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COMMITTEE ON COMMODITY PROBLEMS

Seventy-fourth Session

10-12 March 2021

THE STATE OF AGRICULTURAL COMMODITY MARKETS (SOCO) 2020

Executive Summary

The 2020 edition of the flagship report *The State of Agricultural Commodity Markets* (SOCO 2020) aims to address policies and mechanisms that promote sustainable outcomes economic, social and environmental in agricultural and food markets, both global and domestic. The report brings together many aspects of the evolution of markets and trade, since the beginning of this century such as the emergence of global value chains in food and agriculture; the extent to which smallholder farmers in developing countries participate in value chains and markets; and, the transformative impacts of digital technology on markets. Within this context, SOCO 2020 discusses policies and mechanisms that can promote inclusive economic growth and also harness markets to contribute towards the realization of the 2030 Agenda and its Sustainable Development Goals.

Suggested action by the Committee

The Committee is invited to discuss the content and findings of the 2020 edition of SOCO, and to consider the following points for further action:

- Recognize the role of well-functioning food and agricultural markets and trade in contributing to the transformation of food and agriculture and promoting food security and nutrition, inclusive economic growth and sustainable development;
- Underline the need for trade policies and trade agreements to foster well-functioning, transparent and open global markets, especially in times of crisis such as the COVID-19 pandemic, complemented by measures that improve the capacity of food and agriculture to integrate better in modern global value chains; and,
- Highlight the need for public policies and conducive mechanisms, such as contract farming, sustainability certification schemes and the development of digital technology applications, in harnessing food and agricultural markets and trade to support the realization of the 2030 Agenda and the Sustainable Development Goals.

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I. Trade, Markets and Sustainable Development

1. The 2030 Agenda and its 17 Sustainable Development Goals (SDGs) aim at a better and more sustainable future for all. They address the global challenges we face, including ending poverty and hunger and restoring and sustainably managing natural resources. The SDGs integrate the three dimensions of sustainable development economic, social and environmental with closely interwoven targets.

2. Trade and markets lie at the heart of the development process. In food and agriculture, markets expand consumers' choices and create incentives for farmers, enabling the optimal allocation of resources and providing the avenues through which agriculture links with other sectors of the economy. This makes them crucial for the structural transformation of the economy.

3. The role of well-functioning markets in driving economic growth is significant. However, as a mechanism, markets cannot ensure the provision of a range of social and environmental benefits central to sustainable development and may fail to reconcile individuals' interests with society's needs.

4. The 2020 edition of *The State of Agricultural Commodity Markets* (SOCO) explores the evolution of trade and markets and discusses their role in sustainable development by examining the emergence of global value chains in food and agriculture; the extent to which smallholder farmers in developing countries participate in value chains; and, the transformative impacts of digital technology on markets.

5. The linkages of agriculture with food security, economic growth and poverty eradication, employment, the environment and natural resource management, as well as nutrition and health, are reflected in most of the SDGs. Markets identify these linkages, and the report discusses policies and mechanisms that harness agricultural and food markets to contribute towards sustainable outcomes economic, social and environmental.

6. SOCO was launched on 23 September 2020 in a virtual event in which Ministers, Vice Ministers and high-level policy makers from among FAO Members participated and commented on the key messages of the report. Their interventions pointed to a policy-rich content that included issues related to the contribution of trade to food security and development; policy approaches to trade, domestic support, and the COVID-19 pandemic; efforts to integrate farmers in modern value chains and to address the trade-offs between economic, environmental and social objectives; and, the role digital technologies can play in accelerating growth and sustainable development.

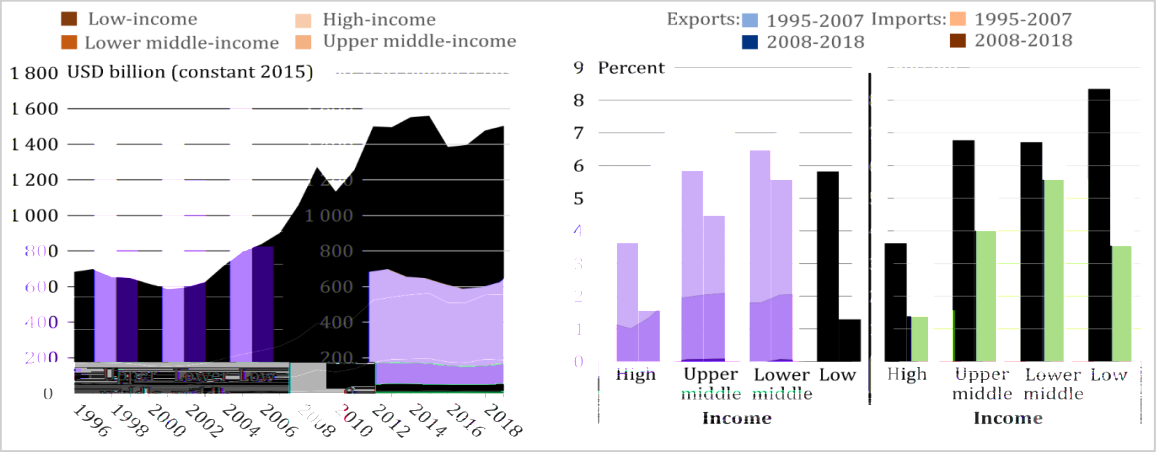
II. The evolution of trade and markets

7. Since 1995, international trade in food and agriculture more than doubled in real terms to amount to USD 1.5 trillion in 2018. Emerging economies and developing countries are increasingly participating in global agricultural and food markets; their exports have grown to more than one-third of the world total (Figure 1).

8. This growth in trade is the result of several drivers. Improvements in technology and lower transport costs have made it easier and cheaper to trade. Trade policies and the decline in import tariffs resulting from the World Trade Organization (WTO) Agreement on Agriculture that entered into

force in January 1995 and many bilateral and regional trade agreements have also been key drivers in promoting trade in food and agriculture.

Figure 1. Evolution of agri-food trade, 1995–2018 (countries classified in groups by income level) (billion USD)

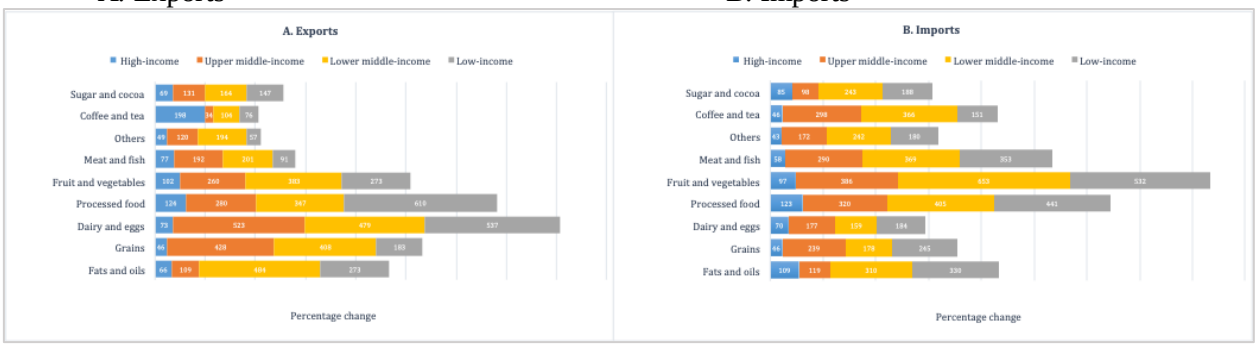


Note: All calculations are based on values of trade at 2015 prices. Country income groups are based on the classification of the World Bank. The calculations in Panel B are based on three-year averages of values of trade at 2015 prices.
Source: FAO calculations using UN Comtrade data (accessed May 2020).

9. These drivers, together with increases in per capita income in both developed and developing countries, have fuelled trade expansion in food and agriculture. Income growth is also associated with demographic trends, such as urbanization, which all bring about new lifestyles and changes in diets, thereby affecting trade and markets. As countries develop, people consume fewer staple foods and more meat, dairy products, and fruits and vegetables. These changes in diets are reflected on international trade patterns (Figure 2).

Figure 2. Change in exports and imports by food aggregate, 1995–2018 (countries classified in groups by income level)

A. Exports B. Imports



Note: The calculations are based on three-year averages of values of trade at 2015 prices. For illustration purposes, the percentage change from 1995 to 2018 per country income group is shown in one bar by food aggregate. The percentage changes within food aggregates cannot be added up.
Source: FAO calculations using UN Comtrade data (accessed May 2020).

10. In the developing world, urbanization is occurring at a rapid pace and has affected domestic

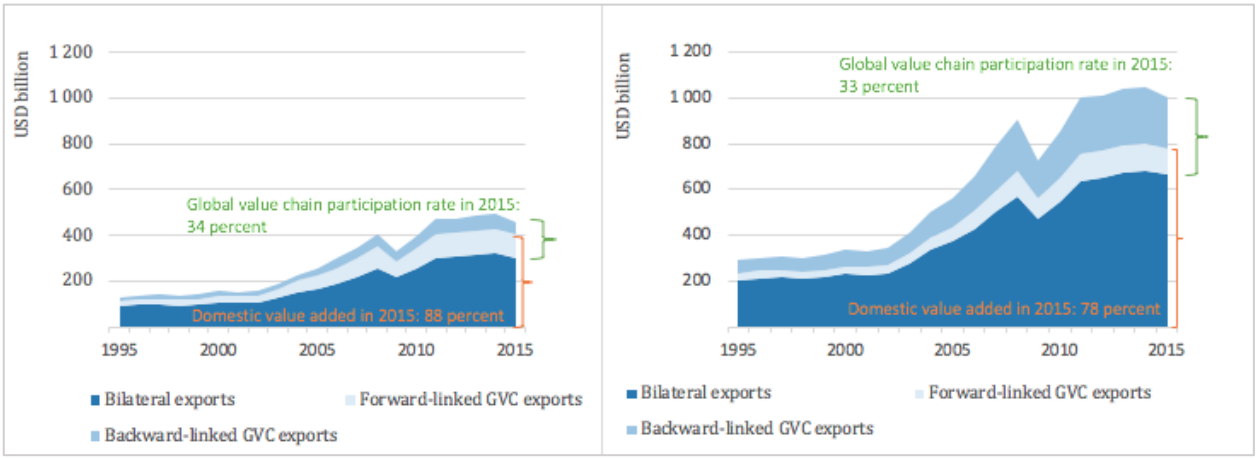
stronger vertical coordination of food value chains and the emergence of super-markets. By 2018, sales of leading supermarket chains increased up to tenfold in countries in Asia, Latin America and the

Caribbean compared to the beginning of the century. In sub-Saharan Africa, urban consumers are also more likely to shop in supermarkets and spend a higher share of their income dining out.

11. Advances in digital technology have improved communication between people and are having a profound impact on economies and societies. On the demand side, better communication brings for food. On the supply side, as farmers and firms find it easier to communicate, they can better coordinate their operations across borders, and join in global value chains. About one-third of trade in food and agriculture takes place within global value chains and crosses borders at least twice, as primary commodities are initially exported to be processed into food products, which, in turn, are re-exported. Viewing trade through a global value chain (GVC) lens allows the decomposition of gross exports in bilateral non-GVC trade (Figure 3). Countries participate in GVCs through backward linkages, relying on imported inputs for the production of exported commodities and through forward linkages by exporting commodities and partially processed food products for further processing and export.

Figure 3. Gross exports at global level and Global value chain (participation), 1995-2015

A. Agriculture B. Food & beverages



Note: Backward linked GVC exports is the sum of foreign value added (FVA) across countries, that is all value added that has already been part of exports earlier in the value chain; at the global level, this represent double counted value added. Forward linked GVC exports are exports that will later be re-exported, again aggregated across countries. Bilateral non GVC exports are exports that do not flow through GVCs. Backward and forward linked exports add up to GVC participation; forward linked exports and non GVC related exports add up to domestic value added (DVA), aggregated across countries. The sum of the three elements equals gross exports. See Box 2.1 for definitions of the Report.
Source: FAO analysis by Dellink *et al*. 2020

12. The evolution of international trade and agri-food GVCs were interrupted by the financial crisis in 2008. Since then, the slowdown of the global economy has affected trade and GVCs. In the first part of 2020, markets, both domestic and global, have been once more facing significant challenges due to the outbreak of COVID- international travel that were imposed to contain its spread. The pandemic and its impact on the global economy are expected to affect trade considerably. In April 2020, the WTO suggested that world merchandise trade would plummet by 13 32 percent due to the COVID-19 pandemic disrupting economic activities. Although, recovery is uncertain, revised WTO forecasts in October 2020 suggest that world merchandise trade volume would fall by 9.2 percent in 2020.

13. Governments and the private sector are placing a high priority on keeping food value chains functioning amid movement restrictions. As a result, efforts are being made to link food production areas with urban centres through special channels, following safety measures, such as testing, physical distancing, and other hygienic practices to accelerate the delivery of perishable and nutritious foods to affected populations. At the global level, policymakers in many major food-exporting countries, such

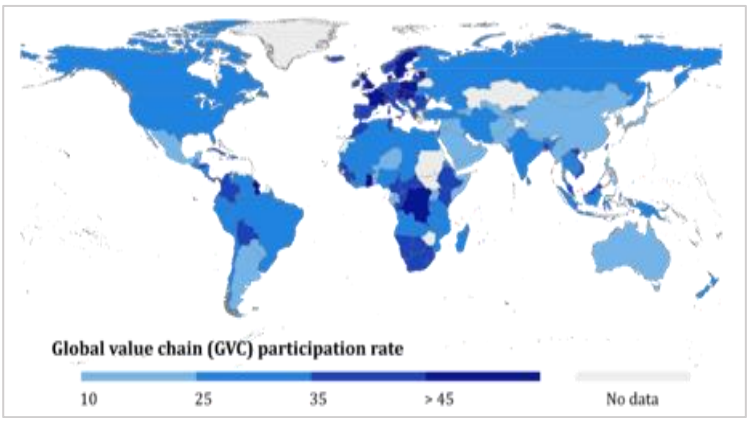
as the G20 members, agreed not to impose unjustified restrictive trade measures, such as export bans, to ensure that trade continues to move food and agricultural products from surplus to deficit regions, thus promoting food security globally.

III. Global value chains can contribute to economic growth

14. GVCs have become an important part of food and agricultural trade. GVCs unbundle the production process into stages and across the world to achieve efficiency gains. This enables farmers and firms in developing countries to overcome limitations arising from the lack of a well-developed and export-orientated domestic food sector. Farmers and firms have more options to join global markets and can better leverage their comparative advantage at any stage of the value chain they choose.

15. GVC participation rates vary widely across countries (Figure 4 shows this for agriculture). Small countries tend to trade more and are thus more likely to be involved in GVCs. This can also reflect that small countries are relatively more open to trade as their economies lack scale and tend to be less diversified. High rates of GVC participation also emerge due to free trade areas that promote trade among signatories (as for example in Europe, Figure 4).

Figure 4. GVC participation rates in agriculture in 2015



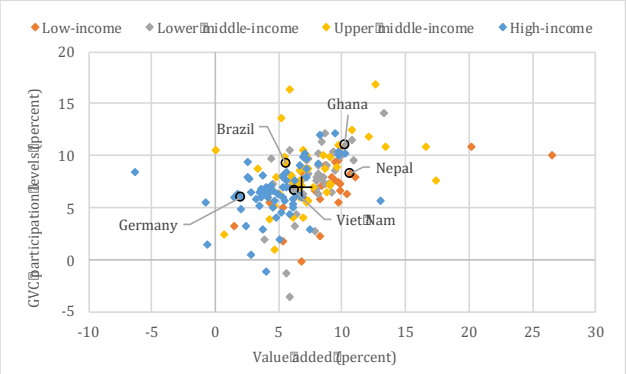
Note: GVC participation rates are the sum of backward and forward GVC linkages as the ratio of gross exports. See Box 2.1 for definitions.
Source: FAO analysis by Dellink *et al*., 2020.

16. Emerging evidence shows that participation in value chains can be even more beneficial for growth and productivity than bilateral non-GVC trade (Figure 5). In both sectors agriculture and food and beverages those countries that exhibit a higher average growth rate in value added tend to have higher growth in GVC participation levels.

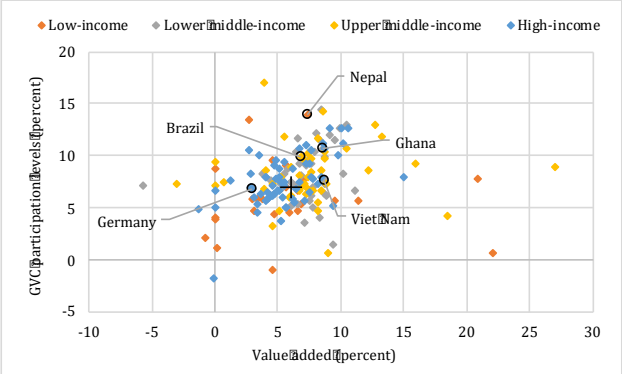
17. GVCs can be a significant avenue to growth for developing countries. Due to better coordination, GVCs can sharpen the effects of international trade on growth technology and knowledge spillovers that bring about productivity increases, better employment opportunities and higher incomes. On average and in the short-
participation can result in an increase of around 1.2 percent in labour productivity. This immediate impact also translates into sustained long-term positive effects on productivity, which can bring about important benefits to developing countries.

Figure 5. Relationship between growth in value added and growth in GVC participation between 1995 and 2015 (countries classified in groups by income level)

A. Agriculture



B. Food & beverages



Note: Global value chain (GVC) participation reflects growth in participation levels, not rates. Value added reflects total sectoral value added in production. Growth rates reflect average annual growth rates between 1995 and 2015.
Source: Dellink *et al.*, 2020.

18. Trade policies are crucial, as GVCs run across countries, and products cross borders multiple times, paying tariffs at each of them. Fewer and lower trade barriers can help promote GVCs. Along a GVC, lower import tariffs can result in increased imports of inputs and intermediate products, which, in turn, can stimulate production and exports, resulting in significant gains in productivity, employment, and incomes.

19. Opening global markets and promoting GVCs can create important spillover effects through the transmission of technology and the transfer of know-how. Yet, translating these into lasting gains, complementary policies are necessary to underpin competitiveness, such as measures that improve governance and infrastructure, upgrade skills, and remove rigidities in labour markets. However, there are concerns about the short-term effects of opening trade, especially the impacts on income distribution and inequality.

20. Regional trade agreements are also instrumental in promoting GVC trade. Lower tariffs between signatories can promote vertical coordination and value chains. Coverage of many economic sectors by such agreements can strengthen agri-food GVCs, as a significant share of agri-value originates from other sectors besides food or agriculture. For example, globally, about 38 percent of the value added in food exports originates from imported services.

21. Regional trade agreements can also contain clauses on competition policy, or standards harmonization, resulting in policy reform and high levels of integration between the signatories. Although they are viewed by many as building blocks of a global trading system, increased emphasis on regional trade should also be complemented by promoting multilateral trade to contribute to economic growth in countries, such as those located in sub-Saharan Africa, that trade mostly with global rather than regional partners. This calls for efforts that also promote multilateral trade.

22. Increased GVC participation, like all economic activities, can have positive and negative environmental outcomes. On the one hand, GVCs foster growth; on the other, they may not necessarily result in better management of natural resources. For example, there are concerns that increased crop production for exports, which resulted from trade openness, is a driver of deforestation. However, GVCs that are coherent with sustainable development objectives, for example, through adhering to regulation and standards, can spread sustainable technologies and practices and, at the

same time, promote productivity and income growth across countries. Therefore, continuous efforts must be made to add sustainability to trade.

23. The 2008 financial crisis and the economic slowdown that followed stalled the evolution of agri-food GVCs. The COVID-19 pandemic and its impact on the global economy are also expected to affect GVCs potential in global trade and growth further. GVCs foster trade linkages that act as channels of technology and knowledge diffusion during periods of economic growth, and similarly, they can also transmit economic shocks and their impacts. As firms address the trade-off between efficiency and resilience to the economic slowdown, they may pursue a process of localization of food production by reshoring activities for foods that allow it.

24. Such strategies could significantly undermine efficiency gains that are associated with comparative advantage and could increase domestic food prices which is undesirable in times of declining incomes. Relying on food and agriculture from domestic and multiple sources across the world is a form of resilience against food insecurity and economic downturns.

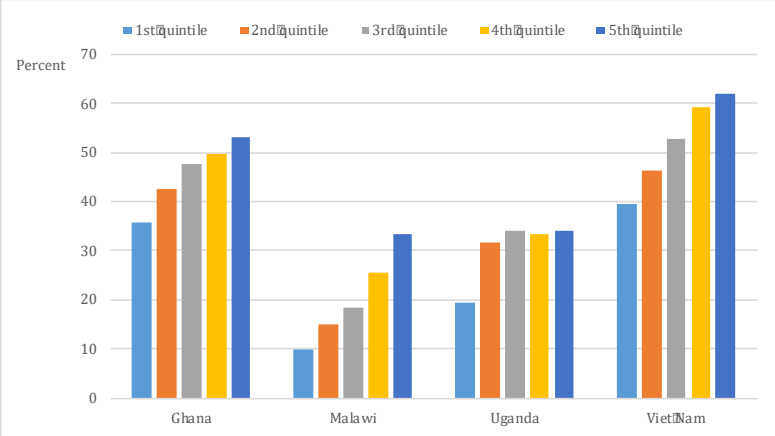
25. Global shocks like the 2008 financial crisis and the COVID-19 pandemic require international collaboration and coordination rather than measures that promote self-sufficiency in food, especially when impacts are not occurring in all countries at the same time. Therefore, trade provides an efficient avenue to better manage risks arising from a shock and increase resilience. In the context of COVID-19, efforts to minimize the disruption of GVCs and promote agricultural and food trade can generate both short- and long-term benefits.

IV. Integrating smallholder farmers in value chains is key for sustainable development

26. The relationship between trade and growth is complex, and the effect of globalization on the distribution of income across and within countries has been under debate for a long time. As trade expanded, all countries gained, and many experienced fast rates of growth. However, at the same time, the gap between low-income developing countries and the developed and emerging economies has widened.

27. For example, in agriculture, a significant issue is how smallholder farmers can be integrated into markets, both global and domestic, and included in the development process. In developing countries, nearly all farmers sell to and buy from the market. But often in the rural areas, markets function poorly, and the costs of transactions are high. Many smallholder farmers have low rates of commercialization. For many, markets, such as those for insurance and credit, fail to function and are entirely missing. This has important implications for food security, livelihoods, and development.

Figure 6. Share of household production sold in markets across the farm size distribution in Ghana, Malawi, Uganda and Viet Nam (quintiles)



Source: Smallholder DataPortrait, FAO (available at http://www.fao.org/family-farming/data-sources/dataportrait/farm-size/en/). The data was compiled from Living Standards Measurement Studies (Ghana 2013, Malawi, 2011, Uganda 2012, Viet Nam 2008).

28. For example, in Ghana, small farms at the bottom of the farm size distribution with a farm size up to 0.4 hectares sell 35 percent of their production in markets. For larger farms, at the top 20 percent of the farm size distribution, with a size of more than 6.2 hectares, the rate of market participation is over 50 percent. In Viet Nam, market participation rates follow a similar pattern but are significantly higher for all farm sizes, indicating that farmers in the country face lower transaction costs compared with farm households in Malawi and Uganda.

29. The emergence of GVCs, with their stringent requirements in terms of food quality and safety, could further marginalize smallholders. Women farmers face even greater disadvantages than their male counterparts, as they have less access to assets and social capital, and gender adds to the factors that determine the wide range of market participation rates in developing countries. Households headed by women generate significantly less income than those headed by men. In many countries, households headed by women participate in markets to a significantly lesser extent compared with households headed by men.

30. Broad policies are necessary to create an environment that enables markets to flourish for example, improved rural infrastructure and services, education and productive technology. In addition to these policies, inclusive business models, such as contract farming, driven by the private sector and supported by governments and the civil society, can help farmers integrate into modern and more complex value chains.

31. Innovative solutions also include multifaceted programmes that simultaneously address the multiple constraints farmers face in marketing, technology and finance. For example, contract farming schemes can obviate market failures related to price risk, access to productive inputs and credit, and access to technology and knowledge. These can contribute towards improved productivity, higher commercialization rates and increased incomes. Analyses suggest that participation in contract farming could result to increases in farm income of up to 50 percent. Although contract farming can improve access to value chains and generate benefits for many smallholders, the outcomes can be highly diverse.

32. Contract schemes could exclude farmers with very small landholdings, failing to address inequality issues adequately. Contract schemes are also subject to reversals and may collapse frequently, as the high rate of exits, as farmers move in and out of contracts, possibly due to difficulties in meeting quality requirements or because participation was not profitable compared to alternative activities. If markets and value chains contribute to development, sustained engagement is necessary the positive effects of contract farming on farmers will be more substantial if participation

is continuous as investments on productive assets, technologies, and knowledge take time to generate benefits.

33. Increases in commercialization and trade can result in improved incomes and better livelihoods, but may also lead to undesirable environmental outcomes. Intensification in agricultural production for exports, stimulated by trade openness and globalization, could result in water pollution, increased greenhouse gas emissions and biodiversity loss. These impose costs to society as a whole in terms of, for example, low water quality, global warming and decline in crop pollination.

34. Governments have a range of policy tools to address such costs. For example, taxes can make markets take into account various environmental costs to society. Public policies apart, there are mechanisms that can leverage markets to align private aspirations with public ones and, thus, contribute towards sustainable development, especially in the context of GVCs.

35. When combined with sustainability certification schemes, value chains can give rise to markets for food that is produced sustainably. Sustainability standards specify requirements for production methods in terms of, for example: the respect for basic human rights; workers health and safety; paying farmers a fair price for their produce; and various farm practices that can better manage natural resources and reduce negative environmental impacts.

36. For example, in Nicaragua, coffee farms complying with a range of sustainability standards (including Coffee and Farmer Equity [C.A.F.E.] Practices, Fairtrade, Organic, Rainforest Alliance and UTZ) demonstrated improved environmental performance.[1] This included greater carbon stocks in trees used for shade-grown coffee production, better practices for soil conservation and recycling of coffee pulp, and application of organic fertilizers.

37. Sustainability certification can also contribute to better social outcomes. In Uganda, data from smallholder coffee farmers suggest that Fairtrade certified households spent 146 percent more on child

38. Sustainability standards are gaining importance in global markets, especially for high-value products with established links to GVCs. Growing consumer demand for sustainability certified products has resulted in increases in the share of agricultural land under sustainability certification. About one-quarter of the global coffee and cocoa areas are certified through sustainability standards. Harnessing the market mechanism to also provide information on how food is produced and what benefits this brings to the environment and the society, can address the trade-offs between economic, social and environmental objectives.

V. The transformative impact of digital technologies on markets

39. Digital technologies are rapidly transforming all stages of the value chain from the farm to the table. The adoption of digital technologies is improving efficiency and generating new income streams and saving resources. At the same time, they can be disruptive, modifying, or displacing value chain activities and products.

40. At the farm level, digital technology applications help address market failures and facilitate the integration of farmers in value chains by driving down information and transaction costs. Improvements in information and communications technology have also underpinned the development of GVCs, effectively linking farmers to traders and consumers across regions and countries. In 2020, the COVID-19 pandemic revealed the potential of digital technologies in improving the functioning of

[1] For more information on C.A.F.E. Practices see https://www.starbucks.com/responsibility/community/farmer-support/farmer-loan-programs, on Fairtrade see https://www.fairtrade.net; on Rainforest Alliance see https://www.rainforest-alliance.org; and on UTZ see https://utz.org.

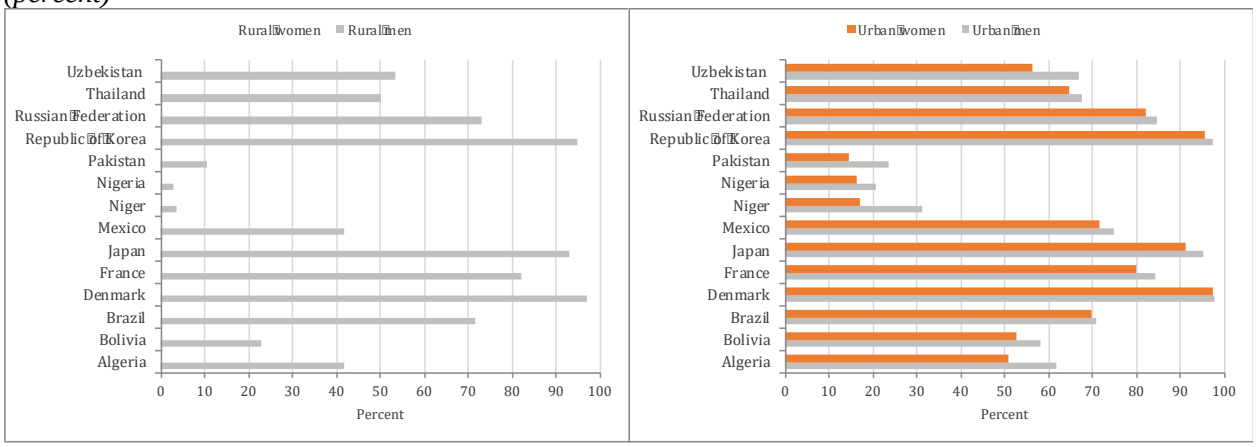
increased from 11 to 38 percent of total food retail purchases in February 2020.

41. Despite the rapid diffusion of digital technologies during the last three decades, a digital divide exists between urban and rural areas, between countries, and between men and women. On average, in rural Africa, only 10 percent of households have access to the internet. In order to include everyone in the digital economy, effective public-private partnerships, proper regulations to crowd-in the private sector, and policy coherence are needed to improve digital infrastructure and skills in rural areas of developing countries.

42. Gender imbalances also extend into the digital realm, with rural women having the least access to the internet. Worldwide, 48 percent of women have access to the internet, compared to 58 percent of men.

43. Rural areas in developed countries are better connected to the internet. Denmark has the highest connectivity rate, with 97 percent of both rural men and women using the internet, and nearly no gap with respect to urban areas. In developing countries, there is a significant gap between urban and rural areas. In Bolivia, 15 percent of rural women reportedly use the internet, compared to nearly 53 percent of urban women. In Niger, only 0.6 of rural women use the internet (Figure 8).

Figure 7. Individuals in urban and rural areas using the internet in selected countries by gender 2018 (percent)



Note: This figure concerns individuals using the internet from any location. Data refers to 2018 or latest year available.
Source: International Telecommunication Union (ITU). 2019. Yearbook of Statistics: Telecommunication/ICT Indicators 2009 2018. Statistical Reports. Geneva, ITU.

44. -commerce platforms and Distributed Ledger Technologies, digital applications reduce transaction costs, improve the flow of information and promote efficient matching between farmers, traders and consumers, leading to increased market access and better outcomes in terms of income and welfare.

45. Access to credit and insurance is also being revolutionized. Digital innovations in Earth observation, satellite rainfall estimations and remote sensing, combined with in-situ data and blockchain technology can support weather index-based insurance programmes at lower costs. This can help in reaching millions of smallholder farmers, many of whom were previously considered uninsurable.

46. Transformational impacts of digital innovations can support a range of market outcomes. Digital technology applications for agricultural and food markets can generate significant economic, social and environmental benefits and accelerate progress towards achieving the SDGs. For

example, digital technologies promote financial inclusion as they allow financial institutions to enter rural markets without establishing costly physical presence.

47. E-commerce platforms provide incentives to educated youth and women to remain in or return to rural areas. As a result, it can transform rural areas into attractive places to live and work. Blockchain technology can build trust and promote transparency and thus support the traceability of food throughout the value chain. This can support the implementation of sustainability standards and labelling that provide information to consumers on environmental and social dimensions of production.

48. Digital technologies also entail risks and challenges. For example, issues related to the ownership and use of data collected through digital technologies on-farm have raised extensive concerns. However, addressing these concerns can further promote digital technology adoption. Technology also affects the factors of production and their value, such as the demand for labour and wages. Digital technologies could also lead to deviations from competitive outcomes in markets, affecting prices or quantities, and therefore welfare.

49. The potential of technology impacting agricultural and food markets needs to be further analyzed. Recognizing such issues points to the need for enhanced collaboration between all the stakeholders and consensus on best practices that can shape a regulatory framework that will maximize the benefits of digital technology and minimize the associated risks.