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The Global Food System, Environmental Protection, and Human Rights

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Abstract
The global food system is exceeding ecological limits while failing to meet the nutritional needs of a large segment of the world's population. While law could play an important role in facilitating the transition to a more just and ecologically sustainable food system, the current legal framework fails to regulate food and agriculture in an integrated manner. The international legal framework governing food and agriculture is fragmented into three self-contained regimes that have historically operated in isolation from one another: international human rights law, international environmental law, and international trade law. International trade law has taken precedence over human rights and international environmental law to the detriment of small farmers and the environment. The article analyzes the international legal regime applicable to food and agriculture, explains the ways in which the current regime perpetuates food insecurity and unsustainable cultivation practices, and argues that agriculture should be removed from the purview of the World Trade Organization. The article concludes by sketching out some of the elements of an alternative approach to global governance based on the concept of food sovereignty.

Introduction

The global food system is exceeding ecological limits while failing to meet the food needs of a large segment of the world's population. According to the United Nations Food and Agriculture Organization (FAO), more people are undernourished today than forty years ago. Approximately 925 million people experience chronic food insecurity, and we are not on target toward achieving the Millennium Development Goal of cutting world hunger in half between 1990-92 and 2015. FAO, *The State of Food Insecurity in the World 2010*

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(2011). The widespread industrialization of agricultural production places enormous pressure on the world's ecosystems, causing soil degradation, deforestation, loss of agrobiodiversity, and the contamination and depletion of freshwater resources. Agriculture, a major source of anthropogenic greenhouse gas emissions, contributes to climate change; and climate change threatens global food production by increasing the frequency and severity of droughts, floods and hurricanes, depressing agricultural yields, and placing yet additional stress on finite water resources. This article examines the underlying causes of the converging food, agrobiodiversity, and climate crises, and proposes integrated measures that the international community might take through law and regulation to promote a more just, resilient, and sustainable food system.

Agriculture is currently the principal driver of biodiversity loss, primarily through the conversion of forests, grasslands, and wetlands to large-scale agricultural production, but also through unsustainable rates of water use, pollution of lakes and rivers, and introduction of nonnative species. The United Nations Millennium Ecosystem Assessment concluded that approximately 60 percent of the ecosystem services examined have been degraded or used unsustainably to satisfy growing demands for food, water, timber, and fuel. This degradation of ecosystem services disproportionately impacts the rural poor, and impedes efforts to combat poverty and hunger. Millennium Ecosystem Assessment, Synthesis Report: Ecosystems and Human Well-Being (2005), http://www.maweb.org/documents/document.356.aspx.pdf.

The genetic diversity of the world's food supply is also threatened. Seventy-five percent of the world's food crop diversity was lost in the twentieth century as farmers abandoned traditional food crops in favor of a narrow range of domesticated plant species. Only 12 crops currently supply 80 percent of our dietary energy from plants. FAO, *First Fruits of Plant Gene Pact* (June 21, 2009), http://www.fao.org/news/story/en/item/20162/icode/. Genetic diversity within these crops has been declining as well because high-yielding varieties have supplanted traditional local varieties. This loss of genetic diversity increases the risk of catastrophic crop failure akin to the Irish potato famine, and deprives plant breeders of the germplasm essential

for the development of crops capable of thriving in a changing and warming climate.

Climate change will exacerbate food insecurity and loss of biodiversity. Water scarce regions of the world are predicted to experience chronic drought as the climate becomes hotter and drier, with severe impacts in the semi-arid areas of Latin America and Sub-Saharan Africa. Coastal areas will be buffeted by hurricanes, rising sea levels, and floods. Climate change is also anticipated to have devastating impacts on biodiversity – reducing the productivity of the world's fisheries and accelerating the extinction of species and the loss of ecosystem services vital to food production. The households and countries most likely to be adversely affected are those most reliant on local agricultural production, which already face chronic food insecurity. FAO, *Climate Change, Water, and Food Security* (2011).

Ironically, agriculture is also one of the greatest contributors to global warming. Agriculture is responsible for nearly one third of global anthropogenic greenhouse gas emissions, including nitrous oxide from increased fertilizer use, methane from rice and livestock production, carbon dioxide from the clearing of forests to create agricultural land, and indirect emissions from the manufacture of fossil fuel-based agricultural inputs and from the processing, packaging and transportation of food. FAO, World Agriculture: Towards 2015/2030 (2003).

Interrelated Problems: Integrated Solutions

When designing system-based solutions to the converging food, climate, and agrobiodiversity crises, it is useful to keep in mind three key propositions.

First, poverty rather than food scarcity is generally the cause of chronic malnutrition. Global food production has outpaced population growth since 1950, and there is currently sufficient food to satisfy the nutritional needs of every human being. Colin Sage, Environment and Food (2011). People go hungry, even in countries where food is abundant, because they are poor. The majority of the world's undernourished people are small farmers in developing countries who

are net buyers of food. These farmers' income is often too low to enable them to purchase the food available on the market. Background Document Prepared by the UN Special Rapporteur on the Right to Food, Mr. Olivier De Schutter, on his Mission to the World Trade Organization (WTO), Presented to the Human Rights Council in March 2009 (Background Study to UN Doc. A/HRC/10/005/Add.2). Thus, combating hunger requires increasing the income of small farmers in the developing world rather than simply boosting food production.

Second, agrobiodiversity is essential to the integrity and resilience of the world's food supply. Cultivating a variety of crops provides insurance against environmental shocks, diversifies food sources, enhances soil fertility, and conserves the genetic resources necessary to breed plant varieties that can withstand the stresses associated with climate change, including salinity, heat, flood, and drought. Historically, small farmers have played an essential role in conserving and enhancing the world's agrobiodiversity. However, the rapid expansion of industrial agriculture has produced a worldwide decline in agrobiodiversity, marginalized small farmers, eroded farmers' self-sufficiency, and diminished traditional agricultural knowledge while fostering dependence on expensive seeds, pesticides, fertilizers and machinery produced by a small number of transnational corporations. Cary Fowler & Pat Mooney, Shattering: Food, Politics, and the Loss of Genetic Diversity (1996). Thus, trade and production policies that enhance the livelihoods of small farmers and encourage the cultivation of diverse crops and diverse genetic varieties are essential for the health and resilience of the world's agroecosystems.

Finally, agriculture can play a significant role in climate change mitigation and adaptation. Sustainable agriculture seeks to maximize natural pest, nutrient, soil and water management technologies while reducing agrochemical use and enhancing agrobiodiversity. Jules N. Pretty, Regenerating Agriculture: Policies and Practices for Sustainability and Self-Reliance (1995). By minimizing the use of fossil-fuel based agrochemicals, sustainable farming practices produce fewer greenhouse gas emissions than industrial agriculture. By utilizing animal manure, crop rotation, intercropping, and agroforestry, sustainable agriculture reduces soil erosion and enhances carbon sequestration in both soils and above-ground vegetation. By increasing

the organic matter in soils and enhancing the soil's water retention capacity, sustainable farming practices boost agricultural productivity and increase resilience to floods and droughts. The cultivation of genetically diverse crop varieties improves resistance to weather-related events, pests, and diseases. Thus, agricultural trade and production policies that promote sustainable agriculture will enhance food security, conserve biological diversity, and contribute to climate change mitigation and adaptation. International Trade Centre (UNCTAD/WTO) and Research Institute of Organic Agriculture, *Organic Farming and Climate Change* (2007).

Indeed, there is a growing consensus among policy-makers at the international level that promoting sustainable agriculture is a vital step toward addressing the environmental and food security challenges of the 21st century. International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD), *Agriculture at a Crossroads: Synthesis Report* (2009). Sustainable agriculture has produced significant increases in agricultural yields in Asia, Africa, and Latin America while increasing the incomes of small farmers, enhancing environmental quality, reducing dependence on external inputs, and preserving the traditional agroecological knowledge of local and indigenous communities. Jules Pretty et al., *Resource Conserving Agriculture Increases Yields in Developing Countries*, 40 (4) Environmental Science and Technology 1114 (2006). A recent U.N. report concludes that small farmers can double food production in the next ten years in the regions of the world plagued by food insecurity by shifting to sustainable methods. U.N. General Assembly, Report Submitted by the Special Rapporteur on the Right to Food, Olivier de Schutter, *Agro-Ecology and the Right to Food*, U.N. Doc. A/HRC/16/49 (20 December 2010).

The International Legal Framework Governing Food and Agriculture

Law and regulation play an important role in either facilitating or hindering the transition to sustainable agriculture. However, currently the law does not address agriculture as an integrated complex system. Instead, the international legal framework governing food and agriculture is fragmented into three self-contained regimes that have

historically operated in isolation from one another: international human rights law, international environmental law, and international trade law.

The right to food has been recognized as a fundamental human right since the inception of the international human rights regime. States must respect, protect, and fulfill the right to food pursuant to Article 11 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) and pursuant to Article 25 of the Universal Declaration of Human Rights (UDHR). International Covenant on Economic, Social and Cultural Rights, Dec, 19, 1966, 993 U.N.T.S. 3; Universal Declaration of Human Rights, G.A. Res. 217A, U.N. GAOR, 3rd Sess., U.N. Doc. A/810 (Dec. 19, 1948). While the ICESCR obligates only States that have signed and ratified the treaty, the UDHR is binding on all nations as either customary international law or as a codification of general principles of law reflected in the legal systems of large numbers of nations. Olivier de Schutter, A Human Rights Approach to Trade and Investment Policies, in The Global Food Challenge: Towards a Human Rights Approach to Trade and Investment Policies (2009), http://www.fian.org/resources/documents/others/the-global-food-challenge/pdf.

International environmental law recognizes the importance of biodiversity to the integrity of the world's food supply. The Convention on Biological Diversity (CBD) affirms the intrinsic value of biodiversity and its vital role in meeting humanity's food, health and other needs. The CBD requires member States to take specific measures to protect biodiversity, including *in situ* and *ex situ* conservation, and preservation of the knowledge and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity. See Convention on Biological Diversity, preamble, arts. 8 and 9, 31 I.L.M. 818 (1992).

International trade law also addresses agriculture. Several agreements concluded under the auspices of the World Trade Organization (WTO), including the Agreement on Trade-Related Intellectual Property Rights (TRIPS), are relevant to food and agriculture. However, the Agreement on Agriculture (AoA) has had the greatest impact on global agricultural trade. The AoA seeks to

liberalize trade in agricultural products by requiring WTO members to eliminate quantitative restrictions, lower tariff barriers, and reduce trade-distorting agricultural subsidies. Unlike the human rights regime and the CBD, the AoA is subject to the WTO's mandatory dispute resolution mechanism that can subject violators to economic sanctions. See Agreement on Agriculture, Apr. 15, 1994, 1867 U.N.T.S. 410.

At present, international trade law has taken precedence over international human rights law and international environmental law, to the detriment of small farmers, agobiodiversity, and efforts to forestall climate change. To understand these impacts, it is essential to place the AoA in historic perspective.

The Agreement on Agriculture in Historic Perspective

In the aftermath of World War II, the United States and the European Union subsidized the domestic agricultural sector, imposed significant tariffs on agricultural imports, and encouraged the rapid transition from small, self-sufficient farms to large-scale industrial agriculture in order to maximize food production. When chronic overproduction depressed agricultural commodity prices, industrialized countries increased subsidies to domestic producers, and disposed of surplus agricultural output as food aid. Far from eradicating hunger, this food aid aggravated food insecurity in developing countries by undercutting local farmers and increasing dependence on food imports. Colin Sage, Environment and Food (2011).

Beginning in the 1950s, the Green Revolution transplanted industrial agriculture to the developing world and revealed that the social and environmental dimensions of food insecurity could significantly limit the effectiveness of technology-based solutions to chronic malnutrition. The Green Revolution sought to combat world hunger by encouraging farmers in developing countries to cultivate new varieties of rice, wheat, and corn that produced high yields in response to fertilizers, pesticides and irrigation. While the Green Revolution was extremely successful from the standpoint of food production, it intensified rural poverty and produced serious environmental harm. Wealthy farmers benefited from the Green Revolution, but most poor farmers could not afford the agrochemicals and irrigation systems

necessary to produce high yields. As global agricultural production increased, food prices plummeted – destroying the livelihoods of small farmers in developing countries, causing many to abandon farming, and exacerbating poverty and inequality. Carmen G. Gonzalez, *Trade Liberalization, Food Security, and the Environment: The Neoliberal Threat to Sustainable Rural Development*, 14 Transnational Law & Contemporary Problems 420 (2004).

The industrialization of agricultural production in both developed and developing countries also produced serious environmental harm, including soil erosion, over-exploitation and contamination of water resources, loss of agrobiodiversity, increased vulnerability to pests and diseases, and growing greenhouse gas emissions. In addition, farmers became increasingly dependent on costly seeds, fertilizers, and pesticides manufactured by transnational corporations. Carmen G. Gonzalez, *Genetically Modified Organisms and Justice: The International Environmental Justice Implications of Biotechnology*, 19 Geo. Int'l Envtl. L. Rev. 583 (2007).

The debt crisis of the 1980s inaugurated a series of free market economic reforms in developing countries (known as "structural adjustment programs") that placed small farmers in ruinous competition with subsidized agricultural producers in the United States and the European Union. As a condition for new loans, the International Monetary Fund (IMF) and the World Bank required debtor nations to open their markets to foreign competition by reducing tariffs, removing non-tariff barriers, and drastically curtailing subsidies, social safety nets, and other forms of assistance to local farmers. As a consequence of these reforms, agricultural products from the United States and the European Union flooded developing country markets, often at prices well below the local cost of production. These surges of cheap imports devastated rural livelihoods, depressed domestic food production, and accelerated rural-to-urban migration. Within a few decades, countries that were once net exporters of food became net importers. When food prices skyrocketed in 2008, many net food importing developing countries experienced serious balance of payment problems, triggering food riots across the globe. Carmen G. Gonzalez, *The Global Food Crisis: Law, Policy, and the Elusive Quest for Justice*, 13 Yale Human Rights and Development L.J. 462 (2010).

The structural adjustment programs imposed by the IMF and the World Bank also required developing countries to shift land and resources from food crops to cash crops to boost export revenues and service foreign debt. This reduced domestic food production, reinforced dependence on food imports, accelerated deforestation, and hastened the transition from peasant-based farming to industrial agriculture. The increasing dependence of developing countries on international trade to satisfy domestic food needs has made them vulnerable to price volatility resulting from overproduction, bad harvests, financial speculation in agricultural commodity markets, and growing demand for biofuels. *Id.*

The AoA sought to address some of the imbalances in global agricultural trade by requiring WTO members to enhance market access and reduce trade-distorting agricultural subsidies. First, parties were required to convert non-tariff barriers to tariffs and to reduce these tariffs over time. Unfortunately, the method of converting non-tariff barriers to tariffs was not clearly specified. The majority of industrialized countries engaged in "dirty tariffication" – adopting tariffs that were more trade-restrictive than the non-tariff barriers that they replaced. In addition, many industrialized countries maintained extremely high tariffs on processed agricultural products, which made it difficult for developing countries to diversify into the lucrative food processing industry. Second, parties were required to reduce export subsidies and trade-distorting domestic subsidies (in relation to a base period of extremely high subsidies) and were prohibited from introducing new forms of support (beyond de minimis levels) if they had not historically subsidized agricultural production. This approach essentially "grandfathered" the agricultural subsidies of the United States and the European Union while restricting the ability of most developing countries to subsidize the agricultural sector for the first time. In addition, the United States and the European Union utilized ambiguities in the classifications of subsidies to evade the subsidy reduction requirements. Agricultural subsidies in wealthy countries actually increased in the immediate aftermath of the AoA. Carmen G. Gonzalez, *Institutionalizing Inequality: The WTO Agreement on Agriculture, Food Security, and Developing Countries*, 27 Columbia J. Envtl. L. 433 (2002). Agriculture continues to be one of the major

stumbling blocks in the Doha Round of WTO negotiations. John W. Miller, *Trade Talk Impasse Prompts a Plan B,* Wall Street Journal, April 28, 2011.

Although the AoA failed to reduce agricultural protectionism in the United States and the European Union, it did succeed in constraining the ability of developing countries to raise tariffs when confronted with surges of cheap, subsidized agricultural products. Under the AoA, only countries that engaged in tariffication may impose additional tariffs (known as "special safeguard measures" or "SSG") in response to import surges. Since most developing countries had already eliminated non-tariff barriers pursuant to the economic reforms mandated by the IMF and the World Bank, they did not have any non-tariff barriers to convert to tariffs and were therefore not entitled to utilize the SSG to protect the livelihoods of small farmers. Carmen G. Gonzalez, *Institutionalizing Inequality: The WTO Agreement on Agriculture, Food Security, and Developing Countries*, 27 Columbia J. Envtl. L. 433 (2002). In short, while the AoA did not create the inequities in global agricultural trade that perpetuate poverty and environmental degradation, the AoA did institutionalize these inequities by reinforcing the double standards introduced under structural adjustment that permit protectionism in wealthy countries while prescribing market openness in poor countries.

The redirection of food production toward foreign markets rather than domestic markets has increased the market power of the multinational grain traders, agrochemical corporations, seed manufacturers, and supermarket chains that dominate the global food system. These transnational corporations utilize their market power to extract high prices for agricultural inputs (such as seeds, fertilizers, and pesticides) while paying low prices for agricultural commodities – to the detriment of small farmers who generally receive only a small fraction of the final retail price of their products. These transnational enterprises also exacerbate climate change by fostering long production chains that require road, sea and air transportation of food products across vast distances. They have also been the key beneficiaries and main proponents of agricultural subsidies. Colin Sage, Environment and Food (2011). For example, as a consequence of U.S. agricultural subsidies, concentrated animal feeding operations (CAFOs) operated

by some of the world's largest vertically-integrated food corporations purchase feed grains at depressed prices. This lowers their operating costs and enables them to increase their share of the rapidly globalizing agri-food markets. Timothy A. Wise, *Identifying the Real Winners from U.S. Agricultural Policies*, Global Environment and Development Institute Working Paper No. 05-07 (Dec. 2005). These CAFOs are notorious for their dangerous working conditions, low wages, animal cruelty, and adverse environmental impacts, including water pollution, air pollution, and significant contribution to global warming. By making meat consumption cheaper, these subsidies also promote levels of meat consumption that are detrimental to human health and increase the pressure on limited arable land to produce animal feed.

Finally, the biofuels boom and financial speculation in agricultural commodity markets threaten food security and the environment. The decision of the United States and the European Union to subsidize the production of biofuels to promote energy security and mitigate climate change was the primary driver of the global food price surges of 2006-2008, which sparked worldwide social unrest. FAO, *State of Agricultural Commodity Markets 2009* (2009). These subsidies persist even though the environmental benefits are often questionable. For example, the greenhouse gas emissions resulting from the production of corn ethanol may actually exceed fossil fuel emissions by more than ten percent. Melissa Powers, *King Corn: Will the Renewable Fuel Standard Eventually End Corn Ethanol's Reign?*, 11 Vt J. Envtl. L 667 (2010). The cultivation of corn for ethanol competes with food production. It also imposes serious environmental impacts on both affluent and poor nations, including depletion and contamination of water supplies and conversion of forests and grasslands to agricultural lands. United Nations Environment Programme, Towards Sustainable Production and Use of Resources: Assessing Biofuels (2009). In addition, speculative investment in agricultural commodities in the wake of the bursting of the U.S. housing bubble exacerbated food insecurity by contributing to global food price increases. U.N. Conference on Trade and Development (UNCTAD), *The 2008 Food Price Crisis: Rethinking Food Security Policies*, G-24 Discussion Paper No. 29 (June 2009).

Food prices declined in the second half of 2008, but they have been rising since 2010. Biofuels cultivation, climate change, scarcity of land and water, and speculative investment in agricultural commodity markets are anticipated to produce long-term increases in food prices. Net food importing developing countries and poor farmers who are net purchasers of food will be devastated by rising food prices – swelling the ranks of the malnourished and accelerating rural-to-urban migration. The benefits of rising prices will likely accrue to agribusiness conglomerates in industrialized countries and to wealthy landowners in upper-middle-income exporting countries. FAO, *The State of Food Insecurity in the World 2011* (2011).

In sum, the AoA promised to increase the income of small farmers and developing countries by encouraging developing countries to export cash crops and open their markets to cheap, imported food. Far from promoting prosperity, these policies place small farmers in direct competition with highly subsidized transnational agribusiness. They exacerbate poverty and food insecurity by increasing vulnerability of poor farmers and net food importing developing countries to global food price shocks, and they accelerate the destruction of local food systems.

The Way Forward

As part of its deficit reduction plan, the United States should phase out trade-distorting agricultural subsidies that disproportionately benefit wealthy farmers and corporate agribusiness, incentivize environmentally destructive cultivation practices, and contribute to global food insecurity. Instead, government resources should be allocated to programs that promote sustainable agriculture, strengthen family farms, and foster food supply chains that connect producers and consumers and enable farmers to capture a greater percentage of consumer food dollars.

However, eliminating double standards in international agricultural trade is necessary but not sufficient to address the food, agrobiodiversity and climate crises. Even if protectionism in wealthy countries is curtailed, small farmers in poor countries cannot compete with agricultural producers in wealthy and middle-income countries

(such as Brazil and Argentina) whose productivity levels (yields per hectare) are far higher due to mechanization, better infrastructure, access to credit and technology, and economies of scale. In addition, market prices will continue to favor large-scale industrial agriculture over sustainable agriculture to the extent that markets fail to internalize environmental costs or reward positive environmental externalities associated with small-scale sustainable agriculture, such as soil and water conservation, stewardship of agrobiodiversity, and carbon sequestration. Liberalization of agricultural markets will likely provide short-term economic gains to large agro-exporters at the expense of small farmers and of efforts to reduce deforestation, preserve biodiversity, and mitigate climate change.

Both national and international agricultural policy must recognize the importance of human rights and environmental protection, and deploy trade, aid, and finance as means toward the achievement of those ends. Trade agreements should give developing countries ample "policy space" to re-invest in their agricultural sector after decades of neglect. Trade agreements should permit governments to utilize a combination of tariffs and subsidies to protect the livelihoods of small farmers, encourage domestic food production, support sustainable agricultural practices, and nurture higher value-added food processing industries in developing nations.

Strong anti-trust laws and enforcement is also needed. At the national level, States should aggressively enforce domestic antitrust laws. Internationally, States should adopt a global antitrust regime to mitigate the anticompetitive practices that pervade global food supply chains. National and international regulation is also necessary to address food commodity speculation and biofuels policies that drive up food prices and divert arable land from food production.

With the Doha Round of WTO negotiations at an impasse, the time has come to assess whether agriculture should be removed from the purview of the WTO and whether an alternative global governance regime might better address the converging food, climate, and agrobiodiversity crises. Even if the current gridlock could be overcome, it is unlikely that the AoA, with its single-minded emphasis on export production, will encourage farming practices that respect

ecological limits and contribute to food security. At best, human rights and environmental protection will likely remain ill-defined exceptions to WTO members' trade liberalization obligations. Moreover, WTO negotiations may distract the international community from confronting the urgent agriculture-related problems that threaten the global food supply, the global climate, and the health and well-being of the planet's most vulnerable populations. It is therefore essential to develop a global governance regime that overcomes the fragmentation of international law so as to promote a sustainable global food system.

While a full discussion of alternative approaches is beyond the scope of this paper, one possible alternative is a regime of food governance premised on the concept of food sovereignty. Developed originally by La Vía Campesina (a transnational alliance of small farmers, landless peasants, and indigenous peoples), food sovereignty refers to democratic national and local control over food production, distribution, and marketing in ways that are socially just and ecologically sustainable. "Food sovereignty" requires localized food production that meets the needs of food insecure populations without harming the natural resource base upon which food production depends. Annie Shattuck & Eric Holt-Gimenez, *Moving from Food Crisis to Food Sovereignty*, 13 Yale Human Rights and Development L.J. 421 (2010). A treaty premised on food sovereignty would give hierarchical priority to human rights and environmental norms (including the right to food, the right to a healthy environment, and the right to participate in governmental decision-making) over obligations contained in trade and investment agreements, and would require the adoption of policies that enable farmers to earn a fair price for their output (such as investments in infrastructure, subsidized credit, land reform, and access to water, seeds, and technology). It would require developed countries to phase out trade-distorting subsidies on exported agricultural products, and would permit developing countries to utilize tariff and non-tariff barriers to protect the livelihoods of small farmers. The treaty would authorize all countries to subsidize domestic food production to satisfy domestic nutritional needs, to promote sustainable agriculture, to protect rural livelihoods, and to reward farmers for providing ecosystem services (such as carbon sequestration and conservation of agrobiodiversity). It would impose common but differentiated obligations on States to help finance global hunger

eradication and facilitate the transition to sustainable agriculture, basing each country's contribution upon its resources, needs, and historic contribution to global food insecurity and global environmental degradation. Finally, such a treaty should be closely coordinated with other human rights and environmental treaties to create synergies rather than conflicts in treaty design and implementation.

The converging food, climate, and agrobiodiversity crises have made it imperative to transform the global food system. Removing agriculture from the WTO is the necessary first step. The more challenging step is devising a system of global governance that overcomes the fragmentation of international law, invites the participation of civil society, and promotes sustainable approaches to food production, distribution, and consumption.