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Policy Discussion

Trade, investment and nutrition: Status update and policy coherence challenges of the United Nations decade of action on nutrition

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Abstract

The United Nations Decade of Action on Nutrition (2016 - 2025) followed the Second International Conference on Nutrition in 2014. The Decade of Action aimed to accelerate global action on nutrition and diet-related non-communicable diseases, however there are still significant challenges surrounding all forms of malnutrition, as well as food systems that are unsustainable and inequitable. Addressing these inequities requires policy action on nutrition across multiple sectors, including trade. This paper provides an overview of recommendations relevant to trade and investment of the Second International Conference on Nutrition and concludes with an analysis of opportunities to promote policy coherence regarding nutrition. Recommendations relate to engaging with trade-related institutions on nutrition, promoting and protecting nutrition and the right to adequate food through trade and investment agreements, integrating nutrition into food and agriculture policy, and strengthening local food systems and equity. Addressing these recommendations and achieving policy coherence between trade and nutrition requires robust research into the interaction between trade and nutrition, engagement and capacity building with diverse actors, carving space for nutrition in trade and investment agreements, and creating institutional mechanisms that enable nutrition and trade policy actors to create trade policy that is coherent with global and national nutrition goals.

INTRODUCTION

The UN Decade of Action on Nutrition (2016 – 2025) was affirmed in 2016 following the Second International Conference on Nutrition (ICN2) (held in Rome as a joint initiative between FAO and WHO in 2014), and the endorsement of the Sustainable Development Goals (SDGs) by all UN members in 2015. The Nutrition Decade aimed to accelerate global action on nutrition and diet-related non-communicable diseases (NCDs), as well as support the implementation of the SDGs – particularly Goal 2 "End hunger, achieve food security and improved nutrition, and promote sustainable agriculture." Good nutrition, alongside sustainable food systems, are important to broader global and national goals related to poverty, education, employment, women and girls' empowerment, and inequality (Mozaffarian et al., 2018).

Whilst there has been global progress towards improved nutrition, there are still significant challenges surrounding all forms of malnutrition and food systems that are unsustainable and inequitable (United Nations, 2021). Nearly 757 million people in 2023 faced hunger, and 2.3 billion (almost one in three) lack access to adequate food (FAO et al., 2024). NCDs are the leading cause of death in many countries, with 1 in 5 deaths globally being diet-related (Afshin et al., 2019). Addressing inequalities in -

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access and outcomes related to food and nutrition requires food-focused policy action across multiple sectors such as health, agriculture, fisheries, trade, environment and commerce, as well as action on the root causes of social inequity (Harris & Nisbett, 2018; Pescud et al., 2018), to create nourishing and sustainable food systems, address all forms of malnutrition, as well as protect, respect and fulfil the right to adequate food. Trade policies can play an important role in protecting and promoting nutrition, due to their impact on food production and trade, food environment, and policy space, which we describe in detail in this paper.

However, the implementation of the trade-related recommendations from ICN2, still requires concerted political effort, supported by multisectoral engagement and policy coherence across sectors (FAO & WHO, 2014). Two explicit trade-related recommendations (17 and 18) as well as two implicit trade-related recommendations (8 and 9) were endorsed at ICN2 (Box 1).

Box 1. Trade-related recommendations endorsed at the Second International Conference on Nutrition

Explicit trade-related recommendations:

- *Recommendation 17: Encourage governments, United Nations agencies, programmes and funds, the World Trade Organization (WTO) and other international organizations to identify opportunities to achieve global food and nutrition targets, through trade and investment policies.*
- *Recommendation 18: Improve the availability and access of the food supply through appropriate trade agreements and policies and endeavour to ensure that such agreements and policies do not have a negative impact on the right to adequate food in other countries.*

Implicit trade-related recommendations:

- *Recommendation 8: Review national policies and investments and integrate nutrition objectives into food and agriculture policy, programme design and implementation, to enhance nutrition sensitive agriculture, ensure food security and enable healthy diets.*
- *Recommendation 9: Strengthen local food production and processing, especially by smallholder and family farmers, giving special attention to women's empowerment, while recognizing that efficient and effective trade is key to achieving nutrition objectives.*

A sustainable food system "…delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised" (FAO, 2018). As such, creating sustainable and equitable food systems are crucial for achieving improved nutrition and reducing NCD prevalence. The right to adequate food is an inclusive right, which is "realized when every man, woman and child has physical and economic access at all times to adequate foods or means for its procurement" (UN Human Rights, 2010). This right can be supported through sustainable food systems that are free from exploitation, protect non-market values such as social and environmental externalities, and that encourage high quality and diverse diets, particularly diets high in fresh fruit and vegetables, whole-grains, and lean sources of protein (Claeys, 2015; McMichael, 2015; van Berkum, 2021). The global trade system has both positive and negative implications for high quality and diverse diets, as well as the right to adequate food. There has been some progress over the past decade on addressing the interface between trade, nutrition and the right to adequate food, however there is a need for a move towards a system based on the human-rights principles of universality, indivisibility, equality, non-discrimination, participation and accountability (UNSDG, 2024). Policy processes as well as policy content relevant to trade, investment and nutrition must address issues of equity and human rights.

This paper provides an overview of trade, investment, and nutrition relevant to the four recommendations of the Decade of Action on Nutrition (Box 1), and concludes with an analysis of opportunities to promote policy coherence regarding trade and nutrition. The focus of this analysis is on learning for the future, and throughout the paper we have included specific examples from different regions, based on the authors' areas of expertise, that illustrate progress in policy and practice at the interface between trade, investment and nutrition.

THE INSTITUTIONAL LANDSCAPE FOR TRADE AND INVESTMENT POLICIES, WITH REFERENCE TO GLOBAL FOOD SYSTEMS AND NUTRITION TARGETS (DECADE OF ACTION RECOMMENDATION 17)

The institutional landscape related to trade, investment and nutrition includes global, regional and national institutional structures, treaties and policies. The World Trade Organization (WTO) was created in 1994, and is the primary multilateral body for global trade negotiations, but trade and investment agreements are increasingly also negotiated by members states at the plurilateral, bilateral and regional levels. The binding dispute settlement mechanisms incorporated into trade and investment agreements mean that their provisions are mostly operationalised in domestic policy. In contrast, recommendations and treaties to address malnutrition and climate change tend to be non-binding, limiting the potential for treaties to fully balance economic goals with efforts against malnutrition and climate change (Friel et al., 2020). As such, trade-offs can occur during the negotiation process, and domestic health and social interests are not always represented in agreements. This shift to plurilateral, bilateral and regional agreements often goes beyond the scope of the agreements of the WTO, and they are limited in their transparency.

The negotiation process of the WTO can be long, which can make it difficult to see changes in trade and investment agreements to address nutrition. However, an example of policy change relevant to nutrition is the recently concluded WTO Agreement on Fisheries Subsidies, which is the second concluded agreement related to fishing since the inception of the WTO (WTO, 2022a). This agreement addresses ocean sustainability by prohibiting harmful fisheries subsidies (including subsidies provided for fishing activities regarding an overfished stock, or subsidies provided for fishing activities in the unregulated high seas), which are a key factor in the widespread depletion of the world's fish stocks (see Box 2).

In addition to multilateral and bilateral agreements, there are also a range of global institutions with mandates relevant to both trade and nutrition, which are important to consider when implementing trade-related

recommendations from ICN2. These include: the Codex Alimentarius Commission; the United Nations Committee on World Food Security; UN-Nutrition; and FAO. For example, the FAO Committee on World Food Security (CFS) produces various policy products (such as the Voluntary Guidelines to support the progressive realization of the right to adequate food in the context of national food security (FAO, 2004), and the Voluntary Guidelines on Food Systems and Nutrition (CFS, 2021)) that aim to support countries in addressing nutrition issues, with specific recommendations related to trade. Codex produces voluntary guidance (standards) regarding food, to help facilitate trade and protect consumers.

Box 2. Success in the WTO fisheries negotiation

Fisheries subsidies have long been a contentious issue within the WTO. These subsidies, often provided by governments to support their fishing industries, can lead to overfishing and overcapacity, exacerbating the depletion of fish stocks and harming marine ecosystems. Recognizing the urgent need to address this issue, the WTO embarked on negotiations to establish an agreement aimed at disciplining fisheries subsidies. The journey towards an agreement was complex, involving extensive discussions among WTO members, each with different economic interests and environmental concerns. The mandate for these negotiations originated from the 2001 Doha Development Agenda and was reinforced in subsequent WTO Ministerial Conferences, most notably in Bali (2013), Nairobi (2015), and Buenos Aires (2017). In June 2022, the WTO members reached a consensus on the Agreement on Fisheries Subsidies (WTO, 2024). This historic agreement aims to curb harmful subsidies that contribute to overfishing and illegal, unreported, and unregulated fishing, while balancing the developmental needs of poorer countries (WTO, 2024). Developing countries, particularly small island developing states and coastal nations, were concerned about the economic impact of subsidy prohibitions on their fishing communities (Sevaly Sen & Cartwright, 2019). These countries often rely heavily on fisheries for food security, employment, and economic development (Wilson, 2024; World Bank, 2024). The Agreement includes special and differential treatment to allow them time to adapt to new regulations and to receive technical and financial assistance for building sustainable fishing practices (Wilson, 2024). Flexibility was sought to balance conservation efforts with developmental needs, ensuring that poverty alleviation and economic growth were not compromised.

Private sector industries (including the food industry as well as industries with interests relevant to agriculture and production) also actively engage in trade and investment negotiations. Large transnational companies and their trade associations influence trade negotiations mainly through lobbying and increasingly through public-private governance mechanisms (Baker et al., 2020; Crosbie et al., 2023). In addition, low- and middle-income countries (LMICs), due to their relatively limited capacity, sometimes engage with these companies or trade associations to assist them in mustering the needed expertise to represent them in bilateral and multilateral negotiations.

To date, there has been limited integration of nutritional considerations into TIAs. Industry lobbying efforts contribute to this, with a consistent focus on quantities of food traded and the implications for revenue and employment, and limited consideration of nutritional quality and health (Friel et al., 2016; Garton et al., 2021b). Within trade policy discourse, nutrition has been framed by industry as a domestic policy issue, with the implication that public health efforts should be limited to behavioural change programmes and policies, rather than seeking to influence economic policy (Battams & Townsend, 2019; Friel et al., 2019). Discourse and framing regarding food security in relation to trade has often focussed on aggregate metrics of food supply at the national level, ignoring issues and policies related to the right to food and equity in household access to food (Burnett & Murphy, 2017; Fakhri, 2020).

The alignment between industry narratives and trade and investment policy approaches are reflective of the larger power asymmetries between economic and socially oriented actors in spaces where food trade-related decisions are made that directly impact nutrition (Barlow & Thow, 2021; Labonté et al., 2019; Schram, 2018). These include imbalances in the ability of health and nutrition actors to access trade negotiations compared to industry stakeholders, due to resource constraints. Food industry influence relevant to trade and investment agreements also occurs through participation in relevant international standards formulation settings. A disproportionate participation of food industry relative to civil society representatives has been documented in committees of the Codex, which is the international WHO/FAO food standards-setting organization that often forms the basis of national standards and is referenced in key WTO Agreements (Garton et al., 2021b; Thow, Jones, et al., 2019).

Taking action on trade, investment and nutrition in the wider context of sustainable development and climate change, whilst addressing diverse stakeholder interests regarding trade in food – including health advocates, corporate lobbyists, and health and economic policy makers – will require efforts to address these imbalances in resource and access, allowing the kind of balanced negotiations that can lead to policy coherence. Policy coherence in this context includes ensuring trade policy supports and enabling the achievement of 'non-trade' objectives like adequate access to healthy food and nutrition. It also includes the adoption of strong and evidence-based policies to protect and promote nutrition and food security. Policy coherence between trade and nutrition has proved challenging (see final section), but creating institutional platforms and policies that promote dialogue between sectors, and focus policy attention on these critical issues can support alignment between sectors (See Box 3).

Box 3. Case study – Policy Coherence in Vietnam

An analysis of the implications of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) for public health nutrition in Vietnam revealed important leverage points for policy coherence. It identified tensions between the CPTPP and 50 Vietnamese nutrition-related policies, particularly concerning technical barriers to trade and government procurement. The majority of policy tensions were linked to protecting policymaking from vested interests. Two advocacy groups were identified: the Trade Coalition, which supports free trade and economic growth, arguing that free trade inherently enhances nutrition, and the Nutrition Coalition, which stresses the importance of integrating nutrition considerations into trade policies. The analysis suggested that to mitigate tensions and enhance policy coherence, increased interaction and constructive dialogue between these coalitions would be essential.

In response to the tensions between trade policies and public health nutrition, the Vietnam government issued Decision No. 300/QD-TTg, the National Action Plan on Food Systems Transformation (NAP-FST), for which the Ministry of Agriculture and Rural Development is the national focal point, targeting the integration of agriculture, trade, and nutrition policies to foster a transparent, responsible, and sustainable food system by 2030. This plan aims to enhance food and nutrition security nationally, emphasising collaborative efforts across government and non-government entities to promote agroecology, sustainability, food safety, and nutritionally focused agricultural development.

Source: (Harris et al., 2022)

Looking beyond nutrition to consider the intersection between food systems, nutrition and climate change can also contribute to improved outcomes (Binns et al., 2021; Friel et al., 2020). The so far elusive Plastics Treaty is an example of a treaty that could contribute to both environmental and health improvements by including strong recommendations on the marketing and trade of ultra-processed foods, given their impact on human and environmental health (including the production of greenhouse gases and plastic pollution).

THE IMPACT OF TRADE AND INVESTMENT AGREEMENTS ON FOOD SECURITY AND NUTRITION (DECADE OF ACTION RECOMMENDATION 18)

Trade policies directly impact on the function of global, national, and local food systems, which are crucial in ensuring the right to adequate food. Access to food is an essential element of this right, and as such liberalization of trade and investment has had both positive and negative implications for nutrition (Figure 1). Trade liberalization can be associated with increased diversity of foods, including increased fruit and vegetable availability, particularly in high-income countries (HICs) (FAO, 2024; Krivonos & Kuhn, 2019). The FAO report *The State of Agricultural Commodity Markets 2024*, highlighted that between 2010 and 2020, trade liberalization increased the diversity of foods available for consumption by almost two-fold (FAO, 2024). This impact was notably stronger for countries who are net-food-importing compared to net-food-exporting countries (FAO, 2024). Trade can also reduce volatility in food availability and food prices, due to the ability of trade to mitigate domestic shocks in supply (Brooks & Matthews, 2015; FAO, 2024; Gillson & Fouad, 2014). In some cases, at aggregate levels, this has contributed to improved dietary quality, reductions in undernutrition (FAO, 2024; García-Dorado et al., 2019; Krivonos & Kuhn, 2019) and improvements in food security (Kerr, 2011; Pyakuryal et al., 2010). Trade can also increase the availability of micronutrients such as vitamin C and calcium, with per capita trade of these nutrients increasing by almost 90% between 2000 and 2021 (FAO, 2024). China imports around 20% of net iron, zinc and vitamin B12, and is one of the largest net food-based micronutrient importers (Geyik et al., 2021).

However, in many LMICs, trade liberalization over the past 30 years has had a negative impact on food security, with unequal gains in food availability and increased vulnerability to trade related shocks including volatile global commodity prices and export/supply restrictions (Abdullateef & Ijaiya, 2010; Bezuneh & Yiheyis, 2009; Pyakuryal et al., 2010). Small scale farmers in LMICs are particularly vulnerable to sudden trade surges, and increasingly face competition with imported food (HLPE, 2023). This has the potential to impact access to food for these farmers through loss of income, and has significant implications for food security (HLPE, 2023). Trade and investment liberalization has also been associated with increased obesity and nutrition-related illness, particularly among LMICs (FAO, 2024; Hawkes et al., 2015; Thow & Snowdon, 2010), possibly through an increase domestic availability of ultra-processed foods.

PATHWAYS OF IMPACT

The impacts of trade and investment agreements on nutrition occur through three main pathways: reductions in barriers to trade, liberalization of trade in services, and investment liberalization. These are summarised in Figure 1, and explained below.

Reductions in barriers to trade (including tariffs and non-tariff barriers such as quotas) have resulted in a rapid shift in dietary patterns over the past three decades, and been associated with the nutrition transition (Barlow et al., 2022; Bishwajit et al., 2014; FAO, 2024; Springmann et al., 2023; Thow, 2009). The nutrition transition is characterised by a shift in dietary patterns from traditional diets, often relatively high in starchy staples, to diets that are more diverse, but also higher in meat, fats, and processed foods (Popkin, 2012). Trade and investment liberalization has differentially affected the availability of food in different categories. Fruit has seen significant increases in trade since the early 1990s, mostly in the form of exports from LMICs to HIC markets (Huang, 2010). In LMICs, food categories that have increased in availability following liberalization include vegetable oils, meat, and highly processed foods, as well as sugar-sweetened beverages (SSBs) (Baker et al., 2016; Lopez et al., 2017; Schram et al., 2015). For example, imports of soft drinks and ultra-processed snacks increased by 92% and 83% respectively between 1992 and 2010 (FAO, 2024). In the Americas, regional trade agreements were found to have increase the availability of calories, which could be linked to increased obesity (Barlow, McKee, et al., 2018; FAO, 2024).These changes have contributed to unprocessed or minimally processed foods, freshly prepared meals, and traditional cooking all being displaced in LMICs (Popkin & Ng, 2022).

Alongside increased availability and affordability of ultra-processed foods, trade liberalization (and specifically liberalization of services) has also contributed to changing food environments, through the spread of fast food retail as well as changes in marketing that have contributed to cultural impacts of globalization on food environments and food preferences (García-Dorado et al., 2019; Witkowski, 2007). Transnational food companies and the marketing agencies they employ have intensively targeted the marketing of ultra-processed foods at children and teenagers (Hawkes, 2006; Smith et al., 2019; WHO, 2021). Marketing techniques have become increasingly sophisticated, and have expanded beyond traditional mass-media (e.g., television) to digital platforms, including mobile phone and web-based techniques (e.g., peer-to-peer and user-generated content, adver-gaming, and targeted social media advertising) (Hawkes, 2007). Advertising may become more sophisticated as markets open (FAO, 2024), as has been shown with alcohol (Schram et al., 2020).

Since the early 2000's, investment liberalization has been associated with increased availability and affordability of ultra-processed foods, both through the growing market presence of transnational food manufacturers, retailers and chained fast food companies throughout LMICs (Baker et al., 2020; García-Dorado et al., 2019; Hawkes, 2005). This transformation of the food retail sector and processing industry since the 1980's has contributed significantly to the nutrition transition, particularly in LMICs (FAO, 2024). The market for ultra-processed products – all with long shelf life,

and manufactured by transnational corporations based in the HICs, with the purpose of displacing less processed perishable foods in LMICs. These products are usually high in sugar, salt and fat and plastic-packaged (An et al., 2019). For example in 2010, processed foods made up 70% of purchased food for urban consumers in Eastern and Southern Africa (FAO, 2024). The growing market presence and investment by transnational food corporations stimulates domestic competition and technology-transfer and leads to improvements and efficiencies in storage, processing, and supply chain logistics. This also further spurs the growth of home-grown processed food industries (Baker & Friel, 2016). Expansion of supermarket retail is associated with increased availability of highly processed foods as well as more rigorous food standards (Downs et al., 2022; Reardon et al., 2010).

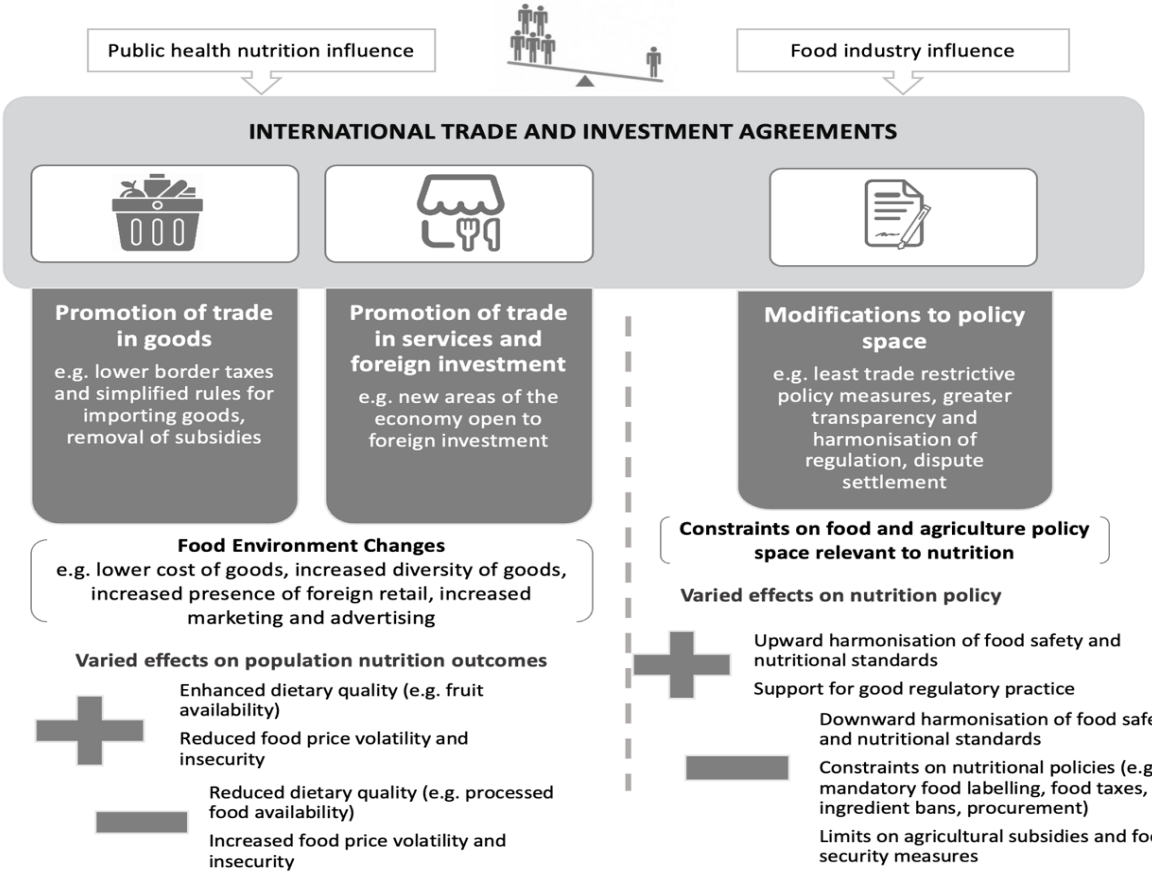

Figure 1. Pictorial summary of the evidence for the impact of trade and investment agreements on public health nutrition

Source: Authors, informed by Schram et al. (2017)

These global pathways through which trade and investment liberalization have impacted on nutrition have also been observed at the regional level, with some contextually influenced variations. The combination of increased trade and foreign direct investment following liberalization in Central America was associated with increased availability and affordability of highly processed foods (Clark et al., 2012; FAO, 2024; Thow & Hawkes, 2009). Following liberalization in Asia, the availability and affordability of highly processed foods associated with a rapid nutrition transition (Baker et al., 2014). Similarly, in South Africa the presence of 'big food' expanded after liberalization, through both increased trade and investment. In addition, liberalization resulted in increased exports of SSBs and highly processed snack foods to the region, with South Africa acting as a regional hub (Eba Nguema, 2019; Igumbor et al., 2012). In the Pacific Island region, trade liberalization has been associated with declining availability of traditional staples due to a focus on export crops, and an increasing availability of refined, imported carbohydrates and processed foods (Brewer et al., 2023; Ravuvu et al., 2017; Ravuvu et al., 2020).

TRADE AND INVESTMENT AGREEMENTS, AND INTEGRATING NUTRITION OBJECTIVES INTO FOOD AND AGRICULTURE POLICY (DECADE OF ACTION RECOMMENDATION 8)

TIAs, including the Agreements of the WTO, also influence food policy space at the national level (Figure 1), as part of efforts to increase predictability and reduce unnecessary restrictions on trade. The policy space impacts of TIAs relate to key principles of trade and investment law; in particular, that policy measures should not discriminate between similar goods or investments on the basis of where they are from, that trade should be restricted as little as possible, that there should be access to international arbitration for settlement of disputes relating to trade and investment, and that good regulatory practices should be followed. Below we discuss how these principles and others enshrined in TIAs have implications for the integration of nutrition objectives into food policy and agriculture policy.

FOOD AND NUTRITION POLICY

When food policy measures apply to traded foods or the products of investors, they then fall under the scope of TIAs. As a result, when governments seek to integrate nutrition into food policy – for example, to promote healthy foods, or regulate unhealthy foods – there are several ways in which these measures are challenged under TIAs, or using arguments that relate to TIAs.

First, some nutrition policy interventions can be considered 'technical barriers to trade' because they place requirements on traded goods. For example, mandatory front-of-pack nutrition labelling measures are recommended as part of efforts to prevent diet-related NCDs. However, these measures have been consistently raised as 'Specific Trade Concerns' through the Technical Barriers of Trade Agreement of the WTO over the past decade (Barlow, Labonte, et al., 2018; Barlow & Thow, 2021; Garton et al., 2020; Thow, Jones, et al., 2018). Similarly, policy action to restrict unhealthy food availability have been constrained by trade agreements (Thow et al., 2014; Thow et al., 2017). In addition, TIA provisions relating to non-discrimination, necessity, market access, intellectual property rights and trademark protections, and fair and equitable treatment of investors have all been raised as part of challenges to policy measures that protect children from the harmful impacts of marketing of unhealthy foods and beverages and also healthy public procurement measures, although to date there have been no formal cases relating to these policy issues (Garton et al., 2021a).

Second, the implementation of commitments related to good regulatory practice, which aim to promote transparency and good practice in the process of planning, designing, issuing, implementing, and reviewing policies and regulations can promote participation of non-government actors in the policy process. In this context, "good regulatory practice" provisions may enable transnational corporations to intervene in national policymaking processes frequently, including at the earliest stages of policy development in which objectives are set (Labonté et al., 2019).

Third, food and nutrition standards are governed under the sanitary and phyto-sanitary agreement of the WTO (often mirrored in regional and other TIAs). To facilitate trade, reference to international standards, such as Codex Alimentarius are encouraged. Depending on national baseline, this may result in a raising or lowering of standards. The increased presence of transnational companies that often follows investment liberalization can also bring new influences on food standards. In some cases, this results in more stringent food standards, as global companies lobby for national standards that are in line with their global commitments.

The reference to international standards in TIAs means that strengthening standards can be one avenue to protect nutrition policy space, in a trade context. A recent example is the negotiation of guidance regarding follow-on infant formula at Codex, in which participation by public health actors was able to successfully drive the development of standards to protect parents and children from marketing (see Box 4), which then protects national policy measures on this issue from challenge in a trade context.

Finally, investor-state dispute settlement (ISDS) mechanisms can enable industry to threaten or directly sue states over policy changes that negatively impact them (Garton et al., 2022; Garton et al., 2020; Thow et al., 2022), for example, when a policy decision decreases the profitability of an investment. To date there have been no formal disputes related to well-designed nutrition policies. However, the mere threat of ISDS and other related TIA provisions by the food industry can also be used to block, weaken and delay nutrition policies (Crosbie et al., 2022). Overall, constraints on nutrition policy space arising from TIAs must be seen in the context of underlying tensions between economic policy objectives for industry growth to increase gross domestic product and related economic indicators, and nutrition policy objectives to reduce consumption of potentially highly profitable but unhealthy foods. When these tensions occur, economic priorities are often given higher priority than health and nutrition (Friel et al., 2019; Thow, Greenberg, et al., 2018).

Box 4. Creating standards at Codex for follow-on formula

Codex is a joint UN body created in 1963 by the WHO and FAO with the dual mandate of protecting consumers' health and ensuring fair practices in the food trade. Its texts are widely used as a basis for national food legislation and as a benchmark in trade disputes.

Following the adoption by the World Health Assembly (WHA) of the International Code of Marketing of Breastmilk Substitutes (WHO, 1981) in 1981, the baby food industry started pushing formulas for older babies with the aim of circumventing the marketing restrictions. The 1987 Codex Standard for Follow-up Formula (FAO, 1987) was less stringent than that in place in many countries, and as a result led to many countries, including the EU, limiting the scope of their regulations and an ever-expanding range of harmful ultra-processed products.

Limitations in Codex guidance from FAO and WHO relating to breastmilk substitutes has contributed to numerous challenges of national legislation restricting marketing of these products at the WTO, with powerful exporting nations alleging that national laws are too restrictive and are unjustified barriers to trade (Baker et al., 2021). The fear of such challenges has had a chilling effect on the adoption of legislation that is essential for the protection of maternal, infant and young child health protection the world over.

The composition of Codex Committee on Nutrition is heavily weighted to food industry representatives and front groups, which comprise 70% of non-state observers (without voting rights) and 28% of the member state delegations (with voting rights) (IBFAN, 2024). The influence of professional bodies such as the European Society for Paediatric Gastroenterology Hepatology and Nutrition (ESPGHAN, 2024), with 43% of its income from the food industry has been an additional, often unrecognised, influence, lowering marketing safeguards, including on added sugar and flavourings (ESPGHAN, 2024; FAO, 1987; IBFAN, 2018).

In 2023, after 11 years of intense negotiations, a revised Standard for follow-on formula was adopted in 2023, with a Preamble that contains a clear reference to the International Code, the follow-up WHA resolutions, guidelines and policies (FAO & WHO, 1987; IBFAN-BMA, 2023). While governments have the sovereign right – and duty – to adopt any legislation they consider necessary to protect health (provided they follow international trade principles) this standard should remove an important obstacle to regulation of breastmilk substitutes and should avoid costly, time-consuming challenges.

AGRICULTURE POLICY

The WTO Agreement on Agriculture (AoA) has constrained policy space for food security, through establishing limits on the types and value of subsidies (Johnson et al., 2023; Sharma, 2016; Sharma, Lahiri, et al., 2022). Developing countries without pre-existing food security measures in 1994 are particularly impacted, as the rate set was very low. The WTO 'Peace Clause' in 2013 included provisions exempting public stockholding programmes for food security purposes from formal dispute. However, the method for

calculating agricultural support and permissible limits was not revised, even though inflation is not accounted for under the AoA method of calculation. For example, in Indonesia, administered prices and public procurement form part of the food security policy by aiming to stabilize food prices for producers and consumers. Indonesia's procurement of rice has been rising as a percentage of value of production and although it is still under the AoA limit, the policy space for product-specific agricultural support is declining (Thow, Sharma, et al., 2019). This has negative implications for both consumers who struggle to purchase food amid rising cost of living, and producers reliant on selling their crops for their livelihood. During Covid, India became the first WTO member to utilise the Peace Clause to protect its public stockholding program for food security purposes for rice (Sharma, Birthal, et al., 2022).

There has been a recent resurgence in the use of public stockholding programmes – including buffer stocks, emergency stocks, and stocks for domestic food distribution – driven by multiple global food crises, economic crises, and climate change (IATP, 2024). Other types of domestic agricultural support include input subsidies, such as for fertilizers and seeds. Input subsidies can have positive impacts on nutrition, particularly through increased food production (FAO, 2024). If targeted to nutrient-rich foods, subsidies can support improvements in nutrition by increasing food availability and promoting dietary diversity (FAO, 2024). For example, the implementation of a seed and fertilizer subsidy programme for legumes in Malawi had positive impacts on farm production diversity, as well as dietary diversity and quality for smallholder farmers (Khonje et al., 2022).

Box 5. Public stockholding for food security – NAFCO in Ghana

Public stockholding programmes are a form of domestic support, used by Governments to stabilise food price volatility and reduce food insecurity. Currently, around half the world's population live in countries with active public stockholding programmes (IATP, 2024; Wolff & Glauber, 2023). In Ghana, the National Food Buffer Stock Company (NAFCO) is responsible for implementing a buffer stock mechanism to stabilize food supply and price, ensure emergency food reserves, and protect food security (Ministry of Food and Agriculture, 2025). Its main objective is to ensure food security by purchasing, storing, and distributing food commodities during periods of shortage or price instability. Price stabilisation of food has been a key priority for the Government of Ghana, due to the impact of price on consumer access to food and therefore food security (Thow et al., 2021). NAFCO targets three key food grains in Ghana – maize, rice, and soya beans (Ministry of Food and Agriculture, 2025).

There have been both successes and challenges in the implementation of NAFCO. Following the adoption of the buffer stock mechanism, price volatility of maize and rice in Ghana declined between 2006 and 2015, in the market areas where the policy was implemented (Abokyi et al., 2022). The programme has also been helpful in improving the well-being of small holder farmers (Abokyi et al., 2022). Most notably, the success of the programme has been based on the tailoring of the buffer stock policy to fit the country context (Abokyi & Asiedu, 2021). Challenges include inadequate funding, poor infrastructure, inadequate storage facilities, and bad road networks hindering food distribution, while unpredictable weather, such as droughts and floods, disrupt harvests and restrict buffer stock supply (FAO, 2021). Mismanagement has further reduced effectiveness of the programme, and limited collaboration with the private sector has reduced the efficiency of buffer stock management (Abokyi et al., 2022; World Bank, 2017) In 2022, following the advice of a WTO Trade Policy Review (WTO, 2022b), Ghana began a process to modernise its buffer stock mechanisms by introducing an electronic system (e-procurement).

LOCAL FOOD SYSTEMS AND EQUITY, WITH REFERENCE TO TRADE (DECADE OF ACTION RECOMMENDATION 9)

Trade and investment liberalization can often seem far removed from local food systems. However, local food systems are impacted by these global processes through their effects on livelihoods and nutritional inequalities. Without measures to protect those who lose out from trade, liberalization is often associated with increased economic inequality, as economic gains from trade accrue unevenly (HLPE, 2023; Ostry et al., 2016; Rodrik, 2018) (Figure 1). Nutritional inequalities can also be exacerbated, as many poorer consumers benefit the least from trade. Low-income consumers tend to experience the highest dietary risk factors, resulting from low dietary diversity and high consumption of unhealthy and ultra-processed foods (Hawkes, 2006). Small local producers (often living in poverty) frequently lose out as a result of the dumping of agricultural commodities and exposure to fluctuations in global commodity prices (Barlow et al., 2020; Bello, 2008; HLPE, 2023; Wise, 2009). Over 70% of the world's poorest people rely on agriculture (World Bank, 2007), and are among the most likely to be malnourished (United Nations Conference on Trade and Development, 2013). At an aggregate level, positive impacts of trade and investment agreements on food insecurity are also more often seen in HICs than in LMICs, which regularly suffer the most from food insecurity and are impacted negatively (Barlow et al., 2020; Barlow et al., 2022; HLPE, 2023).

Local food systems have also been strongly influenced by economic shocks relating to the Covid-19 pandemic, which have impacted trade in food, food security, and nutrition. For example, access to nutritious food was impacted by measures such as increased restrictions on agricultural trade, movement restrictions and labour shortages (Barlow et al., 2021; Ben Hassen & El Bilali, 2024). This was compounded by shortfalls in food production, and loss or decline in household income during the Covid-19 pandemic lockdown (Antwi et al., 2021; Ben Hassen & El Bilali, 2024). Increases in poverty and unemployment were more pronounced for food producers reliant on export markets, particularly those with perishable food commodities and labour-intensive crops such as fresh fruits, vegetables or specialty crops, as well as for countries that were highly dependent on food imports (Hassen & Bilali, 2024; HLPE, 2021; Swinnen & Vos, 2021). For example, border closures in Liberia impacted the workforce available during cocoa bean harvest season (Hassen & Bilali, 2024). Impacts of inflation stemming from the Covid-19 pandemic directly impacted the affordability of healthy diets across all regions in 2020 (FAO et al., 2022). The impact of the Covid-19 pandemic on trade, and subsequently nutrition, has highlighted the vulnerabilities and inequities in current global and local food systems.

Public food procurement is a policy area with profound potential to improve diets and health at the local level, but as noted in the previous section, one that is technically limited under trade agreements. These limitations are primarily implemented through clauses that place restrictions and requirements relating to the scale and transparency of procurement, as well as relating to any discrimination between domestic and international sources

of procured food (Noonan et al., 2013). It is important to note that there is significant policy space under trade and investment agreements for public procurement requirements and standards that encourage nutritious foods in public institutions (see Box 6).

Box 6. School-based public procurement from local producers in Brazil

Public food procurement can be an important instrument to promote healthy and sustainable food production and consumption if rules permit priority access for small or family farmers to the public bids, and also allow governments to incentivize the demand for healthier and more sustainable foods and restrict the purchase of ultra-processed foods (Thow et al., 2015).

Brazil provides an interesting example of the role of public food procurements in food systems transformation. In 2009, the country enacted an innovative law that requires that 30% of the national transfers to local and state governments for school food procurement must be used to procure foods directly from family farmers (Hawkes et al., 2016). In May 2020, a new requirement for food procurement was enacted mandating local and state governments to limit procurement of processed and ultra-processed foods (UPFs) to 20% of the federal budget for local and state governments for school food procurement, in line with the Brazilian Food-Based Dietary Guidelines (Monteiro et al., 2015). Recent research indicates that complying with the new requirements is feasible and a reality in Brazilian schools (Duran et al., (forthcoming)).

The Government of Brazil's approach to trade agreements with respect to public procurement has supported and enabled this innovation in school food procurement. The government has continued to prioritize transparency in public procurement, but has joined the plurilateral WTO agreement on procurement only as an Observer, in order to protect policy space for using public procurement to achieve wider development-related objectives (Križić, 2021).

POLICY COHERENCE FOR TRADE AND NUTRITION BEYOND THE DECADE OF ACTION ON NUTRITION

In moving towards the achievement of the recommendations from ICN2 at the conclusion of the Decade of Action on Nutrition in 2025, intentional and strategic actions to foster policy coherence are crucial. Policy-makers seeking to enhance coherence between trade and nutrition policy agendas post-2025 should: prioritise using evidence informed research at the intersection of trade and nutrition; protect the nutrition policy space within TIAs; engage with human rights-based institutions; develop coalitions and capacity building; engage with diverse policy actors; and create institutional mechanisms. In this section, we explore each of these opportunities in more detail.

RESEARCH AT THE INTERSECTION OF TRADE AND NUTRITION

A critical input to evidence-informed policy in this space will be robust research at the intersection of trade and nutrition, aiming to achieve trade policy that protects and promotes good nutrition, including considerations of equity, rights, justice, sustainability, and policy coherence. This includes documenting the impacts of trade liberalization on nutrition at the country level, and across sub-groups of population to identify the vulnerable groups. The INFORMAS trade module provides a systematic basis for such analysis (Friel et al., 2013). Conducting a human rights impact assessment of trade and investment agreements is a useful tool in analysing the impacts of trade on the right to adequate food (De Schutter, 2011). Political economy research is also essential, to integrate governance within the trade and investment policy domain, including the interests of health and industry stakeholders, and mechanisms for influencing negotiation agendas at the local, national, and global level. This includes research to understand and document industry influence in trade and investment policy relevant to nutrition, and identify strategies to manage conflicts of interest and strengthen transparency in national policy making. Documenting how non-industry actors have and can better prepare and mitigate industry influence is also critical, as the cases presented here illustrate. More broadly, understanding the different roles played by different nation-states, where power has shifted and continues to shift between OECD members, emerging powers and a variety of new coalitions – and how they have played important roles at various points in multilateral negotiations, is also important for understanding how domestic food and agriculture are shaped by international political economy (Johnson et al., 2023).

PROTECTING POLICY SPACE FOR NUTRITION IN TIAS

Inclusion of explicit consideration of nutrition in the negotiation and interpretation of TIAs can support the protection of policy space for nutrition (Sheargold & Mitchell, 2019; Thow et al., 2022). Specific clauses in agreements that reiterate the importance of public health objectives, and in some cases exempt public health measures from being contested under TIAs, are known as health safeguards (see Box 7). This includes exclusion of commitments such as ISDS mechanisms and regulatory coherence, that can undermine domestic policy autonomy. Ensuring that there is formal recognition of public health objectives can support and enable engagement between the trade and health communities, and send a clear message to other actors regarding the government's stance on issues at the interface between trade and public health.

Box 7. Health safeguards in International Investment Agreements

Governments can include specific clauses within International Investment Agreements (IIAs) to safeguard health policy, and WHO has identified the protection of health policy within IIAs as a priority (Smith et al., 2015). Overall, 18% (584 of 3298) of Bilateral Investment Treaties (BITs, the major form of IIA) contain explicit health inclusions, with the first mention of "health" occurring in the very first BIT signed in 1959 (Thow, Alschner, et al., 2023). Health inclusions have risen markedly since 2000, and more than 90% of the 55 investment agreements signed since 2018 include consideration of public health (UNCTAD, 2021). Examples of health safeguards are clauses that exempt health from dispute, or clarify explicitly that the articles of the IIA should not prevent governments from adopting legitimate health measures. The effectiveness of these clauses in protecting domestic public policy making is unclear (Alschner, 2022). However, the likelihood of health policy measures being upheld as legitimate during investor-state dispute settlement is, in part, linked to the strength of relevant language in the agreement (Sheargold & Mitchell, 2019).

There are three major types of health safeguards evident in BITs to date, considered by purpose (Thow, Alschner, et al., 2023). The most common, present in 76% of all BITs that mention health, has a defensive purpose and protects the right of states to regulate with respect to public health (Thow, Alschner, et al., 2023). Examples include definitions and clarifications of investment protection obligations that carve out regulatory space for public health. A second type, evident in 45% (noting there can be multiple health mentions in a single BIT), addresses the policy interface between health and investment, with the purpose of ensuring that health policy is not subjected to investment policy objectives or undermined. An emerging third type, mentioned in a relatively small number of recent agreements (4%), advances a pro-active public health agenda. These include clauses that place health-related obligations on investors, and advocate leveraging investments to promote health objectives.

ROLE OF HUMAN RIGHTS-BASED INSTITUTIONS

Global human rights based institutions such as the CFS, WHO and FAO could play a strong role in guiding the intersection between trade, nutrition and investment negotiations (Thow, Wijkström, et al., 2023). These institutions have the ability to set global norms and standards relating to trade, nutrition, and the right to adequate food. For example, the CFS Voluntary Guidelines on the Right to Adequate Food (FAO, 2004) reinforces the importance of integrating a rights-based approach into trade and nutrition policies, and food systems policies more broadly. These guidelines, along with other guidance developed by the CFS such as the Voluntary Guidelines on Food Systems and Nutrition (CFS, 2021), offer a practical framework for policy makers to enhance coherence between trade and nutrition policies, whilst also protecting and respecting the right to adequate food. Improved transparency and conflicts of interest safeguards, in relation to agri-food industry actors in UN forums such as the Codex and CFS, could also fundamentally change the balance between commercial and nutrition interests. Additionally, increasing transparency and safeguarding government-led trade and nutrition policy-making from undue commercial influence could support nutrition priorities in trade and investment negotiations.

COALITIONS, CAPACITY BUILDING, AND ENGAGEMENT WITH DIVERSE POLICY ACTORS

The public health nutrition community can play a critical role in supporting policy coherence with trade through raising awareness of the interface between trade and nutrition, and strategic engagement to promote consideration of nutrition by policy actors in trade, investment, agriculture, environment, finance, economy, and commerce (Thow et al., 2022). This can include the development of coalitions of public-interest actors to encourage and support the consideration of public health nutrition and related food system objectives in policy, including through strengthening policy coherence (Garton et al., 2022; Harris et al., 2022). It is also important that nutrition policy design is strategically informed by an understanding of trade policy, to mitigate potentially unnecessary trade-related barriers to policy adoption and implementation. For the trade and investment policy communities, awareness of the interface between trade, investment, food and nutrition should lead to recognising and respecting the right to adequate food and nutrition in trade and investment policy making at the local, national and global level (Thow, Wijkström, et al., 2023). Recognition of potential negative impacts can lead to the implementation of policies to mitigate negative impacts on nutrition and equity arising from trade and investment agreements, as well as ensuring that public health nutrition is promoted and protected in TIAs.

The development and implementation of capacity building across both health and trade sectors will be essential to achieve policy coherence with WHO and other human rights-based policies. (Reeve et al., 2021). First, this will enable public health nutritionists in the public and non-governmental organization (NGO) sectors to engage effectively with trade and investment policy makers and other relevant institutions at national and global level. Second, this will enable trade and investment policy makers to adequately include considerations of nutrition and human rights in agreements and related decision-making. And third, this will support and enable the management of conflicts of interest at all levels and sectors of trade policy making. Indeed, if trade negotiations are to be transformed, UN institutions must utilise their long-standing intellectual and social capital to mobilise and encourage political and financial commitments from Member States to achieve the SDGs.

For example, policy to restrict the marketing of breastmilk substitutes in Thailand faced challenges from industry actors, and capacity among Ministry of Health officials was critical for developing strong policy in the face of vested interests (see Box 8).

Box 8. Introducing regulation on marketing of breastmilk substitutes in Thailand

Following the adoption of the International Code of Marketing of Breast-Milk Substitutes by the WHA in 1981 as an instrument to control one of major factors leading to the decline in breastfeeding (WHO, 1981), subsequent WHA resolutions further refined and strengthened its language. One such resolution in 2010 urged WHO Member States to "develop and/or strengthen legislative, regulatory and/or other effective measures to control the marketing of breast-milk substitutes" aligned with the Code and the other resolutions (WHO, 2010).

Following the adoption of the BMS Code, the Ministry of Public Health Thailand adopted a Milk Code in 1984, a second Code in 1995 as part of the Baby-Friendly Hospital Initiative (BFHI), and a third `Milk Code' in 2008 that extended the prohibition of all marketing promotion of breast milk substitutes in public health facilities (Topothai & Tangcharoensathien, 2021). Inappropriate marketing continued nevertheless and the exclusive breast feeding rate in Thailand has remained low (Topothai & Tangcharoensathien, 2021).

In November 2010, the National Health Assembly discussed this matter and adopted a resolution on Control of Food Marketing Strategy for Infants and Young Children. Consequently, the Cabinet endorsed this resolution and urged the Ministry of Public Health to develop a new Act. Thailand did finally enact the Control of Marketing Promotion of Infant and Young Child Food Act in 2017 (Topothai & Tangcharoensathien, 2021).

Industry interference was encountered during this process, through corporate political activities, conflicts of interest, and varying interpretations of the evidence. Nevertheless, the commitment of the Ministry of Public Health, Thai health professionals, and the public were key factors in countering the commercial forces, alongside strong political commitment both domestically and internationally. With recognition from the highest political level on the need for the act, the bill was finally passed by the Thai National Legislative Assembly (Topothai & Tangcharoensathien, 2021).

CREATING INSTITUTIONAL MECHANISMS

Institutional mechanisms can play an important role in enabling policy coherence between trade and nutrition (Dodd et al., 2020; Garton et al., 2022; Thow, Greenberg, et al., 2018). The creation of enabling environments and institutional mechanisms for nutrition and trade policy actors to work together can support both trade policy that is coherent with nutritional goals, and nutrition policy that is compliant with trade commitments in consideration of the overall impacts on health and economy (Thow & Nisbett, 2019). This includes the development of high level multisectoral nutrition policy mechanisms at the national level. In the Pacific Island region, institutional support and engagement between health and trade at the regional and the national level, including the development of multisectoral policy fora, have played a critical role in

enabling integration of nutrition into trade and other food-related policies (See Box 9).

Box 9. Integrating nutrition priorities into trade policy in Pacific Island Countries

Pacific Island leaders have recognized the critical impact of NCDs on their populations and economies. The NCD Declaration, adopted during the Pacific Health Ministers Meeting in 2011, emphasizes the urgent need for multi-sectoral approaches to combat NCDs (Dodd et al., 2020). It calls for integrating health considerations into all policies, including trade, to create environments that promote healthy lifestyles and reduce the burden of NCDs. The integration of health and nutrition priorities into trade policies by Pacific nations represents a strategic approach to combatting NCDs. By discouraging the import and consumption of unhealthy foods and promoting local, nutritious alternatives, these countries aim to improve public health, reduce healthcare costs, and boost economic productivity. The commitment to these policies reflects a holistic understanding of the interconnection between trade, health, and economic well-being.

Trade policy in Fiji includes restrictions on the importation of high-sugar and high-fat foods while promoting local agricultural products (Ministry of Health and Medical Services, 2020). The government has implemented tariffs on unhealthy food imports and subsidizes local fruits and vegetables to encourage healthier eating habits. Trade policy in Tonga includes stringent import regulations on processed foods and incentives for businesses that import or produce healthy food options (Government of Tonga, 2019). The policy focuses on reducing the availability of unhealthy foods and supporting local farmers to increase the supply of nutritious alternatives. The trade policy framework in Vanuatu has identified NCDs as a priority, and established import duties on junk food and tax exemptions for healthy food imports, along with initiatives to boost local food production (Reeve et al., 2022). The approach is designed to make nutritious foods more affordable and accessible, thereby encouraging better dietary choices. Trade policy in Solomon Islands includes subsidies for the local agricultural sector and taxes on high-calorie, low-nutrient foods (Reeve et al., 2022). By making unhealthy foods more expensive and supporting local agriculture, the Solomon Islands government aims to shift consumption patterns towards healthier options.

CONCLUSION

Strengthening policy making at the interface between trade and nutrition is crucial for accelerating global action on nutrition and diet-related NCDs. Whilst some progress has been made, further work needs to be done to implement explicit and implicit trade-related recommendations outlined in the Decade Action on Nutrition. Implementing these recommendations will require governments and the UN to play a much stronger role in defending nutrition in global trade fora, whilst also actively promoting the right to adequate food and nutrition. Efforts to redress power imbalances between industry, NGO and government policy actors at the global, national, and local level can help ensure nutrition is prioritized and protected within TIAs. Additionally, achieving policy coherence between trade and nutrition requires robust research into the interaction between trade and nutrition, engagement and capacity building with diverse actors, carving space for nutrition in TIAs, and creating institutional mechanisms that enable nutrition and trade policy actors to create trade policies that are coherent with global and national nutrition goals.

AUTHOR CONTRIBUTIONS

All authors contributed to the conceptualisation and drafting of the manuscript. AMT led the drafting and analysis. Case studies (boxes) were contributed by RK, PR, CP, ACD, TMTM, and AMT.

CONFLICT OF INTEREST

The authors declare that they have no other potential conflicts of interest.

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