



The Relationship between Key Food Security Measures and Trade Rules

Navigating the policy space available for national governments to pursue an agenda of food security while complying with international trade rules

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Executive summary

The concept of food security has evolved separately from the incorporation of agriculture into international trade rules. The result of this bifurcated history is that trade rules are not necessarily in alignment with our evolving understanding of what it means to be food secure. Existing international trade rules treat food security as an issue of availability of food, with concerns regarding accessibility of nutritious, sustainably produced and culturally appropriate foods, at best, added later into the equation. Trade, as one tool, may achieve some of the objectives of food security, but it is not sufficient to do so without other, equally important policy tools. Some of these policy tools will be directly related to trade and how it is regulated and others will be separate from that field. The mix and balance of policy tools will be context specific.. This report examines agricultural policies that might support rural livelihoods and food security, their strengths and weaknesses in this regard, and the opportunities and challenges to implementing them while also complying with the current rules of the World Trade Organization (WTO).

Navigating international trade rules and identifying spaces for national governments to pursue strategies to promote food security while complying with WTO rules can be a challenge. Many provisions within the WTO are vague and ambiguous, are often subject to conflicting interpretation, and require significant legal and administrative resources. These provisions can constrain developing and least developed countries in seeking to support agricultural sectors and domestic food security. Uncertainty regarding how trade rules are interpreted can dissuade governments from implementing policies that depart from the dominant trade liberalization narrative. However, WTO rules do have allowances for policies that provide market supports and protections, such that food security objectives hold precedence over market liberalization.

A suite of ten agricultural policy options that have the potential to increase food security are analyzed: national food reserves, investment in agriculture-related infrastructure, input subsidies, research and development, extension services, price supports, direct consumer subsidies, export restrictions, import protections and debt forgiveness. Each option should be understood as part of a broader policy package that *can* play a role in improving food security, but which does not *necessarily* address food security issues individually or in all circumstances. The implementation of each option may be problematic depending on how it articulates with the rules governing trade as outlined in the World Trade Organization (WTO). Implementation requires careful and detailed consideration of its opportunities and challenges and its contextual relevance.

The table below summarizes the main findings of this report: how each policy addresses food security and how each relates to the obligations of WTO Member countries to reduce trade-distorting government policies. The full report provides a more detailed analysis of each measure in terms of its relationship to both food security and the WTO rules.

Policy alternatives for pursuing food security

Policies	Contribution to food security	Subject to reduction requirements under WTO
National Food reserves	Price and supply stability	Exempt under Annex 2; some restrictions discourage use and currently calculated as part of AMS. New exemption negotiated by India and US extended to existing stockholdings.
	Emergency food aid during times of shortage	
Investment in Agriculture	Hard infrastructure increases access to markets and availability of inputs, and lower transaction costs.	Specific exemptions listed in Annex 2
	Storage mitigates losses from post-harvest waste.	Ambiguous. Depends on whether support is considered product-related or for the indiscriminate benefit of rural communities and resource-poor producers. Surpluses may distort prices. Could fall within <i>de minimis</i> limits.
	Extension services may be used to improve access to technologies and practices to assist farmers with improved production and market participation.	
Agricultural Input Subsidies	Information and Communication Technologies provides market and weather information, extension services, early warnings and facilitates monitoring of development projects	Specific exemptions listed in Annex 2
	Fertilizer and seed inputs, water use and transportation services	Heavily constrained under WTO rules. Exemptions: <i>de minimis</i> allowances; development measures
Research and Development	Yield increases, biotic stress resistance, climate resilience, other sustainability, production and quality traits.	No restrictions, exempt under Annex 2.2(a), must not provide price support to producers.
	Benefits depend on focus and how new research prioritizes smallholders and sustainability.	
Extension Services	Dissemination of advice and information, increase up-take of technologies and new practices.	No restrictions, exempt under Annex 2.3(d)
	Benefits depend on focus and how advice, information, and research prioritizes sustainability as well as farmer to farmer exchange of best practices, advice and information	

Price Supports	<p>Price supports have varied impact on domestic market prices: lower prices to increase accessibility for consumers; raise prices to support producers and boost production.</p>	<p>Price supports explicitly prohibited. Exemptions: Blue box allowances for limiting production; <i>de minimis</i> allowances</p>
	<p>Marketing boards & STEs provide guaranteed and stable market for producers; stabilize supply on domestic markets and ensure affordable supply for consumers; increase import/export efficiency; counter increasingly consolidated market power; especially beneficial where there is a lack of infrastructure.</p>	<p>Permitted under certain conditions. Must be non-discriminatory and non trade-distorting. STEs with import monopolies and those which stabilize domestic prices are exempt.</p>
Direct Consumer Subsidies	<p>Food stamps and school feeding programs targeting resource-poor consumers</p>	<p>No restrictions</p>
Export Restrictions	<p>Control domestic supply and prices, keep prices low for consumers; imposed during times of shortage and natural disaster.</p> <p>Can have negative impact of food security.</p>	<p>Article XI of GATT prohibits direct export restrictions but simultaneously allows duties, taxes and other charges that can effectively restrict exports limitlessly.</p>
	<p>Protect domestic production and income of producers; increase price stability and political stability.</p> <p>Can have negative impacts in terms of increased prices for consumers and less competition that leads to efficiency gains.</p>	<p>Undoubtedly trade distorting. Exemptions: <i>de minimis</i> allowances; protection of vulnerable domestic sectors through Special Safeguard Mechanism; allowances under GATT require significant legal and institutional capacities.</p>
Debt Forgiveness	<p>Allow producers to continue to procure inputs.</p>	<p>May be considered subsidy (direct transfer of funds). Exemptions: <i>de minimis</i> allowances.</p>
	<p>Do not necessarily translate into agricultural and economic development.</p>	

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I. Introduction

The relationship between trade and food security is a contentious, heavily debated one. On one side of the debate, proponents of liberalizing trade argue that it will increase the accessibility and availability of food to the world's population.¹ On the other side of the debate, critics challenge that the current trade paradigm promises more than it will deliver in practice, and is at odds with the historical role of agricultural trade in rural and economic development. Critics assert that the current trade paradigm in fact creates more challenges to food security, undermining rural development and agricultural production in many developing countries.² This has spawned a movement to have food security prioritized above trade, such that countries can unreservedly implement policies to promote food security, regardless of their implications for trade.

The World Trade Organization (WTO) rules regulating agricultural production and trade have been set in isolation of the concept of food security, specifically with regards to the availability and accessibility of sustainably produced, nutritious and culturally appropriate food to low-income and resource-poor populations. The result is a system of trade that is not necessarily consistent with our evolving understanding of what it means to be food secure and, if it is seen to take precedence, could undermine the ability of countries to undertake measures to ensure food security. Governments can encounter a number of challenges in trying to navigate international trade rules while pursuing strategies to support rural livelihoods and food security. Many provisions in the WTO rules associated with the allowances for pursuing these strategies are vague and ambiguous, are often subject to conflicting interpretation, and can require significant legal and administrative capacity that is often lacking in developing countries.

This report discusses the relationship between food security policy options and the WTO's trade rules and highlights opportunities for governments to implement policies that support food security while meeting their obligations and maximizing their allowances. A suite of policy options available to national governments for actively pursuing an agenda of food security is examined, along with an assessment of how each policy option relates to international trade obligations. The report finds that it is possible to implement policies that provide allowances for agricultural market supports and protections while complying with the WTO rules. It lays out some of the conditions

This report discusses the relationship between food security policy options and the WTO's trade rules and highlights opportunities for governments to implement policies that support food security while meeting their obligations and maximizing their allowances.

¹ Pascal Lamy, *The Geneva Consensus: Making Trade Work for All* (Cambridge: Cambridge University Press, 2013).

² Peter Rosset, "The Multiple Functions and Benefits of Small Farm Agriculture in the Context of Global Trade Negotiations" *Development* 42.2 (2000): 77-82. Olivier de Schutter, *Report of the Special Rapporteur on the right to food*, Olivier de Schutter – Addendum: Mission to the World Trade Organization, A/HRC/10/5/Add.2, (Geneva: Office of the High Commissioner for Human Rights, 2009). Bipul Chatterjee and Sophia Murphy, *Trade and Food Security* (Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2014).

under which WTO member countries can do this in an effort to support greater domestic food security and rural livelihoods.

Report outline

Section II maps out the evolution of the concept of food security and how it has diverged from the simple imperative to produce more food. The dominant trade narrative, however, maintains that market liberalization can provide food security by increasing food availability, generating lower prices and price stability, while protections and supports, in contrast, raise prices for consumers, depress prices to the detriment of producers and create other inefficiencies that can compromise domestic supply.³ This narrative rests on prepositions that do not hold in practice and do not account for socioeconomic and environmental externalities. The narrow focus of increasingly liberalized markets can be to the detriment of food security as we understand it today - underscoring the need to implement alternative policy measures.⁴

Section III examines the rules governing trade as outlined in the WTO Agreement on Agriculture (AoA), also referencing the General Agreement on Tariff and Trade (GATT) and the agreement on Subsidies and Countervailing Measures (SCM) where most relevant. Member states of the WTO are obliged to reduce trade-distorting government supports, but what counts towards countries' reduction obligations and what is exempt from obligations is not always clear. This uncertainty has a chilling effect on developing country governments' implementation of measures for improving domestic food security.⁵

Section IV examines a suite of ten food security policy options identified for their potential to support agricultural development and food security. The policy options include: national food reserves, investment in agriculture-related infrastructure, input subsidies, research and development, extension services, price supports, direct consumer subsidies, export restrictions, import protections and debt forgiveness. This should not be interpreted as an exhaustive list of real or potential policies to ensure food security. Furthermore, each option should be understood as part of a broader policy package that *can* play a role in improving food security, but which does not *necessarily* address food security issues individually or in all circumstances. The implementation of each policy requires careful and detailed consideration of its opportunities and challenges.

The key take-away from the analysis in Section IV is that many of these policies can be implemented in ways that are minimally- or non- trade-distorting, and in ways that are exempt from obligations to reduce supports. Thus, more opportunities for prioritizing food security

³ Lamy. *Geneva Consensus*.

⁴ Jennifer Clapp, *Trade Liberalization and Food Security: Examining the Linkages* (Geneva: Quaker United Nations Office, 2014). De Schutter, *Mission to the World Trade Organization*.

⁵ Olivier de Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda: Putting Food Security First in the International Trade System* (2011). Available at:

http://www.srfood.org/images/stories/pdf/otherdocuments/20111116_briefing_note_05_en.pdf. Alan Matthews, *Food Security and WTO Domestic Support Disciplines post-Bali* (Geneva: ICTSD, 2014). Carmen G. Gonzalez, "Institutionalizing Inequality: The WTO Agreement on Agriculture, Food Security, and Developing Countries," *Columbia J. Environ. Law*, 27 (2002): 433-489. South Centre, *Post-2015 Development Agenda and Sustainable Development Goals: Perspectives of the South Centre* (Geneva: South Centre, 2014).

without contravening WTO rules are available to developing country governments than it might appear at first glance.

More opportunities for prioritizing food security without contravening WTO rules are available to developing country governments than it might appear at first glance.

II. Food security and trade

Food security: The evolution of a concept

Today's definition of food security is an outcome of our changing understandings of what causes and what qualifies hunger. Our changing understanding of food security has in turn shaped how we address hunger around the world. While substantive strides have been made in our understanding of food security and some ways to tackle hunger, the dialogue continues on what exactly it means to be food insecure and what is necessary to comprehensively address this global problem.

Food security as a concept first emerged in the 1970s in response to the 1972-73 global food crisis. At the 1974 World Food Conference, food security was first defined as “availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices.”⁶ The rising prices of food and the 1970s' food crisis were perceived to be a result of global food production shortfalls. A focus on increasing and stabilizing supply and ensuring price stability thus followed.⁷

In the forty years that that have followed, the concept of food security has evolved to incorporate important changes in our understanding about what causes and qualifies hunger. Economist Amartya Sen's 1981 essay on famines brought the most revolutionary change in understanding. Sen's essay expounded the cause of famines as accessibility rather than availability. In other words, Sen's work showed that famine was rarely an issue of whether there was *enough* food to feed populations, but a result of the inability to *access* available food.⁸ While Sen focused on famine, it was quickly accepted that the general principle of accessibility applied to hunger as well. The same year Sen's essay was published, the Food and Agriculture Organization of the United Nations (FAO) adjusted its definition of food security to “ensuring that all people at all times have both physical and economic access to the basic food that they need”.⁹

⁶ Food and Agriculture Organization of the United Nations (FAO), *Trade Reforms and Food Security* (Rome: FAO, 2003a), accessed at: <http://www.fao.org/docrep/005/y4671e/y4671e06.htm>

⁷ FAO, *Trade Reforms and Food Security*.

⁸ Amartya Sen, *Poverty and Famines: An Essay on Entitlement and Deprivation* (Oxford: Clarendon Press, 1981).

⁹ FAO, *Trade Reforms and Food Security*.

The principle of access has factored centrally in food security definitions since. Other principles have been incorporated into the various iterations of food security that have passed over the decades. A World Bank report in 1986 integrated temporal considerations to distinguish chronic food insecurity linked with the accessibility challenges of poverty and low income from more incidental food insecurity resulting from specific pressures such as natural disasters, macroeconomic conditions and conflict.¹⁰ Definitions into the 1990s took on more holistic considerations, integrating concerns such as food preferences and cultural diets, the nutritional composition of food - moving beyond just considering sufficient calories, and the importance of food safety to achieving food security.¹¹

The definition of food security used predominantly today was formulated during the 1996 World Food Summit: “Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.”¹² This definition rests on four pillars: availability, access, utilization and stability. Nutrition, while not its own pillar, is considered integral to the concept.¹³

Today’s definition and its four pillars integrates the various iterations of food security from over the years. Availability and accessibility cover supply as well as Sen’s observation that hunger can very often be an issue of the capability to acquire food more than the physical availability of food. Utility covers a range of considerations, including distribution across household members, nutritional composition of food, cultural relevance, and the safety of food.¹⁴ Meanwhile, stability tackles the temporal aspect of food security, as well as the vulnerability of many to food price volatility brought about by unstable supply, speaking to accessibility concerns best exemplified during the food price crises in the 1970s and the early 21st century.

Food security institutionalized

These varying definitions have played a role in the changing institutional and policy responses to the challenges of food insecurity. The 1970s definition and its focus on food supply sympathized with and advocated green revolution approaches to boosting production, as well as early warning weather systems to predict risks from weather and other challenges to production, and the development of national and regional food reserves.¹⁵ The focus at that time targeted greater national self-sufficiency with an emphasis on production, though some emphasis on the role of the international food supply was present.¹⁶

¹⁰ FAO, *Trade Reforms and Food Security*.

¹¹ FAO, *Trade Reforms and Food Security*.

¹² FAO, *World Food Summit Plan of Action* (Rome: FAO, 1996), accessed at: http://www.fao.org/wfs/index_en.htm.

¹³ FAO, *Declaration of the World Summit on Food Security* (Rome: FAO, 2009), accessed at: http://www.fao.org/fileadmin/templates/wsfs/Summit/Docs/Final_Declaration/WSFS09_Declaration.pdf

¹⁴ FAO, *Declaration of the World Food Summit on Food Security*.

¹⁵ Lucy Jarosz, “Comparing Food Security and Food Sovereignty Discourses,” *Dialogues in Human Geography*, 4:2 (2004): 168-181.

¹⁶ Jarosz, “Comparing Food Security and Food Sovereignty Discourses.” FAO, *Trade Reforms and Food Security*.

The integration of accessibility came with a number of shifts in the institutional and policy focus on food security. With the World Bank's inclusion of accessibility over availability came a shift towards evaluating individual and household food insecurity, rather than national self-sufficiency.¹⁷ With this came an emphasis on the role of trade in achieving food security, with the notion that freer trade would facilitate both more efficient production, better agricultural development and thus better livelihoods and better prices. This premise remains influential today.¹⁸

The shift from availability to accessibility also placed a prominent focus in the 1980s on reducing poverty to address food insecurity, rather than increasing production. Ironically, this shift in focus might have played a role in marginalizing agriculture from development thought. Agriculture was given little attention in development from the early 1980s until the World Bank's 2008 World Development Report and the report of the International Assessment of Agricultural Knowledge, Science and Technology for Development. Both reports, coincidentally, coincided with the 2007-2008 food price crisis that institutionalized a renewed focus on food and agriculture.

Mainstream dialogue often disproportionately emphasizes the need to increase agricultural production and the promotion of using trade to facilitate greater food security. Largely ignored in this discussion is the importance of agrobiodiversity and cultural diversity, the critical role of small-scale farmers as experimenters, innovators, and custodians of this diversity, and the imperative that farming systems have the capacity to adapt to suit future growing conditions.

The renewed focus on agriculture today, however, has been somewhat inconsistent with our evolved understanding of food security. Mainstream dialogue today often disproportionately emphasizes the need to increase agricultural production and the promotion of using trade to facilitate greater food security.¹⁹ The focus on supply is connected less to our understanding of food security and more to the perceived risks of a growing global population and the need to feed

¹⁷ Jarosz, "Comparing Food Security and Food Sovereignty Discourses."

¹⁸ See for example World Bank, *World Development Report 2008: Agriculture for Development* (Washington DC: The World Bank, 2008).

¹⁹ See for example the Gates Foundation's Strategy Overview of its Agricultural Development programme: <http://www.gatesfoundation.org/What-We-Do/Global-Development/Agricultural-Development>; World Bank, *World Development Report 2008*; FAO, "Save and Grow: A policymaker's guide to the sustainable intensification of smallholder crop production," (Rome: FAO, 2013), accessible at: <http://www.fao.org/docrep/014/i2215e/i2215e.pdf>. For examples of alternative approaches to agricultural development, see Oxfam's GROW campaign (<http://www.oxfam.ca/grow>); Practical Action's Food and Agriculture Policy work (<http://practicalaction.org/food-agriculture-policy>); and STEPS Centre's Food and Agriculture Domain work (<http://steps-centre.org/research/agriculture-and-food>). Louise E. Buck and Ian D. Bailey, *Managing for resilience: framing an integrated landscape approach for overcoming chronic and acute food insecurity*, (Washington, DC: EcoAgriculture Partners on behalf of the Landscapes for People, Food and Nature Initiative, 2014). I. Fitzpatrick, "From the Roots UP: How agroecology can feed Africa" (Global Justice Now, 2015), accessible at: <http://www.globaljustice.org.uk/sites/default/files/files/resources/agroecology-report-from-the-roots-up-web-version.pdf>. FAO, 'Fact Sheet: Smallholder and Family Farmers' (Rome: FAO, 2012), accessible at: <http://www.fao.org/3/a-ar588e.pdf>

9 billion people by 2050. This has motivated calls for a second green revolution, giving particular attention to the importance of modern seed technologies and productive inputs to increase production, to genetic engineering and molecular technology to address risks to production, and to developing varieties with enhanced nutrient composition (biofortification) to improve nutrition.²⁰ Largely ignored in this discussion is the importance of agrobiodiversity and cultural diversity, the critical role of small-scale farmers as experimenters, innovators, and custodians of this diversity, and the imperative that farming systems have the capacity to adapt to suit future growing conditions.

While it can be argued that the emphasis on production addresses poverty, as most of the world's hungry live in rural areas and rely on agriculture for their livelihood,²¹ this argument sidelines concerns and priorities of smallholder farmers, as well as the socioeconomic and ecological concerns associated with conventional agriculture. Conventional agriculture introduces threats to agricultural biological diversity including crop, livestock and fish species, varieties and breeds, soil biological diversity and pollinators, the diversity of farming systems and agricultural landscapes. Agrobiodiversity is the foundation for the food we eat. Supports to conventional agriculture can also challenge seed saving, requires costly investments in inputs while precluding ecologically sustainable alternative production techniques, such as intercropping and integrated pest management, furthers the narrowing of genetic diversity evolving in farmers' fields, and can lead to production of a smaller range of agricultural products, which can compromise the nutritional and cultural character of diets.²²

This is not to say that increased production and trade have no role in tackling food security. There are certainly areas where production capacity is the primary concern of smallholders²³ and trade matters for food security under many conditions – in geographies incapable of producing enough food to feed their populations or to compensate for losses.²⁴ But the focus on trade and production is disproportionately favoured compared to alternatives including agroecological production and alternative and more localized agricultural market systems. This has resulted in tensions between many of the predominant institutions and governments prioritizing production and trade on the one side, and smallholder farmers and civil society organizations seeking increased production and policy options to govern agricultural sectors and prioritize food security on the other.²⁵

²⁰ World Bank, *World Development Report 2008*.

²¹ World Bank, *World Development Report 2008*.

²² Miguel A. Altieri, "Agroecology, Small Farms and Food Sovereignty," *Monthly Review* (July/August 2009): 102-113. Ian Scoones and John Thompson, "The Politics of Seed in Africa's Green Revolution: Alternative Narratives and Competing Pathways. IDS Bulletin 42:4 (Brighton: Institute of Development Studies, 2011): 1-23. Jules Pretty et al., "Sustainable intensification in African agriculture," *International Journal of Agricultural Sustainability*, 9:1 (2011): 1-24.

²³ Sophia Murphy, "Expanding the Possibilities for a Future Free of Hunger," *Dialogues in Human Geography* 4:2 (2014): 226.

²⁴ Kim Burnett and Sophia Murphy, "What place for international trade in food sovereignty?" *Journal of Peasant Studies*, 41:6 (2014): 1065-1084.

²⁵ Via Campesina, "The World in Crisis: Synthesis of the First World Meeting of Popular Movements," (Via Campesina, 2014), accessible at: <http://viacampesina.org/en/index.php/main-issues-mainmenu-27/food-sovereignty-and-trade-mainmenu-38/1696-the-world-in-crisis-synthesis-of-the-first-working-day-of-the>

Trade and food security

The relationship between trade and food security is a complicated and controversial one. While in practice there is a fair bit of nuance around what role trade can play in contributing to food security, viewpoints tend to be polarized on whether trade improves or compromises food security.

Agriculture was largely exempt from trade regulations prior to the establishment of the World Trade Organization (WTO) and the Agreement on Agriculture (AoA; other agreements of the WTO extend to agriculture as well). Indeed, the agricultural sector was intentionally withdrawn from the GATT in the 1950s, and effectively exempted from trade regulations in the decades prior to the establishment of the WTO, with resistance to regulations from the US and industrialized countries seeking to protect and support domestic agricultural sectors.²⁶

The high costs of agricultural supports and protections in some developed countries motivated the shift towards integrating agriculture and food into trade regulations, in an effort to reduce government spending in OECD countries where support levels were high.²⁷ The AoA sought to improve market access by reducing agricultural market protections and converting them all to tariffs, to reduce and remove all trade-distorting domestic supports, and to end export subsidies. Ultimately, however, these rules have done little to reduce OECD country supports, with agricultural supports in OECD countries at similar levels to what they were at the formation of the WTO.

Today the embedded narrative is that trade can provide food security by providing increased food availability and greater price stability. Protections, in contrast, raise prices for consumers while subsidies depress prices to the detriment of producers. Protections can furthermore reduce competition and create other inefficiencies that could compromise domestic supply. With liberalized trade, countries maximize production efficiencies and the exchange of goods maximizes benefits.²⁸ For poorer populations, lower, more stable prices increase food accessibility. For producers, increased production efficiencies and expansion to new markets means increased incomes, which also improves accessibility. This translates into better functioning economies generally, trickling into non-agricultural sectors and further increasing incomes and food security. There will be sectoral losers in trade, but they will be absorbed into alternative areas of the growing economy.

Today the embedded narrative is that trade can provide food security by providing increased food availability and greater price stability. Protections, in contrast, raise prices for consumers while subsidies depress prices to the detriment of producers.

This narrative rests on presuppositions that do not hold in practice, and does not take account of the historical interplay between trade and agricultural development.

world-meeting-of-popular-movements; Sophia Murphy, "Stepping Up: Will the G-20 Allow the CFS to Function? Will Other Countries Allow the G20 to Stop Them?" *Institute for Agriculture and Trade Policy Commentary*, (Minneapolis: IATP, 2011), accessible at: http://www.iatp.org/files/2011_11_02_CFS37_SM.pdf.

²⁶ Rorden Wilkinson, *The WTO: Crisis and Governance of Global Trade* (London: Routledge, 2006).

²⁷ Jennifer Clapp, "WTO Agriculture Negotiations: implications for the Global South," *Third World Quarterly*, 27:4 (2006): 564.

²⁸ World Bank, *World Development Report 2008*.

The challenges to this narrative are twofold. Firstly, the narrative rests on presuppositions that don't hold in practice and secondly, it does not take account of the historical interplay between trade and agricultural development. The benefits of trade, when premised on the principles of comparative advantage and economic efficiency, are questionable when applied to agriculture and rural livelihoods (and by extension, food security). As political economist Jennifer Clapp notes:

- Capital and labour are mobile in a globalized world, compromising gains from trade and opening doors for a global agricultural system dominated by transnational corporations with little place for smallholder farmers, as well as for channeling gains to corporate entities rather than domestic economies.
- In agriculture, it is not easy for producers to transition from existing production to new products if demand shifts or a different “advantage” is perceived, nor do producers necessarily or often have the capacity to transition to a different sector, as the theory assumes.
- Agricultural markets are not perfectly competitive – quite the opposite, they are characterized by a heavy concentration of transnational corporations in staple grains, production inputs, manufacturing, distribution, and retail markets, which effectively distorts markets and creates an unlevel playing field.
- Not only is the distribution of gains from trade not assured, but developing country agricultural sectors and producers are disadvantaged and likely to experience far fewer gains.²⁹

Finally, the narrative does not account for socioeconomic and environmental externalities that challenge food security in the present and the future. The ecological damage brought by intensive, mainstream agricultural production, the type of production fueled by trade mandates, compromises the long-term sustainability of food production and thus food security. Impacts including biodiversity loss, acceleration of climate change, erosion of soil and pollution of water systems risk heavily compromising the future of food production.³⁰

Finally, the narrative promoting comparative advantage and economies of scale ignores the socioeconomic and environmental externalities stemming from the intensive conventional agricultural production this narrative promotes. The ecological damage brought by intensive conventional agricultural production compromises the long-term sustainability of food production and thus food security. Impacts including biodiversity loss, acceleration of climate change, erosion of soil and pollution of water systems risk heavily compromising the future of food production.³¹

There are those who go further and suggest that agricultural trade has destroyed agricultural economies, particularly for small-scale and peasant producers who produce as much as 70% of the world's food and who are often the custodians of the world's biodiversity.³² This argument posits

²⁹ Clapp, *Trade Liberalization and Food Security*. This should cite to the QUNO paper examining the linkages

³⁰ Jonathan Foley et al., “Solutions for a cultivated planet,” *Nature*, 478 (2011): 337-342.

³¹ Jonathan Foley et al., “Solutions for a cultivated planet,” *Nature*, 478 (2011): 337-342.

³² Rosset, “The Multiple Functions and Benefits of Small Farm Agriculture”; Via Campesina, “Peoples' Global Action against free trade and the WTO: Understanding Free Trade through the KORUS FTA & the Necessity of Regional Economic Cooperation,” (Via Campesina: 2012), accessible at: http://www.viacampesina.org/downloads/pdf/en/FTA-TPPA_Education_Booklet.pdf. Food First, “Five

that trade in agricultural products is unfair. Agriculture in developed countries remains heavily subsidized, which has artificially depressed food prices on global markets. While low food prices can be of benefit to the world's poor, particularly in urban areas, it disenfranchises most producers in developing countries on local and international markets, exacerbating poverty and food insecurity.³³ It also generates food import dependence, making countries vulnerable to food price volatility, and thus to food insecurity, as evidenced in both the 1970s and 2007-2008 food crises. From this, critics push for policies that promote a more controlled trade environment, and for policy space that gives governments allowance to provide market supports and protections such that food security objectives are given precedent over trade obligations.

Trade is therefore an insufficient strategy on its own for achieving global food security. It must be seen as one tool amongst many, with food security measures taking precedence over trade rules that undermine them.

The dominant trade liberalization narrative not only fails to convincingly argue for its role in generating food security, but ignores the historical precedent in most developed countries today of how agricultural trade protections facilitated development of agricultural sectors and industrialization. Exploring this in depth, University of Cambridge economist Ha-Joon Chang details the extensive use of subsidies, policy supports, and market protections by nearly all industrialized countries as part of their own economic development.³⁴ Liberalization of agricultural sectors was never the trajectory taken by developed countries in achieving agricultural development; indeed, liberalization policies only arrived well after industrialization. Even then, the removal of protections and supports is arguably more illusionary than existent.³⁵

Today the WTO and the proliferating bilateral and multilateral trade agreements are institutionalizing binding rules that require the liberalization of agricultural sectors. On top of this, major development organizations – most notably the World Bank – are also promoting a trade approach to food security.³⁶ Indeed, the World Bank mandated that many developing countries liberalize agricultural sectors through the structural adjustment policies that predated the establishment of the WTO. In summary, this strategy overlooks the historical precedent of protections and supports being used in agricultural development, and rests on economic principles that do not hold in practice

Global Threats to the Survival of Family Farms in the International Year of Family Farming” (Food First, 2014), accessed at: <http://foodfirst.org/wp-content/uploads/2014/03/2013-14-Winter-Backgrounder-International-Year-of-Family-Farming11.pdf>. ETC Group, “Who Will Feed Us? Questions from the Food and Climate Crises,” (Ottawa: ETC Group, 2009), accessed at http://www.etcgroup.org/sites/www.etcgroup.org/files/ETC_Who_Will_Feed_Us.pdf.

³³ De Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda*.

³⁴ Ha-Joon Chang, *Kicking Away the Ladder: Development Strategy in Historical Perspective* (London: Anthem Press, 2002). Ha-Joon Chang, “Rethinking Public Policy in Agriculture: Lessons from Distant and Recent History”, *Policy Assistance Series*, 7 (Rome: FAO, 2009): v, accessible at <http://www.fao.org/docrep/012/i1217e/i1217e.pdf>.

³⁵ Clapp, “WTO Agriculture Negotiations: implications for the Global South.”

³⁶ World Bank, *World Development Report 2008*.

National food security continues to be a globally recognized priority³⁷, yet the dominant trade regime values agriculture as an economic sector above food security, and sidelines the importance of smallholder production as a source of human sustenance, livelihood, and thus as a vehicle to pursuing food security. Trade is therefore an insufficient strategy on its own for achieving global food security. It must be seen as one tool amongst many, with food security measures taking precedence over trade rules that undermine them. The call now is to prioritize food security and to ensure that trade policies support rather than impede progress towards this goal.

III. General WTO rules on agricultural policies

The rules governing agriculture and trade fall primarily under the WTO Agreement on Agriculture (AoA). Agriculture however is subject to many of the agreements that make up the WTO rules. Other agreements discussed specifically here are the General Agreement on Tariff and Trade (GATT) and the agreement on Subsidies and Countervailing Measures (SCM).

Many of the provisions within the rules governing agricultural trade under the WTO AoA are vague and ambiguous and are often subject to conflicting interpretation.

This ambiguity has a chilling effect on food security policies.

Many of the provisions within the rules governing agricultural trade under the WTO AoA are vague and ambiguous and are often subject to conflicting interpretation. As a result, it is not always clear what agricultural policies governments can proceed with. Given that governments are risk averse and tend to err on the side of caution, the former Special Rapporteur on the Human Right to Food, Olivier De Schutter, argues this ambiguity effectively has a chilling effect on food security policies, even though it is unlikely a trade dispute would arise from WTO members objecting over food security.³⁸ We will see how this ambiguity can create challenges for governments to take up policies directed at supporting domestic agriculture, which could indeed create a chilling effect on governments wishing to avoid dispute filings.

Domestic support rules

The ‘Total Aggregate Measurement of Support’ (Total AMS) is the total of agricultural domestic support not exempt as provisioned in the AoA. Each Member’s AMS is benchmarked to a baseline period total between 1986 and 1988, and Members had to reduce base period agricultural support by 20 per cent over 6 years (developed country Members) or 13 per cent over 10 years (developing country Members). All non-exempt domestic supports count towards AMS. Types of domestic

³⁷ United Nations Millennium Development Goals, accessible at: <http://www.un.org/millenniumgoals/>. United Nations General Assembly Open Working Group on Sustainable Development Goals, ‘Proposed Goals and Targets on Sustainable Development for the Post 2015 Development Agenda,’ (New York: United Nations General Assembly, 2014).

³⁸ De Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda*.

supports, or subsidy groups, are categorized under the AoA into three “boxes,” summarized in Table 1.

Table 1: Subsidy groups under the AoA

AoA subsidy groups	Description	Trade-distorting	Subject to reduction requirements
Amber box	All domestic supports except those in the green and blue boxes; support prices and production subsidies.	Yes	Yes. De minimis rule is the only exception.
Blue box	Support payments for limiting production by imposing production quotas or requiring farmers to set aside part of their land.	Less than amber box	No, provided they are linked to fixed areas and yield and production is taking place.
Green box	Supports such as research, extension, food security stocks, disaster payments, environmental protection, animal welfare and structural adjustment programs.	Minimally	No.
Developmental measures	Exempt subsidies and supports designed to provide agricultural and rural development support.	n/a	No.

The **Amber Box** contains “all domestic supports except those in the blue and green boxes...[including] measures to support prices, or subsidies directly related to production quantities.”³⁹ These supports are considered trade-distorting and are subject to the reduction requirements of countries through the AMS.

Exemption: *De minimis* rule. The *de minimis* is an exemption applied to trade-distorting domestic supports that fall into the amber box. *De minimis* exempts *developing country* reduction commitments from being applied to the AMS when 1) a support in any year is not greater than 10% of the supported product’s aggregate value, or 2) is not greater than 10% of total agricultural support when not product-specific. The *de minimis* ceiling for developed countries is 5%.

Green Box supports are supports permitted under the AoA because they are considered to be non- or minimally-trade distorting. They are thus exempt from reduction commitments and can be

³⁹ World Trade Organization (WTO), “Background Fact Sheet: Domestic Support in Agriculture,” accessed at: http://www.wto.org/english/tratop_e/agric_e/agboxes_e.htm (N.D.)

increased without financial limit. The Green Box allows for specific government services, such as research (including environmental research and those related to specific products), agricultural training and extension services, inspection services, marketing and promotion services, infrastructural services, including electricity services, roads and transport, port and market facilities, water supply, expenditures for accumulating and holding stocks for food security purposes, and provision of domestic food aid such as food stamps and provisions of government subsidized staples.

The Green Box also gives provisions that allow direct payment to producers that are unrelated to production decisions, that is, payments that do not influence the type or volume of production undertaken by the farmers, or even whether production takes place at all (this is called *decoupling*). This can include: decoupled income support, insurance and safety-net programs, natural disaster relief, and certain environmental and regional assistance programmes. Most policy recommendations that are focused on supporting small farmers in developing countries will fall under the Green Box allowances, which account for about 60% of public support for agricultural sectors in developing countries.⁴⁰

Blue Box supports allow for support to production limiting programs, so long as they are made to fixed areas and yield or fixed numbers of livestock. Unlike the green box, they require production to be taking place. These are all exempt from reduction commitments.⁴¹

Developmental Measures are exempt subsidies that are designed to provide agricultural and rural development support, both direct and indirect, that are considered an “integral part of the development programmes of developing countries”.⁴² They include investment subsidies, agricultural input subsidies to low-income and resource-poor producers, and supports to producers encouraging diversification away from illegal narcotic production.⁴³

The **Marrakech Ministerial Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries** is another decision designed to address concerns for least developed countries and developing countries who are net importers of food to deal with rising food prices. It covers four response mechanisms: food aid; short-term financing of normal levels for commercial imports, favourable export credit terms, and technical and financial assistance (aid) to improve agricultural productivity and infrastructures (agricultural and rural development).⁴⁴ The focus here though is aid, and not developing capacity of developing countries to undertake policies to support food security.

⁴⁰ De Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda*.

⁴¹ Article 6.5 of the WTO Agreement on Agriculture (AoA). N. Hag Elamin, “Agreement on Agriculture: Domestic Support Measures,” *Multilateral Trade Negotiations on Agriculture: A Resource Manual* (Rome: FAO, 2000), accessed at: <http://www.fao.org/docrep/003/x7353e/x7353e01.htm>

⁴² Elamin, “Agreement on Agriculture: Domestic Support Measures.”

⁴³ Article 6.2 of the WTO AoA.

⁴⁴ FAO, “Marrakesh Decision” (N.D.), accessed at: <http://www.fao.org/economic/est/international-trade/negotiations/uruguay-round/marrakesh/en/>

Domestic support rules and developing countries

There are several obstacles facing the implementation of food security measures that are not trade-distorting. Firstly, many policies that developing countries would like to see integrated into green box exemptions are excluded, such as those related to farmer settlement, land reform, provision of infrastructural services, land rehabilitation and soil conservation, resource and drought management, flood control, rural employment, nutrition and food security, etc., all which have all been proposed in WTO Doha negotiations.⁴⁵ Many developing countries' policies already fit under the green box, however the problem here is that policies not exempt under the green box may automatically be considered trade distorting, even if they do not have this effect in practice.⁴⁶ These policies can then take up a country's *de minimis* allowance and be subject to reduction commitments. This may not currently push many developing countries past their *de minimis* allowance, which at 10% of agricultural supports can ultimately be quite generous, but it may exceed this threshold over time as investment grows and becomes more costly.

Secondly, many of the exemptions that permit investment require administrative capacities that many developing countries lack.⁴⁷ For example, income insurance allowances for producers are contingent on demonstrating 30% net income loss based on three year averages. This formula is oriented towards developed country situations where farmers make up between 1 and 5 percent⁴⁸ of the population and tend to be large, industrialized farms. It is not easily applied to the case of developing country farmers, where the average farmer could not make such calculations (and whose income tends to be diversified on and off farm), and whose governments lack the capacity to manage paperwork when farmers are so numerous.⁴⁹

Finally, AMS formulas and calculations pose challenges to developing countries. The AMS levels for many developing countries were very low during the defined base period of 1986-1988. This creates a low total AMS allowance for many developing countries, while providing a high total for developed countries, whose supports were quite high.⁵⁰ Furthermore, according to FAO analysis, in many developing countries ***currency adjustments and high inflation rates*** further reduce the nominal allowance for supports, which risks taking support totals applied to the AMS well above the base period:

⁴⁵ De Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda*.

⁴⁶ De Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda*.

⁴⁷ De Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda*.

⁴⁸ This varies per country. For example, the United States is less than 2%, Canada approximately 2%, and the EU approximately 5%.

⁴⁹ De Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda*.

⁵⁰ Franck Galtier, "The need to correct WTO rules on public stocks," September 2013.

http://agents.cirad.fr/pjjimg/franck.galtier@cirad.fr/Note_ENG_.pdf Used with permission from author; Clapp, "WTO Agriculture Negotiations: implications for the Global South."

“With inflation as high as 10-15 percent per annum, ‘current’ administered prices rise by several folds above the fixed base period external prices, thereby magnifying Current AMS levels, which easily exceed committed maximum levels.”⁵¹

There are provisions within the AoA for inflation, but they are not clear. For example there is no provision on what qualifies as “an excessive rate of inflation”.⁵² Some countries have chosen to report in US Dollars or to adjust their external reference prices to reflect inflation rates in order to accommodate currency valuation changes and inflation, but these efforts have been questioned by the WTO’s Committee on Agriculture (CoA), demonstrating the problem posed by vague rules and how they are interpreted.⁵³

Constitutionalizing the Human Right to Food

“The right to adequate food is realized when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement.”⁵⁴ The Right to Food is a human right enshrined in the International Covenant on Economic, Social and Cultural Rights. It has been ratified by 160 countries.

Implementation of the Right to Food under WTO rules is complicated. Article XX of the GATT allows governments to implement policies that discriminate against other countries in their trade policies. Article XX (b) includes allowance for the adoption of such measures when “necessary to protect human, animal and plant life or health”. By this, it could be argued that constitutionalizing the right to adequate food, as an effort to ensure food security, should be just cause for exceptions to WTO trade rules in the interest of protecting human life and health. The challenge is establishing what policies are *necessary* to implement the Right to Food, if they can be trade distorting, and if those policies that conflict with WTO commitments could and should be substituted by policies that do not. The allowance for exceptions to protect “human, animal and plant life or health” is qualified to be conditional as:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.⁵⁵

Exceptions have been honoured in rulings under GATT XX from the WTO dispute settlement mechanism, notably on some environmental issues, under particular conditions and restrictions.⁵⁶

⁵¹ Elamin, “Agreement on Agriculture: Domestic Support Measures.” This quote is complemented in the cited document with a hypothetical example in Table 3, explained two paragraphs above the box.

⁵² Elamin, “Agreement on Agriculture: Domestic Support Measures.”

⁵³ Elamin, “Agreement on Agriculture: Domestic Support Measures.”

⁵⁴ General Comment 12 of the Committee on Economic, Social and Cultural Rights *International Covenant on Economic, Social and Cultural Rights*.

⁵⁵ GATT XX site http://www.wto.org/english/docs_e/legal_e/gatt47_02_e.htm#articleXX

⁵⁶ See for example Elizabeth R. DeSombre Elizabeth R. and J. Samuel Barkin, “Turtles and Trade: The WTO’s Acceptance of Environmental Trade Restrictions.” *Global Environmental Politics* 2:1 (2002). This article

However, while some might argue for greater market protections and domestic supports as a strategy to implement the right to food and achieve food security, the risk is twofold. First, the more powerful states, many of which often demonstrate a propensity for free market policies, will challenge right to food policies that promote market protections. This leaves countries using market protections to promote a right to food at risk of challenges through the WTO. Second is the risk that the WTO dispute settlement bodies will align more with proponents of policies promoting free markets as an alternative and superior approach, in line with the organization's broader mandate.

In the next section, Section IV, we examine a variety of agricultural policies that are often argued to be beneficial to supporting food security. Some of these policies are constrained by the WTO rules, which set some parameters for how states might seek to realize the right to food. A dispute around a given policy measure intending to support the right to food could be raised, which would require states to demonstrate within the WTO dispute settlement mechanism that the potentially trade-distorting policy in question is necessary compared to a less trade-distorting one, or else it could be interpreted as an "arbitrary or unjustifiable discrimination between countries."

concerns the WTO ruling on protecting Sea Turtles. The ruling favoured the US ban on imports of shrimp when ships did not adhere to measures that protected Sea Turtles. This ruling from the Appellate body came after the United States had lost on two previous hearings where the body ruled against the US had not taken measures to prioritize the protection of Sea Turtles; that is, it appeared more the US was protecting its own shrimp industry. The lesson from this example is that the WTO allowed for environmental priorities over trade ones, and WTO rules, but under very specific circumstances that demonstrated that the international trade system was bound by principles of sustainable development.

IV. Policy alternatives for pursuing food security

The policies discussed in this section are part of a broad package of policy options that can play a role in addressing food security, in tandem with other policies, but which may not necessarily address food security issues. The implementation of each requires careful and detailed consideration of its opportunities and challenges.

Each policy discussed in this section is examined in relationship to food security. These are important but general examinations to situate each policy's relevance to food security. It bears noting in advance that none of these policies should be considered sufficient in addressing food insecurity. They are part of a broad package of policy options that *can* play a role in addressing food security, in tandem with other policies. Nor do any of these policies *necessarily* address food security issues. While several of the policies below, particularly those now restricted under the WTO, have played an important role in the development of agricultural sectors and economies of industrialized countries, this does not equate to a universal approach to agricultural growth. Context, governance, and conditions on the ground matter. As noted in a report by Ha-Joon Chang:

“The exact institutional forms that have successfully (or unsuccessfully, for that matter) delivered critical needs of the agricultural sector vary enormously across time and space. There were successes and failures with all forms of delivery in all sorts of countries – public provision, private provision, private delivery subsidized by the state, public-private partnerships, cooperatives, state-cooperative partnerships and so on. All these examples suggest the importance of a pragmatic approach, not bound by pro-state or pro-private-sector ideologies. Indeed, one important common characteristic of success stories is their willingness to pick solutions that do not neatly fit into ideological boxes.”⁵⁷

In short, the implementation of the policy for the benefit of achieving food security requires careful and detailed consideration of its opportunities and challenges.

Each policy is also discussed in relationship to the WTO. Where government supports are subject to reduction requirements under the AoA, where exemptions may apply and where ambiguity prevails are identified. Box 2 summarizes this section's findings, highlighting how each policy measure tackles food security from a different angle and how each relates to the general WTO rules on agricultural trade introduced in Section III. A more detailed analysis of each measure in terms of their relationship to both food security and the WTO comprises the remainder of this report.

⁵⁷ Chang, “Rethinking Public Policy in Agriculture”, v.

Box 2: Policy alternatives for pursuing food security

Policies	Contribution to food security	Subject to reduction requirements under WTO
National Food reserves	Price and supply stability	Exempt under Annex 2; some restrictions discourage use and currently calculated as part of AMS. New exemption negotiated by India and US extended to existing stockholdings.
	Emergency food aid during times of shortage	
Investment in Agriculture	Hard infrastructure increases access to markets and availability of inputs, and lower transaction costs.	Specific exemptions listed in Annex 2
	Storage mitigates losses from post-harvest waste.	Ambiguous. Depends on whether support is considered product-related or for the indiscriminate benefit of rural communities and resource-poor producers. Surpluses may distort prices. Could fall within <i>de minimis</i> limits.
	Extension services may be used to improve access to technologies and practices to assist farmers with improved production and market participation.	
Agricultural Input Subsidies	Information and Communication Technologies provides market and weather information, extension services, early warnings and facilitates monitoring of development projects	Specific exemptions listed in Annex 2
	Fertilizer and seed inputs, water use and transportation services	Heavily constrained under WTO rules. Exemptions: <i>de minimis</i> allowances; development measures
Research and Development	Yield increases, biotic stress resistance, climate resilience, other sustainability, production and quality traits.	No restrictions, exempt under Annex 2.2(a), must not provide price support to producers.
	Benefits depend on focus and how new research prioritizes smallholders and sustainability.	
Extension Services	Dissemination of advice and information, increase up-take of technologies and new practices.	No restrictions, exempt under Annex 2.3(d)
	Benefits depend on focus and how advice, information, and research prioritizes sustainability as well as farmer to farmer exchange of best practices, advice and information	

Price Supports	<p>Price supports have varied impact on domestic market prices: lower prices to increase accessibility for consumers; raise prices to support producers and boost production.</p>	<p>Price supports explicitly prohibited. Exemptions: Blue box allowances for limiting production; <i>de minimis</i> allowances</p>
	<p>Marketing boards & STEs provide guaranteed and stable market for producers; stabilize supply on domestic markets and ensure affordable supply for consumers; increase import/export efficiency; counter increasingly consolidated market power; especially beneficial where there is a lack of infrastructure.</p>	<p>Permitted under certain conditions. Must be non-discriminatory and non trade-distorting. STEs with import monopolies and those which stabilize domestic prices are exempt.</p>
Direct Consumer Subsidies	<p>Food stamps and school feeding programs targeting resource-poor consumers</p>	<p>No restrictions</p>
Export Restrictions	<p>Control domestic supply and prices, keep prices low for consumers; imposed during times of shortage and natural disaster.</p> <p>Can have negative impact of food security.</p>	<p>Article XI of GATT prohibits direct export restrictions but simultaneously allows duties, taxes and other charges that can effectively restrict exports limitlessly.</p>
	<p>Protect domestic production and income of producers; increase price stability and political stability.</p> <p>Can have negative impacts in terms of increased prices for consumers and less competition that leads to efficiency gains.</p>	<p>Undoubtedly trade distorting. Exemptions: <i>de minimis</i> allowances; protection of vulnerable domestic sectors through Special Safeguard Mechanism; allowances under GATT require significant legal and institutional capacities.</p>
Debt Forgiveness	<p>Allow producers to continue to procure inputs.</p>	<p>May be considered subsidy (direct transfer of funds). Exemptions: <i>de minimis</i> allowances.</p>
	<p>Do not necessarily translate into agricultural and economic development.</p>	

National Food Reserves

National food reserves and food security

National food reserves⁵⁸ have resurfaced since the global food crisis as one of the more prominent policy options available to help ensure food security. There are various ways in which food reserves can be managed and used to promote food security.

Grain reserves can mitigate the boom and bust nature of agricultural production, particularly in an era of unstable production as a result of climate change. They can provide food in times of physical shortage, especially when constrained foreign currency reserves preclude relying on imports from global markets (an important consideration for many developing countries). Grain reserves can help mitigate food price volatility by stabilizing supply on markets, purchasing in times of excess and selling in times of shortage, so that prices are stable, benefitting consumers and producers. Indeed, price stabilization policies can be linked to agricultural development and economic growth in all current developed countries.⁵⁹ They can have added benefits to developing local and regional market.

Agriculture and trade analyst Sophia Murphy highlights a number of challenges to implementing grain reserves:

- They can be costly and complicated to implement;
- They aren't always compatible with today's prevalent ideology prioritizing the private sector service provision over public sector,⁶⁰ but at the same time, the private sector has little incentive to implement a grain reserve for the purpose of price stabilization;
- While grain reserves offer multiple benefits, these multiple benefits can lead to policy confusion, which can hamper understanding best practices in implementing reserves;
- Their success is contingent on the social, economic, political and geographical contexts in which they exist.⁶¹

At the WTO Ministerial Conference held in Bali in 2013, some governments also brought up the problem that national stockholdings could generate adverse outcomes for other countries if stocks exceed storage capacity and the surplus is sold on international markets at distress sale prices. Holding grains in national public stocks can, but does not necessarily, affect global market prices as well by reducing supply on global markets, particularly during times of high food prices.⁶²

⁵⁸ For a comprehensive overview of the strengths and limitations of grain reserves, see Sophia Murphy, "Strategic Grain Reserves in an Era of Volatility" (Minnesota: Institute for Agriculture and Trade Policy, 2009), accessed at: <http://www.iatp.org/documents/strategic-grain-reserves-in-an-era-of-volatility>

⁵⁹ Chang, "Rethinking Public Policy in Agriculture."

⁶⁰ The use of "ideology" here is to note the blanket assumption increasingly being taken up, and not to suggest that private sector involvement is necessarily inferior to that of the public sector. As Murphy notes, public service provision can be very problematic.

⁶¹ Murphy, "Strategic Grain Reserves in an Era of Volatility."

⁶² FAO, "FAO Trade Policy Briefs on Issues Related to the WTO Negotiations on Agriculture No. 16 - The Bali Package: Implications for Trade and Food Security" (Rome: FAO, 2014), accessed at: <http://www.fao.org/docrep/019/i3658e/i3658e.pdf>

National food reserves and the WTO

The WTO AoA does not include rules against national food reserves, and even allows for them under particular conditions. Annex 2 exempts them from domestic support reduction commitments, if they are intended for food security purposes:

Expenditures (or revenue foregone) in relation to the accumulation and holding of stocks of products, which form an integral part of a food security programme identified in national legislation [are exempt]. This may include government aid to private storage of products as part of such a programme. The volume and accumulation of such stocks shall correspond to predetermined targets related solely to food security. The process of stock accumulation and disposal shall be financially transparent. Food purchases by the government shall be made at current market prices and sales from food security stocks shall be made at no less than the current domestic market price for the product and quality in question.

The WTO also gives special related allowances under the Green Box (which is the category of items that are exempt from domestic support reduction requirements under the AoA):

“The Green Box applies to both developed and developing country Members but in the case of developing countries special treatment is provided in respect of governmental stockholding programmes for food security purposes and subsidized food prices for urban and rural poor. The general criteria are that the measures must have no, or at most minimal, trade-distorting effects or effects on production. They must be provided through a publicly-funded government programme (including government revenue foregone) not involving transfers from consumers and must not have the effect of providing price support to producers.”⁶³

However, in the first allowance above in Annex 2, a footnote stipulates further:

“For the purposes of paragraph 3 of this Annex, governmental stockholding programmes for food security purposes in developing countries whose operation is transparent and conducted in accordance with officially published objective criteria or guidelines shall be considered to be in conformity with the provisions of this paragraph, including programmes under which stocks of foodstuffs for food security purposes are acquired and released at administered prices, provided that the difference between the acquisition price and the external reference price is accounted for in the AMS.”⁶⁴

⁶³ WTO, “Domestic Supports” accessed at:

http://www.wto.org/english/tratop_e/agric_e/ag_intro03_domestic_e.htm

⁶⁴ Annex 2 of the WTO AoA, accessed at: http://www.wto.org/english/docs_e/legal_e/14-ag_02_e.htm#ftno5.

As a result, while falling under the Green Box exemptions, the line “provided that the difference between the acquisition price and the external reference price is accounted for in the AMS” effectively leaves public stockholdings only *partially* exempt from exemption. The effect is to discourage developing countries from using such programmes.⁶⁵

What are the exact constraints placed on developing countries around public stockholdings/food reserves? The difference between the purchase price and the external reference price (what the WTO AoA considers the world market price) counts towards AMS reduction commitments.⁶⁶ So for example, if the purchase price was \$100/mt and the external reference price \$40/mt, then \$60 from each metric ton purchased would count towards the AMS. Other costs associated with the operation of the reserve could also be counted in the AMS.⁶⁷ Additionally, the WTO rules concerning State-Trading Enterprises have to be considered when the reserve is operated by government established STE, which adds additional complexity and legal requirements on governments, many of which might lack the capacities to meet these requirements.⁶⁸

Agricultural economist Franck Galtier argues that the formula for calculating stockholding contributions to AMS is biased against the use of public stockholdings, listing three reasons. First, part of the formula for calculating the external reference price is derived from a 1986-1988 base year, a period during which grain prices were significantly lower than they are today. This effectively means that government supports for stockholdings can generate a significant contribution to so-called trade-distorting supports because of the higher costs of food today compared to the 1980s, and not because of actual trade-distorting measures. The external reference price is considered to be the “market price” used in the calculation of the AMS. The AMS includes any difference between the market price and the price paid by the government for the stocks when the price paid by the government is higher than the contemporary market price (there is no provision for an AMS credit should the government price be lower than prevailing market prices). Given the use of the 1986-1988 base year, the difference between this price and the price paid by governments can be considerable, and creates a large dollar total to contribute towards the AMS. Much of the AMS allowance can be taken up simply by inflation between the base year and today.⁶⁹

Second, in factoring the “quantity”⁷⁰ variable in the formula calculating the contribution of stockholdings to AMS, all national production is included rather than just procured production, under an assumption that this best reflects the national market price. However, for a number of countries a significant portion of production is never put on markets and procurement only falls within a limited time frame, as opposed to the entire year (creating greater price variability). In effect, the value calculated for stockholdings to be applied against the total AMS is effectively

⁶⁵ Galtier, “The need to correct WTO rules on public stocks.”

⁶⁶ De Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda*. Murphy, “Strategic Grain Reserves in an Era of Volatility.”

⁶⁷ Murphy, “Strategic Grain Reserves in an Era of Volatility.”

⁶⁸ Murphy, “Strategic Grain Reserves in an Era of Volatility.” De Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda*.

⁶⁹ Galtier, “The need to correct WTO rules on public stocks.”

⁷⁰ Quantity is defined as “the quantity of production *eligible* to receive the applied administered price” (WTO AoA Annex 3, article 8, emphasis added.)

greater than the real value of the support generated from stockholding. This ultimately means that the contribution of stockholdings towards the limited AMS allowances can in fact be greater than the actual total contribution that takes place. For example, in a hypothetical scenario, while the government may only purchase 100,000 metric tons of grain for the reserve, representing 50% of national production, the WTO calculates the quantity purchased as 200,000 metric tons, or all of national production. When this higher number is plugged into the formula, it elevates the total government costs counting towards AMS because it is multiplied by the subsidy value calculated in the earlier paragraph (which is itself also quite inflated because of the assumed low priced base period).

Third, Galtier argues that the way formulas are devised, the sale of stockholdings are not discounted from the AMS calculation. When prices rise, sales from stockholdings are made in order to keep prices lower and affordable. If these sales were factored into the equation governments would pay less towards AMS⁷¹ because they would be credited for the amount of the losses. 72

In summary, the real support provided by public stocks is magnified by the WTO formula calculating the contribution of stockholdings to trade-distorting supports.⁷³ Considering the low base period benchmark, inflation rates, and exaggerated assumed quantities, stockholding contributors against AMS can be valued considerably higher than their actual contribution. These factors together can strongly constrain the use of national food reserves.

Public stockholdings became one of the main issues in the build-up to the negotiations ahead of the WTO Ministerial Conference held in Bali in 2013.⁷⁴ The G33, led by India, submitted a proposal in which they claimed the WTO AoA should provide developing countries greater allowances for policies that support food security first, and be concerned with trade objectives second.⁷⁵ Two approaches were pushed in the Bali negotiations: one was greater flexibility for countries close to exceeding their AMS allowance, the other a fundamental change in the formula calculating the AMS contribution from stockholdings, the latter put forward by the G33.⁷⁶

At the time of writing, India and the United States have drafted an agreement that would allow for existing public stockholdings to be maintained without risk of challenge through the WTO. The draft agreement stipulates that “Members shall not challenge through the WTO Dispute Settlement Mechanism, compliance of a developing country with its obligations under Article 6.3 and 7.2(b) of the Agreement on Agriculture in relation to support for traditional staple food crops in pursuance

⁷¹ As Galtier explains it, the stabilization of grain prices can hold a price below a ceiling to keep food affordable for consumers, this can serve as a tax on farmers that is not credited towards total AMS calculations. The formula effectively only counts the “subsidy” side of stockholding.

⁷² Galtier, “The need to correct WTO rules on public stocks.”

⁷³ Galtier, “The need to correct WTO rules on public stocks,” 4.

⁷⁴ Olivier De Schutter, “Bali Package Must Allow Ambitious Food Security Policies,” *News Release* (Rome: FAO, 2013), accessed at: <http://www.srfood.org/en/bali-package-must-allow-ambitious-food-security-policies-un-expert-on-wto-summit>.

⁷⁵ De Schutter, “Bali Package Must Allow Ambitious Food Security Policies.”

⁷⁶ Galtier, “The need to correct WTO rules on public stocks.”

of public stockholding programmes for food security purposes existing as of the date of the Bali Decision, that are consistent with the criteria of paragraph 3, footnote 5, and footnote 5 of Annex 2 to the AoA.”⁷⁷ The agreement has been accepted by the General Council of the WTO and put forward to members for acceptance,⁷⁸ But is still a temporary peace clause until a permanent decision on stockholdings is decided. The agreement has some notable limitations: it omits some of the initial, key demands of the G-33, including a fundamental change in the formula calculating AMS, and is only applied to existing stockholdings.

Investment in Agriculture

Investment in hard infrastructure and food security

Investing in hard infrastructure is important to food security, from the perspective of availability – getting food to markets – but also in terms of accessibility – getting food to markets in order to increase the livelihood potential of producers and distributing sufficient food to keep food affordable. Investment in improved infrastructure can spatially integrate farmers with product and factor markets, incite market participation, and increase input availability and extension service accessibility, all of which lowers transaction costs, which in turn increases profitability.⁷⁹ Citing one study, a 10% reduction in transport costs for landlocked Africans can increase trade by 25%.⁸⁰ Investment in roads can then result in other agricultural development benefits, such as taking up new technologies, other infrastructure and incorporating better land and resource management.⁸¹

Access to infrastructure is not a magic bullet for the realization of food security; it is necessary but not sufficient.⁸² Neither is it a *de facto* boon for agriculture. A road out is also a road in, and could introduce new dynamics and actors in agricultural sectors that can generate challenges for smallholder farmers and the rural poor. So while infrastructure offers market benefits, how those benefits play out for producers and consumers will depend on the market and power relations that make up the food and agricultural markets.

Hard infrastructure and the WTO

The Green Box of the AoA specifically allows for government investment in (or revenue forgone from) hard infrastructure so long as it does not provide direct payments to producers or processors

⁷⁷ Statement by the Chairman General Council to be delivered at the special meeting on 26 November, 2014. Accessed at: <http://www.iatp.org/files/US-IndiaDeal.pdf>

⁷⁸ *Ibid.*

⁷⁹ Marie-Agnes Jouanjean, “Targeting Infrastructure Development to Foster Agricultural Trade and Market Integration in Developing Countries: An Analytical Review.” (London: Overseas Development Institute, 2013).

⁸⁰ Cited in Jouanjean, “Targeting Infrastructure Development to Foster Agricultural Trade and Market Integration in Developing Countries,” p.6

⁸¹ Jouanjean, “Targeting Infrastructure Development to Foster Agricultural Trade and Market Integration in Developing Countries.”

⁸² Jouanjean, “Targeting Infrastructure Development to Foster Agricultural Trade and Market Integration in Developing Countries.”

and provides “services or benefits to agriculture or the rural community.”⁸³ Investments must also be non- or minimally-trade distorting, must be provided through a publicly funded government programme (which might include not charging for a service provided), must not involve transfer from consumers, and cannot have the effect of providing price supports to producers.⁸⁴

Within all these limits, Annex 2 of the AoA is specific on what investments are exempt from reduction commitments. They include:

“Electricity reticulation, roads and other means of transport, market and port facilities, water supply facilities, dams and drainage schemes, and infrastructural works associated with environmental programmes. In all cases the expenditure shall be directed to the provision or construction of capital works only, and shall exclude the subsidized provision of on-farm facilities other than for the reticulation of generally available public utilities. It shall not include subsidies to inputs or operating costs, or preferential user charges.”

Storage and food security

From farm to market, without proper storage, losses are experienced from rot, pests and vermin, fungus, and climate. Up to 54% of the world’s food waste is ‘upstream’ post-harvest losses within developing countries during early stages of the supply chain. This includes getting to market, during production, in post-harvest handling or in storage.⁸⁵ The FAO reports that in some countries as much as 25 percent of the food produced is lost because of the lack of decent storage specifically.⁸⁶ Efficient transport to market that can keep products fresh is also important. The FAO promotes metal silos for avoiding post-harvest loss and for creating buffer stocks/surpluses.⁸⁷ Storage generally can make a significant difference for producers that are net buyers of food, helping to alleviate the “sell low, buy high” phenomena where farmers all sell low at harvest and create a glut on markets, and then buy “high” when their own stocks run out and are purchasing on a market with a surplus of buyers and few sellers.⁸⁸

Storage and the WTO

It’s unclear whether and to what extent governments could provide investment in certain important infrastructures like storage. On the one hand, storage could potentially fall under the “market facility” allowance, if the storage is to be used to market products indiscriminately on domestic and export markets, and is not directed at individual farms. It would also fit the criteria of being for the benefit of agriculture and the rural community, allowed in the exemption of Annex 2.2 of

⁸³ Annex 2.2, WTO AoA.

⁸⁴ Annex 2.1-2.

⁸⁵ FAO, “Food Waste Harms Climate, Water, Land and Biodiversity: New FAO Report,” *Media Report* September 11 (Rome: FAO, 2013), accessed at: <http://www.fao.org/news/story/en/item/196220/icode/>

⁸⁶ FAO, “Food Waste Harms Climate, Water, Land and Biodiversity.”

⁸⁷ Jouanjean, “Targeting Infrastructure Development to Foster Agricultural Trade and Market Integration in Developing Countries.”

⁸⁸ Christopher B. Barrett, “Smallholder Market Participation: Concepts and Evidence from Eastern and Southern Africa,” *Food Policy*, 33 (2008): 307.

the WTO AoA. It might also be justified as a development measure if being provided to “low income or resource poor” producers.

On the other hand, facilitating storage could generate some challenges under WTO rules. It is not directly listed in the allowances for hard infrastructure, and the vagueness of “market facility” could present a problem. Storage might be considered “product” related, as storage technologies would likely target individual products, thereby possibly restricting support allowances. Storage supports might be considered an issue if it influences volume of production (farmers might produce more to fill storage, or produce products that could be stored over those that could not, especially if the storage is limited to particular products). If surpluses accumulate, the results could be trade-distorting, particularly if surplus is directed to exports. Finally, the exempted allowance for investment in agriculture and rural community is more specific to input subsidies, investment subsidies, and diversification from narcotics, which could potentially include storage as an investment subsidy, but it is unclear, which may hamper its applicability here.⁸⁹

One final possibility is to provide storage indirectly to farmers and communities through knowledge, research and development supports, and extension service supports, to instruct farmers on how to store foods better. Investment in storage could also fall under the *de minimis* limits. Intuitively, supporting storage seems an unlikely issue to catalyze a dispute through the WTO, outside of instances demonstrating clear relationship between individual storage supports and their potential trade distortion. However, the rules for storage supports are unclear, and might generate risk for governments if the matter was brought forward at the WTO.

Information and Communication Technologies and food security

Soft infrastructure such as information and communication technologies (ICT, also ICT4D (ICT for Development)) including radio, cell phone, tablets, internet service and other applications and software programs can play a very important role in supporting agriculture and development, and thus food security. While the success of ICT depends on how well it is implemented, they generally can provide valuable market information extension advice, rural development programme information, and other information from government and private sources.⁹⁰ ICT can connect farmers to early warning systems related to climate, pests and disease, as well as general meteorological data, to help mitigate the impacts of these risks on crops.⁹¹ ICT can also help

⁸⁹ Article 6.2 of the WTO AoA.

⁹⁰ Shaik N. Meera, Anita Jhamtani, and D.U.M. Rao, “Information and Communication Technology in Agricultural Development: A Comparative Analysis of Three Projects from India,” *Overseas Development Institute Agriculture and Research Extension Network Network Paper*, 15 (London: Overseas Development Institute, 2004), accessed at: <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5186.pdf>

⁹¹ V. Balaji and P. Craufurd, “Using Information and Communication Technologies to Disseminate and Exchange Agriculture-Related Climate Information in the Indo-Gangetic Plains,” *CCAFS Project Report*, (Montpellier: CGIAR, 2011), accessed at: <http://iri.columbia.edu/CCAFS/Publications/Balaji.pdf>

farmers to collect data and support monitoring and evaluation of agricultural development programs.⁹²

There are important limits to ICT applicability related to contextual factors, including electricity and bandwidth, gender issues (women generally have less access to these services, and less education as to their use), and literacy levels.⁹³ Overall, context-specific investment in ICT4D can deliver important agricultural services. This in turn can help with productivity, increased accessibility with respect to increased income for producers and increased supply on markets. It can also increase farmers' resilience by supplying information on weather, emerging pests and diseases and coping strategies for these issues.

Information and Communications Technology and the WTO

ICT in agriculture appears permissible within the WTO rules without restriction beyond those for extension services (discussed below) under Annex 2.2(d), which lists exemptions from reduction commitments including:

“extension and advisory services, *including the provision of means to facilitate the transfer of information and the results of research to producers and consumers.*” (Emphasis added.)

Public support for ICT is thus exempt from spending restrictions.

Agricultural Input Subsidies

Subsidies and food security

Subsidies sustained over a long period of time were an integral policy tool used in the agricultural development of industrialized and newly industrialized countries, particularly for fertilizer and seed inputs, but also for water use and often transportation services.⁹⁴ Even after the coming into force of the WTO AoA, most developed countries continued to maintain significant agricultural subsidies by using their higher baseline AMS, their *de minimis* allowances, and engaging in what has been called “box-shifting”, where they shifted public support for agriculture from non-exempt to exempt categories under the AoA.⁹⁵ However, subsidies are heavily constrained under the WTO rules, laid out in detail in the *Agreement on Subsidies and Countervailing Measures* as well as the AoA.

Input subsidies (seeds and fertilizers)

⁹² Lisa M. Cespedes, “How ICT Tools are Improving Efficiency of Agricultural Development,” *The Guardian*. 24 January, 2013, accessed at: <http://www.theguardian.com/global-development-professionals-network/2013/jan/24/data-collection-evaluation-technology-agriculture>

⁹³ Ibid.

⁹⁴ Chang, “Rethinking Public Policy in Agriculture.”

⁹⁵ Ramesh and Matthew Phillip Linu, “Subsidies and Support in Agriculture: Is WTO Providing Level Playing Field?” *Economic and Political Weekly*, 36:32 (2001). Jennifer Clapp, “WTO Agriculture Negotiations: Implications for the Global South,” *Third World Quarterly* 27:4 (2006): 565.

Subsidies for inputs fall generally in the Amber Box and so count against the reduction commitments of the AoA.

There are two exemptions for developing countries:

1. *De minimis*: when supports total a) if product-specific, less than 10% of the supported products total value of production during the relevant year; and b) if not product-specific, less than 10% of the value of total agricultural production.
2. *Development measure*: The **development measure** exemption is found in Article 6, paragraph 2 of the AoA. It states:

“[A]gricultural input subsidies generally available to low-income or resource-poor producers in developing country Members shall be exempt from domestic support reduction commitments that would otherwise be applicable to such measures.”

The challenge here is that there is no clarity or definition of what constitutes a “low income or resource poor farmer.” Some developing countries have applied this allowance widely and considered all their input subsidies as exempt, which has been questioned by some WTO members at the Committee on Agriculture at the WTO.⁹⁶ If inputs are found to be unqualified for this exemption, and exceed the Member's *de minimis* allowance, they would then fall under Amber Box spending and would thus be applied to reduction commitments.⁹⁷

Research and Development

R&D and food security

The benefits of agricultural research and development (R&D) are fairly well established. R&D in agriculture has ranked at the top for returns to growth and poverty reduction, which can be very important to protecting and improving access to food.⁹⁸ A range of issues can be addressed through R&D to benefit food security including yield growth, pest, disease and climate resilience, increasing ecological services through agricultural production and generating more nutrient-dense products.⁹⁹

⁹⁶ Elamin, “Agreement on Agriculture: Domestic Support Measures.”

⁹⁷ De Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda: Putting Food Security First in the International Trade System*.

⁹⁸ Joachim Von Braun, Shenggen Fan, Ruth Meinzen-Dick, Mark W. Rosegrant and Alejandro Nin Pratt, “International Agricultural Research for Food Security, Poverty Reduction and the Environment” (Washington: CGIAR/IFPRI, 2008).

⁹⁹ Von Braun et al., “International Agricultural Research for Food Security.”

However, agricultural R&D does not necessarily precipitate food security. Growth from R&D and agricultural sectors does not necessarily mean equitable distribution and thus does not necessarily contribute to food accessibility. Technological solutions have been disproportionately favoured in mainstream approaches to addressing food insecurity, while less attention has been given to alternative production sciences such as those that have come to be known as “agroecological” methods.¹⁰⁰ Technological solutions tend to disproportionately prioritize yield improvements over other food security objectives. This can lead to more energy intensive and capital-intensive agricultural production and a loss of agricultural genetic diversity. Capital-intensive agriculture can cost more than the economic gains from increased yields can cover, and thus compromise accessibility for food producers themselves.¹⁰¹ Meanwhile unsustainable agricultural production can compromise food and other resource availability over time, thus compromising the future of food security. How much agricultural R&D contributes to food security depends greatly on the focus and the balancing of priorities of R&D.

R&D and the WTO

There do not appear to be restrictions in the WTO AoA for supporting R&D, so long as it is not providing price support to producers. Annex 2.2(a) of the AoA stipulates an exemption from reduction commitments/application to total AMS for “Research, including general research, research in connection with environmental programmes, and research programmes relating to particular products.”

Extension Services

Extension services and food security

Like R&D, agricultural extension services are a widely recognized tool essential to increasing food security and poverty reduction in rural areas. Extension services are “a **nonformal educational function**” that applies to any institution that disseminates information and advice with the intention of promoting knowledge, attitudes, skills and aspirations, although the term “extension” tends to be associated with agriculture and rural development.”¹⁰² Alongside R&D, extension is linked with high returns on agricultural investment.¹⁰³ Extension services can provide essential information and knowledge to farmers to encourage them to take up practices and technologies¹⁰⁴ and to help them deal with the challenges they face including international competition from other

¹⁰⁰ Gaetan Vanloqueren and Philippe V. Barret, “How Agricultural Research Systems Shape a Technological Regime that Develops Genetic Engineering but Locks out Agroecological Innovations,” *Research Policy*, 38 (2009).

¹⁰¹ Furthermore, productivity gains are also often measured as yield per unit of land, and do not address efficiency, e.g. yield per unit of energy/water.

¹⁰² FAO, *Agricultural Extension, Rural Development and the Food Security Challenge* (Rome: FAO, 2003), accessed at: <http://www.fao.org/docrep/006/y5061e/y5061e06.htm#bm06>.

¹⁰³ World Bank, *World Development Report 2008*, 40.

¹⁰⁴ Vanloqueren and Baret, “How Agricultural Research Systems Shape a Technological Regime”, 979.

producers and environmental constraints. Good extension can improve farm productivity and profitability and increase food and market availability and accessibility in rural areas.

However, much like R&D, the contribution of extension services to food security has to be assessed in context. The gains from extension will depend on whether the knowledge being transferred meets farmers' needs. There can be a bias for extension services to prioritize patented, production-focused technologies, prioritizing “modern, input-intensive monoculture” agricultural systems while excluding alternative approaches such as agroecology.¹⁰⁵ This raises similar concerns to those with R&D above; that is, whether the agricultural production will be both profitable and thus sustainable for smallholder farmers as well as sustainable for future generations.

Extension services and the WTO

Extension services are fully permitted under the WTO rules, stipulated in Annex 2.3(d), with the same caveat on not providing price support to producers as for R&D:

“[E]xtension and advisory services, including the provision of means to facilitate the transfer of information and the results of research to producers and consumers.”

Price Supports

Price supports and food security

Price supports for our purposes are domestic policies that shape the price of food on domestic markets. They can be implemented through border policies, domestic supports (procurement, minimum guaranteed prices or target prices), or a combination of the two. Border policies can include tariffs and export subsidies to protect domestic producers, which would limit supply on domestic markets and thus keep prices higher than they would be with open trade. Alternatively, price supports can include export bans and low import tariffs to ensure food surpluses on domestic markets and to keep prices low. Marketing boards can also be an institutional form of price support, and are discussed below.

Price support policies can have very different objectives. They might focus on increasing prices/maintaining a price floor in order to help farmers and agribusiness and boost production, or they might aim to keep prices low in an effort to help consumers and food processors.¹⁰⁶ Whether price supports are useful to meet food security objectives will depend on the context in which the government is working (the relative situation of consumers and producers) as well as what other policies are in place to help those that might be adversely affected by the price policy in use. For example, the negative impacts of an initiative to raise domestic prices could be mitigated through additional programs to provide consumer subsidies in some form.

¹⁰⁵ Vanloqueren and Baret, “How Agricultural Research Systems Shape a Technological Regime,” 980.

¹⁰⁶ FAO, *Incorporating Food Security Concerns in a Revised Agreement on Agriculture* (Rome: FAO, 2002), accessed at: <http://www.fao.org/docrep/005/y3733e/y3733e03.htm>

Nonetheless, many experts challenge price support policies on the grounds they are not effective in addressing food security. A main challenge is that in practice they often undermine nutritional outcomes because the supports are focused on a narrow range of staple crops, resulting in a less varied diet, especially for poorer consumers.¹⁰⁷ They can also distort markets, precipitate shortages, encourage black market and illicit activities, have unequal distributional impacts, and can be difficult to remove once implemented.¹⁰⁸

Price supports and the WTO

Price supports to producers are an explicitly prohibited domestic support. Price supports are included in the Amber Box and count towards AMS. The sole exceptions are in the Blue Box allowances for supports to limit production and the *de minimis* allowances.

Marketing boards & State Trading Enterprises (STEs) and food security

Considered “state trading enterprises” (STE), marketing boards fall in line with the rules laid out for STEs in the GATT (which was revised in 1994 at the same time as the AoA was agreed). Under GATT rules, STEs are defined as:

“Governmental and non-governmental enterprises, including marketing boards, which have been granted exclusive or special rights or privileges, including statutory or constitutional powers, in the exercise of which they influence through their purchases or sales the level or direction of imports or exports.”¹⁰⁹

Marketing boards can provide an important guaranteed and stable market for producers, especially in contexts where the private sector is constrained (for example for lack of infrastructure). Such a market can offer significant potential to reduce poverty by providing stable income to producers. It can also contribute to food security by stabilizing supply on domestic markets, which can ensure an affordable supply for consumers. Trade-oriented STEs can also make the process of importing and exporting more efficient, lowering costs and thus also increasing affordability. They can also provide a counterbalance to increasingly consolidated and vertically integrated global agricultural market powers, to the benefit of producers and consumers that have no market power in international markets.¹¹⁰ However, marketing boards have a checkered history. Too often marketing boards have not given a voice to producers, have been weighted towards consumer interests (especially urban consumers), and have also been subject to corruption. The contribution

¹⁰⁷ Robert T. Jensen, and Nolan H. Miller, “Do Consumer Price Subsidies Really Improve Nutrition?” *National Bureau of Economic Research Working Paper*, 16102 (2010)

¹⁰⁸ Jensen and Miller, “Do Consumer Price Subsidies Really Improve Nutrition?”

¹⁰⁹ Article XVII of the GATT.

¹¹⁰ FAO, *Agricultural State Trading Enterprises and Developing Countries: Some Issues in the Context of the WTO Negotiations*, (Rome: FAO, 2002), accessed at: <http://www.fao.org/docrep/005/y3733e/y3733e07.htm>. Sophia Murphy, “Concentrated Market Power and Agricultural Trade,” *Ecofair Trade Dialogue Discussion Papers*, 1 (2006).

of marketing boards to food security depends on the democratic, transparent and accountable governance of the board.¹¹¹

Marketing Boards & STEs and the WTO

Marketing boards as STEs are permitted under the GATT under specific conditions. To adhere to the specifications of the GATT, it is required that marketing boards be non-discriminatory and non-trade-distorting. Article XVII.1(b) states that STEs must operate “solely in accordance with commercial considerations, including price, quality, availability, marketability, transportation and other conditions of purchase or sale, and shall afford the enterprises of other contracting parties adequate opportunity... to compete for participation in such purchases or sales”.¹¹² Two exceptions are provided, which according to FAO analysis, most agricultural STEs qualify for:

1. “An exception is provided for STEs with an import monopoly that are bound by the country’s Schedule of Concessions under GATT Article II.
2. Likewise, exporting STEs that serve to stabilise domestic prices for primary commodities are exempt from countervailing duties under GATT Article VI.”¹¹³

The FAO argues that whether marketing boards/STEs are trade distorting generally depends on¹¹⁴:

1. The extent of their market power. Generally, STEs in developing countries have little impact vis-à-vis global supply and thus global prices, making them less likely to be trade distorting from this view. Other factors, including the policy regime (e.g. whether imports are regulated with tariffs or non-tariff barriers), the range of products under the STE, and specifically if the STE controls substitutes to the commodities it regulates and if the STE is anti-competitive.
2. The distance from government/regulatory bodies. The more independent from government, generally, the more aligned with commercial criteria and the less trade distorting a marketing board/STE will be. This is not to say that government control necessarily distorts, but the STE must comply with commercial criteria.
3. Trade orientation (export or import) of an STE must be, first and foremost, transparent, to ensure against veiled export subsidies and market distortions from imports.

The WTO Dispute Settlement Body found the Canadian Wheat Board (CWB), which was a marketing board, to be legal under GATT rules. This was based on the finding that the CWB was acting non-discriminatorily when buying and selling on markets.¹¹⁵ The CWB was an example of an acceptable STE because it was not found to provide export subsidies, largely for two reasons: it was producers and not government who funded marketing, and the government-set initial price

¹¹¹ Murphy, “Concentrated Market Power and Agricultural Trade”.

¹¹² Quoted in FAO, *Agricultural State Trading Enterprises and Developing Countries*.

¹¹³ FAO, *Agricultural State Trading Enterprises and Developing Countries*.

¹¹⁴ All points drawn from FAO, *Agricultural State Trading Enterprises and Developing Countries*.

¹¹⁵ Lawrence Herman, “Playing the Wheat Board Card,” *Globe and Mail* (Toronto), September 13, 2011, accessed at: <http://www.theglobeandmail.com/globe-debate/playing-the-wheat-board-card/article627236/>

was applied for domestic and export products, indiscriminately.¹¹⁶ However, though it won the legal challenge, the CWB also proved vulnerable to a number of WTO challenges, led by US. The legal and administrative costs associated with defense in such disputes can be prohibitive for developing countries.

The effectiveness of STEs in developing country agricultural sectors varies on case-by-case basis and depends on many factors, but has clearly been beneficial in some cases.¹¹⁷ They are permitted by the current WTO rules, under the conditions outlined above.

Direct Consumer Subsidies (excluding price controls)

Direct consumer subsidies and food security

If an individual cannot access food because of financial constraints, then consumer subsidies may become essential. Instruments like food reserves can provide an indirect subsidy to consumers by stabilizing food prices to ensure that consumers can access food consistently. A direct subsidy – such as food stamps and school feeding programs – targets consumers who lack the resources to access food more directly and with greater immediacy. While direct subsidies can be costly to implement and do not necessarily target the underlying causes of food insecurity, they can provide immediate reliefs that can assist households as they engage with other initiatives to address these underlying issues.

Direct consumer subsidies and the WTO

The WTO AoA does not say anything on direct consumer subsidies, which are widely used in countries around the world, including developed countries. These expenditures are directed at consumers and are thus not considered to benefit producers directly.¹¹⁸

Export Restrictions

Export restrictions and food security

Export restrictions are a way for governments to control domestic supply and domestic prices. This can be a tool to keep food prices low for consumers, to combat food insecurity. Export restrictions

¹¹⁶ S. Dakers and J-D. Fréchette, “The WTO, State Trading Enterprises and Export Subsidies,” (Government of Canada, Parliamentary Research Branch, PRB98-2E: 1998), accessed at: <http://publications.gc.ca/Collection-R/LoPBdP/modules/prb98-2-grain/wto-e.htm>

¹¹⁷ FAO, *Agricultural State Trading Enterprises and Developing Countries* has a box briefly outlining various cases in different countries.

¹¹⁸ Tim Josling, “The WTO, Food Security and the Problem of Collective Action,” (paper prepared for the World Bank Conference on Food Price Volatility, Food Security and Trade Policy. September 18-19, 2014), accessed at: http://www.worldbank.org/content/dam/Worldbank/Event/DEC/DECAR-food-conference-sep-2014/DECAR-Food-Conference-Sep18-19-Paper_Josling-The%20WTO%20and%20Food%20security.pdf

are often imposed in times of shortage, whether from production shortfalls (such as from natural disasters) or seasonal shortages; or from economic factors that create a sudden increase in demand for exports that might disrupt supply on domestic markets, such as occurred during the 2007-2008 food price crisis.¹¹⁹ Export bans can also serve a political purpose at times of rapid food price inflation, sending a signal to consumers (and voters) that the government is acting to protect their interests.

Export bans, however, can increase global market prices if the country is a significant exporter. They also depress the prices paid to farmers. Both of these things can exacerbate food insecurity. If export bans persist, the lower domestic food prices can generate food insecurity for developing country producers and agricultural labourers who suffer a decline in income and job security.¹²⁰ Income loss for producers could create challenges for long-term food security as well, if losses compromise productive capacities. For low income and net food importing countries the issue is rather with the sudden imposition of bans when prices in global markets are rising. The effect is to exacerbate price inflation for the recipient country, exacerbating domestic food insecurity.¹²¹

Export Restrictions and the WTO

The WTO has almost no disciplines on export restrictions. On the one hand, Article XI of the GATT sets prohibitions on export restrictions.¹²² This article, at the same time, allows for duties, taxes or other charges to be applied, without reservation to exports, which effectively allows for unreserved export restrictions that, set high enough, would make exports unviable.¹²³ Furthermore, Article XI allows for generous exceptions to the ban on export restrictions in paragraphs 2(a) and 2(b). Paragraph 2(a) allow temporary restrictions in the event of food shortages in items “essential to the exporting contracting party.” Paragraph 2(b) allows for restrictions to meet commodity classification standards and regulations. Some newer Members have been required to provide stricter commitments on export restrictions.¹²⁴

Export restrictions have not been immune to challenge under WTO rules. Often the challenges have come in relation to the export of raw materials rather than agriculture. WTO members have used the dispute settlement mechanism to challenge export restrictions imposed by other Members, under the claim that they create “unfair advantage”, where the importer/complainant was denied “access to raw materials...and other intermediary goods.”¹²⁵ But there have been no successful

¹¹⁹ Issa Sanogo, “Do Export Restrictions Affect Food Security and Humanitarian Food Assistance in Africa?” *Bridges Africa* (2014), accessed at: <http://www.ictsd.org/bridges-news/bridges-africa/news/do-export-restrictions-affect-food-security-and-humanitarian-food>

¹²⁰ Sanogo, “Do Export Restrictions Affect Food Security and Humanitarian Food Assistance in Africa?”

¹²¹ Sanogo, “Do Export Restrictions Affect Food Security and Humanitarian Food Assistance in Africa?”

¹²² GATT Article XI, accessed at:

http://www.wto.org/english/res_e/booksp_e/analytic_index_e/gatt1994_05_e.htm

¹²³ ICTSD, “Agricultural Export Restrictions, Food Security and the WTO.” *ICTSD Programme on Agricultural Trade and Sustainable Development, Information Note*, Geneva: ICTSD, 2014.

¹²⁴ Baris Karapinar, “Export Restrictions and the WTO Law: ‘Regulatory Deficiency’ or ‘Unintended Policy Space’?” *WTO Trade Report* (2010), accessed at:

http://www.wto.org/english/res_e/publications_e/wtr10_forum_e/wtr10_21may10_e.htm

¹²⁵ Karapinar, “Export Restrictions and the WTO Law.”

challenges for export restrictions on foodstuffs. As Mitra and Josling point out, at the end of the day a ban it could be converted to a tax and be within the bounds of the agreement.¹²⁶ It should be noted that the use of export bans in the wake of the 2007-2008 food crisis has prompted intense conversations within the WTO on whether and how the institution's rules should be adjusted for export bans. Several proposals have been submitted over the years that include increasing disciplines on export restrictions.¹²⁷

Import Protections

Import protections and food security

Historically, import protections have been an integral part of the development of agricultural sectors, and overall economies, of industrialized and newly industrialized countries.¹²⁸ The role of import protections in defence of food security is one of the most contentious policy options in a trade negotiations context. There are many benefits and challenges to import protections.

Trade liberalization can create lower food prices, which can make food more affordable for consumers, but at the same time create lower profits for farmers who in turn might suffer a decline in income and food security.¹²⁹ Import protections can protect domestic production, particularly in global agricultural markets where many key staples are heavily subsidized by OECD countries, thus protecting farm incomes. Income stability in rural areas can also create greater political stability.¹³⁰ Tariffs can create inefficiencies in the short run, but if their revenues are invested in agricultural sectors and improving productivity, they can promote agricultural and economic growth.¹³¹ Countries that are dependent on imports from the global market are also particularly vulnerable to food price shocks and volatility.¹³² This can add to the importance of establishing stronger domestic production in order to ensure accessibility for the wider population.

But import protections can generate adverse impacts. Notably, while it increases income for producers, increases in the price of food can create a barrier for low-income consumers to access food. Also, many farmers themselves are net purchasers of food. This can be exacerbated when import protections serve to keep out competition, which can help to ensure efficiency and guard against corruption on markets. Import protections in the form of tariffs can be used to generate government income rather than to protect and/or invest in agricultural sectors, which might work against food security objectives. When poorly implemented they can also create inefficiencies and a sector harmed from lack of competition. The necessity of bolstering a sector must be balanced

¹²⁶ Siddhartha Mitra and Tim Josling, "Agricultural Export Restrictions: Welfare Implications and Trade Disciplines." *IPC Position Paper Agricultural and Rural Development Policy Series* (2009): 13.

¹²⁷ See WTO, "Agricultural Negotiations Backgrounder: Export restrictions and taxes," (2004), accessed at: http://www.wto.org/english/tratop_e/agric_e/negs_bkgrnd09_taxes_e.htm

¹²⁸ Chang, "Rethinking Public Policy in Agriculture."

¹²⁹ FA, *Trade Reforms and Food Security*. Chang, "Rethinking Public Policy in Agriculture."

¹³⁰ Chang, "Rethinking Public Policy in Agriculture," 5.

¹³¹ Chang, "Rethinking Public Policy in Agriculture," 5

¹³² Jennifer Clapp, "Food Price Volatility and Vulnerability in the Global South: considering the global economic context," *Third World Quarterly*, 30.6 (2009): 1183-1196.

with careful consideration of ensuring strong performance in the sector. Similarly, such protections can generate dependencies that make it difficult to shift away from the policy when it is no longer serving its purpose. Finally, while import protections have been a common tool in agricultural and economic development for industrialized countries, they are part of a variety of policy tools used across time and space, and while perhaps arguably necessary, they are not sufficient.

Import protections and the WTO

Import protections are undoubtedly trade distorting. They are subject to a number of rules and disciplines under the AoA, and are generally not permitted. Countries are allowed protections only within the bound tariff rates established in each Member country's schedule, that is, at or below the tariff levels they committed to. With the establishment of the AoA, countries were required to convert agriculture-specific non-tariff barriers into tariffs in a process called "tariffication". The resultant tariff concessions are scheduled for each Member through the Marrakesh protocol. Developed countries committed to a minimum of 35 percent cut on average of all agricultural products, and a minimum 15 percent on all products, implemented over a six-year period. Developing countries committed to 24 and 10 percent cuts, respectively, over ten years. Developing countries that bound tariffs at ceiling levels did not, for the most part, make reduction commitments, and Least Developed Countries (LDCs) did not have to make reductions, but were required to bind all agricultural tariffs.¹³³

There are however exceptions that can help countries to protect vulnerable domestic sectors. Within the AoA the primary tool is the **Special Agriculture Safeguard (SSG)**, which permits governments to temporarily raise tariffs on items to guard against import surges (a sudden increase in the volume of imports of a specific product).

However, the SSG is only available to countries that underwent tariffication. This was only 38 Members. Moreover, the SSG only allows for additional tariffs under particular criteria: in the event of an import surge, they must be used on a shipment by shipment basis, and only if import prices fall below a specified reference price (a price trigger) or import volumes surge (a quantity trigger). Only a few developing countries can access the SSG because the majority offered "ceiling bindings" instead of tariffication. The calculation formula for a countervailing duty (a duty applied in retaliation to compensate for losses) is also complex; it does not entirely offset the low prices from the import surge, nor does it protect countries completely from dropping world prices. As such, it does not completely compensate for the losses from an import surge. The Doha round negotiations have brought forward proposals for a special safeguard mechanism that would allow developing countries to temporarily increase tariffs on products vulnerable to import surges or price falls.

According to FAO analysis, the GATT gives further provisions, laid out in the box below. However, these are not straightforward allowances and are only permitted under very specific conditions. They also require legal and institutional capacities to meet the criteria to qualify for

¹³³ WTO, "Agriculture: Explanation - Market Access," accessed at: http://www.wto.org/english/tratop_e/agric_e/ag_intro02_access_e.htm

the safeguards, capacities that many developing countries lack.¹³⁴ The WTO also stipulates that while all agreements, including GATT, apply to agriculture, where there is disagreement between the GATT and the AoA, the rules of the AoA prevail.¹³⁵ This opens the possibility that a Member could challenge the applicability of some of the safeguards below, aside from the SSG, as it is part of the AoA.

Box 3: GATT/WTO Safeguards¹³⁶

Safeguard	Description	Articles in GATT
Anti-dumping	Measures to deal with dumping - pricing of exports by a <u>private</u> firm below what is charged in the home market - that materially injures a domestic industry	Article VI and Agreement on Implementation of Article VI of GATT 1994
Countervailing duties	Measures to offset the effect of subsidization by the <u>government</u> of the exporting country that causes or threatens material injury to a domestic industry	Articles VI and XVI; Agreement on Subsidies and Countervailing Measures
Emergency protection	Temporary protection in cases where imports of a product cause or threaten serious injury to domestic producers of directly competitive products	Article XIX
Special Safeguards Provisions	Provided for by the Agreement on Agriculture (Article 5) and limited to only those agricultural products which underwent tariffication in the Uruguay Round and for which the right to use this safeguard is reserved in country Schedules by designating the symbol SSG. The provision remains in force for the duration of the "reform process" to be determined under Article 20 of this Agreement.	
Balance of payments	Restrictions on imports to safeguard a country's external financial position	Article XII
Infant industries	Government assistance for economic development, allowing import restrictions to protect infant industries	Articles XVIII:a and XVIII:c
General waivers	Allowing Members to ask for permission not to be bound by an obligation. In contrast to other mechanisms, this requires formal approval by the WTO Council.	Article XXV and WTO AoA
	Provisions allowing for <u>permanent exceptions</u> from the obligations.	
General exceptions	Measures to safeguard public morals, health, laws and natural resources, subject to the requirement that such measures are non-discriminatory and are not a disguised restriction on trade	Article XX

¹³⁴ R. Sharma, "Module 6: Safeguard Measures," *FAO Multilateral Trade Negotiations on Agriculture: A Resource Manual* (Rome: FAO, 2002), accessed at: <http://www.fao.org/docrep/003/x7353e/x7353e06.htm>

¹³⁵ WTO, "Agriculture: Explanation – Introduction," accessed at: http://www.wto.org/english/tratop_e/agric_e/ag_intro01_intro_e.htm

¹³⁶ Taken from Sharma, "Module 6: Safeguard Measures."

Safeguard	Description	Articles in GATT
Modification of Schedules and tariff renegotiations	Allowing for the withdrawal of certain concessions (i.e. raising the bound tariffs) subject to compensation to affected Members	Article XXVIII and Article XXVIII bis

Source: Box adapted from Sharma 2002 (FAO), citing “as compiled by Hoekman and Kostecki (1996), Chapter 7 - Safeguards.”

Debt Forgiveness

Debt forgiveness and food security

There is not a great deal of information on debt relief and smallholder farmers. This section is largely in response to the Debt Waiver and Relief program put into place in India, where debt burden is a significant constraint on farmers and is shaping interests away from farming.¹³⁷ India has implemented debt waivers in the past, in 1990 and 2008.¹³⁸ Intuitively, one can see a relationship between smallholder debt in developing countries and food security. If producers are overwhelmed with debt, they may be unable to sustain their farming practices, and see a decline in income, which can compromise household food security. Meanwhile, if a significant proportion of farmers are heavily in debt, such as in the case of India, national production can be compromised if inputs can no longer be procured or if farmers are facing bankruptcy.

The problem with debt waivers is that they do not necessarily translate into agricultural and economic development. Farmer debt is not necessarily associated with production, and is reported in many cases to be used for personal, non-economic and non-agricultural uses, including marriages, health, and education. Many farmers take up illicit loans, despite their exorbitant interest rates, because credit institutions are unavailable to them, and government debt forgiveness will not likely extend to such loans. Debt forgiveness can play an important role in assisting farmers in precarious circumstances, but they can also prove inferior to other supports that target agriculture productivity and sustainability more directly. Debt forgiveness can also be motivated by political interests rather than agricultural or smallholder interests, particularly in countries where rural populations make up a significant proportion of the electorate.¹³⁹

¹³⁷ Tejaswini Pagadala, “Beleaguered Indian Farmers Favour Debt Waiver,” *Al Jazeera*, June 25, 2014, accessed at: <http://www.aljazeera.com/indepth/features/2014/06/beleaguered-indian-farmers-favour-debt-waiver-2014624802954552.html>

¹³⁸ *ibid.*

¹³⁹ Many of these criticisms are found in Mudita Tiwari, “What was the ‘Agricultural Debt Waiver and Debt Relief’ scheme about?” (N.D.), accessed at: <http://www.developmentoutlook.org/2012/10/what-was-agricultural-debt-waiver-and.html>

Debt forgiveness and the WTO

The challenge with debt relief is that it could be considered a government subsidy. Indeed, India has included its debt relief among its supports in its recent submission of supports to the WTO. The WTO outlines in Article 1.1 of the *SCM Agreement* to see a subsidy to exist if:

(a)(1) There is a financial contribution by a government or any public body within the territory of a Member where:

1. A government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);
2. Government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits)(1);
3. A government provides goods or services other than general infrastructure, or purchases goods;
4. A government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments;

or:

(a)(2) there is any form of income or price support in the sense of [Article XVI of GATT 1994](#);

and

(b) a benefit is thereby conferred.¹⁴⁰

In a ruling on *Korea – Commercial Vessels*, the Panel referenced “debt forgiveness” as constituting “a direct transfer of funds” and went on to state “we consider that interest / debt forgiveness is comparable to a cash grant, as funds that were previously provided as a loan, against interest, are now provided for free, given the removal of the repayment obligation. All of these transactions therefore constitute direct transfers of funds in the sense of Article 1.1(a)(1)(i) of the *SCM Agreement*.”¹⁴¹

At the same time, in a 1999 Speech to the Trade Ministers of LDCs in Seattle, WTO Director-General at the time, Mike Moore, said:

I want to underline the great importance that least-developed countries attach to debt relief – and to endorse the current efforts of the G-7, the IMF, the World Bank, and creditor countries to finally resolve this issue. Here in Seattle advanced countries have an opportunity to match debt relief with free market access for as many heavily indebted countries as possible. A creative approach to market access – together with debt relief and capacity building – can provide the three pillars of a new strategy for bringing least-developed countries into the mainstream of the system. Ours is a moral

¹⁴⁰ Retrieved from WTO

http://www.wto.org/english/res_e/booksp_e/analytic_index_e/subsidies_01_e.htm#article1A11a1i

¹⁴¹ Ibid.

crusade as well as an economic one. Trade is not an end in itself nor is it the only answer. One African country according to UNCTAD pays up to nine times more in debt repayment than in health care. This during an AIDS epidemic. We need investment, infrastructure, education, training and skills to take advantage of the market access this conference should deliver.¹⁴²

This however reflects international debt relief as opposed to domestic debt relief to sectors/individuals, which is an important difference. Thus it seems that debt relief from governments is considered a support, and would thus qualify for inclusion in the AMS, unless it fell under the *de minimis* allowance.

¹⁴² Michael Moore, "Speech to the Trade Ministers of Least-Developed Countries," *Seattle Ministerial Conference and LDCs: Market Access, Supply-Side Constraints and Poverty Alleviation*, (1999), accessible at: http://www.wto.org/english/thewto_e/minist_e/min99_e/english/press_e/ldc_e.htm

V. Conclusion

The rules governing international trade in agriculture are often vague and ambiguous, requiring significant legal and administrative capacity to uncover opportunities to support food security and rural livelihoods without breaking the rules of the WTO. This report has identified some of the measures that may be used to help advance developing countries' food security in ways that comply with international obligations to reduce trade-distorting domestic supports and market protections.

This report identifies several ways that governments can support rural livelihoods and food security by drawing on the policies permitted under the WTO rules such as the Green Box allowances, and by navigating the exemptions found in the AoA - *de minimis* allowances, blue box subsidies and development measures - and the allowances in other WTO agreements, such as the GATT. There are many opportunities within the WTO trade rules that are not obvious and perhaps counter-intuitive to an agreement that promotes market liberalization.

Many of these measures can increase availability and accessibility of sustainably produced, nutritious and culturally appropriate food to all members of the population. However, ultimately the WTO rules do continue to put constraints on developing countries wishing to prioritize food security and rural livelihoods over trade. While trade can play an important role in improving food security for some countries, particularly in areas which lack the capacity to grow sufficient quantities of food and during times of shortage, national governments must have the agency to prioritize food security objectives above trade obligations when most appropriate. An examination of current trade obligations under the WTO reveals that, while many constraints persist, governments do have more agency than is currently being exercised to use domestic agricultural policy to advance food security; food security as the concept we understand it to be today.

Glossary

Agreement on Agriculture (AoA): a multilateral agreement governing trade in agricultural products negotiated during the Uruguay Round of negotiations in 1994 and governed under the WTO. The agreement focuses on three key disciplines: market access, export subsidies and domestic support.

The Agreement on Subsidies and Countervailing Measures (SCM): a multilateral trade agreement negotiated during the Uruguay Round of negotiations in 1994 and governed under the WTO.

Aggregate Measure of Support (AMS): Total AMS is the calculated total “trade-distorting” domestic support by a Member, not counting exemptions (e.g. *de minimis* or the *development measures*). A Member’s total AMS is counted towards its domestic support reduction commitment .

Bound tariff rates: an agreed level at which countries promise not to tariff above. Once a bound rate is set, a country is liable to compensate trading partners if they tariff above it.

Boxes (Amber/Blue/Green): The classification of subsidies into coloured boxes depending on their potential impacts on trade. The Amber box represents trade-distorting supports and are counted towards reduction commitments. The blue-box represents specific supports that may be trade-distorting but are exempt from reduction commitments. The green box represents non-trade distorting supports and are not counted towards reduction commitments.

Ceiling bindings: the highest tariff rate (ceiling) in a bound tariff.

Decoupled payments: Supports paid to producers that are not dependent on prices or production levels. In the AoA, decoupled payments are deemed to be non-trade distorting and are allowable under the green box.

De minimis provision: This provision allows countries to maintain a certain level of trade-distorting support. This exemption on trade-distorting domestic support reduction commitments is limited at 10% of overall agricultural value or 10% of a specific product’s value for developing countries and 5% respectively for developed countries.

Development measures of the AoA: input subsidies for low-income or resource-poor producers in developing countries that are exempt from reduction commitments.

Export restrictions: a custom (a tariff, tax, quota, etc.) on an export, which may be used to generate government income, but usually is to create incentives to raise the price of the product on external markets. This could be used to keep the product on domestic markets.

Export subsidies: Special incentives, e.g. cash payments, extended by governments to encourage increased foreign sales; often used when a nation’s domestic price for a good is artificially raised above world market prices.

General Agreement on Tariffs and Trade (GATT): Was originally an independent multilateral agreement governing trade signed in 1947, and brought in, with some modifications, as one of the agreements of the World Trade Organization in 1995.

Import protections: a restriction to prevent an imported item's competitiveness on a domestic market. Can be a tariff or other non-tariff barrier.

Market access: The extent to which a country permits imports. A variety of tariff and non-tariff barriers can be used to limit the entry of foreign products, thereby reducing market access.

Non-tariff barrier: ways of restricting imports without using tariffs. E.g. quotas, import licensing systems, sanitary regulations, other prohibitions, etc.

Peace clause or Due Restraint Provision: The AoA provision that set a 9-year period during which support policies that were in compliance with the AoA but potentially counter to other agreements (such as the SCM) were exempt from dispute challenges. The peace clause has expired.

Tariffs: custom duties applied to imported items. They can be levied either based as a percentage of the item's value or on specific basis (e.g. \$/kg).

Tariffication: the conversion of all non-tariff barriers to tariffs.

Special products: At the 2005 WTO Ministerial Conference in Hong Kong, as part of the Doha negotiations, members agreed to allow developing countries to "designate an appropriate number of tariff lines as Special Products" (SPs) based on "food security, livelihood security and rural development".

Special Safeguard Mechanism: Doha Round proposal that would allow developing countries to temporarily increase tariffs on products vulnerable to import surges or price falls.

Special Agriculture Safeguard (SSG): Provisions within the Uruguay Round AoA designated to protect the products that were subject to tariffication (as a result of implementation of the AoA) from surges in imports or large price declines.

Subsidies: government financial transfers to support producers or industry.

WTO: The World Trade Organization is the only global international organization overseeing trade rules among nations. It oversees and enforces several agreements governing trade that fall under its purview. It also, among other responsibilities, hosts the negotiations of future trade agreements and trade dispute settlements between Members.

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