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World Poverty and Food Insecurity

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WORLD POVERTY AND FOOD INSECURITY

*Carmen G. Gonzalez**

Our present global economic order produces a stable pattern of widespread malnutrition and starvation among the poor, with some eighteen million persons dying each year from poverty-related causes, and there are likely to be feasible alternative regimes that will not produce similarly severe deprivations. If this is so, the victims of avoidable deprivations are not merely poor and starving, but impoverished and starved through an institutional order coercively imposed upon them. There is an injustice to this economic order, which it would be wrong for its more affluent participants to perpetuate.[1]

INTRODUCTION

The suffering of the world's poor and undernourished is due not simply to the failure of Western liberal democracies to provide sufficient economic aid, but to international political and economic arrangements that systematically benefit the wealthy and disenfranchise the poor. As Yale philosopher Thomas Pogge acknowledges in his ground-breaking book on world poverty, the

* Carmen C. Gonzalez, Professor of Law, Seattle University School of Law. This essay is based on the author's remarks at the symposium on global resource scarcity organized by the Penn State *Journal of Law and International Affairs*. The author would like to thank the organizers of the symposium for facilitating thought-provoking dialogue on this important topic among legal scholars, practitioners, government officials, and representatives of industry.

[1] THOMAS POGGE, WORLD POVERTY AND HUMAN RIGHTS, 182 (2nd ed. 2008).

deprivation suffered by the world's most vulnerable populations is often the direct and foreseeable consequence of an unjust global institutional order maintained by affluent countries in collusion with the ruling elites of poor countries.[2] We can end poverty and hunger, Pogge maintains, not simply by financial transfers to poor countries, but by restructuring the global economic order to "lighten the huge burdens we impose on the people of those countries."[3]

This article examines some of the laws, policies and practices that perpetuate chronic undernourishment in developing countries and sets forth key reforms that wealthy countries could enact to ameliorate global inequities and enhance food security. Consistent with Pogge's insights, the objective is to lay bare the underlying structural causes of food insecurity in order to address the root causes of the problem and not merely the immediate manifestations. The article proceeds in four parts. Part I defines food security and identifies the world's food insecure populations. Part II discusses the role of aid, trade, and financial institutions in perpetuating chronic undernourishment in developing countries. Part III discusses the challenges to food security posed by climate change, financial speculation in agricultural commodity markets, biofuels production, and large-scale acquisitions of agricultural land in developing countries. Part IV sets forth concrete measures that wealthy countries can take to reduce poverty and food insecurity.

I. THE CONTOURS OF GLOBAL FOOD INSECURITY

The United Nations Food and Agriculture Organization (FAO) defines food security as "physical and economic access to sufficient safe and nutritious food that meets . . . dietary needs and

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[2] *See id.* at 7-32; *see generally* Thomas Pogge, *Severe Poverty as a Violation of Negative Duties,* 19 ETHICS & INT'L AFF. 55 (2005).

[3] WORLD POVERTY AND HUMAN RIGHTS, *supra* note 1, at 9.

food preferences for an active and healthy life."[4] According to the FAO's most recent estimates, 842 million people did not consume enough calories to meet their dietary energy requirements in 2011-2013—a figure that represents one out of eight of the world's people.[5] In addition, an estimated two billion people suffer from deficiencies of one or more essential micronutrient, and twenty-six percent of the world's children are stunted (fail to attain normal height and weight) as a consequence of undernourishment.[6] According to the United Nations Department of Economic and Social Affairs, the world's population (which is currently 7.2 billion[7]) is expected to reach 9.6 billion in 2050 and 10.9 million in 2100.[8] However, we currently produce sufficient food to feed a global population of twelve to fourteen billion people.[9] Enough food is available to supply every person on the planet with approximately 2700 calories per day.[10]

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[4] FOOD AND AGRIC. ORG. OF THE U.N., AN INTRODUCTION TO THE BASIC CONCEPTS OF FOOD SECURITY 1 (2008), http://www.fao.org/docrep/013/al936e/al936e00.pdf.

[5] FOOD AND AGRIC. ORG. OF THE U.N., THE STATE OF FOOD INSECURITY IN THE WORLD 2013: THE MULTIPLE DIMENSIONS OF FOOD INSECURITY 8 (2013), http://www.fao.org/docrep/018/i3434e/i3434e.pdf.

[6] FOOD AND AGRIC. ORG. OF THE U.N., THE STATE OF FOOD AND AGRICULTURE 2013: FOOD SYSTEMS FOR BETTER NUTRITION ix, 3 (2013), http://www.fao.org/docrep/018/i3300e/i3300e.pdf.

[7] *Current World Population*, WORLDOMETERS: REAL TIME WORLD STATISTICS, http://www.worldometers.info/world-population/ (last visited Apr. 18, 2014).

[8] U.N. DEPT. OF SOC. AND ECON. AFF., WORLD POPULATION PROSPECTS: THE 2012 REVISION, KEY FINDINGS AND ADVANCE TABLES 1 (2013), http://esa.un.org/wpp/Documentation/pdf/WPP2012_%20KEY%20FINDINGS.pdf.

[9] U.N. CONFERENCE ON TRADE AND DEV. (UNCTAD), TRADE AND ENVIRONMENT REVIEW 2013, WAKE UP BEFORE IT'S TOO LATE: MAKE AGRICULTURE TRULY SUSTAINABLE NOW FOR FOOD SECURITY IN A CHANGING CLIMATE 2 (2013), http://unctad.org/en/PublicationsLibrary/ditcted2012d3_en.pdf [hereinafter WAKE UP BEFORE IT'S TOO LATE].

[10] *See* JEAN ZIEGLER ET AL., THE FIGHT FOR THE RIGHT TO FOOD: LESSONS LEARNED 3 (2011).

Food insecurity is caused by poverty rather than food scarcity. As Nobel laureate Amartya Sen has compellingly demonstrated, food insecurity is a function of food distribution, not food production.[11] Nearly one billion people experience chronic undernourishment because they lack the purchasing power to obtain food on the market, or the land and agricultural inputs to grow the food they need.[12] Thus, contrary to popular misconception, increasing food production through technological innovation is not sufficient to address food insecurity. We will not end hunger unless we redouble our efforts to reduce social and economic inequality.[13]

In order to properly target policies and programs designed to combat undernourishment, it is essential to keep in mind that the planet's food insecure populations are overwhelmingly rural. Approximately eighty percent of the world's chronically undernourished people are rural dwellers in developing countries who cultivate at least seventy percent of the world's food.[14] The vast majority are small farmers who are net food purchasers because they have been relegated to plots of land that are too small, arid, hilly, or inadequately irrigated due, in part, to competition for land and water from large-scale agricultural producers.[15] The ranks of the rural

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[11] *See generally* AMARTYA SEN, POVERTY AND FAMINES: AN ESSAY ON ENTITLEMENT AND DEPRIVATION (1990).

[12] *See* Carmen G. Gonzalez, *Institutionalizing Inequality: The WTO, Agriculture and Developing Countries,* 27 COLUM. J. ENVTL. LAW 431, 466-70 (2002) [hereinafter *Institutionalizing Inequality*] (using Amartya Sen's framework to explain household food insecurity).

[13] *See* Rebecca M. Bratspies, *Food, Technology and Hunger,* 8 L. CULTURE & THE HUMAN. 1, 9-13 (2012) (dispelling the myth that "heroic technological interventions" are necessary to increase food production and end world hunger).

[14] INT'L FUND FOR AGRIC. DEV. (IFAD), RURAL POVERTY REPORT 2011 16 (2011); ACTION GROUP ON EROSION, TECHNOLOGY, AND CONCENTRATION (ETC GROUP), WHO WILL FEED US? QUESTIONS FOR THE FOOD AND CLIMATE CRISES 1 (2009), http://www.etcgroup.org/sites/www.etcgroup.org/files/ETC_Who_Will_Feed_Us.pdf.

[15] *See* Olivier de Schutter, *How Not to Think of Land-Grabbing: Three Critiques of Large-Scale Investments in Farmland,* 38(2) J. PEASANT STUDIES 249, 256 (2011)

malnourished also include pastoralists, fisherfolk, and landless workers (including children) who earn less than subsistence wages.[16]

The livelihoods of these rural dwellers have been and continue to be undermined by misguided aid, trade and development policies, and by large-scale land acquisitions that benefit wealthy nations and transnational corporations at the expense of the poor.[17] They are also threatened by climate change, which will depress food production in major agricultural regions, increase food prices, and reduce the productivity of the world's fisheries.[18] Indeed, the most recent report of the Intergovernmental Panel on Climate Change (IPCC) paints a grim picture of the future, warning that climate change could result in the breakdown of food systems unless the world's governments rapidly end their dependence on fossil fuels.[19] The following sections examine the underlying causes of global food insecurity with an emphasis on their impact on small farmers in developing countries.

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[16] *See id.* at 256-57.

[17] *See* Carmen G. Gonzalez, *The Global Food Crisis: Law, Policy, and the Elusive Quest for Justice,* 13 YALE HUM. RTS. & DEV. L.J. 462, 468-73 (2010) [hereinafter *The Global Food Crisis*]; *see generally* Olivier de Schutter, *The Green Rush: The Global Race for Farmland and the Rights of Land Users,* 52 HARV. INT'L L.J. 504 (2011) [hereinafter *The Green Rush*].

[18] *See* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY, SUMMARY FOR POLICYMAKERS 7-8, 16-18 (2014), http://ipcc-wg2.gov/AR5/images/uploads/WG2AR5_SPM_FINAL.pdf.

[19] *Id.* at 12; *see generally* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE, SUMMARY FOR POLICY-MAKERS (2014), http://report.mitigation2014.org/spm/ipcc_wg3_ar5_summary-for-policymakers_approved.pdf (discussing the pressing need for climate change mitigation); Damian Carrington, *IPCC Report: World Must Urgently Switch to Clean Sources of Energy,* GUARDIAN, Apr. 11, 2014, http://www.theguardian.com/environment/2014/apr/12/ipcc-report-world-must-switch-clean-sources-energy.

II. THE ROLE OF AID, TRADE, AND FINANCIAL INSTITUTIONS

In the decades following the Second World War, the United States and nations of Western Europe provided generous subsidies to their agricultural producers, and imposed both tariff and non-tariff import barriers to protect these producers from foreign competition.[20] By contrast, most developing countries taxed the agricultural sector to finance industrialization.[21] The U.S. and European subsidies and import barriers were generally permissible under the 1947 General Agreement on Tariffs and Trade (GATT), which generally exempted agriculture from the GATT's trade liberalization obligations.[22]

The agricultural subsidies, along with mechanization and the application of chemical fertilizers and pesticides, resulted in overproduction and declining food prices in wealthy countries.[23] The United States responded to this crisis of overproduction by disposing of its surplus food overseas at reduced prices or free of charge as food aid. Ironically, the sale or delivery of cheap food as aid to developing countries exacerbated food insecurity by depressing local food prices and undermining the livelihoods of small farmers.[24]

Until the debt crisis of the 1980s, developing countries could insulate their farmers from unfair competition with highly subsidized food products from the United States and Europe by imposing tariffs on these products. This policy space was quickly eroded by the loan conditions imposed by the World Bank and the International

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[20] *See* THE GATT URUGUAY ROUND: A NEGOTIATING HISTORY (1986-1992) 125, 141, 155-56 (Terence P. Stewart ed., 1993) [hereinafter THE GATT URUGUAY ROUND]; M. Ataman Aksoy, *Global Agricultural Trade Policies, in* GLOBAL AGRIC. TRADE POLICIES 37 (M. Ataman Aksoy & John C. Beghin, eds. 2004).

[21] *See* THE GATT URUGUAY ROUND, *supra* note 20, at 154-57; Aksoy, *supra* note 20, at 37.

[22] *See Institutionalizing Inequality*, *supra* note 12, at 440-46.

[23] *See generally* THE OVERPRODUCTION TRAP IN U.S. AGRICULTURE (Glenn Johnson & C. Leroy Quance eds., 2011).

[24] *See* Carmen G. Gonzalez, *Markets, Monocultures, and Malnutrition: Agricultural Trade Policy Through an Environmental Justice Lens,* 14 MICH. ST. J. INT'L L. 345, 361 (2006) [hereinafter *Markets, Monocultures, and Malnutrition*].

Monetary Fund (IMF) in response to the inability of many developing countries to service the foreign debt. Lured into borrowing money from commercial banks to finance often ill-advised development projects, many developing countries found themselves unable to pay their debts when the oil price shocks of 1973 and 1979-1980 increased energy costs and sent interest rates skyrocketing.[25] To secure debt relief from the IMF and World Bank, three quarters of Latin American countries and two-thirds of African countries acceded to loan conditions that required them to adopt structural adjustment programs overseen by the IMF and World Bank to guarantee debt repayment.[26]

The structural adjustment programs mandated by the IMF and World Bank created double standards that afflict international agricultural trade to this day: protectionism in wealthy countries and open markets in poor countries.[27] These structural adjustment programs required developing countries to adopt a standard package of neoliberal economic reforms, including lowering tariffs, eliminating non-tariff import barriers, and slashing government subsidies to the agricultural sector (such as input subsidies, marketing assistance, social safety nets, and agricultural research and education).[28] U.S. and European agricultural producers, however, continued to receive lavish agricultural subsidies from their governments and benefitted handsomely from the structural adjustment-induced opening of additional export markets in developing countries.[29]

The reduction of support to small farmers in developing countries, coupled with the elimination of import barriers,

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[25] *See* RICHARD PEET ET AL., UNHOLY TRINITY: THE IMF, WORLD BANK AND WTO 71-75 (2003); SUSAN GEORGE, A FATE WORSE THAN DEBT: THE WORLD FINANCIAL CRISIS & THE POOR 28-29 (1990)

[26] *See* PEET, *supra* note 25, at 75.

[27] *See Markets, Monocultures, and Malnutrition, supra* note 24, at 8.

[28] *See* MICHAEL CHOSSUDOVSKY, THE GLOBALISATION OF POVERTY: IMPACTS OF THE IMF & WORLD BANK REFORMS 62-63 (1997); JOHN MADELEY, HUNGRY FOR TRADE: HOW THE POOR PAY FOR FREE TRADE 77 (2000).

[29] *See The Global Food Crisis*, *supra* note 17, at 469.

bankrupted small farmers and increased food insecurity by putting resource-poor local farmers in direct competition with highly subsidized agricultural producers from Europe and the United States.[30] The influx of cheap imported U.S. and European food devastated rural livelihoods, depressed food production in developing countries, and generated a wave of migration to urban slums.[31] To make matters worse, the IMF and World Bank required developing countries to increase agricultural exports to generate revenue to service the foreign debt.[32] The diversion of land from food production to cash crop production reduced food self-sufficiency in developing countries and increased their dependence on food imports. Far from enhancing foreign exchange earnings with which to purchase these food imports, the drive to increase cash crop production "depressed the export earnings of developing countries by glutting world markets with competing export commodities from multiple debtor nations."[33]

The World Trade Organization (WTO) Agreement on Agriculture (AoA) professed to ameliorate the double standards in global agricultural trade and to "establish a fair and market-oriented agricultural trading system."[34] The AoA required WTO members to reduce trade-distorting agricultural subsidies, convert all import barriers to tariffs (a process known as "tariffication"), and to reduce these tariffs over time.[35]

The AoA, however, was riddled with ambiguities that enabled wealthy countries to continue to subsidize their agricultural producers while requiring market openness in developing countries.[36] Since most developing countries had already liberalized their markets pursuant to structural adjustment programs, the impact of the AoA

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[30] *See id.*

[31] *See id.* at 469-70.

[32] *See id.* at 469.

[33] *Id.* at 469.

[34] AoA pmbl. ¶ 2, Apr. 15, 1994, 1867 U.N.T.S. 410, *available at* http://www.wto.org/english/docs_e/legal_e/14-ag.pdf.

[35] *See Institutionalizing Inequality*, *supra* note 12, at 450-56.

[36] *See id.* at 459-68.

was to preclude these countries from adopting these subsidies in the future beyond *de minimis* levels.[37] Agricultural subsidies in the United States and European Union, however, actually increased in the aftermath of the AoA.[38] First, the baseline against which domestic subsidy reduction commitments was measured was a period of very high agricultural subsidies in the United States and Europe, thereby enabling the United States and the European Union to maintain their subsidies without running afoul of the AoA.[39] Second, the United States and European Union evaded their subsidy reduction obligations by re-classifying trade-distorting subsidies (so-called "amber box" subsidies, which were subject to reduction) as subsidies that were authorized by the agreement (so-called "blue box" and "green box" subsidies).[40] Finally, export subsidies remained high in the United States and European Union because these countries simply used devices not expressly prohibited by the AoA (such as subsidized credit) to promote export production.[41]

The AoA requirement with respect to tariffication did not open up U.S. and E.U. markets for the benefit of developing country exporters, but did succeed in restricting the ability of developing countries to raise tariffs when confronted with surges of cheap, subsidized agricultural products.[42] Because the AoA did not specify how to convert non-tariff import barriers into tariffs, most developed countries adopted tariffs that were far more import-restrictive than the non-tariff barriers they replaced—thereby maintaining their markets relatively closed to developing country exporters.[43] By contrast, most developing countries did not engage in tariffication at all because they had already eliminated their non-tariff barriers (and reduced their tariffs) pursuant to IMF/World Bank-mandated structural adjustment programs.[44] While the AoA gave WTO

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37 *See id.* at 479.

38 *See Markets, Monocultures, and Malnutrition*, *supra* note 24, at 366.

39 *See Institutionalizing Inequality*, *supra* note 12, at 463-64.

40 *See id.* at 463-65.

41 *See id.* at 462-63.

42 *See id.* at 458-61, 476-77.

43 *See id.* at 458.

44 *See id.* at 476.

members the right to impose additional tariffs to protect domestic farmers from unusually low import prices or surges in the volume of imports (known as "special safeguard measures" or "SSG"), the SSG was only available to countries that had engaged in tariffication.[45] Thus, most developing countries were deprived of an essential tool to protect food security and rural livelihoods against ruinous surges in cheap, subsidized food from the United States and European Union.

In sum, while the AoA did not create the double standards in international agricultural trade that systematically disfavor small farmers in developing countries, it did reinforce these inequities by permitting protectionism in wealthy countries while promoting market openness in poor countries. These double standards have enabled agricultural producers in the United States and European Union to destroy the livelihoods of small farmers in developing countries by dumping agricultural products on world markets at prices that are lower than the local cost of production.[46] Over the course of a few decades, developing countries that were once net food exporters have been transformed into net food importers[47] and are now being devastated by soaring food prices.[48]

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[45] *See id.* at 477.

[46] *See* Sophia Murphy et al., *WTO Agreement on Agriculture: A Decade of Dumping*, INST. FOR AGRIC. TRADE & POL'Y 1 (2005), http://www.un-ngls.org/orf/cso/cso7/library.pdf.

[47] *See* ACTIONAID, THE IMPACT OF AGRO-EXPORT SURGES IN DEVELOPING COUNTRIES 8 (2008), http://geoinovace.data.quonia.cz/materialy/ZX501_Globalni_problemy_svetove_ekonomiky/Setkani_c_2/ActionAid_2008_agro_import.pdf.

[48] *See generally* Naomi Hossain, Richard King & Alexandra Kelbert, *Squeezed: Highlights from Life in a Time of Food Price Volatility, Year 1 Results*, INST. OF DEV. STUDIES & OXFAM (2013), http://www.ids.ac.uk/files/dmfile/rr-squeezed-food-price-volatility-year-one-230513-summ-en.pdf.

III. CLIMATE CHANGE, FINANCIAL SPECULATION, BIOFUELS, AND THE GLOBAL LAND RUSH

Small farmers in developing countries are currently facing additional challenges to food security stemming from climate change, financial speculation in agricultural commodity markets, biofuels production, and large-scale acquisitions of agricultural land. The collapse of the housing market in the United States in 2007 resulted in a shift of speculative investment into agricultural commodities, and contributed significantly to the 2008 global surge in food prices.[49] This influx of speculative investment was set in motion by the deregulation of Over the Counter (OTC) derivatives following the passage of the U.S. Commodity Futures Modernization Act in 2000.[50] This statute and the subsequent decisions of the Commodity Futures Trading Commission exempted OTC derivatives (including commodity index funds) from regulatory oversight.[51] The failure of governments to curb speculation in agricultural commodity markets increases market volatility and poses serious risks to food security.[52]

Food security is also imperiled by climate change, which will depress global food production by increasing the severity and frequency of storms, droughts, and floods; reduce the productivity of

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[49] *See* Peter Wahl, *The Role of Speculation in the 2008 Food Price Bubble*, *in* THE GLOBAL FOOD CHALLENGE: TOWARDS A HUMAN RIGHTS APPROACH TO TRADE AND INVESTMENT POLICIES 68, 70-71 (2009), http://in.boell.org/2008/11/28/global-food-challenge-towards-human-right-s-approach-trade-and-investment-policies; *see also* Federick Kaufman, *How Goldman Sachs Created the Food Crisis,* FOREIGN POLICY, Apr. 27, 2011, http://foreignpolicy.com/2011/04/27/how-goldman-sachs-created-the-food-crisis/.

[50] *See* Olivier de Schutter, *Food Commodities Speculation and Food Price Crises: Regulation to Reduce the Risks of Price Volatility* 5 (Sept. 2010) [hereinafter *Food Commodities Speculation*], http://www2.ohchr.org/english/issues/food/docs/Briefing_Note_02_September_2010_EN.pdf.

[51] *See id.* at 5-6.

[52] *See* Wahl, *supra* note 49, at 75-76.

global fisheries; and exacerbate water scarcity.[53] Climate change is projected to diminish agricultural yields by as much as nineteen percent in Asia, twenty-four percent in Latin America, and twenty-eight percent in Africa by 2080.[54] Climate change will also hasten the worldwide loss of biodiversity and ecosystem services vital to food production.[55]

Despite their negligible greenhouse gas (GHG) emissions, the world's poorest countries will be disproportionately affected by climate change as a consequence of their vulnerable geographic locations, agriculture-based economies, and limited resources for adaptation and disaster response.[56] Poor farmers with limited access to water and productive land will likely suffer the most severe consequences.[57]

Ironically, agriculture is also one of the primary contributors to climate change—responsible for one third of global anthropogenic GHG emissions.[58] The Consultative Group on International Agricultural Research (CGIAR), a consortium of fifteen agricultural

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[53] *See* Anthony Nyong, *Climate Change Impacts in the Developing World: Implications for Sustainable Development*, *in* CLIMATE CHANGE AND GLOBAL POVERTY: A BILLION LIVES IN THE BALANCE? 47-51 (Lael Brainard et al. eds., 2009).

[54] *See* WILLIAM R. CLINE, GLOBAL WARMING AND AGRICULTURE: ESTIMATES BY COUNTRY 79 (2007).

[55] *See* Nyong, *supra* note 53, at 50-51.

[56] *See* RUCHI ANAND, INTERNATIONAL AND ENVIRONMENTAL JUSTICE: A NORTH-SOUTH DIMENSION 35-41 (2004).

[57] *See* FOOD AND AGRIC. ORG. OF THE U.N., CLIMATE CHANGE, WATER, AND FOOD SECURITY 16 (2011), http://www.fao.org/docrep/014/i2096e/i2096e.pdf.

[58] *See* Natasha Gilbert, *One Third of Our Greenhouse Gas Emissions Come from Agriculture,* NATURE, Oct. 31, 2012, http://www.nature.com/news/one-third-of-our-greenhouse-gas-emissions-come-from-agriculture-1.11708; Jessica Bellarby et al., *Cool Farming: Climate Impact of Agriculture and Mitigation Potential*, GREENPEACE 16 (2008), http://www.greenpeace.org/international/Global/international/planet-2/report/2008/1/cool-farming-full-report.pdf.

research centers across the world, has urged policy-makers to reduce agriculture's carbon footprint in order to mitigate climate change.[59]

Although industrial agriculture is one of the most significant contributors to climate change, small-scale sustainable agriculture can enhance climate change mitigation and adaptation.[60] Sustainable agriculture or agroecology incorporates natural pest, nutrient, soil, and water management technologies into the production process while reducing reliance on synthetic fertilizers and pesticides.[61] It contributes to climate change mitigation by minimizing fossil fuel-based agricultural inputs and increasing carbon sequestration in soils.[62] It also plays a significant role in climate change adaptation because it enhances resilience to drought, floods, and pests by diversifying the variety of crops cultivated and by increasing the soil's organic matter and water retention ability.[63]

There is a growing consensus among scientists and policy-makers that a transition to sustainable agriculture is essential if we are to address the climate crisis and the lack of access to sufficient, affordable food in developing countries.[64] In 2013, the U.N.

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[59] *See generally* Sonja J. Vermeulen, Bruce M. Campbell & John S.I. Ingram, *Climate Change and Food Systems*, 37 ANN. REV. OF ENV'T & RES. 195 (2012).

[60] *See* WORKING GROUP ON CLIMATE CHANGE AND DEV., OTHER WORDS ARE POSSIBLE: HUMAN PROGRESS IN AN AGE OF CLIMATE CHANGE 40-42 (Nov. 2009), http://pubs.iied.org/pdfs/10022IIED.pdf; INT'L TRADE CENTRE (UNCAT, WTO), ORGANIC FARMING AND CLIMATE CHANGE 21 (2007), https://www.fibl.org/fileadmin/documents/shop/1500-climate-change.pdf.

[61] *See* JULES N. PRETTY, REGENERATING AGRICULTURE: POLICIES AND PRACTICES FOR SUSTAINABILITY AND SELF-RELIANCE 8-13 (1995).

[62] *See* INT'L TRADE CENTRE, *supra* note 60, at 7-8.

[63] *See id.*

[64] *See generally* INT'L ASSESSMENT OF AGRIC. KNOWLEDGE, SCI. & TECH. FOR DEV. (IAASTD), AGRICULTURE AT A CROSSROADS: SYNTHESIS REPORT (2009), http://www.unep.org/dewa/agassessment/reports/IAASTD/EN/Agriculture%20at%20a%20Crossroads_Synthesis%20Report%20%28English%29.pdf; U.N. ENV'T PROGRAMME (UNEP), THE ENVIRONMENTAL FOOD CRISIS: THE ENVIRONMENT'S ROLE IN AVERTING FUTURE FOOD CRISES (Christian Nellemann et al. eds., 2009) [hereinafter THE ENVIRONMENTAL FOOD CRISIS], http://www.grida.no/files/publications/FoodCrisis_lores.pdf; UNCTAD &

Conference on Trade and Development (UNCTAD) published a major report urging a paradigm shift in agriculture—away from industrial agriculture and toward sustainable, regenerative production systems that enhance the productivity of small-scale farmers.[65] This report echoes the conclusions of an earlier interdisciplinary assessment of agriculture conducted by the United Kingdom Government Office for Science with the participation of scientists and stakeholders from all over the world.[66] The assessment's conclusion—simply put—is as follows: "Addressing climate change and achieving sustainability in the global food system need to be recognized as dual imperatives. Nothing less is required than a redesign of the whole global food system to bring sustainability to the fore."[67]

Sustainable agriculture can increase agricultural productivity in precisely those countries and regions where it has lagged while protecting the environment and enhancing the livelihoods of small, resource-poor farmers.[68] Sustainable agriculture has produced significant increases in agricultural yields in Asia, Africa, and Latin America while enhancing environmental quality, reducing dependence on external inputs, and protecting the traditional agroecological knowledge of small farmers and indigenous communities.[69]

UNEP, ORGANIC AGRICULTURE AND FOOD SECURITY IN AFRICA (2008), http://unctad.org/en/docs/ditcted200715_en.pdf.

[65] *See* WAKE UP BEFORE IT'S TOO LATE, *supra* note 9.

[66] *See* GOV'T OFFICE FOR SCI., THE FUTURE OF FOOD AND FARMING: CHALLENGES AND CHOICES FOR GLOBAL SUSTAINABILITY (2011), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/288329/11-546-future-of-food-and-farming-report.pdf.

[67] *Id.* at 12 (Box 1.3, no. 2).

[68] *See* WAKE UP BEFORE IT'S TOO LATE, *supra* note 9, at 34.

[69] *See generally* Olivier de Schutter, U.N. General Assembly Report Submitted by the Special Rapporteur on the Right to Food, U.N. Doc. A/HRC/16/49 (Dec. 20, 2010), *available at* http://www.srfood.org/images/stories/pdf/officialreports/20110308_a-hrc-16-49_agroecology_en.pdf; ORGANIC AGRICULTURE AND FOOD SECURITY IN AFRICA, supra note 64; Catherine Badgley et al., *Organic Agriculture and the Global Food Supply,*

Regrettably, policy-makers in the United States and European Union have exacerbated global food insecurity by embracing biofuels to address climate change rather than promoting the transition to sustainable agriculture—a policy that has driven up food prices and reduced production of other food crops.[70] In addition to undermining food security, the production of certain biofuels may result in greater greenhouse emissions than conventional fossil fuels. Most scientific studies question the net carbon benefits of the vast majority of biofuels.[71] Corn-based ethanol is a particularly egregious example. In the United States, the GHG emissions required to produce corn ethanol (including the emissions resulting from

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22 RENEWABLE AGRIC. AN FOOD SYS. 86 (2007); Jules Pretty et al., *Resource Conserving Agriculture Increases Yields in Developing Countries*, 40 ENVTL. SCI. & TECH. 1114 (2006); INT'L FUND FOR AGRIC. DEV. (IFAD), THE ADOPTION OF ORGANIC AGRICULTURE AMONG SMALL FARMERS IN LATIN AMERICA AND THE CARIBBEAN (2003), http://www.ifad.org/evaluation/public_html/eksyst/doc/thematic/pl/organic.pdf ; Nicholas Parrott & Terry Marsden, *The New Green Revolution: Organic and Agroecological Farming in the South*, GREENPEACE (2002), http://www.greenpeace.org.uk/MultimediaFiles/Live/FullReport/4526.pdf; Jules N. Pretty, *Reducing Food Poverty by Increasing Sustainability in Developing Countries*, 95 AGRIC. ECOSYSTEMS & ENV'T 217 (2003); Jules N. Pretty & Rachel Hine, *The Promising Spread of Sustainable Agriculture in Asia*, 24 NAT. RESOURCES F. 107 (2000); Jules N. Pretty, *Can Sustainable Agriculture Feed Africa? New Evidence on Progress, Processes and Impacts*, 1 ENV'T, DEV. & SUSTAINABILITY 253 (1999).

[70] *See* Philip C. Abbott et al., *What's Driving Food Prices in 2011?*, FARM FOUND. (2011), http://www.farmfoundation.org/news/articlefiles/105-FoodPrices_web.pdf; Marco Lagi et al., *The Food Crises: A Quantitative Model of Food Prices Including Speculators and Ethanol Conversion* (2011), http://necsi.edu/research/social/food_prices.pdf; FOOD AND AGRIC. ORG. OF THE U.N., THE STATE OF AGRICULTURAL COMMODITY MARKETS 19-21 (2009), ftp://ftp.fao.org/docrep/fao/012/i0854e/i0854e.pdf; Anuradha Mittal, UNCTAD, *The 2008 Food Price Crisis: Rethinking Food Security Policies, G-24 Discussion Paper No.29,* at 6-8, U.N. Doc. UNCTAD/GDS.MDP/G2A/2009/3 (June 2009).

[71] *See, e.g.*, Ralph Sims et al., *From 1st to 2nd Generation Biofuel Technologies: An Overview of Current Industry and R&D Activities*, INT'L ENERGY AGENCY (2008), https://www.iea.org/publications/freepublications/publication/2nd_Biofuel_Gen.pdf.

cultivating corn and processing it into corn starch) actually exceed fossil fuel emissions by more than ten percent.[72]

Climate change, the biofuels boom, and rising food prices have given rise to yet another threat to food security: an explosion of large-scale land leases or purchases in developing countries on terms that are generally not beneficial to those who currently live on or use the land.[73] Despite the lack of systemic data regarding these land transactions, a report by the International Land Coalition, a consortium of forty grassroots and civil society organizations, estimates that an area eight times the size of the United Kingdom or nearly the size of Western Europe was transferred between January 2000 and November 2011.[74] Africa appears to be the primary target of these land acquisitions.

These so-called land grabs have been driven by three primary actors: 1) corporate investors eager to capitalize on the growing demand for biofuels; 2) foreign investors speculating on the value of the land; and 3) middle-income developing countries (such as Saudi Arabia, Qatar, China, India, and South Korea) seeking to produce

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[72] *See* U.N. ENV'T PROGRAMME, TOWARDS SUSTAINABLE PRODUCTION AND USE OF RESOURCES: ASSESSING BIOFUELS 67-68 (2009), http://www.unep.fr/scp/rpanel/pdf/Assessing_Biofuels_Full_Report.pdf.

[73] *See generally* Ward Answeeuw et al., *Land Rights and the Rush for Land: Findings of the Global Commercial Pressure on Land Research Project* (2012), http://www.landcoalition.org/sites/default/files/publication/1205/ILC%20GSR%20report_ENG.pdf; Lorenzo Cotula et al., *Land Grab or Development Opportunity? Agricultural Investment and International Land Deals in Africa* (2009), http://www.ifad.org/pub/land/land_grab.pdf; Alexandra Spieldoch & Sophia Murphy, *Agricultural Land Acquisitions: Implications for Food Security and Poverty Alleviation*, *in* LAND GRAB? THE RACE FOR THE WORLD'S FARMLAND 39, 39 (Michael Kugelman & Susan L. Levenstein eds., 2009), http://www.wilsoncenter.org/sites/default/files/ASIA_090629_Land%20Grab_rpt.pdf [hereinafter LAND GRAB?].

[74] *See* Answeeuw, *supra* note 73, at 23; The International Land Coalition (ILC) has since revised this figure. According to the ILC's database, the amount of land transferred or under negotiation is approximately fifty-one million hectares—far less than the original estimate, but nevertheless significant. *See The Online Public Database on Land Deals*, LAND MATRIX, http://landmatrix.org/en/ (last accessed June 13, 2014).

food abroad to safeguard access to food supplies in light of food price volatility on international markets and domestic shortages of arable land and irrigation water.[75]

These transactions pose serious risks to resource-poor farmers in the targeted developing countries, including interference with local food production; contamination, depletion, or diversion of local water supplies; and eviction of those whose livelihoods depend on access to these lands and resources.[76] For example, small farmers, pastoralists, and fisherfolk whose property rights are not recognized by government officials may be dispossessed by foreign investors or by local elites eager to sell or lease these lands to foreign investors.[77] The displacement of labor-intensive subsistence farming by export-oriented chemical-intensive industrial agriculture may reduce food availability in the local market, intensify poverty by eliminating rural jobs, contaminate the local water supply with pesticide and fertilizer runoff, deplete the land through intensive cultivation, and divert or exhaust water resources needed by local communities.[78]

International investment law is deeply implicated in the threats to food security posed by the global land rush. Absent any international contracts or treaties, foreign investors would generally be treated like domestic investors under national law.[79] However, host state government agreements (HGAs) (i.e. contracts between the foreign investor and the host state) as well as bilateral investment treaties (BITs) between the host state and the foreign investor will typically give the foreign investor additional rights and benefits not

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[75] *See* Kugelman, LAND GRAB?, *supra* note 73, at 2; Spieldoch & Murphy, *supra* note 73, at 41-42; Answeeuw, *supra* note 73, at 21.

[76] *See* Spieldoch & Murphy, *supra* note 73, at 43-48.

[77] *See* Raul Q. Montemayor, *Overseas Farmland Investments- Boon or Bane for Farmers in Asia?* in LAND GRAB?, *supra* note 73, at 101-02; *The Green Rush*, *supra* note 17, at 537.

[78] *See* Ruth Meinzen & Helena Markelova, LAND GRAB?, *supra* note 73, at 74; Montemayor, *supra* note 77, at 102-05; Spieldoch & Murphy, *supra* note 73, at 46-47.

[79] *See generally* Carin Smaller & Howard Mann, *A Thirst for Distant Lands: Foreign Investment in Agricultural Land and Water*, INST. FOR SUSTAINABLE DEV. 14 (2009), http://www.iisd.org/pdf/2009/thirst_for_distant_lands.pdf.

guaranteed to the local population, including land and water rights, tax incentives, and the right to export the agricultural commodities produced.[80] As the World Bank has recognized, deficiencies in the domestic legislation of many developing countries, combined with limited enforcement capacity, may jeopardize the rights of local communities.[81] In the absence of strong domestic legislation, the rights of the foreign investor under the HGAs and BIT's will likely trump those of local stakeholders.[82]

The HGA will generally establish the legal framework for the investment, including the price, amount and location of the land, duration of the purchase or lease, law applicable to the investment, and dispute resolution mechanism.[83] Many HGAs also contain so-called "stabilization" clauses that obligate the host state to compensate the foreign investor for any economic losses incurred due to the host state's modification of the regulatory framework applicable to the investment.[84] This provision essentially "freezes" the law applicable to the investment, and may discourage host states from adopting measures to protect human rights and the environment, such as reallocating water rights to ensure that local communities have sufficient water for drinking, cooking, bathing, sanitation and irrigation; restricting food exports at times of critical

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[80] *See id.*

[81] *See* Klaus Deininger & Derek Byerlee, *Rising Global Interest in Farmland: Can It Yield Sustainable and Equitable Benefits*?, THE WORLD BANK 97-98 (2011), http://siteresources.worldbank.org/INTARD/Resources/ESW_Sept7_final_final.pdf.

[82] *See* U.N. DEP'T OF ECON. AND SOC. AFFAIRS, FOREIGN LAND PURCHASES FOR AGRICULTURE: WHAT IMPACT ON SUSTAINABLE DEVELOPMENT? 2 (Jan. 8, 2010) [hereinafter FOREIGN LAND PURCHASES FOR AGRICULTURE], http://www.un.org/esa/dsd/resources/res_pdfs/publications/ib/no8.pdf.

[83] *See id.* at 4.

[84] *See generally* Lorenzo Cotula, *Regulatory Takings, Stabilization Clauses and Sustainable Development*, OECD GLOBAL FORUM ON INT'L INV. (Mar. 27-28, 2008), http://www.oecd.org/investment/globalforum/40311122.pdf.

food shortages; and enhancing labor and environmental standards as the country's regulatory framework evolves.[85]

BITs between the host state and the investor's home state provide additional protections to the foreign investor beyond those contained in the HGA. Standard BIT requirements include national treatment; the prohibition against expropriation without compensation; fair and equitable treatment (also known as international minimum standards of treatment); the right to export the products produced; and the investor-state arbitration mechanism, which authorizes the foreign investor to commence arbitration against the host state in the event of a breach of the BIT.[86] These provisions may impair the ability of the host state to protect the human rights of its citizens. For example, the national treatment requirement obligates the host state to provide no less favorable treatment to foreign investors than domestic investors "in like circumstances."[87] If an arbitration tribunal concludes that large-scale foreign-owned commercial farming operations and small-scale subsistence farmers are "in like circumstances," then the host state may be precluded from providing subsidies or tax preferences to small-scale producers without making these available to all agricultural enterprises.[88] Furthermore, the fair and equitable treatment requirement obligates the host state to honor the "legitimate expectations" that may arise from the HGA or other government commitments.[89] If the HGA is silent on the issue of water rights, an arbitration tribunal might determine that the investor's "legitimate expectation" of water for irrigation overrides the current or future needs of the local community for potable water, small-scale farming, and other uses.[90] If the host state reallocates water rights to fulfill the needs of its citizens, the foreign investor

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[85] *See* FOREIGN LAND PURCHASES FOR AGRICULTURE, *supra* note 82, at 3-4.

[86] *See* Smaller & Mann, *supra* note 79, at 11-13.

[87] *See id.* at 11.

[88] *See id.*

[89] *See id.* at 12.

[90] *See* FOREIGN LAND PURCHASES FOR AGRICULTURE, *supra* note 87, at 3.

may be entitled to compensation.[91] Finally, the right to export agricultural products could likewise require the host state to compensate the foreign investor if the host state imposes export restrictions to address domestic food shortages—even if these export restrictions are otherwise permissible under international trade law.[92]

In short, industrialized countries have reinforced the structural inequities in the global economic order that produce food insecurity by failing to curb speculation in agricultural commodity markets, adopting misguided biofuels policy, and imposing investment agreements that benefit the foreign investor at the expense of the local population in developing countries. The final section of this article discusses several steps that the United States and European Union might take to address these inequities.

IV. RESTRUCTURING AN UNJUST GLOBAL ECONOMIC ORDER

While a complete list of measures to eliminate food insecurity in developing countries is beyond the scope of this paper, there are six key steps that affluent countries can take to relieve the misery that the global economic order has inflicted on small farmers in developing countries.

A. Policy Space for Development in the Agricultural Trade Regime

Eliminating trade-distorting agricultural subsidies is a necessary first step toward addressing the double standards in international agricultural trade that perpetuate food security in developing countries, but it is not sufficient. Even if the agricultural subsidies in the United States and European Union are eliminated, small farmers in developing countries will not be able to compete with agricultural producers in wealthy and middle-income countries

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[91] *See* Smaller & Mann, *supra* note 79, at 16-17.

[92] *See* FOREIGN LAND PURCHASES FOR AGRICULTURE, *supra* note 87, at 4.

whose yields per hectare are higher due to better infrastructure, mechanization, economies of scale, and access to credit and technology. In addition, market prices will continue to favor large-scale industrial agriculture because markets fail to internalize the environmental consequences of chemical-intensive, fossil fuel-dependent agriculture or take into account the environmental benefits of small-scale sustainable agriculture.

Trade agreements and the policies and programs of the IMF and World Bank should give developing countries the "policy space" necessary to re-invest in the agricultural sector after decades of destruction and neglect. Developing countries should be permitted to utilize an appropriate combination of subsidies and import barriers to protect the livelihoods of small farmers, restore and revitalize domestic food production, and promote sustainable agricultural practices.

Historically, countries in the early stages of industrialization have protected their agricultural sectors by using a wide array of instruments, including non-tariff barriers, subsidies for agricultural inputs, rural infrastructure projects, subsidized credit, government-financed agricultural research, and state marketing boards to stabilize prices for both producers and consumers.[93] Yet the AoA currently prohibits most of these policies.

Public food reserves, for example, are an important mechanism to reduce food price volatility and ensure a secure supply of food in the event of price shocks or shortages.[94] The existing WTO rules, however, treat the acquisition of food reserves as part of

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[93] *See* Michael Stockbridge, *Agricultural Trade Policy in Developing Countries During Take-Off*, OXFAM INT'L 7, 10 (2006), http://www.oxfam.org/sites/www.oxfam.org/files/agriculturalpolicy.pdf.

[94] *See generally* Sophia Murphy, *Trade and Food Reserves: What role does the WTO Play?*, INST. FOR AGRIC. & TRADE POLICY (Sept. 2010), http://www.iatp.org/files/451_2_107697.pdf; Oxfam, *Preparing for Thin Cows: Why the G20 Should Keep Buffer Stocks on the Agenda* (Oxfam Briefing Note, June 21, 2011), http://www.oxfam.org/sites/www.oxfam.org/files/bn-preparing-thin-cows-food-reserves-210611-en.pdf.

trade-distorting domestic support.[95] In November 2012, India led an effort by forty-six developing countries to ease restrictions on public food reserves under the AoA.[96] India's food reserve program became the subject of a tense standoff between developed and developing countries at the December 2013 WTO Ministerial Conference in Bali. In the end, the WTO negotiators resolved the problem by agreeing to a four-year "Peace Clause" for existing public stockholding (food reserve) programs and agreeing to resolve the matter within that time.[97]

Instead of resisting the efforts of developing countries to protect food security, the United States and European Union should reverse the harm that trade liberalization has wrought by eliminating the double standards in global agricultural trade and creating a more enabling institutional environment for the achievement of food security.

B. Investment in Sustainable Agriculture in Developing Countries

Beyond creating policy space for development, it is essential that industrialized country governments, private philanthropies, international institutions, and developing country governments re-direct resources to the agricultural sector, prioritize domestic food production, and encourage a transition to sustainable agriculture. The global food price spike of 2008 did result in greater investment in agriculture in developing countries, but much of that investment

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[95] Olivier de Schutter, *The World Trade Organization and the Post-Global Food Crisis Agenda: Putting Food Security First in the International Trade System* 9 (Nov. 2011), http://www.wto.org/english/news_e/news11_e/deschutter_2011_e.pdf; WTO Ministerial Conference, Public Stockholding for Food Security Purposes (Ministerial Declaration of 7 December 2013), WT/MIN(13)/38.

[96] *See* Sophia Murphy, *Land Grabs and Fragile Food Systems: The Role of Globalization*, INST. FOR AGRIC. & TRADE POLICY 9 (Feb. 2013), http://www.iatp.org/files/2013_02_14_LandGrabsFoodSystem_SM_0.pdf.

[97] *See* Timothy Wise, *Battle Won, the War Goes On*, BUSINESSWORLD, Jan. 7, 2014, http://www.businessworld.in/news/economy/battle-won-the-war-goes-on/1208970/page-1.html; WTO Ministerial Decision of 7 December 2013, Public Stockholding for Food Security Purposes, WT/MIN(13)/38 (December 11, 2013).

was designed to increase agricultural productivity based on conventional fossil-fuel dependent industrial production. This emphasis on additional production is misguided in light of the fact that one-third of the food produced for human consumption is lost due to inadequate rural infrastructure and access to markets (primarily in poor countries), or is discarded due to oversupply or consumer over-reaction to "best-before dates" (primarily in affluent countries).[98] Investments in rural infrastructure in developing countries (such as roads and storage facilities) could significantly reduce post-harvest food losses and reduce the pressure that agricultural production places on land, water, climate and biodiversity. However, such investments will only improve food security if they enhance local access to food by boosting the income and strengthening the livelihoods of small farmers.

As Olivier de Schutter, the former U.N. Special Rapporteur on the Right to Food observes:

> [I]nvestments that increase food production will not make significant progress in combating hunger and malnutrition if they do not lead to higher incomes and improved livelihoods for the poorest—particularly small-scale farmers in developing countries. And short-term gains will be offset by long-term losses if they cause further degradation of ecosystems, thus threatening the ability to maintain current levels of production in the future . . . . Pouring money into agriculture will not be sufficient; the imperative today is to take steps that facilitate the transition towards a low-carbon, nature-conserving type of agriculture that benefits the poorest farmers.[99]

If we are to address the converging climate and food crises, a shift to sustainable agroecological practices is indispensable.

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[98] FOOD AND AGRIC. ORG. OF THE U.N., FOOD WASTAGE FOOTPRINT: IMPACTS ON NATURAL RESOURCES 8-14 (2013), http://www.fao.org/docrep/018/i3347e/i3347e.pdf.

[99] WAKE UP BEFORE IT'S TOO LATE, *supra* note 9, at 34.

C. Restriction of Biofuels Expansion

The growing demand for biofuels is one of the primary drivers of food price increases and rising demand for crops, land, and water. In addition, most studies conclude that the net carbon benefits of biofuels are suspect.[100] The United States and European Union have encouraged the development of biofuels industry through their renewable fuels mandates, and through policies that subsidize or protect the biofuels industry. It is essential to phase out the programs that support biofuels expansion. In the United States, for example, the tax credit for corn-based ethanol expired in 2011, but the renewable fuels mandate remains in place despite calls from both industry and environmentalists to modify or repeal it.[101] The European Union attempted to mitigate the negative effects of its renewable fuels mandate by establishing sustainability criteria for biofuels that encourage the use of second-generation biofuels, *i.e.*, those produced from non-food or waste products.[102] This requirement, however, applies only to transport biofuels (and not bioliquids for heating and electricity)[103] and the verification system to ensure compliance remains weak.[104] In lieu of tinkering with the details of a failed program, the United States and European Union should modify their renewable fuels mandates to exclude first generation biofuels and aggressively promote other forms of renewable energy.

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[100] *See* Sims et al., *supra* note 71.

[101] *See* Robert Pear, *After Three Decades, Tax Credit for Ethanol Expires*, N.Y. TIMES, Jan. 1, 2012, http://www.nytimes.com/2012/01/02/business/energy-environment/after-three-decades-federal-tax-credit-for-ethanol-expires.html?_r=0&gwh=E51BAEB769468B1B1821D45EC599F04E&gwt=pay; Evan Halper, *A Clash Over Renewable-Fuel Policies*, L.A. TIMES, Aug. 27, 2013, http://articles.latimes.com/2013/aug/27/business/la-fi-biofuels-20130827.

[102] *See* E.U. Renewable Energy Directive (2009), Directive 2009/28/EC, art. 3 (providing that biofuels produced from wastes and non-food materials shall count two times for purposes of fulfilling the 2020 E.U. transport target).

[103] *See id.* at art. 21(2).

[104] *See id.* at art. 18 (relying on self-reporting by biofuels producers to verify compliance, supplemented by independent auditing of the information these producers submit).

D. Regulation of Agricultural Commodity Markets to Restrict Speculation

Despite the mounting evidence that financial speculation on agricultural commodity markets is exacerbating food price volatility, the United States has been slow to regulate the financial services industry.[105] The European Union, by contrast, approved a Financial Transaction Tax in eleven countries to discourage speculative trading by taxing stock, bond, and derivative trading, but implementation has been delayed due to conflicts over major issues (including the scope of the tax and the distribution of revenues).[106]

The United States and the European Union should consider several policy reforms recommended by UNCTAD in a recent report. These include enhancing transparency in commodity futures exchanges and over-the-counter markets, taxing financial market activities (particularly high-frequency trading), adopting internationally coordinated measures to restrict or prohibit commodity trading by financial institutions engaged in hedging their clients' transactions, and intervening in commodity markets to address speculative bubbles.[107]

E. Reforming BITs and HGAs

International investment law has facilitated the land grabs that currently threaten small farmers in the developing world. The BITs and HGAs among the foreign investor, the host state, and the

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[105] *See* Timothy A. Wise & Sophia Murphy, *Resolving the Food Crisis: Assessing Global Policy Reforms Since 2007*, INST. FOR AGRIC. & TRADE POLICY 301-31 (Jan. 2012), http://www.ase.tufts.edu/gdae/Pubs/rp/ResolvingFoodCrisis.pdf.

[106] *See* Tom Fairless, *EU Financial-Transactions Tax Faces More Delays*, WALL ST. J., Dec. 1, 2013, http://www.wsj.com/news/articles/SB10001424052702304579404579231730343028774.

[107] UNCTAD, *Don't Blame the Physical Markets: Financialization is the Root Cause of Oil and Commodity Price Volatility* 4 (Policy Brief. No. 25, Sept. 2012), http://unctad.org/en/PublicationsLibrary/presspb2012d1_en.pdf. For additional proposals on strategies to curb speculation in agricultural commodity markets, see *Food Commodities Speculation*, *supra* note 50, at 6-8.

home state typically restrict the regulatory authority of host states to protect the rights and livelihoods of their citizens. As one observer explains:

> These agreements include no obligations for investors to comply with human rights standards and there are no mechanisms to regulate investor behavior, nor are there any means for host states to counterclaim in any arbitral proceedings brought against them where the investor has committed, or been complicit in, grave violations of human rights.[108]

The United States and European Union can take a leadership role in addressing these inequities by including in BITs and HGAs legally binding human rights obligations for investors (enforceable in both the home state and the host state) as well as targeted provisions that address the host state's food security and sustainable development objectives. An excellent starting point is the Model International Agreement on Investment for Sustainable Developed created by the International Institute for Sustainable Development.[109]

F. Moratorium on Land Grabbing

Governments, civil society organizations, and international institutions such as the World Bank and FAO have proposed a variety of instruments and approaches to address land grabbing. In general, these approaches can be grouped into three categories.[110] The first approach, favored by the World Bank, seeks to facilitate these transactions by strengthening property rights, enhancing transparency and community consultation, and increasing the role of

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[108] Penelope Simons, *International Law's Invisible Hand and the Future of Corporate Accountability for Violations of Human Rights*, 3 J. OF HUM. RTS. & THE ENV'T 5, 18 (2012).

[109] *See* Howard Mann et al., *Model International Agreement on Investment for Sustainable Development*, INT'L INST. FOR SUSTAINABLE DEV. (2005), http://www.iisd.org/pdf/2005/investment_model_int_agreement.pdf.

[110] *See generally* Saturnino M. Borras, Jennifer Franco & Chunyu Wang, *The Challenge of Global Governance of Land Grabbing: Changing International Agricultural Context and Competing Political Views and Strategies*, 10 GLOBALIZATION 161 (2013).

the state in identifying "idle" or "underutilized" land. The second approach, favored by many non-governmental organizations, international development agencies, and community organizations, sees the land deals as inevitable and favors the development of global standards and best practices to mitigate the risks and take advantage of the opportunities. The third approach seeks to stop and roll back land grabbing on the ground that the large-scale fossil fuel based industrial agricultural model dispossesses small farmers, degrades the environment, and exacerbates food insecurity.[111] The former U.N. Special Rapporteur on the Right to Food has argued that:

> [L]arge-scale investments in farmland should only occur as part of a broad strategy of rural development aimed at reducing rural poverty, and therefore hunger and malnutrition. But the ad hoc, case-by-case examination of various investment projects is not sufficient to ensure this. . . . Before approving any such project, a more comprehensive mapping of existing needs should be undertaken.[112]

Unfortunately, governments in developing countries are competing for foreign investment and are often unwilling or unable to conduct these assessments or to impose restrictions on investors to generate local employment, protect the environment, and promote food security. In addition, the land grabs are proceeding rapidly and with minimal oversight.

Developed and developing countries should collaborate to impose a moratorium on these land grabs to allow host governments, home governments, civil society, and international institutions to develop more effective norms and oversight.

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111 *See id.* (describing and analyzing the three approaches).

112 *The Green Rush*, *supra* note 17, at 557.

CONCLUSION

For the reasons described in this article, food insecurity is not a function of food scarcity, bad weather, or simply bad luck. Food insecurity is a function of global economic order that systematically disadvantages poor farmers in developing countries. If we are to address food insecurity, then we must redouble our efforts to eliminate poverty. As Thomas Pogge reminds us, many of these measures do not require significant financial outlays or massive transfers of resources.[113] They simply require that we reform the laws, practices, and policies that inflict unspeakable suffering on the world's most vulnerable populations.

[113] WORLD POVERTY AND HUMAN RIGHTS, *supra* note 1, at 9.