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## The World Trade Organization Agreement on Agriculture and World Food Security

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**THE WORLD TRADE ORGANIZATION  
AGREEMENT ON AGRICULTURE AND  
WORLD FOOD SECURITY**

*David Blandford\**

INTRODUCTION

In 1996, the Food and Agriculture Organization (FAO) of the United Nations held a World Food Summit that developed a Plan of Action for food security, so that “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”<sup>1</sup> The Organization also made a Declaration that its members would “strive to ensure that food, agricultural trade and overall trade policies are conducive to fostering food security for all through a fair and market-oriented world trade system.”<sup>2</sup>

According to the World Health Organization (WHO), food security is defined as “physical and economic access to food that

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<sup>1</sup> *Rome Declaration on World Food Security and World Food Summit Plan of Action*, FOOD AND AGRIC. ORG. OF THE U.N. (Nov. 13-17, 1996), <http://www.fao.org/docrep/003/w3613e/w3613e00.htm#PoA>.

<sup>2</sup> *Id.*

meets people's dietary needs as well as their food preferences."<sup>3</sup> Food security is built on three pillars:

- Availability: sufficient quantities of food available on a consistent basis.
- Access: sufficient resources to obtain appropriate foods for a nutritious diet.
- Use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.<sup>4</sup>

This essay will focus on the economics of food insecurity, with an emphasis on supply and demand. Food economics is particularly pertinent for developing countries, as the world's poorest countries face the greatest food challenges. This essay will address whether rules imposed on countries' domestic agricultural and trade policies through international agreements administered by the World Trade Organization (WTO) limit the ability of developing countries to achieve food security. In answering this question, this essay will examine the causes of food insecurity and policy approaches economists advocate for addressing the issues.

## I. FOOD INSECURITY

Two major causes of food insecurity are insufficient availability and lack of access to food.<sup>5</sup> Insufficient availability can be temporary and short-term. It can result, for example, from the destruction of crops and livestock or the infrastructure needed to distribute food. Droughts, floods, outbreaks of animal or plant diseases, and excessively cold or hot temperatures can cause losses of agricultural output. In some countries, hurricanes, typhoons,

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<sup>3</sup> *Food Security*, WORLD HEALTH ORG., <http://www.who.int/trade/glossary/story028/en/>.

<sup>4</sup> *Id.*

<sup>5</sup> *Hunger*, WORLD FOOD PROGRAMME, <http://www.wfp.org/hunger/causes> (last visited Sept. 19, 2014).

volcanic eruptions, earthquakes and their aftermath (like tsunamis) also lead to such losses. Natural disasters often severely damage or destroy essential food transport and storage infrastructure. Short-term disruptions in supply are also caused by wars and conflict, and, regrettably, conflicts are often a continuing problem for ensuring reliable food supplies.

Addressing short-term disruptions in poor countries' food supplies typically involves emergency aid and assistance. Many countries, including the United States, have food aid programs. Numerous non-governmental organizations (NGOs) are also active in this area, such as Oxfam and the U.N. World Food Program (WFP). Oxfam is an association of seventeen non-governmental organizations that provides disaster relief in more than ninety countries. The organization has been involved in providing clean water, food, and sanitation in response to most of the world's major humanitarian crises over the last seventy years.<sup>6</sup> The WFP, which was created as part of the United Nations system in 1961, is the world's largest humanitarian organization. The WFP acts as a channel for food assistance using funding provided by governments, corporations, and private individuals. Each year, the WFP provides food assistance to more than eighty million people in seventy-five countries.<sup>7</sup>

Over the long term, insufficient food availability can be caused by a persistent failure to produce enough food or to make food available to those who need it. Availability problems can be caused by resource constraints that limit agricultural productivity and market failures, such as the lack of an institutional framework to underpin increases in productivity in agriculture, inadequate access for farmers to inputs needed to increase productivity, or the lack of infrastructure to store, process, and move agricultural products to where they are needed.

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<sup>6</sup> *Who We Are*, OXFAM INT'L, <http://www.oxfam.org/en/about> (last visited Sept. 19, 2014).

<sup>7</sup> *Fighting Hunger Worldwide*, WORLD FOOD PROGRAMME, <http://www.wfp.org/about> (last visited Sept. 19, 2014).

The inability of consumers to obtain access to food can be temporary, as discussed above. For countries with sufficient financial resources, imports can address these short-term reductions in domestic supplies. For instance, a recent assessment by the U.S. Department of Agriculture concluded that “the capacity to pay for imports is significant in regions like Latin America and the Caribbean and North Africa that import a large share of their food supplies.”<sup>8</sup> Access to international markets can also help reduce price spikes created by short-term reductions in domestic supply.<sup>9</sup> Sustained import dependence, however, means that rises in international food prices affect domestic markets. When consumers spend a large portion of their disposable income on food, price jumps can lead to hardship and social unrest. For example, the most recent information available from the United Nations (2007-09) shows that dependency on imports of cereals in Africa is roughly double the average for developing countries as a whole (30.1 percent of total supplies, compared to 15.5 percent).<sup>10</sup> Since 2000, cereal prices in Africa have been more than twice as volatile as the world average. The poorest people in Africa (lowest income quintile) typically spend between fifty and eighty percent of their disposable income on food, compared to less than twenty percent in the United States.<sup>11</sup> Sharp increases in food prices in 2007-2008 led to riots in a number of African countries, including Burkina Faso, Cameroon, Senegal, Somalia and Yemen. Over the longer term, persistent inability to gain access to food is generally caused by a lack of resources needed to produce food for consumption or an inability to generate the income necessary to purchase food through the marketplace.

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<sup>8</sup> STACEY ROSEN ET AL., *A Report Summary from the Economic Research Service*, in INTERNATIONAL FOOD SECURITY ASSESSMENT, 2014-2024 (2014), [http://www.ers.usda.gov/media/1499869/gfa25\\_final-0708.pdf](http://www.ers.usda.gov/media/1499869/gfa25_final-0708.pdf).

<sup>9</sup> See FOOD AND AGRIC. ORG. OF THE U.N., THE STATE OF FOOD INSECURITY IN THE WORLD: HOW DOES INTERNATIONAL PRICE VOLATILITY AFFECT DOMESTIC ECONOMIES AND FOOD SECURITY? 4 (2011), <http://www.fao.org/docrep/014/i2330e/i2330e.pdf>.

<sup>10</sup> *Food Security Indicators*, FOOD AND AGRIC. ORG. OF THE U.N., [http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/#.VNf\\_VnacM9d](http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/#.VNf_VnacM9d) (last updated Sept. 16, 2014).

<sup>11</sup> *Id.*

Both forms of food insecurity—temporary and chronic—can be addressed through appropriate policies. As noted, short-term food security issues can be addressed through short-term measures to increase food availability. International aid, financial resources for imports, and assistance in rebuilding damaged infrastructure can all help overcome short-term food insecurity. In contrast, from an economic perspective, the two most effective ways to address the long-term resource inadequacy issue should be domestic.<sup>12</sup> These include:

- Improving access to resources needed by individuals to produce their own food (*e.g.*, land and water). This usually requires structural changes, such as land ownership reform and the creation of a legal framework to guarantee property rights.
- Improving the productivity of existing resources through the adoption of new technology, and improved land and resource management for food production.

From an economic perspective, long-term access to food can also be addressed effectively in two ways:

- Improving the income earning capacity of food insecure individuals.
- Providing income transfers to the poor to enable them to gain improved access to food.

Governments use other approaches in attempting to provide food security. The most popular approach is to provide subsidies to farmers to induce them to produce more food. Governments also use measures that protect farmers from international competition so that more food will be produced domestically rather than imported. This is where trade law plays a role.

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<sup>12</sup> This conclusion is drawn from my interpretation based on economic theory and the overall body of literature in this area. *See generally* C. PETER TIMMER, WALTER P. FALCON & SCOTT R. PEARSON, *FOOD POLICY ANALYSIS* (1983).

## II. THE ROLE OF WTO DISCIPLINES

The Agreement on Agriculture (AoA) that resulted from the Uruguay Round of negotiations under the General Agreement on Tariffs and Trade (GATT), completed in 1994, sought to impose disciplines on measures used by governments to protect agriculture, *i.e.*, the provision of price and income support to farmers and the use of various types of subsidies, particularly trade-distorting subsidies.<sup>13</sup> The Uruguay Round Agreement (URA) and the creation of the WTO represented the first time that agricultural policies had been seriously addressed multilaterally, as the GATT was largely ineffective in this area.<sup>14</sup> The AoA was negotiated at a time when international prices for food were low and a major aim was to limit the price-depressing effect of support measures used by wealthy countries.<sup>15</sup> These measures reduced the earning potential of farmers who did not receive subsidies (in both exporting and importing countries)—but, paradoxically, consumers in import-dependent low-income countries benefited from the lower prices.<sup>16</sup>

Agricultural support was classified into three categories: “amber box,” “green box,” and “blue box.”<sup>17</sup> The two most important categories were trade distorting amber box subsidies and green box subsidies considered to be minimally trade distorting.<sup>18</sup> Limits were placed on amber box subsidies and reductions were

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<sup>13</sup> *See generally* DAVID ORDEN, DAVID BLANDFORD & TIM JOSLING, *WTO DISCIPLINES ON AGRICULTURAL SUPPORT: SEEKING A FAIR BASIS FOR TRADE* (2011) (providing an in-depth analysis of international agreements on agricultural subsidies).

<sup>14</sup> *See* TIMOTHY E. JOSLING, STEFAN TANGERMANN & T.K. WARLEY, *AGRICULTURE IN THE GATT* (2d ed., 1996).

<sup>15</sup> *See id.*

<sup>16</sup> *ORG. FOR ECON. COOPERATION AND DEV., NATIONAL POLICIES AND AGRICULTURAL TRADE* (1987).

<sup>17</sup> *Agriculture Negotiations: Background Fact Sheet*, WORLD TRADE ORG. (Oct. 1, 2002), [http://www.wto.org/english/tratop\\_e/agric\\_e/agboxes\\_e.pdf](http://www.wto.org/english/tratop_e/agric_e/agboxes_e.pdf).

<sup>18</sup> *Id.*

agreed to in the total amount of subsidy that could be provided.<sup>19</sup> *De minimis* exemptions were granted for amounts of subsidies that were viewed to be sufficiently small.<sup>20</sup> Green box subsidies were exempt from reductions.<sup>21</sup>

Developing countries are treated more generously in the types of subsidies that can be excluded from WTO disciplines. Specifically, investment subsidies made available to agriculture as part of development programs, and subsidies for agricultural inputs for low-income or resource-poor producers (measures that could be used to increase productivity and food output by smaller and poorer farmers), are exempt from reductions.<sup>22</sup> The *de minimis* level for the exclusion of subsidies from WTO calculations of support is set at ten percent for developing countries, in contrast to five percent for other countries.<sup>23</sup>

Green box subsidies are not subject to limits on the amount of support provided. Several types of expenditures that are directly relevant to food security policies are exempt from limits under the AoA. These are summarized briefly below:

- Expenditures on general government services, including research, training and extension, pest control, inspection services, and infrastructure (capital expenditures). Such expenditures can be used to increase productivity and the

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<sup>19</sup> *WTO Agriculture Negotiations: The Issues, and Where We Are Now*, WORLD TRADE ORG. (Dec. 1, 2004), [http://www.wto.org/english/tratop\\_e/agric\\_e/negs\\_bkgrnd13\\_boxes\\_e.htm](http://www.wto.org/english/tratop_e/agric_e/negs_bkgrnd13_boxes_e.htm).

<sup>20</sup> Uruguay Round Agreement on Agriculture, Jan. 1, 1995, 1867 U.N.T.S. 410 [hereinafter Uruguay Round Agreement]. Subsidies that involved limitations on production were included in the blue box; these subsidies were not limited in the AoA.

<sup>21</sup> *Id.*

<sup>22</sup> *Domestic Support: The Conceptual Framework*, WORLD TRADE ORG., [https://www.wto.org/english/tratop\\_e/agric\\_e/ag\\_intro03\\_domestic\\_e.htm#other\\_exempt](https://www.wto.org/english/tratop_e/agric_e/ag_intro03_domestic_e.htm#other_exempt) (last visited Sept. 19, 2014).

<sup>23</sup> Uruguay Round Agreement, *supra* note 20.



resilience of the food system to external shocks, such as weather and disease.<sup>24</sup>

- The accumulation and holding of private or public stocks, which are part of a national food security program. There are conditions, *e.g.*, there must be predetermined targets for stock accumulation relating solely to food security objectives, there must be financial transparency, and purchases and sales must be made at current market prices. Stockholding under this provision could be used to provide a buffer against fluctuations in supply due to weather, disease, or other factors.<sup>25</sup>
- Expenditures on domestic food aid programs with clearly defined nutritional objectives and eligibility criteria for recipients. The direct distribution of food to eligible individuals and sales at subsidized prices are both permitted, provided the government acquires supplies of food at market prices. Financial transparency is also required.<sup>26</sup>
- Government subsidies for income insurance and income safety net programs. These are allowed, subject to defined criteria relating to eligibility for recipients and limits on the amount of compensation provided. Compensation must not be linked to the type or volume of production so that the subsidies do not provide an incentive to increase production, *i.e.*, act as a production subsidy.<sup>27</sup>
- Disaster relief payments to farmers. Such payments are permissible, provided they are linked to the effects of a recognizable natural disaster (*e.g.*, drought or flood). There

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<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

are limits, however, on the amount of compensation that can be provided for losses of crops or livestock.<sup>28</sup>

The menu of policy options for pursuing food security policies implied by this list of exemptions is broad. Measures exist that both address short and long term food availability issues and increase access by poor consumers. Policies have to be targeted and proportionate, and they have to be minimally distorting in terms of production and international trade. The framers of the AoA recognized that governments would often want to implement food security policies, and provided a means to do so in a way that would be minimally trade distorting.<sup>29</sup>

### III. ARE WTO DISCIPLINES INCONSISTENT WITH FOOD SECURITY?

Despite the fact that the AoA allows the use of a range of policy measures directed toward ensuring food security, some developing countries, *e.g.*, India, argue that the requirements of these policy measures under the AoA are unduly restrictive.<sup>30</sup> These countries want to have the ability to use policies that would not satisfy the criteria specified in the AoA. It is important to stress that the most economically efficient methods for addressing food insecurity are not currently affected by the AoA, nor would they be affected by a proposed new agreement on agriculture under the current Doha Round of trade negotiations through the WTO. What are currently affected, and would be affected by a new agreement, however, are some policy measures used in the name of food security.

The first such category of measures is general subsidies for agricultural inputs, *i.e.*, subsidies that are provided to all farmers,

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<sup>28</sup> *Id.*

<sup>29</sup> This observation is based on the author's conversations with some of those involved in the negotiations.

<sup>30</sup> *Minister Sharma Explains India's Position on Food Security*, THIRD WORLD NETWORK, <http://www.twinside.org.sg/title2/resurgence/2014/281-282/cover05.htm> (last visited Sept. 19, 2014).

rather than being targeted to low income or resource-poor farmers. The targeted subsidies are permissible under the AoA. General input subsidies on items such as fertilizer, agro-chemicals, energy, and water are undesirable for two main reasons. First, they tend to promote the over-use of inputs. Lowering the cost of fertilizer or energy, for example, induces farmers to use more of these inputs than needed. The excessive use of fertilizer, agro-chemicals, water, and energy often has undesirable environmental consequences.<sup>31</sup> Second, input subsidies are most advantageous to farmers that use large quantities of inputs, such as those who operate larger farms. From a distributional perspective, general input subsidies are less desirable than subsidies targeted solely to small or disadvantaged farmers.<sup>32</sup>

The second category of measures is price supports. Typically, price supports are implemented by setting a minimum price for agricultural products in the domestic market, which is maintained through government purchases when supplies exceed demand at that price. The purchases are stored and either disposed of domestically or, if domestic disposal is not possible, exported using various forms of export subsidies.<sup>33</sup> Some countries argue for this approach on the grounds that some of the products acquired can be distributed to domestic consumers at subsidized prices.<sup>34</sup> Unlike a system of concessional distribution based on the acquisition of products at market prices, however, purchases through price support programs almost inevitably end up with the government acquiring larger stocks than it needs, or can handle, through food assistance programs.<sup>35</sup> Often, overproduction results in the disposal of excess purchases

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<sup>31</sup> DEPT. OF FOOD AND PUBLIC DISTRIB., <http://dfpd.nic.in/> (last visited Sept. 24, 2014).

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> *Id.* (stating that the most important example is India).

<sup>35</sup> Munisamy Gopinath, *India*, in DAVID ORDEN, DAVID BLANDFORD & TIM JOSLING, WTO DISCIPLINES ON AGRICULTURAL SUPPORT: SEEKING A FAIR BASIS FOR TRADE 277-309 (2011).

through subsidized exports.<sup>36</sup> Another drawback of price support programs is that they keep prices higher for consumers who do not have access to food distributions from government stocks and obtain their food in the marketplace. It seems strange to have a policy that is billed as ensuring food security that actually imposes higher costs for food on consumers.

A third category of measures, which are not part of the domestic support disciplines, relates to market access provisions. This category covers various forms of import protection, such as import tariffs and other related policies (often essential when a price support program is in operation so that domestic support prices are not undermined by cheaper imports), which also impose a tax on domestic consumers of food.<sup>37</sup> Like price supports, a policy making food more expensive for consumers is a rather strange approach to ensuring food security.

The existing WTO disciplines on agriculture, and proposals to strengthen these (*e.g.*, to reduce the permitted amount of trade-distorting support), are far from perfect. An important conclusion, however, is that WTO rules affecting domestic policies designed to ensure food security are on the right track. WTO rules discourage the use of inefficient and costly policies that often have undesirable side effects on consumers and environmental quality, but at the same time allow countries to pursue food security policies that do not have such effects.

Food stockholding was a major focus of a ministerial meeting of the WTO in Bali, Indonesia in December 2013.<sup>38</sup> Countries with stockholding policies that do not conform to current WTO green

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<sup>36</sup> The AoA imposes restrictions on the use of explicit export subsidies, but there are loopholes that allow various forms of disguised subsidies to dispose of surplus products internationally. These loopholes include subsidized financing and insurance for exports, as well as food aid, which are not covered by the AoA.

<sup>37</sup> See NATIONAL POLICIES AND AGRICULTURAL TRADE, *supra* note 16.

<sup>38</sup> See World Trade Organization, *Ministerial Declaration of 6 December 2013*, WT/MIN(13)/W/10, 1 (2013) [https://mc9.wto.org/system/files/documents/w10\\_1.pdf](https://mc9.wto.org/system/files/documents/w10_1.pdf).

box criteria, and whose expenditures on stockholding would be counted against their allowable amber box support, pressed for a permanent exemption for their policies.<sup>39</sup> A temporary solution was agreed to, under which WTO members will not challenge countries whose domestic support exceeds current bindings as a result of the way their stockholding policies operate.<sup>40</sup> If the WTO's principal objective to reduce trade-distorting support for agriculture is to be maintained, it will be important that any modification to existing rules on stockholding for food security purposes does not provide for open-ended price support for farmers, *i.e.*, unlimited purchases at a government-determined price.

#### CONCLUSION

We have seen from past experience in Europe and the United States that this type of policy is economically inefficient, and a potential source of tension among trading partners because of resulting distortions in international markets. A subsidy war between the European Union and the United States during the 1970s and 1980s was one the major reasons why countries thought it was necessary to bring agricultural policies under international disciplines in the Uruguay Round.<sup>41</sup> It would be unfortunate for the world's trading system if a loosening of these disciplines resulted in renewed conflicts over agricultural policies in the future.

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<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> See JOSLING, TANGERMANN & WARLEY, *supra* note 14.