their non-agrarian counterparts. Essentially, the separability hypothesis necessitates that the output a farmer generates on their personal land should equate to what they could earn by selling their labour – essentially, the farm's marginal labour product should match the prevailing wage rate in the market.

11 For example, the job search cost is very high in rural areas because of the long distances between jobseekers and markets, and/or because of the high unemployment rate in developing countries. Even if one assumed perfect and complete markets, the nature of agrarian production would still break the separability hypothesis because of supervision costs and the climate- and nature-related uncertainties that affect one's labour effort. Even if an agrarian worker makes their best effort, the crop could still fail; hence – because the productivity of labour is hard to measure – hired hands do not have the same incentive to work as hard as family hands. Additionally, the nature of agrarian production determines that family labour is more efficient than hired labour because of the supervision costs in agriculture, which are much higher in an open field than in a closed factory. In sum, separability is rendered an unrealistic proposition for agrarian markets by the particularities of agrarian production, which include labour supervision (Eswaran and Kotwal 1986), preference to work on one's own farm (Lopez 1986), prevalence of unemployment (Mazumdar 1959), impact of monopoly land on labour opportunities (Griffin, Khan and Ickowitz 2002; Rao 2005), and gender customs with respect to off-farm employment (Fafchamps 1985; Deere 1982; Masterson 2005).

In the literature, higher per acre productivity of small farms has been elaborated through many different theories.¹² Of these, the one that best fits the realities of the developing world can be summarized under the market imperfection hypothesis – namely, small and large farms use different proportions of inputs as a result of different factor prices (Mazumdar 1965; Berry and Cline 1979; Sen 1981a, 1981b; Cornia 1985; Eswaran and Kotwal 1986; Griffin, Khan and Ickowitz 2002; Benjamin and Brandt 2002).¹³ As discussed by Cornia (1985), small-scale farmers generally face higher land and capital prices, whereas larger farmers face higher labour costs. This discrepancy in input prices results in farms employing different input ratios based on their resource position, including factors such as availability and expenses associated with production resources.¹⁴

Highlighted by Bardhan (1973), a potentially more intriguing inquiry revolves around the reasons behind the higher input utilization per acre, specifically in terms of labour, by smaller farms, consequently yielding greater per-acre yields. To probe this matter, it is necessary to grasp the structural and institutional context of traditional agriculture within developing nations.

According to Sen (1981a, 1981b), small farmers use labour intensively because they cannot access other inputs such as land and credit through factor markets as a result of structural issues (that is, imperfections) in those markets. Even though small farmers' land utilization is higher, and even though neoclassical economics suggest that free markets allocate resources to the most efficient – hence land to those who get the higher yield per acre, in the case of farming – agricultural land is rarely reallocated to those who produce more per acre in developing countries. This is because all factor markets, as well as output markets, are connected – in other words, small farmers need land or assets as collateral to get credit, which they often lack.

Both credit and land markets are very much connected to each other through collateral, hence a small farmer would not have sufficient credit to purchase additional land. In other words, the ownership of productive assets is connected to the distribution of productive assets. "It is because of this relationship that those who are poor in land but rich in labour, and thus can reap higher yields from their land, fail to lease in more land to utilize

12 For a more detailed discussion, see Ünal (2012).

13 The different factor prices result from imperfections of markets, which give different incentives to farmers operating on different scales.

14 The higher cost of labour for large farms is due to factors such as supervision and the expenses involved in finding workers, as observed by Eswaran and Kotwal (1986). Conversely, substantial farmers benefit from relatively cheaper and more easily accessible credit, mainly because of the collateral requirements that smaller farmers lack.

their labour” (Ünal 2008, 14). Hence the correction of this failure, to achieve a sustainable future, has to be through reallocation of resources to those who use productive factors in agriculture more efficiently. Any policy, including trade policy, which does not address these structural issues will not succeed in offering sustainable solutions to the food security issues.

The next section looks at the policy realm in agriculture, with a particular focus on trade policy.

8.2.3 Policies in agriculture

Since the 1980s most agricultural policy interventions have been made within the framework of a neoliberal paradigm where structural issues of markets were not the focus. As argued by Swinnen, Olper and Vandeveld (2021), discussions of agricultural and food policies predominantly revolved around interventions related to prices and trade. These interventions consisted of import tariffs, quotas and measures to support prices. Price support measures, along with import tariffs and export subsidies, played crucial roles in the agricultural and food policies of many nations (Anderson 2009).

However, in the late 20th century there were efforts to reform and reduce trade and price policy interventions in markets (Anderson, Rausser and Swinnen 2013). Subsequently, discussions shifted towards different types of government intervention. One notable development was the growth of food standards and regulations, which were suggested as replacements for import tariffs and categorized as “non-tariff measures” (Beghin 2017). These standards and regulations, encompassing aspects such as food safety and geographical indications, served a dual purpose. On the one hand, they enhanced efficiency by addressing issues such as asymmetric information and negative externalities. On the other hand, they facilitated the redistribution of rents among interest groups, thereby stimulating growth while safeguarding vested interests (Beghin, Maertens and Swinnen 2015; Swinnen 2016, 2017).¹⁵ It is beyond the scope of this chapter to analyse all the different interventions and policies in detail, but suffice it to say that none of them focused on addressing structural issues in either local or global markets.

Unfortunately, following the precepts of free trade policies that involved limited or no government intervention left developing-country farmers to the vagaries of so-called free markets. Smaller rural producers were not able to compete with agricultural goods coming from large-scale producers in emerging economies, such as China, and/or with highly subsidized

15 Discussion and citation in Swinnen, Olper and Vandeveld (2021).

agricultural goods coming from the developed world. Maybe the most dramatic consequence of these policies has been the breaking of the endogenous growth link between agriculture and the rest of the economy as a result of lower-priced food imports flooding the markets.

One of the most dramatic manifestations of the failure of this approach in agricultural trade policy is evidenced in the collapse of the Doha Round of WTO negotiations in 2001. Despite clear evidence that subsidized agricultural commodities created an unlevel playing field in international agricultural markets and were against the tenets of free trade, developed countries declined to eliminate agricultural subsidies, yet wanted unfettered access to developing-country markets. An example of the disastrous impact of this policy is that of Haiti after lower-priced food imports flooded Haitian markets from the United States. The results led, in 2011, to a rare apology from the former US President Bill Clinton for supporting policies that destroyed Haiti's rice production by reducing tariffs on imported US rice.¹⁶

Unfortunately, despite evidence showing the disastrous results of so-called free trade in agriculture for developing countries, discussions to offer solutions to the world's food challenges, and the ensuing policy design, are not much different today. Indeed, today's policy package could be considered even more problematic, as the technology fix is seen as the new silver bullet to solve food security issues, moving the policy debate away from structural imbalances. Once implemented, solutions such as microbial foods, which aim only to increase food supply, will adversely affect farmers' incomes and employment in developing countries, as traditional farmers will be unable to compete with highly funded research-based microbial foods and will end up losing their livelihoods. Additionally, as a result of the austerity that was typical of neoliberal policies in recent decades (UNCTAD 2017), agricultural extension services in the form of infrastructure and research and development have declined significantly, which has crucial implications for sustainability and food security. This would, in turn, ignite rural–urban migration at a pace these countries are not equipped to deal with. Such social movements, in the absence of social and physical infrastructure, bring dramatic results for development, such as increased crime, high unemployment leading to increased informal employment, lower participation of females in the labour force, poor housing and sanitary conditions, and myriad health issues that come with such outcomes (Datta 2012; Yildirim 2004; Todaro 1997; İlkkaracan and İlkkaracan 1998).

Moreover, the issue of intellectual property (IP) rights means that producing an abundant supply of food through such technological solutions falls short

¹⁶ Mark Engler, “Free Trade Makes Earthquakes Worse”, *Dissent*, 7 April 2010.

of addressing the food security issue. When a new, innovative technology to increase yields, such as microbial foods, is introduced, it often comes from a developed country. Thus, the question of who will hold the IP rights for the new technology, and what IP mechanism for access and distribution will be used, has significant implications for the developing world.

Hence policies, including trade policies, must address imbalances in market access, particularly land and credit markets, both at national and global levels.

An interesting question to consider at this point is the extent to which existing trade agreements on agriculture address structural issues such as market access. The following section looks at some recent trade agreements and assesses if there has been any major policy shift in agricultural trade.

► 8.3 Recent trade agreements and agriculture

8.3.1 The Regional Comprehensive Economic Partnership

Signed on 15 November 2020, the Regional Comprehensive Economic Partnership (RCEP) is a free trade agreement (FTA) between 15 countries in the Asia-Pacific region, including China, Japan, the Republic of Korea and members of the Association of Southeast Asian Nations (ASEAN). It covers one third of the global population and about 30 per cent of its global gross domestic product (GDP). Similar to other such agreements, it builds on the foundations of several previous bilateral and multilateral agreements in place between the participating countries.¹⁷

First of all, it is important to note that, of the 20 chapters in the agreement, none is exclusively dedicated to agriculture; rather, agriculture is included in the “goods” chapter. Second, the RCEP is focused mainly on lowering tariffs and allowing easier movement of goods in the region. The agreement leaves little scope for government interventions, which could significantly and negatively impact national and economic sovereignty in many developing countries. In particular, the “national treatment” provision allows foreign

¹⁷ ASEAN, “The Regional Comprehensive Economic Partnership (RCEP)”.

investors to have the same privileges as local investors. This opens the Pandora's box of resource (land) allocation to multinational corporations unless governments offer an explicit exemption in the agreement, which is highly unlikely. This has already been experienced by participating countries in the region: "According to reports, almost 9.6 million hectares of agricultural land in Australia, Cambodia, Indonesia and Laos, which are all RCEP members, are now under the full control of foreign corporations and individuals coming from the FTA partners of RCEP" (bilaterals.org 2023). Additionally, the text of the trade agreement implies increased output without regard to environmental concerns (bilaterals.org 2023).

8.3.2 The Comprehensive and Progressive Agreement for Trans-Pacific Partnership

Another trade agreement that fails to effectively address agrarian issues is the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). The CPTPP is an FTA between 11 Pacific Rim countries, including Australia, Canada, Japan and New Zealand.¹⁸ It covers a wide range of sectors, including agriculture. It is a revised version of the Trans-Pacific Partnership, signed in March 2018 after the United States withdrew from the agreement. The CPTPP aims to reduce trade barriers and includes provisions related to tariff reductions, sanitary and phytosanitary (SPS) measures and rules on IP rights. There are some important clauses in the agreement regarding, in particular, agricultural subsidies. Some key aspects of the CPTPP's clauses on agricultural subsidies include:

- Subsidy disciplines: The CPTPP establishes rules and disciplines to ensure that agricultural subsidies provided by member countries do not distort trade or create unfair advantages for domestic producers.
- Domestic support: The CPTPP sets limits on the amount of trade-distorting domestic subsidies that member countries can provide to their agricultural sectors.
- Export subsidies: The agreement restricts the use of export subsidies by member countries, aiming to prevent unfair competition in international markets. The CPTPP encourages the reduction and eventual elimination of export subsidies for agricultural goods.

¹⁸ Australian Government, "Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)".

- ▶ **Transparency and reporting:** The CPTPP includes transparency provisions related to agricultural subsidies. Member countries are required to notify and provide information about their domestic support programmes and any changes to their subsidy regimes. This promotes transparency and allows other member countries to monitor the subsidy practices of their trading partners.

Yet it is important to note that the specifics of the agricultural subsidy clauses may vary among member countries, and the CPTPP's provisions build upon existing rules and disciplines established by the World Trade Organization (WTO), which ultimately render these provisions ineffective to a large degree.

8.3.3 The European Union–Mercosur Trade Agreement

The European Union (EU) and the Mercosur countries (Argentina, Brazil, Paraguay and Uruguay) negotiated a comprehensive FTA known as the EU–Mercosur Trade Agreement.¹⁹ While the agreement has not yet been ratified or implemented, it is important to note that negotiations were concluded in 2019. The agricultural provisions in the agreement cover various aspects of trade in agricultural goods between the two regions. Like other similar FTAs, the European–Mercosur Trade Agreement focuses on increasing market access through tariff reduction and harmonizing regulatory and sanitary practices.

It should be noted that the EU–Mercosur Agreement has faced significant scrutiny and opposition due to concerns related to environmental sustainability, deforestation, human rights and the impact on local agricultural sectors. Some stakeholders argue that the agreement may negatively affect certain industries and increase competition for European farmers. Many experts and think-tanks in the Mercosur region also note that the agreement is only a continuation of an unsustainable trade model, as “[t]he EU will import more meat and other agricultural products. With them, we will import emissions, deforestation, soil contamination and human rights abuses – while endangering local farmers’ livelihoods in the Mercosur region and in the European Union” (Buczinski et al. 2023).

¹⁹ European Commission, “EU–Mercosur Trade Agreement”.

It is important to note that none of these agreements addresses the agricultural sector adequately, let alone suggests policies to address structural imbalances. To start with, none of the agreements has a separate section on agriculture. Another key concern is that, even though the major issue in agricultural subsidies is farm subsidies at the production level, the RTAs only address elimination of export subsidies. Moreover, in these RTAs most of the capacity-building is through technical solutions and innovations, when they should be addressing structural issues regarding market access and unfair farm subsidy practices pursued by developed countries.

Maybe one of the biggest issues in trade agreements is that they can be seen as ends in themselves, rather than as policy tools for development and international cooperation in global issues such as climate change, food security and (most importantly) structural imbalances in the world, not only within countries but also on global trading platforms. Agreements that are harmful to local communities and the planet, such as those that worsen deforestation of rainforests as they increase demand for palm oil, are a case in point (Buczinski et al. 2023). It does not matter how well intended or well designed a trade agreement is; unless structural issues are addressed on all fronts, trade policies will continue to harm, rather than help, developing countries on their path to development. The world urgently needs to invest heavily to improve and transform how food is produced and traded. Agriculture, and in particular the industrialization and globalization of agriculture that have marked recent decades, has the potential to confront a range of challenges. These challenges not only include dealing with hunger and malnutrition, but also extend to addressing poverty, managing water and energy resources, improving working conditions, countering unfavourable trade terms, reducing carbon emissions and pollution, mitigating climate change, and fostering more sustainable patterns of producing and consuming food and food-related items. What could be the path forward then?

► 8.4 Finding a trade, finance and climate-sensitive policy path to reforming agriculture: A Global Green New Deal

The Sustainable Development Goals (SDGs) and other collective goals, such as the Paris Climate Agreement, suggest a more hopeful future; however, much will have to change if the more equitable and sustainable future envisaged is to become a working reality. The transition phase will have to be orderly and just to ensure that the social, employment and economic impact of change is broadly positive, not negative. There will be powerful shocks and high costs to what might be called “sunset” agricultural processes and products – that is, those whose future starts to dim because of climate regulations or changing consumer tastes, such as long-standing agricultural activities based on palm oil or industrially farmed animals. This transition will include millions of people employed directly in these activities and indirectly in the global value chains that stem from them. Some will transition effectively to new sectors and new activities, in agriculture or beyond, but not all. Their pain will need to be considered alongside the opportunities and benefits opening up in sectors that create new products or serve the emerging “sunrise” markets for new alternatives – vegetable replacements for meat or cellulose-based replacements for fossil-fuel-based products such as plastics (UNCTAD 2023a; Barrowclough and Deere Birkbeck 2022). Moreover, this shift will include internationally traded products as well as national ones, so the scale of the impact will be immense. Indeed, some part of this future is already here: some of the newly emerging alternative markets in agricultural products (such as plant-based alternatives to plastic packaging) already earn hundreds of billions of dollars in international trade and employ large numbers of workers.

Recognizing these historical and long-standing patterns of structural imbalance, any major policy changes will involve extended processes of negotiation and contested politics. These imbalances persist at both the international and the national level because of the impact of globalized food and commodity trading, marketing corporates and financial systems that incentivize short-term investments and predatory speculation in global agricultural markets. Such imbalances are exacerbated by reliance on internationally traded fossil-fuel inputs, such as fuel and fertilizers, for industrial-based farming, which incur significant financial and environmental

costs. Furthermore, labour practices are far from decent. Neither the SDGs nor climate agreements and pledges are succeeding in tracing a path to redressing these unsustainable practices in agriculture.

To ease this transition, the broad set of approaches and policies grouped under the name “Global Green New Deal” can help, as they set out a framework of interrelated and complementary policies aimed at fundamentally changing the existing patterns of investment, production and distribution. Why this is needed and how it can be brought about is explored below.

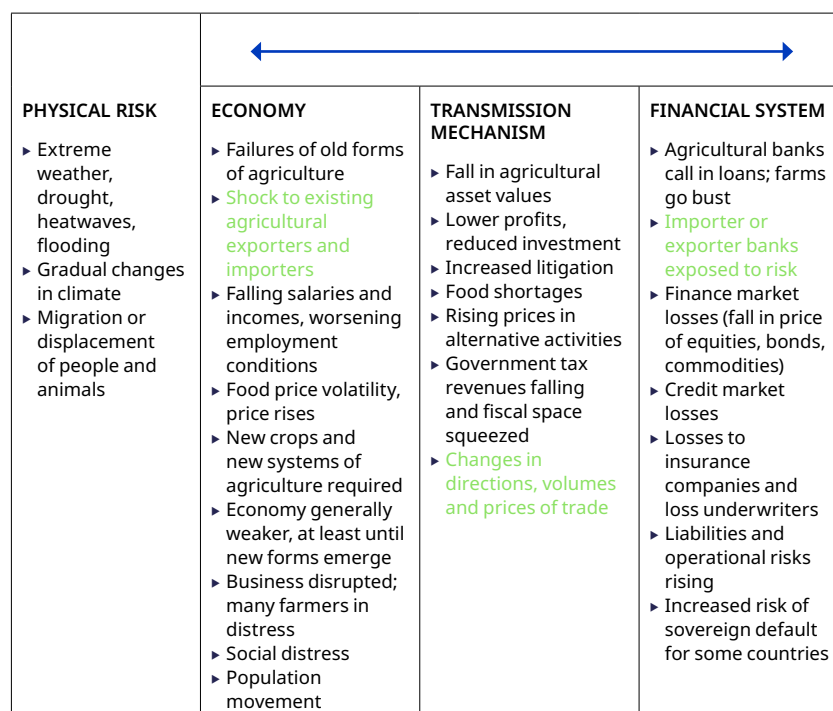
8.4.1 Negative feedback cycles involving agriculture, climate change and economic and financial risk

This chapter has so far argued that reform in agriculture is needed to ensure sustainable and decent jobs both for the hundreds of millions of people working in the sector and for the ecological health of the planet. It has also shown why, for this to happen, part of the solution has to be access to input and output markets – and in particular, access to finance, credit and land. Equally important, trade policy must provide space and tools to address market access and other structural imbalances, supported by complementary policies to ensure employment and food security. Accordingly, this section will expand on these issues by highlighting sources of vulnerability in the agriculture sector as seen through the lens of the potential for financial shocks (figure 8.1) or policy shocks (figure 8.2).²⁰ Both of these types of shock have an impact on, and can be mediated through, trade and trade policy. Returning to the limitations of the “de-risking” or “risk-passing” approach discussed in section 8.1 above, climate change is already causing new vulnerabilities and fractures at all levels of the economy, even though most attention is given to the financial ones (figure 8.1). Finding ways to address these will not lie in more financial risk mechanisms, but in fundamental reform to address the root causes of agricultural sector vulnerability and instability, as described above. At the same time, if the policies used to resolve these issues are implemented in an uncoordinated manner that disregards the integrated and complex nature of agriculture (as described in section 8.2 above), they may provoke further new shocks

²⁰ This treatment was sparked by an analysis introduced by the then Governor of the Bank of England, Mark Carney, to alert people to the potential financial fallout from climate change (Carney 2015), and expanded by Campiglio et al. (2018) and UNCTAD (2019, 144–145), among others.

(figure 8.2). For a massive sector such as agriculture, with its incredibly long and interdependent value chain that touches every country and virtually every person, these effects can be extremely significant.


► **Figure 8.1 How climate change can cause a negative feedback cycle between trade, economic and financial risks**



Note: Trade effects, policies and instruments are highlighted in green.

Source: The authors, expanded from UNCTAD (2019, 144).

► **Figure 8.2** How transition policies can cause various trade, financial and economic stability risks

			
TRANSITION POLICIES	ECONOMY	TRANSMISSION MECHANISM	FINANCIAL SYSTEM
<ul style="list-style-type: none"> ► New government policies relating to agriculture, e.g. changing land use, banning excessive use of chemicals and industrialized or unsustainable farming, removing fossil-fuel subsidies ► Banks requiring climate disclosure; new greener lending policies ► New trade policies to promote sustainable farming; to reduce fossil-fuel usage and encourage shift to substitute energy, substitute plastics, etc.; to promote low-carbon agriculture and food security 	<ul style="list-style-type: none"> ► Some winners and some losers ► Higher prices for high-carbon activities ► Greater returns for low-carbon exporters ► Former assets stranded or unusable (fossil-fuel-based agricultural and agro-industrial systems; farmlands no longer viable – too hot, too dry) ► Agricultural workers dispossessed, unemployed or increasingly precarious ► New opportunities created – reinvest and replace ► New kinds of farming; new products ► New jobs created in sunrise sector 	<ul style="list-style-type: none"> ► Fall in value of old assets/rise in value of new ones ► Loss of jobs in old economy/rise of new jobs in green economy ► “Sunk assets” including “sunk” employees, falling wages, more precarious employment ► Migration and movement ► Loss of old export markets/opening of new ones ► New terms of trade; some old sectors lose and emerging sectors gain 	<ul style="list-style-type: none"> ► Borrowing costs rise in old agricultural sectors and high-carbon sectors ► Rising inputs prices (e.g. diesel; fossil-fuel-based fertilizers); rising costs to importers ► Financial market losses in some agriculture and agro-industry sectors (equities, bonds, commodities); debt write-offs; firms fail ► New sectors boom, financial market gains ► Credit market losses (old firms go bust; bankers suffer non-performing loans; new firms emerge; new loans are profitable)

Note: Trade effects, policies and instruments are highlighted in green.

Source: The authors, expanded from UNCTAD (2019, 145).

Some hints of the interdependencies and vulnerabilities in today’s globalized agricultural sector were evident for many countries during the shock of COVID-19 lockdowns, when they discovered the full extent of their reliance on imported food and agricultural labour. In some countries, fruit or crop farmers left harvests in the fields because they could not call upon their usual sources of foreign farm labour, often employed on very short-term, poorly paid and precarious contracts. In other countries, farmers’ inability to reach

long-standing export markets for their produce meant that harvested food lay rotting in container ships stuck in ports; exporters did not receive their expected revenues, while farmworkers could not work and did not get paid. A trade shock very quickly exacerbated and spread the economic shocks that stemmed from the health and related policy shocks surrounding COVID-19. In countries all over the globe, terms of trade took a violent tumble in 2020 (UNCTAD 2021b).

This shock was very sudden, and while for most countries trade had recovered and gained new highs by mid-2021, the impact was nonetheless severe. In the case of longer, slow-burn shocks of the kind likely to be experienced with climate change, the trade effects may be slower to emerge, and it will be unpredictable how these effects will be distributed between exporters and importers, and between sectors, and then how they will be transmitted to employment and food security issues. Vulnerability exists at all levels of the economy, and there needs to be a coherent approach involving all the different policy efforts to transform agriculture, to reduce carbon emissions and to ensure a more sustainable and equitable path to achieving the SDGs.

Figures 8.1 and 8.2 focus on the role of financial risk, trade risk and policy shock in agriculture, and the impact these have on other parts of the economy. This vision of a vulnerable economy where financial contagion can rapidly spread and lead to a cascade of collapses through the real economy has done much to raise awareness of some of the issues linking climate change, economic activity and the financial markets. However, this focus on risk is only part of the story. In order to change things at a more profound level, what is needed is transformative investment, not just risk management, and in climate adaptation activities for agriculture, as well as climate mitigation. First, this means bringing in a great deal more finance than is currently being allocated to achieve this end. Adaptation to climate change in the agricultural sector, including devising new crops and foods, received only US\$1.75 billion in 2021, according to the multilateral banks' own estimates (EIB 2021) – compared with US\$5 billion for energy adaptation. For mitigation activities, agriculture received only US\$2.5 billion, compared with US\$24 billion for energy and US\$3 billion for buildings and houses. This is far too small a sum for what the sector needs. Second, it means introducing a series of complementary and supportive policies relating to trade, incomes, employment, technology and other elements that can together bring about a profound difference in the underlying productive capacities and correct the imbalances in the structures of the economy. It is here that the vision of a Green New Deal comes into play with a focus on agriculture and trade policies in agriculture.

8.4.2 A positive trade agenda for sustainable agriculture within the context of climate change

Trade, environment and decent work priorities need to be aligned in order to make the most of the shrinking time available to stabilize the climate and advance the SDGs, including the developmental and employment aspects. Most of the current debate has been about the environmental aspects of the Green New Deal, but the original New Deal, enacted by US President Franklin D. Roosevelt in the 1930s, included efforts to address the impact of environmental degradation, as well as its better known priority of job creation and distributing income more equitably. This multipurpose element is even more important today, because of the multiple and intersecting impacts and because the world economy is globalized and interconnected through trade in a way that was not imaginable in the 1930s.

In this regard, in 2020 members of the WTO began a series of structured discussions to analyse and advocate for various trade policy proposals that could potentially help the shift to a more sustainable environment. The trade policies under discussion will have a significant impact on trade in all sectors of the economy, including agriculture, and are likely to have knock-on impacts on employment, including the number of jobs in sectors old and new, their financial remuneration and working conditions. These policies include liberalizing trade in environmental goods and services; reforming environmentally harmful subsidies (especially to fossil fuels); a Carbon Border Adjustment Mechanism (CBAM) to reduce carbon trade and use; a global policy to reduce plastic pollution and other measures to create a “circular economy”; and trade policies to promote biodiversity. The 2021 G7 Trade Ministers’ Communiqué included a commitment to “make trade part of the solution” to climate change (UNCTAD 2021b, 135).²¹ It specifically brought attention to environmentally harmful agricultural practices and the problem of carbon leakage. This refers to instances where industries with high emissions transfer their operations from regions with stringent regulations to areas with lower standards, thus compromising the objective of reducing global greenhouse gas emissions. Additionally, this situation may also give rise to concerning implications for health and workplace safety. Preventing carbon leakage has been high on the agenda of advanced economies; concerned that their higher environmental standards give an unfair trade advantage to countries with lower standards, they have been

²¹ The G7 (Group of Seven) is an informal arrangement of seven leading economies comprising Canada, France, Germany, Italy, Japan, the United Kingdom and the United States, as well as the EU countries.

demanding a “level playing field”. The CBAM, which is already part of the EU’s flagship policy, aims to align trade and climate and achieve neutrality by 2050 (UNCTAD 2021a).

In this context, the remainder of this section sets out some positive developments in the international trading system, including RTAs that take a more comprehensive approach and the positive trade agenda adopted by the United Nations Conference on Trade and Development (UNCTAD).

8.4.2.1 Regional trade agreements: All is not lost

Some regional trade agreements have been more development-oriented, with a focus on the agricultural sector, and include clauses to address structural issues in terms of market access and fair competition. Often these are South–South agreements between countries with more or less similar levels of economic development. It would be useful to discuss here what differentiates such agreements with those discussed in section 8.3.

The Economic Community of West African States

The Economic Community of West African States (ECOWAS) is a regional intergovernmental organization that promotes economic integration and cooperation among countries in West Africa. Encompassing a diverse range of countries from the western region of Africa, it comprises 15 Member States: Benin, Burkina Faso, Cabo Verde, Côte d’Ivoire, the Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. It was established on 28 May 1975, with the signing of the Treaty of Lagos in Lagos, Nigeria.

The objectives of ECOWAS include promoting economic cooperation, regional integration and sustainable development among member countries. It aims to create a common market, establish a customs union and coordinate economic policies to enhance the overall economic performance of the region.

Unlike most recent RTAs, ECOWAS has significant clauses in support of sustainable development, with an emphasis on agricultural production, food security and regional cooperation. To start with, there is a whole chapter (IV) entitled “Co-operation in Food and Agriculture” and Article 25, entitled “Agricultural Development and Food Security”, has very detailed policy clauses addressing production structures at the aggregate level.²² Article 25.1(c), in particular, focuses on local production, while 25.1(d), more

²² ECOWAS, “Revised Treaty”.

importantly, focuses on protection of producers in global markets through a common export subsidy. Article 25.2 addresses production structures through its focus on infrastructure.

The Common Market for Eastern and Southern Africa

The Common Market for Eastern and Southern Africa (COMESA) is a regional economic community established to promote economic integration and cooperation among countries in Eastern and Southern Africa. Formed in December 1994, it consists of 21 Member States: Burundi, Comoros, Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Eswatini, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, South Sudan, Sudan, Tunisia, Uganda, Zambia and Zimbabwe.

Like ECOWAS, COMESA has clauses promoting regional infrastructure development, including transport, energy, and information and communication technology (ICT) networks.²³ Improving infrastructure connectivity is crucial for rural markets, which are otherwise disconnected as a result of physical distance.

Given the significance of agriculture in the region, COMESA places emphasis on initiatives related to agricultural development and food security. It aims to enhance agricultural productivity, improve market access for agricultural products and promote food security through regional cooperation. Like ECOWAS, COMESA also has a chapter devoted to cooperation in agriculture and rural development (Chapter 18, Articles 129–137).

The African Continental Free Trade Area

The African Continental Free Trade Area (AfCFTA) agreement is a landmark trade agreement that aims to create the largest single market in the world. It encompasses 1.3 billion people from 55 countries of the African Union and eight Regional Economic Communities, with a combined GDP of US\$3.4 trillion. The AfCFTA agreement entered into force on 30 May 2019, and trading under the agreement began on 1 January 2021.²⁴ The provisions on trade in agricultural products focus on:

- **Tariff reduction and elimination:** The AfCFTA aims to progressively eliminate tariffs on 90 per cent of goods traded between African countries. This includes agricultural products, with the goal of boosting intra-African trade in agricultural goods.

²³ COMESA, “Treaty Establishing the Common Market for Eastern and Southern Africa”.

²⁴ AfCFTA, “About the AfCFTA”.

- ▶ **Rules of origin:** The agreement establishes rules of origin to determine the eligibility of products for preferential treatment under the AfCFTA. These rules specify the criteria that products must meet to be considered to originate from an AfCFTA member country, preventing third-party countries from accessing preferential trade benefits and thereby giving priority to local producers in agriculture to benefit from market access.
- ▶ **Trade facilitation:** The AfCFTA includes provisions to facilitate trade, including simplifying customs procedures, enhancing border efficiency and promoting cooperation among Member States. These measures aim to reduce trade costs and increase the efficiency of agricultural trade across Africa.
- ▶ **Sanitary and phytosanitary (SPS) measures:** The AfCFTA addresses SPS measures, focusing on food safety, animal health and plant health regulations. The agreement promotes the adoption of harmonized SPS standards based on international best practices, facilitating agricultural trade while ensuring the protection of human, animal and plant health.
- ▶ **Technical barriers to trade:** The AfCFTA addresses technical barriers to trade by promoting the harmonization of technical regulations, standards and conformity.

In its design, the AfCFTA is in support of agriculture and regional cooperation, which is a positive development. However, it is important to note that, despite its good intentions, the AfCFTA has a very challenging road ahead to create the promised wealth and well-being in the region, given structural challenges in Africa ranging from inadequate physical infrastructure, limited capital markets, limited human and institutional capacities, to lengthy and non-transparent customs transactions and administrative hurdles that increase trade costs (Barka 2012; Allard et al. 2016; UNECA 2018).

8.4.2.2 The United Nations Conference on Trade and Development: The essential, positive agenda for sustainable development

In these (and indeed all) trade and other economic policies on agriculture, it will be imperative to take account of the fact that, while all countries may wish to change to “greener” systems, not all have the same capacity to act. Hence, while trade policies may be very welcome and long overdue from the perspective of health, pollution and climate change, there should also be a

plan to ensure that developing countries are not excessively exposed to the kinds of shock sketched out in figures 8.1 and 8.2 above. The most recent conference of Brazil, the Russian Federation, India, China and South Africa (the BRICS countries), in August 2023, reiterated the message that climate change must not be allowed to trump development needs.

Recognizing the potential complementarities between both, and the concern that development needs are not left behind, the United Nations Conference on Trade and Development (UNCTAD) is arguing for a positive agenda where the goals for trade, the environment and development (including, crucially, employment) are intrinsically linked and supported by integrated policies and strategies. Such a framework addresses the much needed focus on correcting for structural imbalances in agriculture. For example, to ensure that the reforms that all countries have signed up for have the positive effects envisaged in the long run, it is important to implement measures that facilitate open-source and patent-free green technology transfers, and help to build up technical capacities in climate-smart infrastructure, waste management and other aspects of the low-carbon economy. But more importantly, it is necessary to eliminate unfair practices linked to free trade when most of the agriculture in developed countries is heavily subsidized.

Particularly when addressing market access for small farmers, providing adequate public finance will play a major part. This will allow small farmers to access credit to purchase land, technology and other inputs, thereby utilizing their labour more efficiently and producing more agricultural output, and hence addressing employment, environment and food security issues simultaneously. For this, it will be important to ensure that national and regional development banks have specialisms in agriculture and that they have access to sufficient capital, so they can lend, at favourable rates and with long-term maturities, to a broad base of borrowers, thereby allowing productive capacities to expand in line with market access. This will require a significant reappraisal of public banks; they will need both political and financial support if they are to play such a role in supporting the sector (UNCTAD 2019, 2022b, 2023b). At times of crisis, these banks have demonstrated what can be done (Barrowclough and Marois 2022); and today, when problems are slow-burning rather than intense shocks, their role is especially important, given that neither the global multilateral lenders nor the global Green Climate Fund have been successful in raising finance for agriculture (EIB 2021; UNCTAD 2022b, 2023b). This matters because, maybe more than in any other sector, environmentally sustainable transitions are very much needed in agriculture. As discussed above, these are crucial because of the sector's importance not only for developing-country populations in terms of income and employment, but also for food security

and their contribution to reducing greenhouse gas emissions. To achieve this, finance is crucial.

It is only after these structural issues have been addressed that the international trade regime can play its major role in encouraging trade in environmentally sustainable substitutes – agricultural products that can, with the application of new technologies, be targeted at the new and rapidly growing low-carbon markets. For some of these, developing countries may already have comparative advantages in relevant agricultural products that can – with appropriate retooling – become highly profitable, at the same time as creating jobs. In some fossil-fuel replacement markets, such products are already key exports for developing countries, generating important employment and livelihood opportunities, especially for women. A shift towards such products can become an important element of green industrial policies. Trade policy has a part to play here, because many countries currently have an inconsistent policy where tariffs on these increasingly desirable and sustainable products are higher than those on unsustainable ones.

8.4.2.3 Waivers – peace clauses – and differential responsibility

In setting up a positive agenda to achieve the SDGs – especially the goals on food security, employment and environment, including the envisaged reform of agriculture and shift to a low-carbon economy – a key starting point must be the synergies between the trade policy concept of special and differential treatment (SDT) and the UN Framework Convention on Climate Change (UNFCCC) principle of common but differentiated responsibilities (CBDR). SDT is structured to provide developing countries with a broader range of policy options to address the specific challenges they encounter when entering the global trade sphere. Meanwhile, CBDR recognizes that developed economies bear the primary responsibility for historical emissions that have contributed to climate change. As a result, they should bear the greater burden in responding to the impacts of climate change and addressing its fundamental causes. These two concepts are complementary and have the potential to create a beneficial framework for aligning trade and climate objectives. This agenda underscores the importance of broadening the scope for the formulation of green agricultural policies, as well as the need for flexibilities in protecting IP rights and incentives to foster technology transfer for climate- and environment-related agricultural goods. It also involves strengthening support for developing countries in adopting renewable energy and other reforms necessary for the green transition of agriculture. This will necessarily

require a significant expansion of financial support to meet and surpass the US\$100 billion climate finance target agreed in the UNFCCC process. At present, developing countries have been offered only a fraction of the funds pledged to help them meet their climate goals.

In order to effectively provide SDT to developing countries, UNCTAD has recommended that the introduction of a limited climate waiver, combined with a “peace clause” for disputes on trade-related environmental measures, could help to expand the policy space available to developing countries with respect to their agrarian production and trade, climate and development initiatives. Such action would offer countries the reassurance that they will not face disputes regarding initiatives that promote both climate and development objectives. These initiatives encompass priorities such as transitioning to renewable energy, adopting environmentally friendly procurement practices and implementing programmes for creating green jobs. These are all also valued by advanced economies and hold substantial potential for employment benefits in developing countries, but they could be challenged under the WTO dispute mechanism.

The overarching principle underscores the inherent connection between climate objectives, the SDGs and development goals. In this context, international trade assumes a significant role in facilitating the advancement of developing countries on all these fronts. At the same time, however, international trading rules should not undermine the trade competitiveness of developing countries by limiting their market access and their capacity to make progress on their climate and development goals. Instead of punitive actions and further trade liberalization, a positive trade and environment agenda is needed that focuses on correcting the structural imbalances and providing a level playing field for agricultural products in world markets. This would help by creating new green employment and income-generating opportunities, by facilitating green technology transfers, by expanding trade–climate finance and by providing incentives to developing countries – along with adequate policy and fiscal space – to help them design their own integrated trade/environment/development strategies.

Trade policies can also be a way to help finance all that has been discussed above. For example, one way to increase the financing available to developing countries would be to reform the existing proposals for the CBAM and tariff elimination on environmental goods and services. These are going to have a disproportionate impact on resource mobilization in developing countries whose current total output is more carbon-intensive than that of developing countries and for whom tariffs make up a greater part of government revenue. A new “Trade and Environment Fund” would be one way forward, as proposed some years ago by WTO members (WTO 2011). Such a fund

could help to finance the incremental costs of sourcing critical technologies, provide grants and concessional loans for new technologies, finance joint research and help set up technology transfer centres. Arguably, such a fund could also be used, during the green transition in agrarian sectors, to finance the social and incomes policies needed to buffer some of the labour shocks to employment numbers, wages and precariousness in “sunk” sectors.

► 8.5 Conclusion

This chapter has shown how and why finance and trade policies need to be aligned with each other and with the special and structural needs of agriculture, in order to solve the myriad challenges linked to food insecurity, food waste, precarious labour and environmental issues in a climate-constrained future. It began with a critical overview that showed the limitations of supply-side solutions put forward by current conventional thinking. Subsequent sections introduced the role of trade policies, including some recent regional trade agreements in agriculture, and the virtuous links that need to be in place between finance policies, trade policies and agriculture. The analysis showed the important distinction that needs to be made between financial policies that focus on risk-shedding or risk-sharing and those that focus instead on productive investment – the latter being what is needed for development and transformation of agriculture.

The analysis also showed the need for coherence between the distinct but intersecting aspects of trade, finance and agricultural policy. When such coherence is absent, even crucial development goals are unlikely to be achieved. Food security, for example, cannot be addressed as long as the experimental “solutions” fail to address structural imbalances that govern national and global markets for agriculture, and also for finance. It was also argued that this failure is the result of looking at development issues within the framework of a neoliberal paradigm which lacks understanding of both the macro and the micro factors that affect agrarian production in developing countries. One of the starkest instances of this is the misguided celebration of small farmers as the solution to food security issues. As discussed, small-farmer productivity – that is, per acre productivity – in the developing world is a sign of market failure. Focusing on improving small-farmer productivity through innovation and technology, or education of farmers – rather than on designing policies to correct structural imbalances that lead to market and policy failures – is doomed to fail on all fronts of sustainability. This is

not to say that such interventions are not important – they play a crucial complementary role – but unless structural imbalances are addressed, they are not sustainable.

On a more positive note, a framework or “road map” already exists, in the form of the Global Green New Deal, which does indeed comprehensively address the micro and macro policy levers that need to be utilized together. An important consequence of this approach that is discussed in the chapter concerns the potential to move away from an excessive reliance or focus on risk-based “solutions”, including short-term technological fixes or “de-risking” instruments such as insurance, as these do not address the cause of the problems. It must be acknowledged that addressing risk is not the same as promoting or supporting transformation. It should also be acknowledged that a massive scaling-up is needed to provide adequate supplies of long-term capital, on long and patient terms, and at favourable interest rates. The ideal way to provide this is through development banks or funds, guided by a supportive and development-focused State. The framework of a Green New Deal has all these elements: it brings together trade policy, finance and investment, alongside employment and social incomes policies to support both the transition and the transformation phases of the move to a climate-aligned and decent system of agriculture.

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