



**Global Panel**  
on Agriculture  
and Food Systems  
for Nutrition

# Rethinking trade policies to support healthier diets

This brief seeks to encourage policymakers to include trade instruments as part of a portfolio of actions to address sub-optimal diets. It sets out a framework of issues for policymakers to consider in order to improve diets when developing new trade policies.

POLICY BRIEF No. 13 | February 2020



# ABOUT THE GLOBAL PANEL ON AGRICULTURE AND FOOD SYSTEMS FOR NUTRITION

The Global Panel is an independent group of influential experts with a commitment to tackling global challenges in food and nutrition security. It works to ensure that agriculture and food systems support access to nutritious foods at every stage of life.

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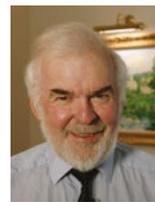
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# Executive Summary

Governments already use trade in diverse ways to influence the food system: to balance supply and demand for food while avoiding over-exploitation of their natural resource base; to promote the availability and diversity of foods, which may be seasonal, or not available locally; and to manage the stability of the supply and price of foods. However, trade policy also has considerable potential to lever improvements in diets, although it is seldom used explicitly for that purpose. This policy brief focuses on that missed opportunity, and how to address it.

There is growing recognition of the vital need to improve diet quality in all countries. Three billion people worldwide experience poor diets, and in 2015, the number of chronically undernourished people was just over 820 million. This brief is therefore aimed at the growing number of policymakers in national governments and global international institutions who are committed to addressing sub-optimal diets.

However, trade policy is not an easy route through which to improve diets and nutrition, given the rapid changes in food systems that are occurring around the globe, and the highly political nature of trade agendas, which have been typically focused on economic objectives such as growth, incomes, jobs and foreign earnings. Also, not all trade may be helpful in terms of improving diet quality. For example, when trade promotes access to foods that are high in salt and sugar, or foods that are ultra-processed. These increases reflect demand from growing populations, greater demand for more diversified diets as incomes rise, and a move towards more westernised diets in many middle-income countries. Trade

policy therefore needs to have a nuanced approach: one which avoids, or at least reduces these downsides, whilst promoting the positive effects. The potential benefits are considerable. Achieving the goal of high-quality diets for all will help unlock the development, growth and prosperity of individuals, populations, and whole economies.

The aim of this brief is to help policymakers understand the key issues to consider when choosing trade policies and trade instruments. There is no single approach that fits all. Choices will need to be conditioned on individual circumstances; integrated into the much wider portfolio of actions to improve diets; and take account of the consequences for local producers, and others involved in domestic food chains.

The primary focus here is on cross-border flows of agricultural commodities. The brief discusses how trends in global trade affect diets, as well as greenhouse gas emissions, and more generally, the natural environment upon which food systems depend. It explores the diverse mechanisms at play: for example on the effects of trade on food imports, local production, consumption and purchasing power and, importantly, food price volatility. The relationship between trade and food safety is also highlighted.

Finally, the brief sets out a framework of issues for policymakers to consider when developing new trade policies to improve diets, particularly for the poor. This reflects the concern that future trade could be principally driven by the demands of increasingly prosperous middle classes.

## KEY ISSUES FOR CONSIDERATION:

- 1 Policymakers should be especially alert to the effects of trade policies on the importing of processed foods, with special attention paid to ultra-processed foods.
- 2 Specific traded foods should only be viewed as 'healthy' or 'unhealthy' within the context of an individual's diet.
- 3 Close attention should be paid to policies that frame relative prices of foods within their country's markets.
- 4 High priority should be given to trade policies that help to specifically increase the availability and therefore reduce the price of nutrient-rich foods, as this can particularly benefit the poor.
- 5 Food trade can be especially beneficial in managing price volatility and risks associated with climate change. Governments should resist the imposition of export restrictions at times of sharp food price spikes, and look instead to lowering tariffs and VAT to encourage trade flows.
- 6 Export of high-nutrient foods is not necessarily undesirable and should be considered in the overall context of the nutrient value and affordability of food imports.
- 7 The incidence of informal trade should be a particular focus for policymakers, as it can lower the efficiency of policy measures to ensure health, safety, and environmental protection, as well as measures to prevent the spread of animal diseases.
- 8 Policymakers should pay close attention to trade agreements which embody strong investor protections, as they can be particularly problematic.
- 9 Countries can circumvent the risks of trade agreements with strong investor protection by aligning nutrition-focused trade policies with WTO rules and making (i) policies non-discriminatory on domestic and foreign products, and (ii) using domestic policy rather than trade policy to address some diet quality issues.
- 10 Consideration needs to be paid to imports from countries which apply less stringent social and environmental protection policies, in order to specifically evaluate the long-term effects on domestic industry.
- 11 Evidence suggests that shifts towards healthier diets at national, regional and global levels can make substantial contributions to reducing greenhouse gas emissions. There is an urgent need for policy measures that encompass international supply chains to promote the sustainable production of nutritious foods for high-quality diets.

Trade policy instruments should be part of any government's toolkit for improving diet quality for their populations. Given the scale and devastating impact of malnutrition, it is imperative that no policy tool to address suboptimal diets is overlooked

Professor Srinath Reddy, Global Panel Member and President of Public Health Foundation India

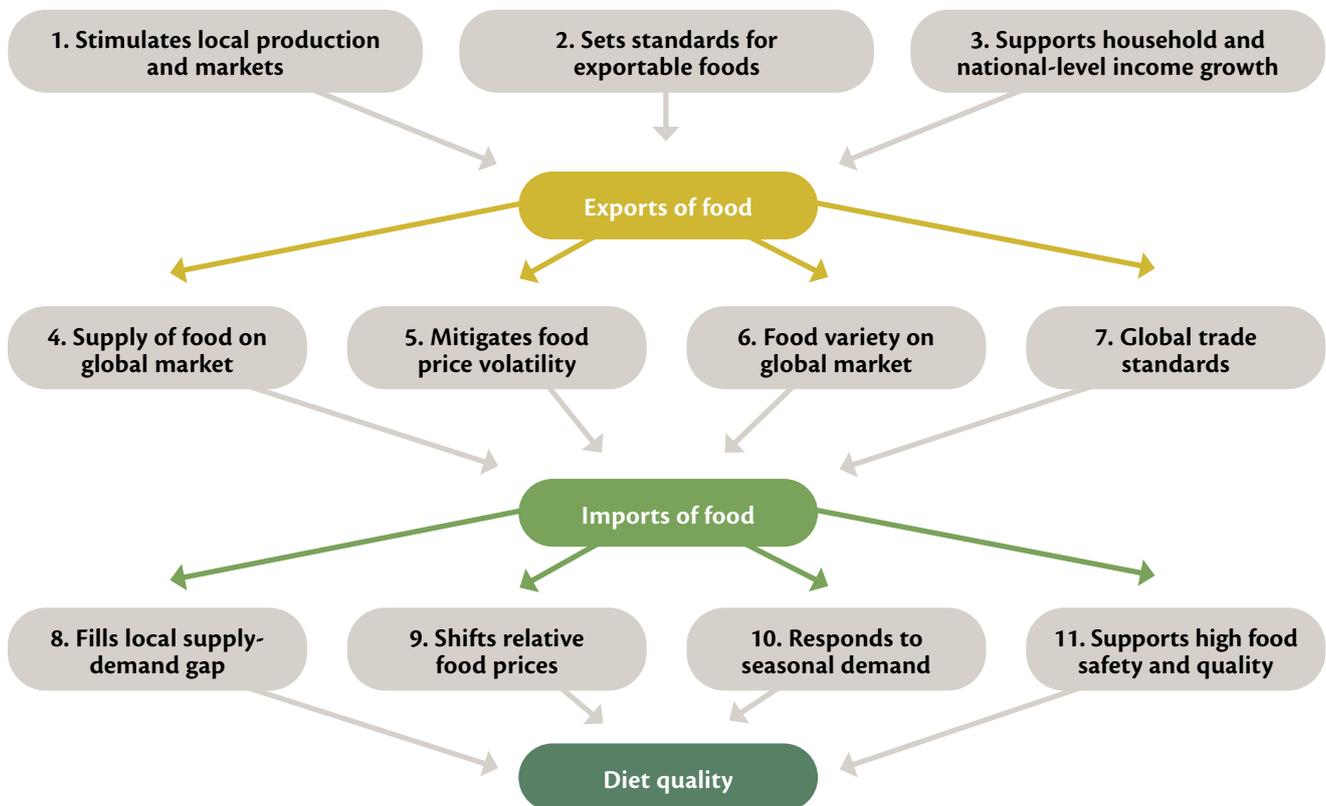
# 1. Introduction

This brief is concerned with the potential for trade policies and trade instruments to influence the quality of diets. Trade in food impacts on multiple dimensions of the food system, yet this particular policy entry point has been largely overlooked in the context of national agendas promoting improved nutrition<sup>1</sup>. This represents a substantial missed opportunity. There is a compelling case for understanding the existing and potential role of food trade policies in the wider range of relevant instruments applied across the entire food system, including: channelling agricultural subsidies to support the production and availability of nutrient-dense foods<sup>1</sup>; improving public and private infrastructure to prevent food waste along the value chain<sup>2</sup>; and developing Food-Based Dietary Guidelines (FBDGs) to guide consumers to make more nutritious food choices<sup>3</sup>.

Trade instruments are important tools available to governments to balance the supply and demand of food<sup>4</sup>. Seasonal and inter-annual variability in local food supplies, along with rising incomes, are leading to a growing demand for foods that often have to be sourced from outside a country's borders. Trade, therefore, plays a vital role in affecting diets through its influence

on the stability and diversity of the food supply, absolute and relative food prices, and household and national level incomes<sup>5</sup>. Figure 1 shows the main linkages between trade in food and diet quality, relationships that provide an analytical framework for this brief. The framework illustrates how trade in food and other agricultural commodities drives key outcomes (numbered 1-11) which shape imports and exports, and how these in turn influence diet quality. The figure shows the flows across the framework, identifies multiple potential points of entry for policymakers, and gives examples of interventions such as trade instruments and food standards to leverage trade policy for the improvement of diet quality. However, it is important to note that the linkages shown in Figure 1 can have both positive and negative effects on diets. For example, trade can help improve the diversity of the food supply, but that diversity may not always drive diet quality in the right direction. Nor does security in the supply of staple foods alone equate with the provision of affordable and accessible healthy diets. Countries which are considered food secure can also have high levels of undernutrition and diet-related non-communicable diseases.

Figure 1. Conceptual diagram to show how trade in food can affect diet quality



Source: Compiled by the authors.

i In this policy brief, 'trade' refers to 'international trade', unless specifically described as being domestic (within-country). The terms 'trade in food' and 'trade in food and agricultural commodities' are used here, as the focus is on food and/or food and agricultural commodities. 'International trade policy' is used in its broad sense, in view of its implications of wider trade policy for agricultural commodities, food, and diets – for example by constraining domestic policy-making.

During the past half century, while agricultural production trebled globally, trade in agricultural commodities and food products increased eight-fold<sup>6</sup>. While the contribution of trade to feeding the world's population has never been greater, undernourishment has been on the rise since 2015 after decades of decline. In 2018, the number of chronically undernourished people was just over 820 million, almost the same level as in 2010<sup>7</sup>. Furthermore, diet-related malnutrition remains at unacceptable levels. Three billion people worldwide experience poor diets<sup>8</sup>. While some progress has been made on the prevalence of stunting and wasting, the prevalence of overweight, obesity and diet-related non-communicable diseases has escalated across the globe (recently rising fastest in low-income countries), while micronutrient deficiencies persist.

Trade is not an easy route through which to improve diets. Given the highly political nature of trade agendas and their underlying economic objectives, professionals and analysts concentrating on trade mechanisms tend to ignore their role in nutrition<sup>9-11</sup>. The conventional view is that policies should be targeted to the goals they affect most directly. From this view, in order to change diets, policies that influence consumption patterns – rather than those that affect diets only indirectly, such as trade policies – should be pursued. This brief argues that an alternative perspective, where trade instruments are seen as part of a portfolio of actions to address sub-optimal diets, is long overdue.

Much more can be done to understand and unlock the potential of trade to make a positive contribution to the delivery of healthy diets (see Box 1). Recent shifts in global trade policy suggest that action in favour of sustainable food and nutrition systems could be feasible<sup>12</sup> and governments should move urgently to better align trade policies with their health and nutrition goals. At the same time, the important question of whether trade in nutritious foods *actually* enhances the consumption of those foods either in the exporting or the importing countries needs to be addressed.



This brief sets out why policymakers who are committed to improving diets and nutrition should pay more attention to the value of trade instruments as part of their portfolio of actions. It focuses primarily on cross-border flows of food and agricultural commodities, exploring the positive (and sometimes negative) effects that trade can have on the supply and affordability of nutrient-rich foods, as well as the need for improved coherence between nutrition and other national policy objectives in order to deliver healthy diets for all.

### Box 1. What is a healthy diet?



There is no universal 'diet quality index', but there is general agreement on what a healthy or high-quality diet should include: a diversity of foods that are safe and provide levels of energy appropriate to age, sex, disease status and physical activity as well as essential micronutrients. The World Health Organization's (WHO) definition of a healthy diet emphasises the importance of starting healthy eating habits in early life (notably through breastfeeding). It advises people to eat plenty of fruits, vegetables, wholegrains, fibre, nuts and seeds, while limiting free sugars, sugary snacks and beverages, processed meats and salt, and replacing saturated and industrial trans fats with unsaturated fats<sup>13</sup>.

## 2. Food systems, trade and diet quality

Trade policy instruments are important tools available to governments seeking to improve the functioning of their food systems and the quality of their populations' diets, albeit through complex pathways<sup>14, 15</sup>. Figure 2 illustrates where trade sits in a conceptual framing of the food system which emphasises not only its influence on food environments and ultimately consumers, but also its linkages to other domains, including agricultural production, processing, food transformation and food retail<sup>16</sup>.

Specific goals on health and nutrition have been agreed by Member States of the United Nations as part of the 2030 Agenda for Sustainable Development<sup>17</sup>. Access to affordable, healthy diets is a fundamental part of achieving these goals. However, there is currently a substantial imbalance between global food production and the foods that comprise healthy diets (Figure 3). Based on Harvard's Healthy Eating Plate Model, Figure 3 is not intended to be prescriptive about a specific diet but to illustrate the relative components of a healthy diet based on universal evidence of nutrient-disease interactions and outcomes.

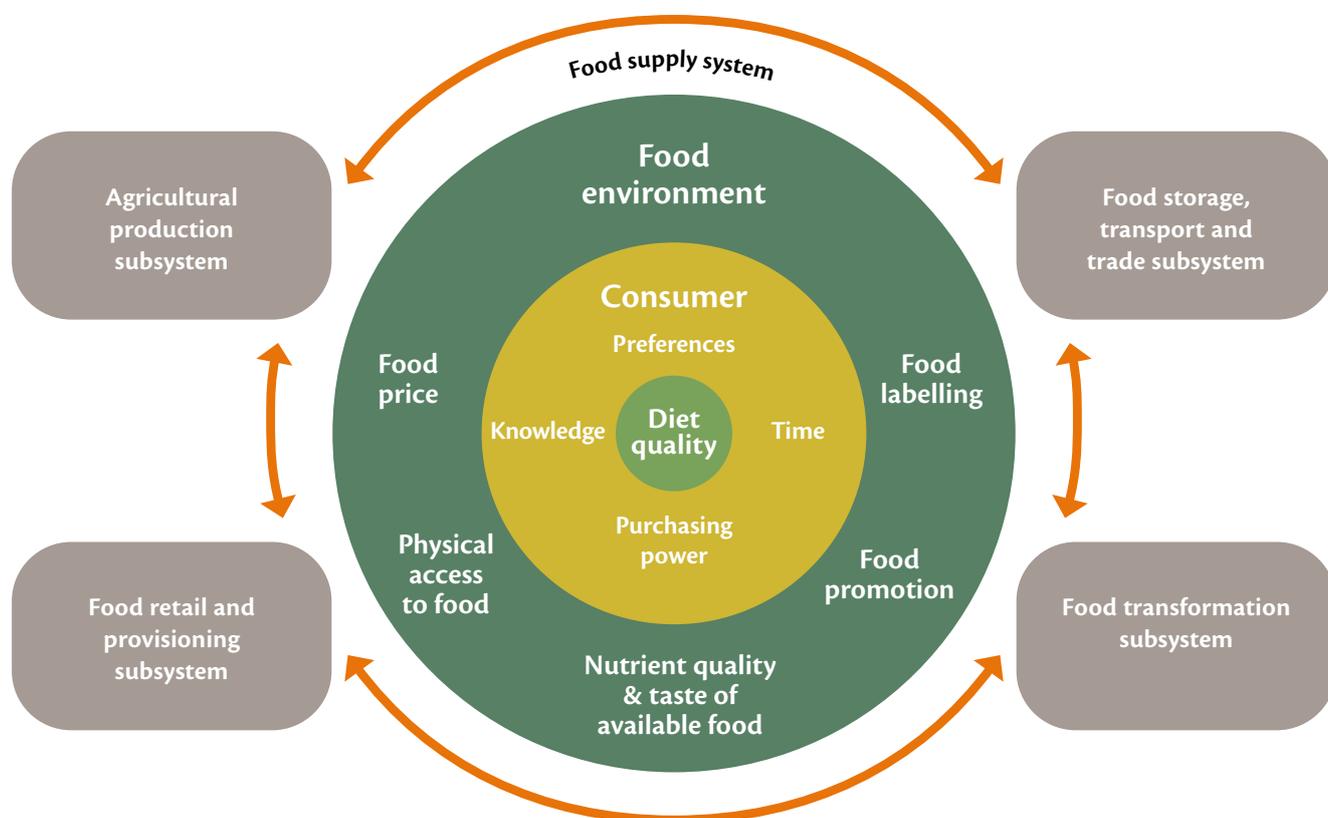
Given that global trade is higher in staple foods, particularly cereals and sugar (see Section 3), than in nutrient-rich foods, Figure 3 reflects the failure or inability of many nations to provide accessible and affordable nutritious foods, but also the failure to use trade instruments as a corrective (see Table 1 in Section 3). While many countries use trade in food and agricultural commodities (particularly staple crops) to achieve food security, it is clear that trade policies, rarely, if ever, have the delivery of healthy diets as an underlying rationale. This is an important missed opportunity and needs to change.

🔥 With the introduction of the African Continental Free Trade Area, now is the time for policymakers in Africa to think about the relationship between trade, food supply and diet quality. 🌿

Her Excellency Rhoda Peace Tumusiime, Global Panel Member and Former Commissioner for Rural Economy and Agriculture, African Union Commission

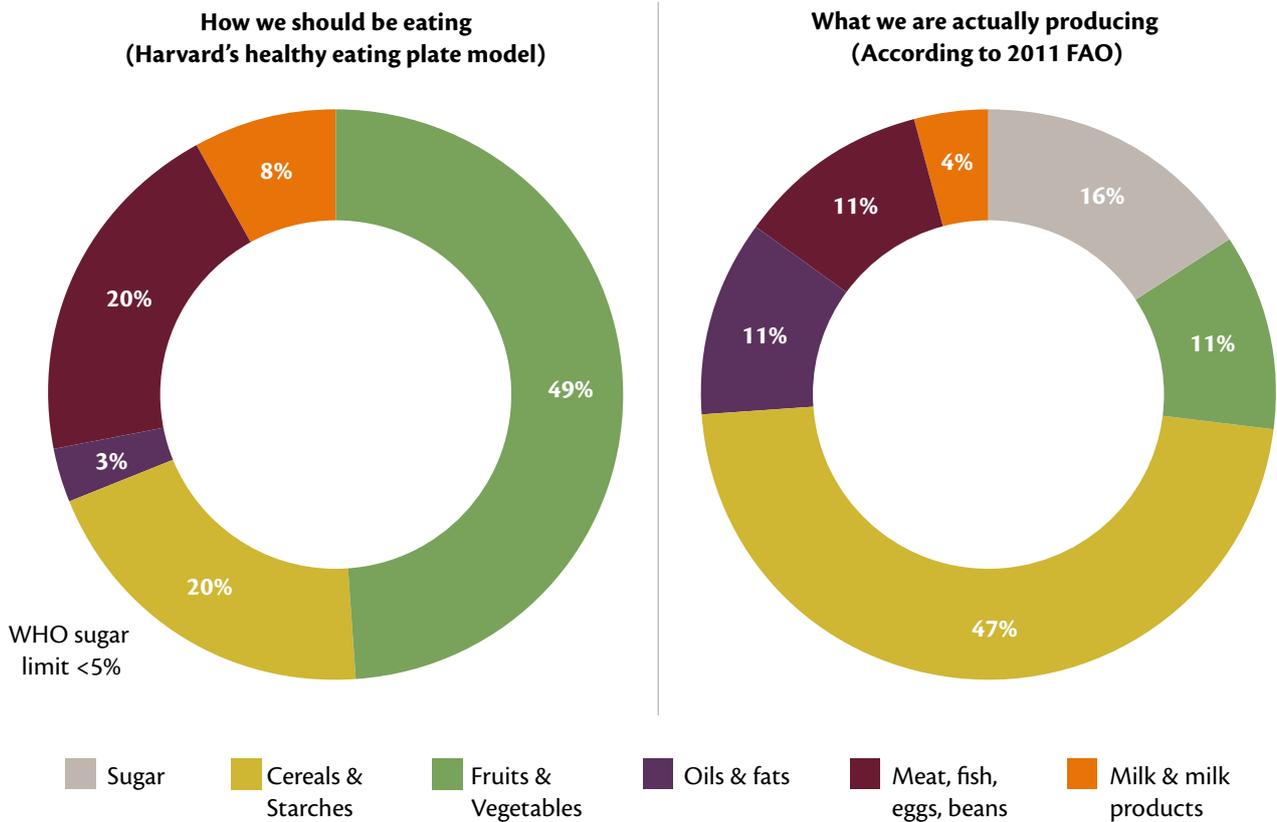
Figure 2: Conceptual framework for the links between diet quality and food systems

### DRIVERS OF FOOD SYSTEMS



Source: Global Panel, 2016<sup>13</sup>.

Figure 3: The mismatch between the foods that comprise a healthy diet and what is being produced



Source: Adapted from bar chart in KC, K.B et al, 2018<sup>18</sup>.



### 3. Trends in food and agricultural trade

Most food produced around the world is used within the country of production rather than traded internationally (see Table 1)<sup>19</sup>. For example, trade forecasts for 2019/2020 indicate that only 9-23% of the world's major cereals are expected to be traded globally, while for dairy and meat products, the amounts are forecast to be even more modest at 9-10%. The highest percentages are forecast for oil crops and sugar at 29% and 30% respectively. Food exports are especially low in some low- and middle-income countries (LMICs). For example, in 2018, Pakistan and Tanzania exported an estimated 3.9% and 4.9% of the wheat they produced in 2018/19 respectively. In the same year, South Africa exported only 3.2% of its poultry meat production<sup>19</sup>.

However, food that is traded is critically important to both producers and consumers. For countries with a production deficit, imports make an important contribution to the food supply. For example, in Kenya and Zimbabwe, maize is an important source of calories and both countries depend on imports for 27% of their domestic maize needs<sup>20</sup>. A more extreme example is Singapore which imported over 90% of its food in 2018. In the same year, it was listed as the world's most food secure country<sup>21,22</sup>. However, wealthy city-states (which also include Qatar and Hong Kong), are atypical in that they rely

on imports because of local constraints to food production. While they have strong economies that allow for full engagement with world markets, reliance on world food markets always poses challenges to importing countries during periods of global food price volatility (see (5) in Figure 1 ) as was seen in 2007/08 and 2011/12<sup>23</sup>.

Beyond imports, trade can also influence the availability and price of foods, and can encourage countries to specialise in particular types of agricultural and food production, including cash crops<sup>ii</sup> for export (see (1) in Figure 1), leading to increased global outputs<sup>24,25</sup>. The effects of trade on domestic producers will, of course, vary depending on the commodities, the size of producer entities, and the degrees of access to markets. Similarly, the impacts of food imports on consumers will also vary according to market access, and the dietary preferences and purchasing power of different categories of households. Shifts in global and regional trade flows will therefore have important implications for food security and the delivery of high-quality diets.

ii A cash crop is mainly produced for its commercial value rather than for consumption by the grower, although some crops such as groundnuts, rice or maize will also enter the diets of smallholder producers.

**Table 1. Forecasts of global production and trade in major food commodity crops and products**

<b>Crop (in million tonnes unless otherwise stated)</b>	<b>Production (2019 forecast)</b>	<b>Imports (2019/20 forecast)</b>	<b>% traded</b>
Cereals	2722.2	413.2	15%
Wheat	767.0	173.5	23%
Coarse grains	1438.3	190.8	13%
Maize	1140.1	157.5	14%
Barley	147.2	25.7	17%
Sorghum	59.0	4.0	7%
Other coarse grains (millet, rye oats, other grains)	92.0	3.6	4%
Rice	516.8 (2019 forecast)	46.8 (2019 forecast)	9%
Oil crops	609.8 (2018/19 forecast)	174.3 (2018/19 forecast)	29%
Sugar	178.7 (2018/19 forecast)	52.8 (2018/19 forecast)	30%
Meat (thousand tonnes – carcass weight equivalent)	336,510 (2019 forecast)	33,880 (2019 forecast)	10%
Milk and milk products (thousand tonnes – milk equivalent)	858,953 (2019 forecast)	76,105 (2019 forecast)	9%

Source: Compiled by the authors based on FAO Food Outlook – Biannual Report on Global Food Markets, 2019<sup>19</sup>.

Note: This table shows the forecasted production figures for production and imports. Imports are the same or very similar to the export figures for the same time period and are used as a proxy here for global trade figures. These figures do not differ substantially from the 2015-17 averages and the 2018 estimates available in the FAO Food Outlook report, May 2019.

### 3.1 Global and regional trends in food trade

#### (a) Global trends

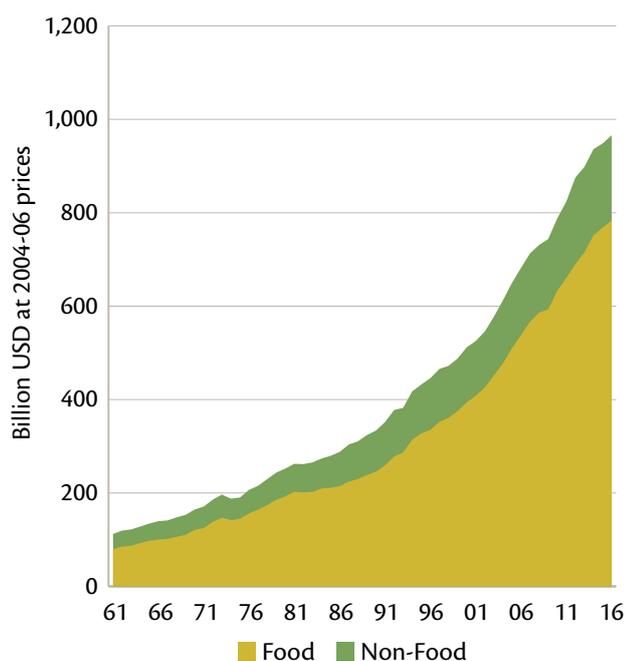
Global trade in food has increased significantly in the past half century, both in terms of the quantity and value of products and commodities traded (Figure 4). Today, of every 100kg of food produced, 17kg is traded internationally, increasing to 50kg and 56kg for nuts and oils respectively<sup>26</sup>.

Growth in global food trade has been fastest in products such as oilseeds, vegetables, fruit, meat, dairy products and eggs rather than in staple grains, which nevertheless continue to dominate food trade in terms of absolute volumes<sup>27</sup>. Assumptions about diets are based primarily on food production and trade flow data as there is a lack of data available on current patterns of food consumption, particularly at household level.

As diets become more diversified globally (a trend that is associated with rising incomes, urbanisation and other drivers of the ‘nutrition transition’<sup>13</sup>), the role of non-staples in trade is likely to continue growing. Since much of the staple grain trade is linked to non-human consumption (livestock feed, ethanol, brewing), and the global population size and demand for calories continue to rise, the absolute flow of staples is likely to continue to dominate food trade. But the value of that trade will increasingly shift towards non-staple foods.



**Figure 4. World exports of food and non-food agricultural products, raw or processed (excluding fish and forestry), in billion US dollars at constant world-average, 1961-2016**



Source: Update of chart from Maletta, 2014<sup>27</sup> to include new data up to 2016. Based on FAOSTAT data.

The growth in trade of oilseed crops has primarily been driven by demand for livestock feed, particularly from China, which is currently the recipient of 63% of all global soybean imports<sup>20</sup>. However, due largely to changes in China’s price support policies for domestic maize production (which will reduce the producer price of maize and increase the use of domestic maize for feed in China), this Chinese demand for livestock feed is expected to fall in the coming decade, despite the intensification of livestock production<sup>20</sup>. Oilseed crops are also used in many ultra-processed foods, global sales of which have increased dramatically since the early 2000s, particularly in LMICs<sup>28</sup>.

Food trade plays an important role in the global distribution of nutrients, particularly where the domestic capacity for the production of nutrient-rich foods is limited and where supply is insufficient to meet demand (see (4) and (6) in Figure 1). Recent evidence shows that trade improves the ability of many countries, especially low-income countries (LICs), to meet their aggregate nutritional needs, although there is no guarantee that people with the greatest need for imported nutrients will have access to them<sup>29</sup>. In other words, domestic food systems in many LMICs may be constrained in their ability to expand the supply of nutrient-rich foods, but imports can complement the supply of outputs. To improve the quality of diets for all, policymakers in LMICs need to have a better understanding of how trends in global trade interact with food imports, local production, consumption and purchasing power, and how trade can be used as part of a larger portfolio of policy actions to ensure that all households are able to access and afford a sufficiently diverse range of nutrient-rich foods as part of a healthy diet.

### (b) Regional trends

A recent OECD report highlights the rising importance of LMICs as major agro-food exporters and importers, with Brazil, Russia, India, Indonesia, China and South Africa leading the way. Between 2000 and 2016, LMICs' share of world agricultural exports rose from 29% to 39%, while their share of world agricultural imports grew from 21% to 32%<sup>30</sup>. However, growth in exports during 1993-2016 was greatest in regions with the highest levels of malnutrition: South Asia, sub-Saharan Africa, and Latin America, Central America and the Caribbean (see Figure 5). It will be important for governments in these regions to use their comparative advantage in agricultural production and leverage trade to complement gaps in their specialisation to improve access to high-quality diets for their populations.

In the Middle East and North Africa, growth in import values was higher than for export values, underlining the importance of imports for a region with significant challenges to agricultural production from natural resource limitations and continuing geopolitical conflict<sup>20</sup>.

South Asia saw the biggest growth in both imports and exports. These imports were driven largely by surging population growth and by income growth in the expanding middle classes leading to greater food demand. South Asia's export growth can largely be attributed to India's emergence as a major agricultural exporter. India's exports grew from just over US\$5 billion in 2003 to more than US\$39 billion in 2013, in part due to the Indian government's release of wheat and rice stocks on the domestic market, which lowered prices, making Indian supplies more competitive<sup>31</sup>. Rapid urbanisation across the continent has also led to changes in food demand, moving away from the consumption of rice and towards increasingly westernised diets (meat, dairy, wheat, temperate fruit and vegetables, and convenience foods and beverages)<sup>32, 33</sup>. Similar

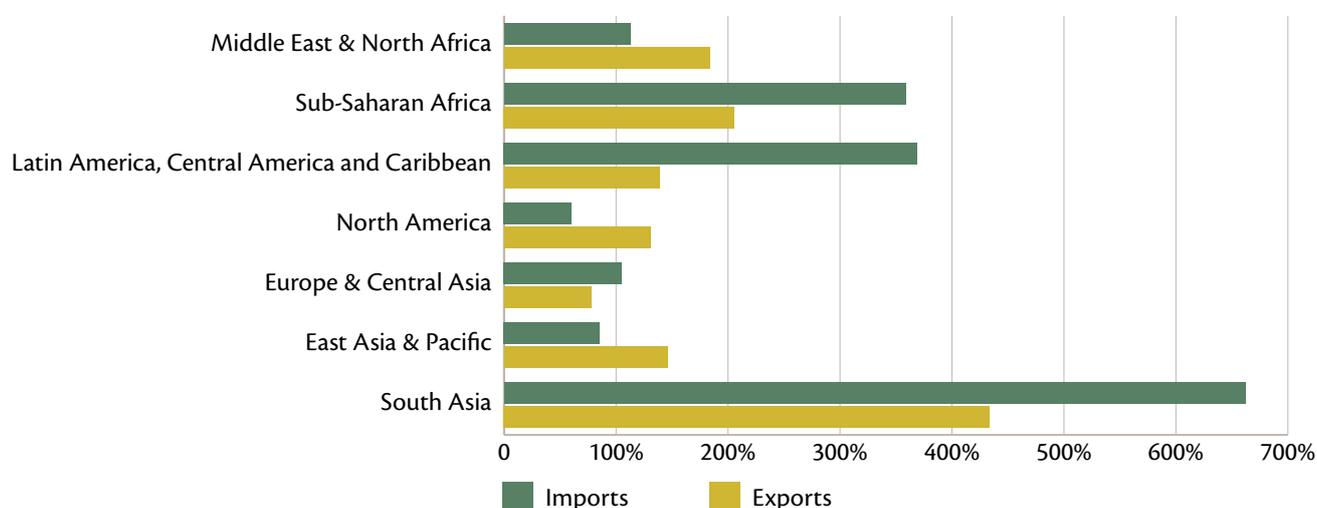
demographic and socio-economic changes can account for rises in imports in sub-Saharan Africa, Latin and Central America and the Caribbean and, whilst the rate of growth is slower in these regions, food imports make up a larger proportion of domestic food supply than in South Asia (Figure 6).

Increases in the value of food exports in sub-Saharan Africa, Latin and Central America and the Caribbean can largely be explained by trade liberalisation in the 1980s and the 1990s, when markets became increasingly open and connected. Export growth from LMICs has been aided by the growth of the world economy as well as by increasing participation in global value chains (GVCs). Integration in GVCs has become an important pillar of export-led development policy in many LMICs, as it can facilitate access to high-income country (HIC) markets, improve supply capabilities through access to production technologies and information services, and lead to export diversification into more value-added products<sup>34</sup>.

### 3.2 Global and regional trends in food commodity and product trade

This section outlines the broad trends in trade in specific food commodities and products at the global and regional level and also within regions. It considers key commodities as well as ultra-processed foods. Ultra-processed foods typically contain "little or no wholefoods, are ready to consume or heat up and are fatty, salty or sugary and depleted in dietary fibre, protein, various micronutrients and other bioactive compounds"<sup>13</sup>. They include sweet, fatty or salty packaged snack products, ice cream, and sugar-sweetened beverages (SSBs). In general, global trade in both nutritious foods, as well as ultra-processed foods, is likely to grow, driven by growing demand in emerging economies. However,

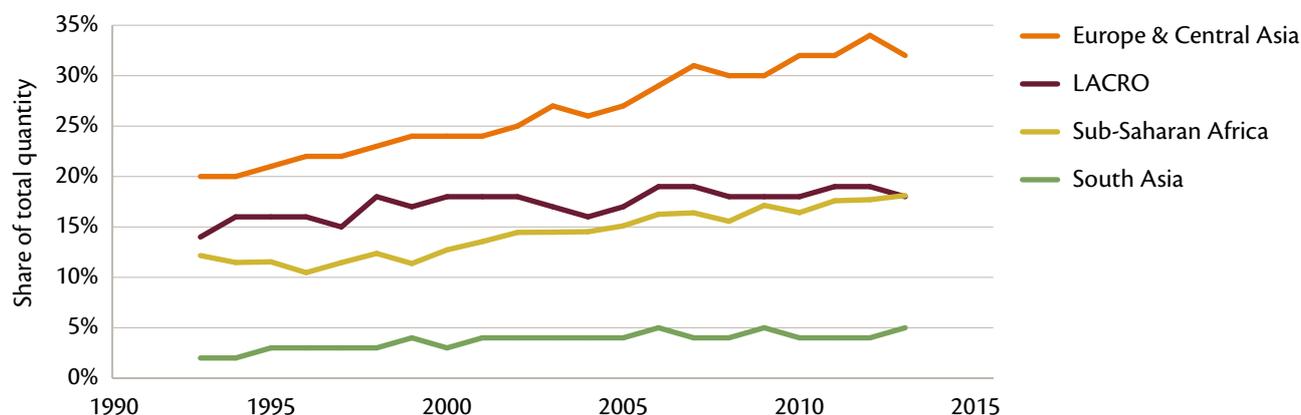
Figure 5. Relative growth between 1993 and 2016 in food import and export values at base period prices, in million US dollars



Source: FAOSTAT.

Note: Includes all food, except fish.

Figure 6: How much of domestic food supply is from imports



Source: FAOSTAT

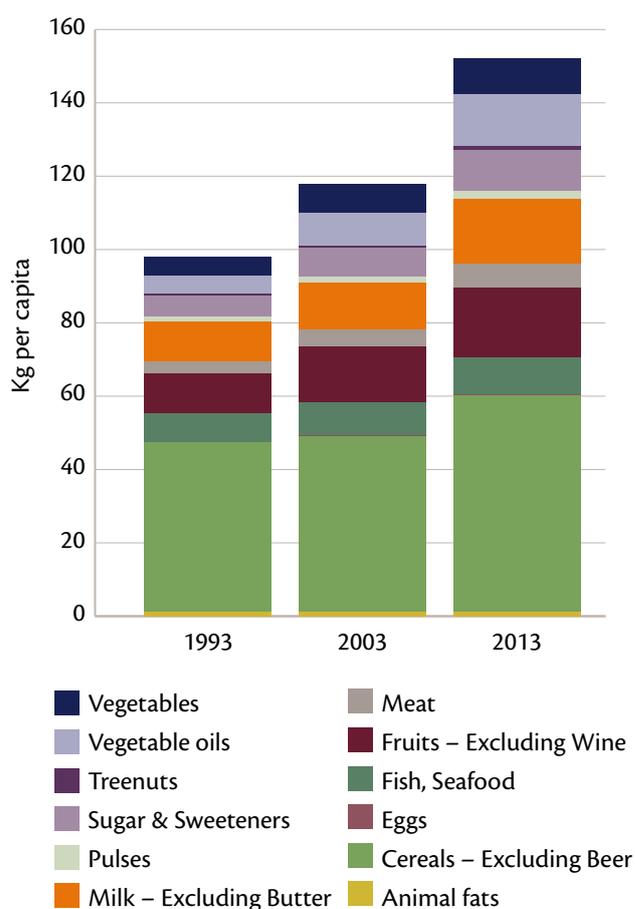
Note: LACRO = Latin and Central America and the Caribbean

future trade patterns are likely to affect consumption patterns of less-poor consumers in LMICs, rather than the diets of the poorest households.

Between 1993 and 2013, global per capita imports of vegetable oils, meat, eggs, sugar and sweeteners, fruits and vegetables increased substantially while pulses, milk, fish and seafood, cereals and animal fats expanded the least (see Figure 7). As before, these increases reflect demand from expanding populations, greater demand for more diversified diets as incomes rise, and a move towards more westernised diets in many middle-income countries. This trend is leading to national food supplies worldwide becoming more similar in composition<sup>35</sup> (see (4) in Figure 1). Income growth, particularly in China, India, and South and South-East Asia means that over 50% of the world's population is now living in middle-class households<sup>iii, 36</sup>. By 2030, middle-class consumption (of all goods and services, including food) is expected to be US\$29 trillion more than in 2015<sup>37</sup>.

Patterns of trade at the regional level offer insights for policymakers in LMICs seeking to deliver high-quality diets. For example, Figure 8 shows that while imports of fruit have increased in all regions since the mid-1990s, fruit imports per capita to South Asia and sub-Saharan Africa have remained low. Over the same time period, Figure 9 shows a steady rise in per capita imports of sugar and sweeteners in HICs, with some growth per capita also in LMICs (Figure 9). While these trade patterns provide only a partial reflection of the availability of different foods, policymakers need to pay closer attention to the links between imports and exports of different commodities and diet quality. In seeking to reshape dietary patterns for future health and nutrition gains, policymakers should consider the impact of trade instruments alongside other policy tools, with careful consideration of the potential impact of trade policy measures on the development of domestic industries.

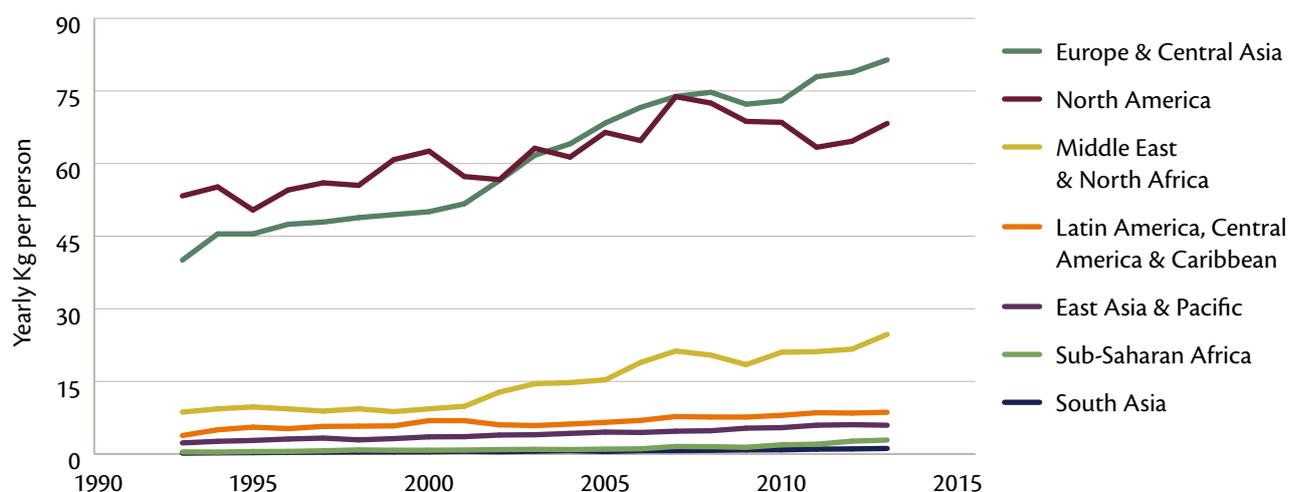
Figure 7: Changes in global imports (kg/capita) between 1993–2013 for different commodities



Source: FAOSTAT

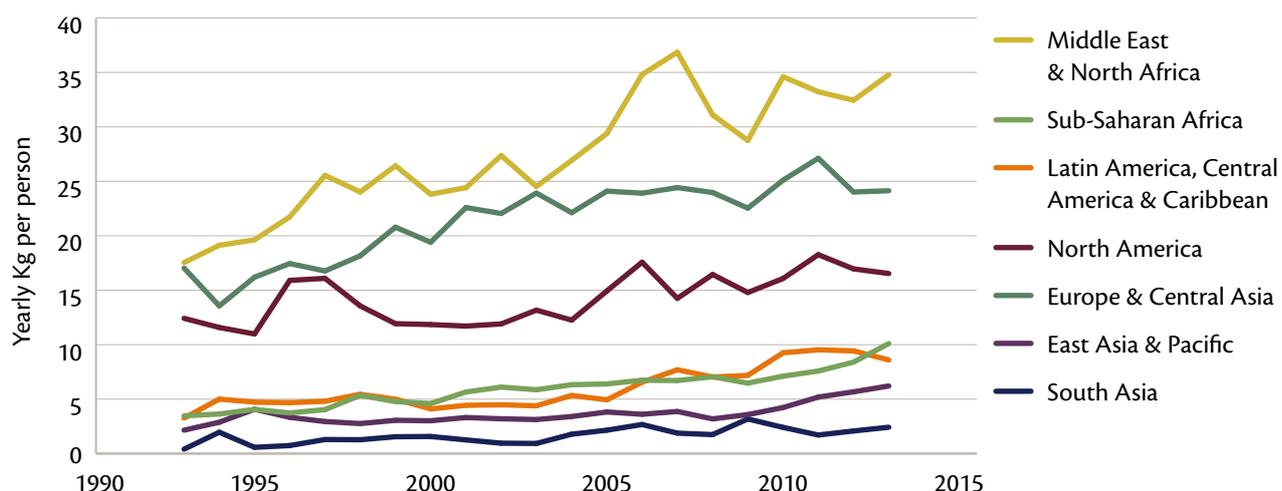
iii Middle-class households are measured as those spending \$11-110 per day per person in 2011 purchasing power parity.

Figure 8: Per capita fruit imports by region, 1993–2013



Source: FAOSTAT.

Figure 9: Per capita sugar and sweetener imports by region, 1993–2013



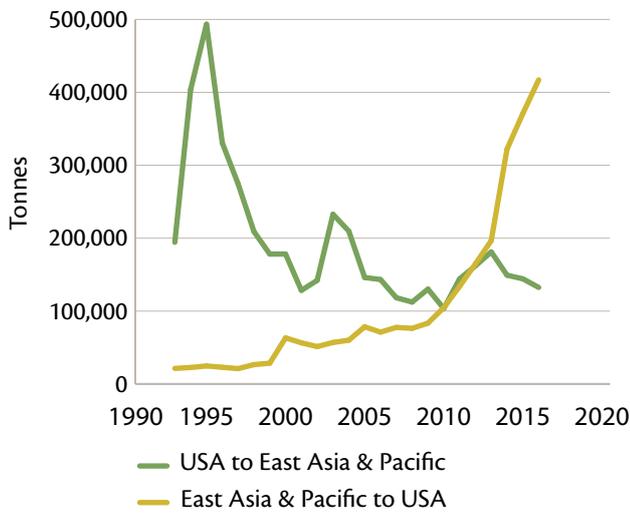
Source: FAOSTAT.

While global trade in ultra-processed foods and sugar-sweetened beverages is growing, regional trade patterns are shifting. For example, Figure 10 shows how a geographic shift in the manufacturing base of sugar-sweetened beverages since the mid-1990s has reversed the trans-Pacific trade flow, with the dominant flow now from East Asia and the Pacific to the USA.

The regional trends shown in Figure 10 are an example of a broader shift in the locus of food and beverage production in relation to trade agreements and Foreign Direct Investment (FDI) flows. Since the 1980s, FDI has become a major stimulus of economic development in many LMICs, with FDI in food processing – particularly SSBs and confectionery – playing a significant role<sup>38</sup>. Many forms of processing are used to transform ingredients into more durable products, such as canned fruits and vegetables, and these can be helpful in delivering healthy diets.

However, there is mounting evidence that consumption of ultra-processed foods is associated with adverse health impacts, including the rise of non-communicable diseases (NCDs)<sup>28,39,40</sup>. The available data show that sales of these foods are clearly on the rise in LMICs (Figure 11). For example, in South and South-East Asia, sales of sugar-sweetened beverages (or ultra-processed drinks (UPDs) as per Figure 11) rose from 0 to 22kg per capita between 2002 and 2016. The growing presence of multi-national food companies in LMICs through FDI has been linked to this trend<sup>41,42</sup>. In Central America, a period of trade and investment liberalisation which began in the early 1990s saw a reduction in barriers to investment and the expansion of ultra-processed food markets. During that decade, in the two largest importing countries – Guatemala and Costa Rica – sales of ultra-processed foods produced by local subsidiaries of US companies far outweighed sales of ultra-processed foods exported from the US<sup>43</sup>.

**Figure 10: Sugar-sweetened beverage trade flows, 1993–2016**

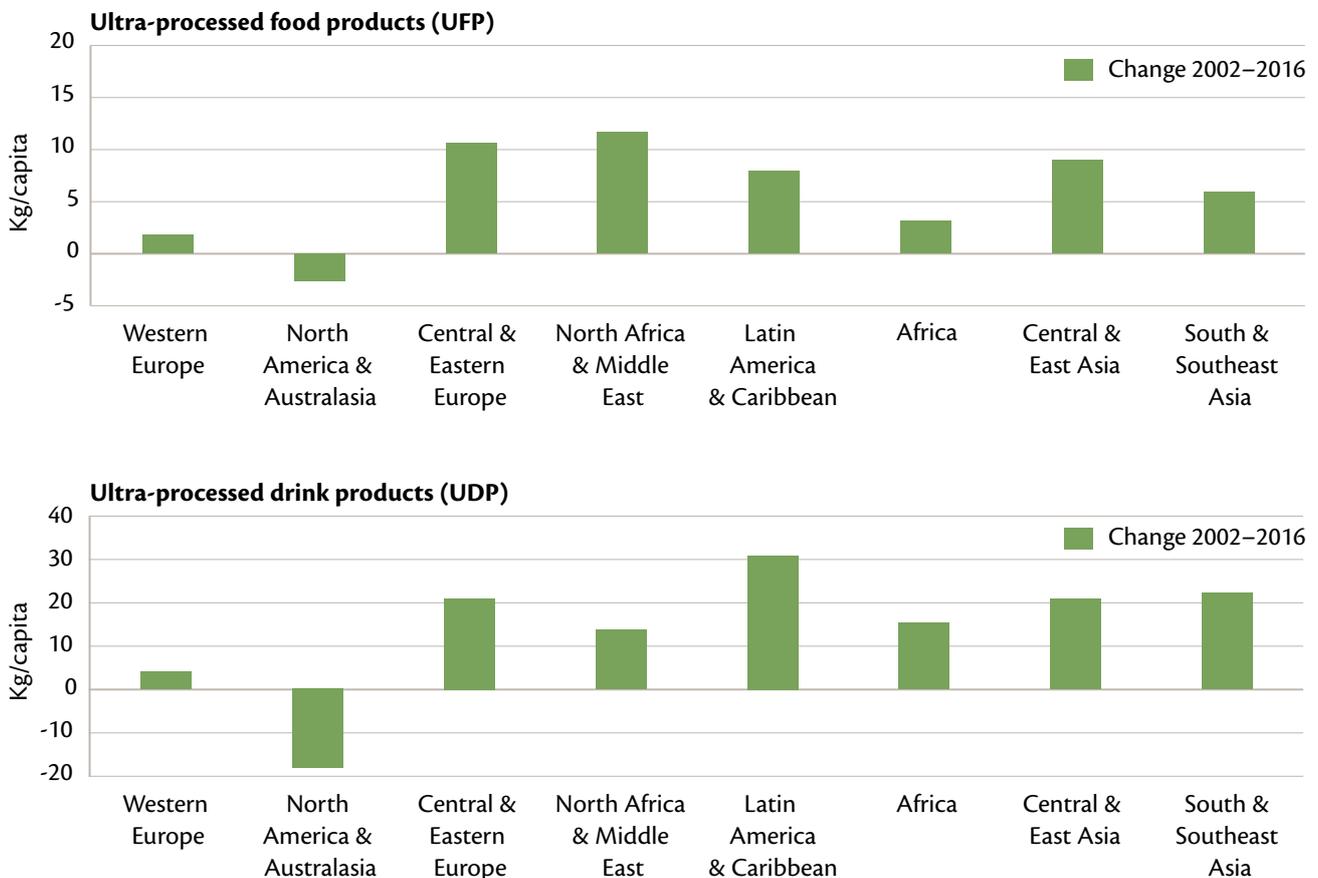


Source: FAOSTAT.

Governments should be aware of the implications of developments in trade (and related investment agreements) for diet quality in their countries, and take action to regulate food supply chains and food environments in ways that do not discriminate between domestic and foreign firms, to be compliant with international trade obligations.

Finally, food trade within regional groupings such as the Association of Southeast Asian Nations (ASEAN) and the Caribbean Community (CARICOM), while not covered in detail in this brief, is growing. This presents opportunities and challenges. Regional trading agreements are based on treaty documents signed by two or more countries in a common geography to encourage free movement of goods and services across the borders of those countries. The objectives of such treaties include promoting mutually advantageous economic, political and security interests. Supporting enhanced diet quality through a balancing of food supply and demand is therefore not a typical goal, but it could be. The prevalence of small-scale and informal cross-border trade is also an important feature of supply chains in LMICs with implications for food safety, particularly for highly perishable foods<sup>44-46</sup> (see section 4.4 on trade and food safety).

**Figure 11: Change in total volume sales per capita of ultra-processed foods and ultra-processed drinks, 2002–2016**



Source: Vandevijvere et al., 2019<sup>28</sup>.

## 4. The multiple influences of trade on diet quality: from prices to the environment

By influencing supply relative to demand, trade policies – and trade itself – affect medium to long-term trends in the relative prices of foods, the affordability of different foods and the incomes of those engaged in agricultural production, added-value processing and food retail (see (3) and (9) in Figure 1).

The effects of trade can be positive when associated with foods that are important for healthy diets (e.g. fresh fruit and vegetables). But, as discussed in Sections 2 and 3, trade can also promote access to foods that may be harmful, notably ultra-processed foods, and other foods high in calories but low in nutrients. This mixed picture underlines the importance of developing trade policies which enhance diet quality, whilst being sensitive to potentially adverse outcomes that may ensue.

Figure 12 illustrates how trade policies and trade instruments affect the food system, and thereby influence diets. It demonstrates the rich potential for trade policies to leverage diet quality, and the variety of linkages shown makes it all the more surprising that trade policies are generally underused for this purpose. It is beyond the scope of this brief to discuss all of these mechanisms and linkages in detail. However, the following sections draw out key aspects which are considered to be particularly important.

### 4.1 Increasing the availability of nutrient-rich foods

Many studies have shown the positive outcomes that food trade can deliver in terms of increased food availability and improved dietary quality at the national level (see (8) in Figure 1)<sup>48</sup>. In a study of 151 countries spanning all income levels, trade openness (calculated as the volume of trade (real exports plus imports) over real GDP) was found to have beneficial effects for dietary energy supply, dietary diversity and diet quality<sup>49</sup>.

This supports the Global Panel's view that the role of trade instruments should be incorporated in the search for solutions by governments seeking to deliver healthy diets. Any trade policies should complement areas of domestic policy, such as investments in the domestic agricultural sector, and social safety nets, to ensure that people with the greatest need for imported nutrients will have access to them and that those vulnerable to food price volatility are protected<sup>29,49</sup>. The benefits of trade for food availability and diet quality are context-specific and dependent on several factors, including the baseline nutritional status of the population, whether the mix of foods traded in a country can support a healthy diet or otherwise, and changing demand.

Despite the overall increases in world trade of food commodities, some countries continue to struggle to achieve food security<sup>iv</sup>. Conflict and exposure to natural disasters or climate change-related extreme weather events are important drivers of food insecurity, but it is particularly prevalent where national incomes, infrastructure, socio-political stability, and access to foreign exchange are inadequate to support the necessary levels of trade (see Box 2).

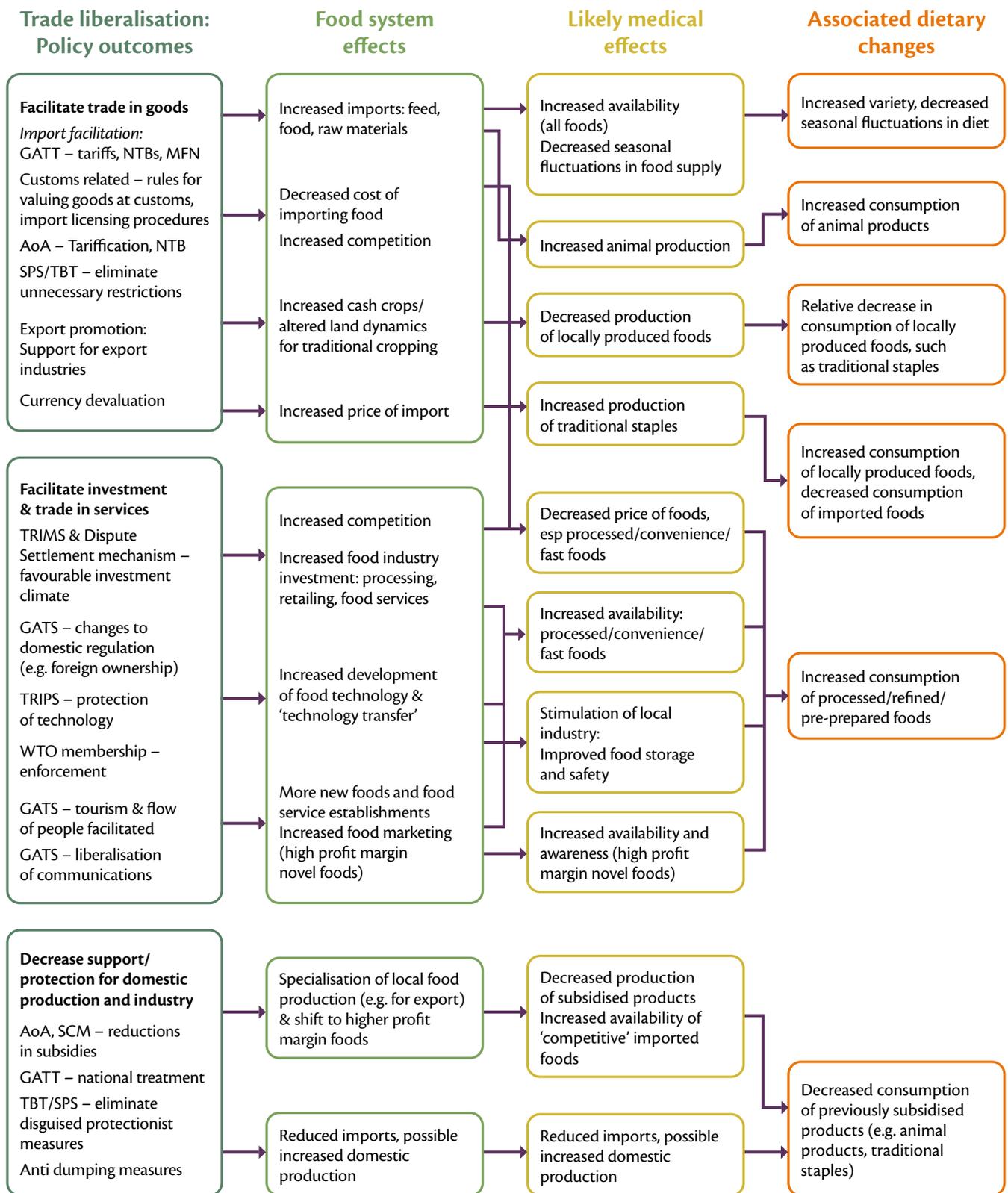
#### Box 2. Trade and food security: different approaches and capacities

The Economist Intelligence Unit (EIU) Global Food Security Index listed Singapore, which imports over 90% of its food, as the world's most food secure country for 2018<sup>21,22</sup>. At the other end of the food security spectrum are Burundi, the Democratic Republic of Congo, Malawi and Yemen. These countries are poor, some of them landlocked, and they are more restricted in their capacity to engage in global food trade. Other countries have prioritised national food self-sufficiency, at least in selected products, to address food security. Senegal, for example, has given priority to rice<sup>51</sup>.



iv Food security, as defined by the 1996 World Food Summit, is a situation in which all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life<sup>50</sup>. At the national level, adequate food availability means that on average sufficient food supplies are available, from domestic production and/or imports, to meet the consumption needs of all in the country. Purchasing power at the national level – the amount of foreign exchange available to pay for food imports – is an important determinant of national food security.

Figure 12: The pathways through which trade policies can affect diets and nutrition



Note: Pathways for the impact of trade liberalisation policies on population nutrition (GATT, General Agreement on Tariffs and Trade; NTB, Non-Tariff Barriers; MFN, Most Favoured Nation; AoA, Agreement on Agriculture; SPS, Sanitary and Phytosanitary measures; TBT, Technical Barriers to Trade; TRIMS, Trade-Related Investment Measures; GATS, General Agreement on Trade in Service; TRIPS, Trade-Related Intellectual Property Rights; SCM, Subsidies and Countervailing Measures) Source: Thow, 2009<sup>97</sup>.

## 4.2 Relative prices of nutrient-rich versus nutrient-poor foods

Trade can directly influence the quality of diets by affecting the supply and price of food (see (9) in Figure 1). This can be beneficial for delivering healthy diets where it helps to smooth out seasonal or climate-related price fluctuations (see (10) in Figure 1), or reduces the price of nutrient-rich foods<sup>5, 52, 53</sup>. For example, a number of LMICs export higher-value seafood to HICs and import lower-value seafood, with the overall effect of reducing the in-country price of seafood protein<sup>54</sup>.

In LMICs, relative prices often determine the levels of consumption of nutrient-rich or nutrient-poor foods<sup>55, 56</sup>. For the poorest households, where food budgets are especially limited, calorie density is often prioritised in food purchasing decisions. Currently, with few exceptions (such as dark leafy greens in India and Western and Central Africa, and pulses and dairy products in India), nutrient-rich foods are more expensive than nutrient-poor foods in LMICs<sup>55</sup>, and low incomes mean that healthy diets are therefore out of reach for many. For example, in a study of communities in 18 countries, the cost of one serving of fruit was 50 times higher relative to income per household member in LICs than in HICs, and a serving of vegetables was 19 times higher. The proportion of income spent to meet the recommended consumption of two servings of fruit and three servings of vegetables per day by international guidelines was 52% in LICs and 18% and 16% in lower-middle and upper-middle income countries respectively. Consumption of both fruits and vegetables decreased as the relative cost per serving increased<sup>57</sup>.

In a comparison of foods relative to the price of the cheapest staple cereal, vitamin-A rich fruits and vegetables and other fruits are relatively affordable across all regions of the globe, partly because many of them can be easily grown in tropical conditions and can be readily traded. For example, mangos and papayas are relatively straightforward to store and transport<sup>55</sup>. Vegetables, however, which are highly perishable and low in calorie density, are an expensive source of calories. The same study found that fresh milk is a relatively cheap source of calories in some countries,

such as India (a significant dairy producer), but expensive in most lower-income countries, where fresh cow's milk is often 10 times as expensive as the cheapest starchy staples<sup>55</sup>.

In sub-Saharan Africa, eggs are 9-10 times as expensive as staple cereals (based on caloric prices – the ratio of the price of one calorie of a given food relative to one calorie of the cheapest staple cereal in a country)<sup>58</sup>. Poor productivity in the dairy and poultry sectors of many low-income countries translates into these high prices. As fresh milk and eggs are highly perishable and cannot be easily traded over long distances, there is limited scope for low-cost imports to bring prices down. For meat and fish on the other hand, there is scope to trade live animals and there are processing options to allow for easier trade (such as freezing, drying, smoking or salting). As such, meat and fish are cheap in Latin America and the Caribbean, and also relatively affordable compared to other animal-source foods in sub-Saharan Africa, where calories from meat or fish are just 5-6 times as expensive as staple cereals<sup>58</sup>.

The relative prices of ultra-processed foods are decreasing<sup>56</sup>, which can partially be attributed to the fact that they generally have longer shelf lives and are more easily traded and stored than fresh, perishable, nutrient-rich foods. This is particularly the case in LMICs where inadequate post-harvest storage and transport infrastructure can be a barrier to efficient trade in fresh produce. It follows that, alongside domestic development policies (such as investment in infrastructure), governments need to carefully consider the impact on the supply and relative prices of different food imports when developing trade and trade-related policies. For example, trade facilitation and/or trade restrictions (e.g. via tariffs) can influence both the availability and relative prices of nutrient-rich foods as well as ultra-processed foods. Facilitation includes fostering an enabling environment for responsible FDI, in line with the Principles for Responsible Investment in Agriculture and Food Systems (RAI) from the Committee on World Food Security (CFS) to promote “the availability of and access to food that is safe, nutritious, diverse and culturally acceptable”<sup>59</sup>. In other words, trade instruments can help support national goals and targets relating to dietary patterns and health outcomes.



### 4.3 Managing price volatility

Until the food price spikes of 2007/08, which saw substantial increases in the prices of rice, wheat, maize and soya beans on international markets because of multiple macroeconomic, political and environmental factors<sup>60</sup>, international trade in agricultural commodities and foodstuffs helped to maintain relative stability in global food and agricultural commodity markets. Today, real prices for nearly all agricultural commodities are projected to remain at or below current levels over the next decade, as productivity improvements continue to outpace the growth of demand<sup>61</sup>.

Trade policy is an important regulatory tool for managing food price volatility (see (5) in Figure 1). Domestic shocks, such as extreme weather events, can destabilise markets in LMICs, causing high levels of volatility in domestic prices. Maintaining open trade relations allows countries to benefit from lower volatility on international markets, as any shocks are spread across multiple markets. International trade also connects countries with different planting and harvesting periods, smoothing availability on international markets and further reducing global volatility<sup>62</sup>.

Countries have often implemented export restrictions to guarantee the domestic availability and affordability of essential foods in response to international price increases and volatility<sup>67</sup>. In the aftermath of the 2007/8 food price crisis, many countries implemented trade policy measures aimed at reducing food prices for consumers. These included lowering tariffs and VAT to facilitate trade and promote price stability. For example, Nigeria cut duties on rice imports from 100% to 2.7%, the Republic of Congo reduced VAT levied on a range of basic imported foods from 18% to 5%, and Kenya removed VAT on rice and bread entirely. Other countries – including Argentina, Cambodia, China and Egypt – restricted food exports in an attempt to secure domestic supplies. This had a negative effect in that these measures caused shortages and subsequently the escalation of world prices (see Box 3)<sup>68</sup>. In India, grain exports were also restricted in response to the 2007/08 crisis, but the intervention did not enhance diets or reduce malnutrition among India's poor since they already lacked effective purchasing power. India's export ban also forced rice prices up in Bangladesh, pushing this staple further out of the reach of the urban poor<sup>69</sup>.

There are continuing concerns about the impact of export restrictions on prices and food security in importing LMICs. A recent study estimated that export bans from large grain producers could detrimentally affect the food supply of 200 million people globally, 90% of whom are from sub-Saharan Africa<sup>70</sup>. Evidence from the 2019 State of Food Security and Nutrition in the World (SOFI) report also shows that import-dependent LMICs are more prone to food insecurity and malnutrition as they are especially vulnerable to the volatility of global commodity prices<sup>7</sup>. Food import dependence is associated with an average 8% increase in the prevalence of undernourishment per year.

#### Box 3. Policy reactions linked to food trade can have serious negative consequences



During the 2007/08 global food price crisis, three-quarters of the increase in the price of rice was due to trade policy responses, such as export bans from major exporters<sup>63</sup>. Reactionary policies to food price volatility at this time exacerbated price increases, with a detrimental impact on diet quality and nutrition. At times of sharp food price spikes, evidence shows that households reduce purchases of nutrient-rich foods, prioritising the consumption of calorie-dense staple foods<sup>64</sup>.

Policy actions such as the imposition of economic sanctions for political purposes can have a negative impact on diet quality and nutrition security, as seen recently in Syria and Iran<sup>65,66</sup>. While this is essentially a matter of geopolitical decision-making, it is imperative that nutrition and food security are not impeded by political and economic sanctions, especially as they have a disproportionate impact on children and the poor.



#### 4.4 Food safety

Food safety standards have become an increasingly central issue for food trade as value chains have increased in length, interconnectivity and complexity (see (2),(7), and (11) in Figure 1)<sup>71,72</sup>. Food safety hazards are associated with many foods which are important to high-quality diets, with micronutrient-dense foods such as vegetables, fruit, meat and dairy at particular risk of being contaminated by micro-organisms associated with foodborne disease (FBD)<sup>73</sup>. Unsafe food has substantial health and economic costs for LMICs. The total productivity loss associated with FBD in LMICs is estimated at US\$95.2 billion a year. LMICs in Asia and sub-Saharan Africa account for US\$63.1 billion and US\$16.7 billion of that total respectively. Further, the annual cost of treating FBD in LMICs is estimated at US\$15 billion<sup>74</sup>.

The Codex Alimentarius Commission (Codex) is the internationally recognised body responsible for setting food safety standards and those standards have far-reaching implications for resolving trade disputes<sup>75</sup>. Currently, standards are seen as both a barrier to trade because of the associated costs and required capacity for compliance, but also as catalysts for investments in improved food safety management systems<sup>76,77</sup>.

Empirical evidence of the impact of international safety standards on nutrition and health in LMICs is limited. However, while standards play a major role in securing safe produce for

export, contaminated produce that does not meet the stringent tests for export markets can find its way into the domestic markets for low-income consumers. While efforts to meet HIC-imposed standards have led to significant upgrading of food safety management capacity in many LMICs, there is little evidence of spillover between trade-related capacity development and domestic systems<sup>74</sup>.

The prevalence of small-scale and informal cross-border trade is an important feature of supply chains in LMICs and has implications for food safety, particularly for highly perishable foods<sup>44-46</sup>. In sub-Saharan Africa, informal trade represents a significant proportion of regional cross-border trade<sup>45</sup>. For example, Uganda's informal exports to its five neighbouring countries were estimated to account for 43% of its total agricultural exports to these countries in 2006. The top five exported products were maize, fish, beans, groundnuts and bananas. Along the Malawi-Mozambique border of Milange-Muloza, maize is informally traded at an average daily rate of 2000 bags (50-90 kg each)<sup>45</sup>. A high incidence of informal trade can lower the efficiency of policy measures to ensure health, safety and environmental protection. Agricultural commodities which are traded informally often bypass sanitary and phytosanitary controls at the border, and reduce the effectiveness of measures put in place to ensure adequate domestic food safety and to avoid the proliferation of human, animal and plant diseases across borders (see (11) in Figure 1)<sup>45</sup>.

## 4.5 Food trade, climate change and resource degradation

Climate change is believed to be one driver behind the recent rise in global hunger, and one of the leading causes of recent food crises in LMICs<sup>78</sup>. It is already undermining the production of wheat, rice and maize and is expected to compromise production further as temperatures increase and become more extreme. Where agricultural production is adversely affected (in terms of both yields and the variety of crops that can be cultivated) due to gradual changes in climate, food imports could provide affected countries with a critical means of delivering food security and dietary diversity. Trade in food could also help to address domestic price instability caused by extreme weather events. However, in the decades ahead, exports are likely to decrease and trade flows likely to deteriorate as global production falls. FAO data show that domestic production losses following climate-related disasters between 2003-2011 led to export decreases to the value of US\$1 billion and US\$6 billion in Africa and Asia respectively<sup>78</sup>.

International demand for agricultural commodities is also driving tropical deforestation, which is the second largest global source of anthropogenic greenhouse gas emissions and a major driver of biodiversity loss. Between 2010 and 2014, international

trade was responsible for 29-39% of deforestation-related emissions, with cattle and oilseed products accounting for over half of this amount<sup>79</sup>. There is an urgent need for policy measures that encompass international supply chains to promote the sustainable production of nutritious foods for high-quality diets, and evidence suggests that shifts towards healthier diets at national, regional and global levels can make substantial contributions to reducing greenhouse gas emissions<sup>13, 80-82</sup>. For example, if the World Health Organization's dietary guidelines were adopted globally, the projected increase in food-associated greenhouse gas emissions by 2050 would be reduced by 29%<sup>83</sup>.

Global trade in nutritious food also has implications for resource use. It may be inefficient to produce nutrient-rich foods in certain countries because of limited environmental resources such as water and land, and other environmental constraints. Trade could, in fact, be considered an important way to help deliver nutritious foods to populations in these regions. Recent estimates show that approximately 11% of water extracted globally from non-renewable aquifers is embedded in international trade, with more than two-thirds in exports from Pakistan, the US and India<sup>84</sup>. There are important implications here for food security. For example, water availability is an important constraint for horticultural production in India, which can be exacerbated by the depletion of aquifers to produce rice for export.



# 5. Leveraging trade to improve diets: opportunities and challenges

## 5.1 Navigating trade agreements and ensuring domestic policy coherence

This brief argues that there are significant opportunities for policymakers faced with the growing health crisis and economic losses associated with malnutrition to engage with the global trade community as part of a food systems approach to improving diets. There are significant challenges to aligning national trade policies focused on nutrition outcomes with the World Trade Organization's (WTO) trade rules, as those rules do not generally take objectives relating to the provision of healthy diets into account. This section sets out the context for this lack of alignment and highlights opportunities for the use of trade agreements and instruments in LMICs to improve nutrition outcomes.

In recent decades, trade agreements have largely been determined by HICs, and investment agreements have often limited the freedom of governments in LMICs to develop domestic policies and regulations in favour of public health<sup>85</sup>. However, since the collapse of the WTO's Doha Round in 2008, there are examples of LMICs taking action to reassert national policy autonomy over health and social policy issues. For example, India, Indonesia and South Africa have terminated Bilateral Investment Treaties containing investor-state dispute settlement (ISDS) mechanisms to regain autonomy over domestic policy. Chile meanwhile has navigated WTO agreements on technical measures to protect 'front of pack' nutrition labelling for NCD prevention<sup>86</sup>.

At the same time, however, claims have been made which illustrate how the autonomy of states to regulate products on public health grounds can be challenged. In 2010 and 2011, the multinational tobacco company Philip Morris brought claims against Uruguay and Australia, challenging tobacco packaging and labelling policies. Philip Morris argued that graphic health warnings and plain packaging were "arbitrary and unreasonable measures"<sup>87</sup>. There are also claims that investor protection clauses can lead to 'regulatory chill', with governments becoming reluctant to initiate new regulations for fear of lawsuits from foreign investors. The costs alone of defending an investor challenge can dissuade poor countries from initiating new regulations<sup>85,88</sup>.

While challenges to public health policies have been rare, some countries have developed nutrition policies which aim to favour healthy diets that are compliant with trade commitments (see Box 4). However, trade agreements negotiated both within and without the WTO system are generally characterised by power imbalances between participating countries. For example, the WTO's Agreement on Agriculture, under which all multilateral trade of agricultural products is governed, arguably favours HICs and constricts the ability of LMICs to implement food security policies, such as the provision of price support to

🔥 It is vital that governments facilitate collaboration between policymakers from trade departments and those concerned with nutrition to improve coherence between nutrition and trade policy 🍷

Tom Arnold, Global Panel Member and Chair of the Task Force on Rural Africa

farmers or subsidies related to the volume of production<sup>89,90</sup>. Regional and bilateral trade and investment agreements can be particularly problematic when they include clauses that confer strong investor protections which introduce substantial changes to regulatory regimes, enabling greater industry involvement in policy-making and new avenues for appeal. These clauses can have potentially deep impacts on domestic policy<sup>88,91,92</sup>. For example, the inclusion of the ISDS mechanism enables companies to sue governments if they implement regulation that might lead to reduced profits for foreign investors<sup>93</sup>. Recent developments for the Appellate Body of the WTO, which has left the Body unable to fulfil its function of adjudicating on trade disputes, could exacerbate these power imbalances.

The examples of Samoa and Ghana contain important lessons for policymakers seeking to develop trade-compliant policies in support of healthy diets (see Box 4). Making trade policies non-discriminatory on domestic and foreign products, and using domestic policy rather than trade policy to address a nutrition issue were effective ways of seeking compliance with WTO rules on imports. In both examples, cross-sectoral working also played an important part in the development of trade-compliant nutrition policies. Transparent and scientific measures were used to ensure the 'necessity' of policy interventions and a comprehensive approach was applied to incorporate both imported and domestically produced foods to ensure that policy measures were non-discriminatory.

The WHO and WTO published a joint document in 2002 to help decision-makers better understand and monitor the linkages between trade agreements and health<sup>96</sup>. It made useful recommendations, several of which have current relevance for improving trade and nutrition policy coherence, and encouraged policymakers to engage through Trade Policy Review Mechanisms (TPRM) which can provide a suitable forum to discuss the intersection of trade and health issues. These fora offer opportunities to draw attention to the costs of malnutrition in all its forms (as a constraint on developmental objectives) and the critical importance of trade measures to support the delivery of healthy diets.

#### Box 4. Trade-compliant nutrition policies in Ghana and Samoa

1. In the early 1990s, in response to health concerns about fatty meat and rising meat imports, Ghana implemented a food standards policy to reduce the availability of low-quality, high-fat meats in its food supply. Collaboration between the Ministries of Trade, Health and Agriculture led to the development of evidence-based standards which applied to both imported and domestic meat and were therefore 'non-discriminatory' and 'not more trade-restrictive than necessary', in accordance with WTO rules (see (11) in Figure 1).

One of the main challenges in using a standards-based approach can be effective enforcement. However, in Ghana, the application of standards only to products identified as exceeding maximum fat standards was functionally effective, while maintaining low enforcement costs<sup>94</sup>.

2. Following Samoa's accession to the WTO in 2011, the country developed a comprehensive WTO-compliant nutrition policy. The policy was developed to replace a ban on imports of

turkey tails (a fatty meat), aimed at reducing saturated fat intakes, obesity and heart disease. There were two main concerns about the ban: its effectiveness for improving diets given the focus on a single food item, and the discriminatory nature of the ban, as many high-fat foods were still available for purchase in Samoa. Due to these concerns and to ensure adherence to WTO law, the ban was removed.

In 2015, the Samoan Ministry of Health, WHO and FAO conducted a study to identify policy options to replace the ban. Recommendations included: (i) implementing non-discriminatory fiscal policy measures, in terms of both taxes and subsidies, to create incentives for the production and consumption of 'healthy' foods, based on a nutrient profiling model; (ii) increasing nutrition objectives in investments for agricultural production; (iii) investing to increase the availability of nutritious food sold in the informal sector; and (iv) improving the diet quality goals of public procurement and implementing a targeted fruit and vegetable support measure into social welfare benefits<sup>95</sup>.



Other recommendations in the document include the involvement of health officials in the development of domestic trade policy; for senior officials in relevant ministries to take a strong leadership role and set an example for collaboration by demonstrating their own commitment to cross-sectoral discussion and debate, including efforts to involve civil society; and the establishment of cross-sectoral institutions (such as standing committees, task forces, working groups) that allow for regular contact between policymakers from different departments and facilitate collaboration<sup>96</sup>. However, given the crises in global food systems which are failing to deliver healthy and sustainable diets, there is an urgent need for the WHO and WTO to update the 2002 document with new guidance for policymakers.

Using the same approach to trade policy in different national contexts to address health and nutrition goals can, however, have different outcomes (see Box 5). Governments need to identify the level of coherence (or incoherence) between particular trade policies and goals relating to health and nutrition within their specific national settings. Trade policies can have different impacts depending on, for example, the forms and severity of malnutrition present, sub-population characteristics (income, age, occupation, etc.) whether countries are net food importers or exporters, and the trade agreements, policies and institutions which are in place<sup>97</sup>.

The competitiveness of food markets in countries which apply less stringent social and environmental protection policies is also important. Some countries face comparatively higher production costs and output prices because of more stringent social regulations (e.g. minimum wages, banned child labour) or environmental protection (e.g. banned use of selected pesticides and other chemicals, soil fertility controls). While this makes importing food from countries with less stringent regulations cheaper, with apparent gains in food security and dietary quality, the longer-term sustainability of domestic production may be jeopardised. Coherence should be built between social and environmental protection, food security, diet quality and trade. While food prices may increase where social and environmental costs are taken into account, income growth, social protection and trade policies should be tailored to support the accessibility and affordability of healthy diets<sup>4</sup>.

## 5.2 Data for evidence-based policy-making

There is a critical evidence gap in the food policy arena; namely, a lack of data on what people actually consume<sup>3,105</sup>. While there are existing initiatives which provide some data on dietary intake<sup>106, 107</sup>, the drivers of consumer behaviour in response to dietary choices, particularly in LMICs<sup>108</sup>, need to be better understood if policymakers are to manage the impacts of trade policy on diets and nutrition more effectively. Without these data, it will be difficult to ascertain whether interventions to align trade and nutrition policy are effective. The WHO and the WTO highlight the absence of systematic data collection as an important obstacle to analysing the health impacts of existing WTO agreements and assessing the

### Box 5. Taxes and duty on palm oil: two contrasting examples

In 2016, the French government dropped its planned palm oil tax. The tax had been proposed on health grounds, based on the high content of saturated fats in palm oil. Producer countries had protested and threatened with retaliation, claiming that the restriction was a camouflaged barrier to trade, discriminating against palm oil in favour of other oils and other sources of saturated fat<sup>98, 99</sup>. The attempts to restrict palm oil imports on the part of the French government have continued, however, with the rationale shifting towards environmental protection and biofuels. Strong resistance and official complaints on the part of suppliers have continued<sup>100-102</sup>.

The government of Fiji recently approved an import duty of 32% on palm oil to curb saturated fat intakes, and address high levels of obesity and heart disease, meeting with very little opposition. This duty increase was within the WTO-bound tariff rates, reducing the scope for contestation on trade grounds<sup>103</sup>. Subsequent analysis of this policy suggests that Fiji represents a small market share for palm oil exporters, and this is likely to have contributed to the lack of criticism or contestation<sup>104</sup>.

potential health effects of proposed WTO rules and disciplines<sup>96</sup>. Much more needs to be done to fill these information gaps.

The most effective public health surveillance systems are those designed with specific, well-defined objectives, which involve collecting data in a standardised way, with frequent data analysis, and dissemination of results to those who need the information. A good example of this type of system relevant to diets is the trade module of INFORMAS (International Network for Food and Obesity/Non-Communicable Diseases Research, Monitoring and Action Support), which is a framework for assessing the impacts of trade policy on food environments and NCDs<sup>14</sup>.

The INFORMAS monitoring framework proposes a set of indicators under four domains: 1) trade in goods; 2) trade in services and FDI; 3) domestic protections and support; and 4) policy space. Recognising that countries have differing capacities and available resources to conduct monitoring activities, INFORMAS offers a step-wise framework in which countries can take a 'minimal', 'expanded' or 'optimal' approach, with measurement indicators specific to each (Figure 13). For example, the framework proposes that countries adopting the 'minimal' approach concentrate on 'focus foods', rather than the total food supply. This means concentrating in particular on 'healthy food' (such as 'fresh fruits' and 'pulses, nuts and seeds') and 'ultra-processed, energy-dense and/or high-fat foods associated with obesity/NCD risks' (such as 'edible oils and spreads', 'fatty meat products' and 'energy-dense beverages').

**Figure 13: Step-wise framework for monitoring the impacts of trade and investment agreements on national food environments**

Domain	'Minimal' approach	'Expanded' approach	'Optimal' approach
1. Trade in goods	<p><b>1.1.</b> Provisions in text relating to tariff and non-tariff barriers to trade, including tariff-rate quotas, import licensing and price-banding and specific food categories affected by these provision</p> <p><b>1.2.</b> Total food import volumes</p> <p><b>1.3.</b> Focus food category import volumes</p> <p><b>1.4.</b> Rate of change in total food import volumes</p> <p><b>1.5.</b> Rate of change in focus food category import volumes</p> <p><b>1.6.</b> Actual and bound tariff rates for focus food categories</p> <p><b>1.7.</b> Tariff-rate quotas for focus food categories</p> <p><b>1.8.</b> Tariff differential (if any) between healthy and unhealthy focus food categories</p>	<p><b>1.9.</b> Food import volumes, by category</p> <p><b>1.10.</b> Rate of change in food import volumes, by category</p> <p><b>1.11.</b> Actual and bound tariff rates for all food categories</p> <p><b>1.12.</b> Tariff-rate quotas for all food categories</p> <p><b>1.13.</b> Tariff differential (if any) between all healthy and unhealthy focus food categories</p>	<p><b>1.14.</b> Retail food prices (in focus food categories or more broadly where possible)</p> <p><b>1.15.</b> Retail food sales (in focus food categories or more broadly where possible)</p> <p><b>1.16.</b> Population consumption volumes (in focus food categories or more broadly where possible)</p>
2. Trade in services and foreign direct investment	<p><b>2.1.</b> Provisions in text relating to restrictions on foreign ownership, intellectual property (IP) protection, performance requirements for foreign investors, and national treatment</p> <p><b>2.2.</b> Type and country of origin of all foreign-owned TFCs operating in country</p> <p><b>2.3.</b> FDI investment in food production, processing, retail and advertising sectors (monetary value)</p> <p><b>2.4.</b> Rate of change in total inward FDI in food and related sectors (including communications and advertising)</p>	<p><b>2.5.</b> Market share of foreign-owned transnational food corporations (TFCs) in processing and retail sectors</p> <p><b>2.6.</b> Size of processed food sector</p> <p><b>2.7.</b> Rate of change in size of processed food sector</p> <p><b>2.8.</b> Degree of concentration in food processing and retail sectors</p>	<p><b>2.9.</b> Domestic production (monetary value) of focus food categories or more broadly where possible</p> <p><b>2.10.</b> Changes in domestic policy relating to foreign ownership and investment</p>
3. Domestic protections and support	<p><b>3.1.</b> Provisions in text relating to domestic protections and supports (e.g. agricultural safeguards, special treatment of agricultural products, anti-dumping and countervailing measures, agricultural supports and export subsidies and promotion)</p>	<p><b>3.2.</b> Export subsidies (in focus food categories or more broadly where possible) (monetary value)</p> <p><b>3.3.</b> Subsidy differential (if any) between healthy and unhealthy focus food categories</p>	<p><b>3.4.</b> Change in domestic production volumes (of focus food categories or more broadly where possible)</p> <p><b>3.5.</b> Change in export volumes (of focus food categories or more broadly where possible)</p>
4. Policy space and governance	<p><b>4.1.</b> Provisions in text relating to domestic policy space and governance (including government procurement, enforcement, transparency, dispute settlement and government regulation of food marketing, composition, labelling)</p>		<p><b>4.2.</b> Changes in domestic policy, regulations and guidelines relating to food marketing composition and labelling</p>

Source: Friel et al., 2013<sup>14</sup>.

## 6. Conclusions

This policy brief has shown how trade policy instruments can support or hinder the achievement of national public health goals relating to diets and nutrition. Trade has a particularly critical role in aligning what countries produce and what consumers need in order to access affordable, healthy diets. In other words, trade mediates supply and demand and affects food availability and relative prices of the various food items. Trade also buffers against variability and volatility and may contribute to protecting consumer safety when standards and regulations applied to food trade are reflected in domestic food systems.

***Policymakers in LMICs and global international institutions need to consider the potential gains that could be made by allowing trade policy to play a decisive role as part of coherent national policy agendas supporting high-quality diets, as well as food security. This means they need to have a better understanding of how trends in global and regional trade interact with national food imports, local production, consumption and purchasing power. The impact of trade policy on food systems is also closely linked to the growing impacts of climate change.***

***There is an urgent need for advice from the WTO and WHO on policy measures that encompass international supply chains and which promote the sustainable production of nutrient-rich foods for high-quality diets. Evidence suggests that shifts towards healthier diets at national, regional and global levels can make substantial contributions to reducing greenhouse gas emissions in particular***<sup>13, 80-82</sup>.

The reality is that trade policies today are invariably driven by goals which have little to do with diets and nutrition, but typically relate to issues such as economic growth, incomes, jobs and foreign earnings. This is a substantial missed opportunity for both sides of the policy divide. Certainly, there are clear benefits to be gained by aligning trade policy so that it contributes much more explicitly to the goal of improving diets and nutrition. Alignment could also yield important benefits for existing trade objectives: there is growing recognition that healthy diets are a key enabler for the development, growth and prosperity of individuals, populations, and whole economies. For example, the WTO Agreements on the Application of Sanitary and Phytosanitary Measures, and on Technical Barriers to Trade and on Trade Facilitation contribute to economic development by removing unnecessary barriers to trade in food. Each 1% saving in trade transaction costs is estimated to result in a global trade benefit of US\$43 billion. The benefits are especially apparent for the trade of perishable products, including fresh food<sup>109</sup>.

It is also important for policymakers to take account of the rapid changes in food systems that are occurring around the globe, and the implications for national trade policy. Triggered by rising incomes and the expansion of the middle class, shifting

demand for more diverse diets and more ultra-processed foods is already being seen. The increasing presence of multinational food companies in LMICs through FDI has been linked to this trend. National food supplies worldwide are becoming more similar in composition, and governments will need to consider carefully how the poor can access healthy diets which are based on domestic production. This matters because future trade patterns are likely to affect consumption patterns of less-poor consumers in LMICs, rather than the diets of the poorest households.

***There is a clear need for new research to develop a better understanding of which policy levers are likely to deliver the most effective outcomes in national contexts.***

Despite the substantial influence of trade policy on people's dietary choices, our understanding of how it affects the affordability and accessibility of healthy diets is very limited. Specific priorities for research and evidence gathering are:

- Studies to develop a better understanding of the important linkages in terms of policy levers among trade instruments and diet quality, with particular attention to the trade-offs between trade-related goals (e.g. economic growth, employment, and income growth), and specific public health goals.
- Export tariffs, in particular, are poorly understood in terms of their impact on healthy diets in LMICs and should be a priority area for research.

Notwithstanding the need for further research, this policy brief recommends a series of practical steps that policymakers at a national level in LMICs can take to help ensure that trade policy plays its part in ensuring that all households are able to access and afford a sufficiently diverse range of nutrient-rich foods as part of a healthy diet. These are set out below.

***However, before these steps can be considered in specific contexts, it is essential to first take stock of the status quo for the country in question.*** The following three dimensions form an essential background against which to assess potential new trade policies:

- **Assess current trade in all foods and food products in relation to diet quality and nutrition.** The aim is to determine how existing patterns of trade – both imports and exports – are affecting the availability and price of specific food commodities and products, and if possible, how these are influencing diets for different parts of the population. Foods high in nutrients, and also foods regarded as nutrient-poor (such as ultra-processed foods) should be of particular interest. Ideally the assessments should draw upon data based on analysis of people's diets. But in the absence of that, the effect

on diets may need to be inferred by considering proxy measures, for example relating to import and export flows alongside in-country production.

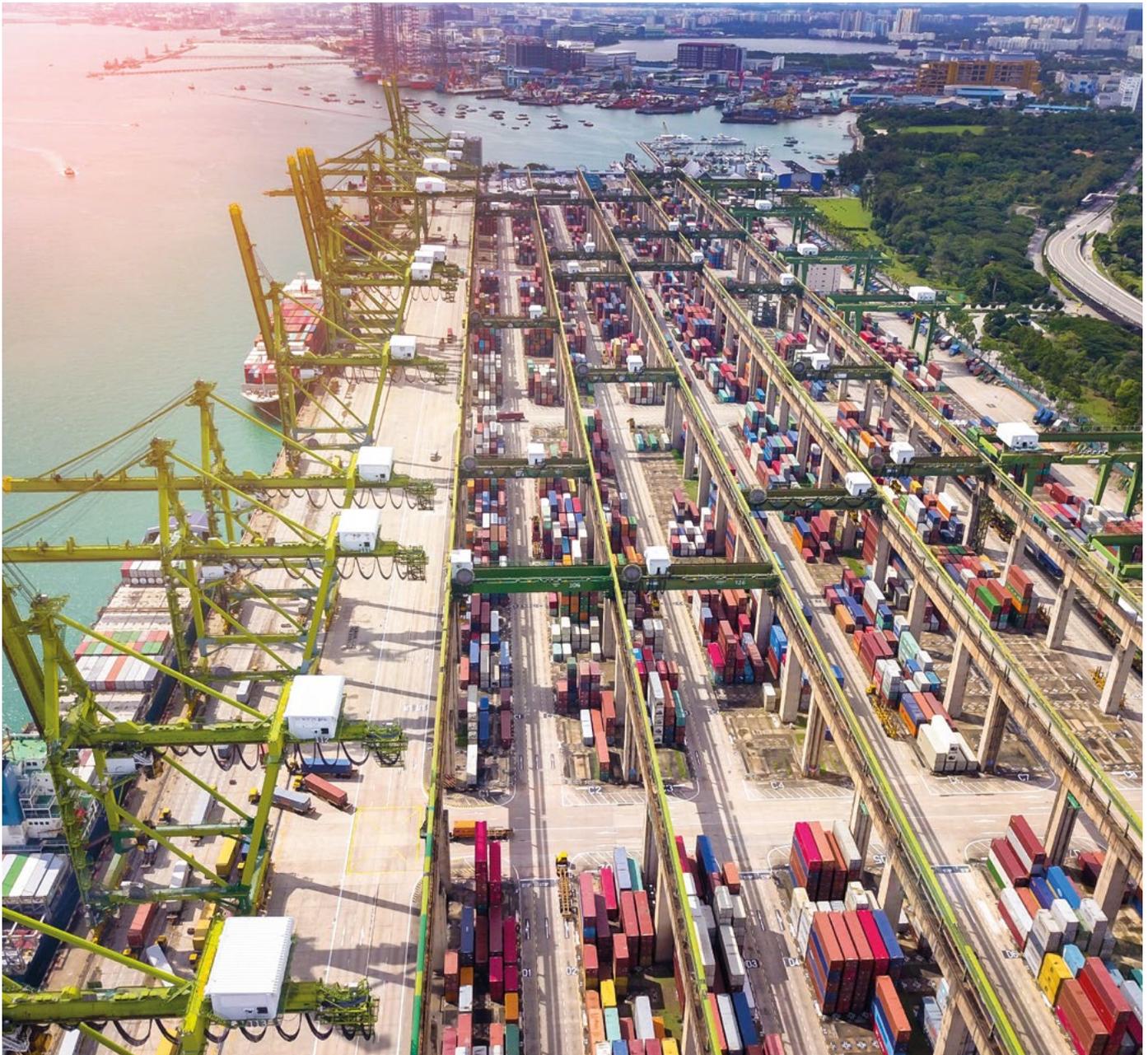
- **Assess existing trade policies in terms of their nutrition sensitivity and compatibility with public health objectives.**

The aim here would be to consider what is driving current trade policies to determine which are already helpful, and which are less so.

- **Assess how existing policies in areas other than trade might also affect diet quality.** Any new trade policies will need to be placed within the context of wider policies to promote healthy diets. This assessment is needed in order to identify the level of coherence (or incoherence) between particular trade policies and goals relating to food systems, health and nutrition within their specific national settings. The aim would be to

ensure *all* relevant policies form an integrated and coherent overall strategy. For example, there would be little point in stimulating imports of specific high-nutrient foods in the absence of consumer demand. Accompanying measures to inform and encourage consumer choice may be needed.

It has already been noted that there is insufficient evidence to provide unequivocal advice on specific trade policies to adopt to promote better diets and nutrition in LMICs. Besides, as outlined above, the choice of policy instruments would need to be conditioned on local circumstances. However, in considering the possible role of trade policies, the following recommendations summarise issues which are particularly worthy of consideration. In each case, the implications of possible trade policies on local producers and others involved in domestic food chains would need to be considered, as well as the effects on the quality of diets consumed.



## 7. Recommendations

- 1 Policymakers should be especially alert to the effects of trade policies on the importing of processed foods, with special attention paid to ultra-processed foods.** Processed foods may be particularly conducive to trade, as they are often less perishable than fresh fruit and vegetables. They may also have relatively high standards of food safety. However, whilst canned fruit and vegetables may, for example, be helpful in delivering healthy diets, there is increasing evidence that high consumption of ultra-processed foods is associated with adverse health impacts.
- 2 Specific traded foods should only be viewed as ‘healthy’ or ‘unhealthy’ within the context of a national or local diet.** For example, notwithstanding the above comments about ultra-processed foods, consumption of imported processed nutritious foods with an extended shelf life can be beneficial. The alternative might be food that is fresh, but subject to significant safety concerns.
- 3 Close attention should be paid to policies that influence relative prices of foods within their country’s markets.** In particular, policymakers have the opportunity to consider trade policies to shift incentives and relative prices in ways that support higher consumption of nutrient-rich, rather than nutrient-poor foods. Evidence shows that poor consumers will generally consume more of those foods which are relatively cheaper, despite damaging effects to their health in the long run.
- 4 High priority should be given to trade policies that help specifically to increase the *availability* and therefore reduce the price of nutrient-rich foods, as this can particularly benefit the poor.** These foods are generally more expensive than nutrient-poor foods, and therefore tend to be less affordable to poor consumers. Where this is not feasible, greater attention to domestic production may be needed.
- 5 Food trade can be especially beneficial in managing price volatility and risks associated with climate change. Governments should resist the imposition of export restrictions at times of sharp food price spikes, and look instead to lowering tariffs and VAT to encourage trade flows.** Food price volatility is a growing concern because of the effects of climate change and extreme weather events on crop production. Evidence shows that at times of food price spikes, households may reduce purchases of nutritious foods, and prioritise consumption of calorie-dense staple foods, resulting in lower quality diets.
- 6 Export of high-nutrient foods is not necessarily undesirable and should be considered in the overall context of the nutrient value and affordability of food imports.** For example, a number of LMICs export high-nutrient seafood of high economic value to HICs, and import high-nutrient seafood of lower economic value, with the overall effect of reducing the in-country price of seafood protein<sup>54</sup>.
- 7 The incidence of informal trade should be a particular focus for policymakers, as it can lower the efficiency of health, safety and environmental protection policy measures, as well as measures to prevent the spread of animal diseases.** Informal trade may sometimes play a significant role in ensuring the availability of some foods. However, it can amount to more than 40% of trade between certain countries with negative implications for protective policy measures.
- 8 Policymakers should pay close attention to trade agreements which embody strong investor protections, as they can be particularly problematic.** These protections may introduce substantial changes to regulatory regimes, enabling significant impacts on domestic policy. Investor-state dispute settlement (ISDS) mechanisms, in particular, can open governments to being sued if regulations are introduced that might lead to reduced profits for foreign investors. This can substantially inhibit new regulations in relevant countries.
- 9 Countries can circumvent the risks of trade agreements with strong investor protection (see 8 above) by aligning nutrition-focused trade policies with WTO rules and making (i) policies non-discriminatory on domestic and foreign products (as in the example of Ghana, Box 4), and (ii) using domestic policy rather than trade policy to address some diet quality issues (as in the example of Samoa, Box 4).**
- 10 Consideration needs to be paid to imports from countries which apply less stringent social and environmental protection policies in order to evaluate the long-term effects on domestic production.** While such imports may, in the short term, help to improve food security and be relatively cheap, accompanying measures may be needed to protect domestic producers against unfair competition. More generally, coherence should be built between social and environmental protection, food security, diet quality and trade. Better alignment between trade capacity development and domestic systems should also be pursued to raise standards in domestic production and consumption.
- 11 Evidence suggests that shifts towards healthier diets at national, regional and global levels can make substantial contributions to reducing greenhouse gas emissions. There is an urgent need for policy measures which encompass international supply chains to promote the sustainable production of nutritious foods for high-quality diets.**

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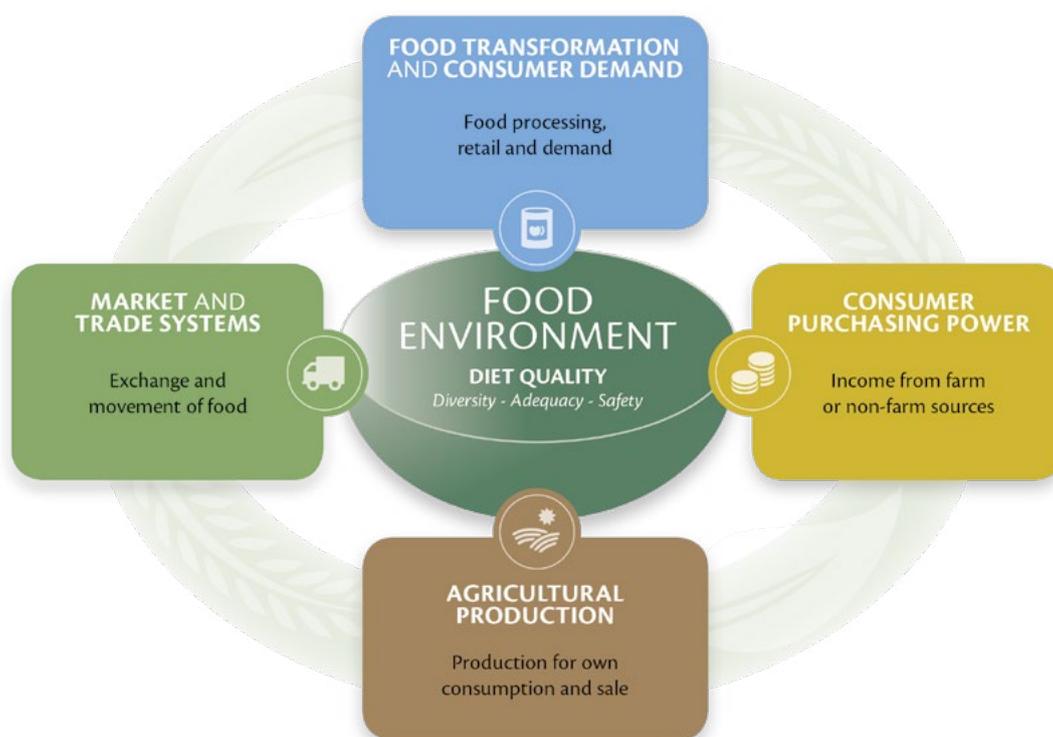
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# How can Agriculture and Food System Policies Improve Nutrition?

The multiple burdens on health in low- and middle-income countries due to food-related nutrition problems include not only persistent undernutrition and stunting but also widespread vitamin and mineral deficiencies and a growing prevalence of overweight, obesity and non-communicable diseases. These different forms of malnutrition limit people's opportunity to live healthy and productive lives, and impede the growth of economies and whole societies.

The food environment from which consumers should be able to create healthy diets is influenced by four domains of economic activity:



In each of these domains, there is a range of policies that can have enormous influence on nutritional outcomes. In the Global Panel's first Technical Brief, we explain how these policies can influence nutrition, both positively and negatively. We make an argument for an integrated approach, drawing on policies from across these domains, and the need for more empirical evidence to identify successful approaches.

Find out more here: [Glopan.org/nutrition](https://glopan.org/nutrition)



Rethinking trade policies to support healthier diets makes recommendations for policymakers to consider concerning all domains of the food system in order to improve diets.

Download *Policy Brief No. 13* here: [glopan.org/trade](https://glopan.org/trade)



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