



# THE GEOPOLITICS OF FOOD SECURITY: BARRIERS TO THE SUSTAINABLE DEVELOPMENT GOAL OF ZERO HUNGER

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## I. Introduction

The United Nations 2030 Agenda for Sustainable Development sets out 17 ambitious Sustainable Development Goals (SDGs) to be achieved by 2030. The second of these goals, Zero Hunger, seeks to ‘End hunger, achieve food security and improved nutrition and promote sustainable agriculture’.<sup>1</sup> But since the goals were adopted in 2015, the number of people who are undernourished has actually increased to 690 million in 2019, up by almost 60 million since 2014.<sup>2</sup> If the current trajectory continues, then, far from achieving Zero Hunger by 2030, the number of undernourished people will have increased to 840 million.<sup>3</sup> Moreover, those estimates do not take account of the impact of the coronavirus disease 2019 (COVID-19) pandemic on global hunger during 2020, which could add 130 million people to the total.<sup>4</sup>

There are complex and interrelated factors that hinder international efforts to eradicate hunger and achieve SDG 2, from the economic to the environmental. However, food insecurity represents, in particular, a political failure; indeed, global food production has long surpassed the level necessarily to keep all people fed.<sup>5</sup> On that basis, this paper highlights geopolitics as an important dimension of that political failure. It seeks to give geopolitics a more prominent place in the food security debate, outlining its impact across a range of areas that directly affect food security.

<sup>1</sup> UN General Assembly Resolution 70/1, ‘Transforming our world: The 2030 Agenda for Sustainable Development’, 25 Sep. 2015, A/RES/70/1, 21 Oct. 2015, p. 14.

<sup>2</sup> Food and Agriculture Organization of the United Nations (FAO), International Fund for Agricultural Development (IFAD), United Nations Children’s Fund (UNICEF), World Food Programme (WFP) and World Health Organization (WHO), *The State of Food Security and Nutrition in the World 2020: Transforming Food Systems for Affordable Healthy Diets* (FAO: Rome, 2020), p. 4.

<sup>3</sup> Food and Agriculture Organization of the United Nations et al. (note 2), p. 8.

<sup>4</sup> World Food Programme (WFP), ‘COVID-19: Level 3 Emergency’, External Situation Report no. 10, 3 July 2020.

<sup>5</sup> Timmer, C. P., Falcon, W. P. and Pearson, S. R., *Food Policy Analysis* (Johns Hopkins University Press for The World Bank: Baltimore, MA, 1983); and Holt-Giménez, E. et al., ‘We already grow enough food for 10 billion people . . . and still can’t end hunger’, *Journal of Sustainable Agriculture*, vol. 36, no. 6 (2012), pp. 595–98. See also Sen, A., *Poverty and Famines: An Essay on Entitlement and Deprivation* (Oxford University Press: New York, 1981).

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## SUMMARY

● Assessing the prospects for Zero Hunger—Sustainable Development Goal 2—requires an understanding of food security that goes beyond developmental or humanitarian issues, to include linkages with geopolitics. Geopolitical challenges cut across areas such as natural resources, trade, armed conflict and climate change where unilateralism and zero-sum approaches to security directly hamper efforts to eradicate hunger and undermine the frameworks that govern those efforts. Competition for agricultural resources can be both a cause and a consequence of geopolitical rivalry. International trade, while essential for food security, also creates vulnerabilities through supply disruptions—sometimes politically motivated. Armed conflict is a driver of food insecurity, which can itself feed into social unrest and violence. Climate change interacts with all three phenomena, reshaping both the physical landscape and political calculus. These overlapping linkages require further integrated policy engagement and analysis.



This paper employs the definition of food security used by the Food and Agriculture Organization of the United Nations (FAO): ‘A situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life’.<sup>6</sup> The focus here is on undernourishment (hunger); nutritional aspects are not explicitly covered.

The term geopolitics is used here to denote a system of political practice that pursues territorial or state-based notions of security on the basis of exclusionary and zero-sum logics.<sup>7</sup> Such practices often exacerbate human inequality and operate in contradiction to global efforts to combat and eradicate hunger for all, and in contradiction to more inclusive, positive-sum and human-centred ideas of security. Thus, the ‘return of geopolitics’ in recent years—encompassing weakening multilateral frameworks, unilateralist tendencies and great power competition—puts the achievement of SDG 2 into even greater peril.<sup>8</sup>

***Geopolitics denotes a system of political practice that pursues territorial or state-based notions of security on the basis of zero-sum logic***

The paper continues (in section II) by situating SDG 2—the agenda for Zero Hunger—within international frameworks of governance and argues that the geopolitical dynamics in those frameworks require greater analysis. It then outlines (in sections III–VI) four specific areas where geopolitical competition has direct and indirect impact on food security: natural resources, trade, violent conflict and climate change. Taken individually and together, these areas illustrate ways in which geopolitics has an impact on prospects for achieving Zero Hunger. Underlining the assessments of the four areas is the suggestion that proponents and practitioners of SDG 2 need to grapple more actively with areas, such as these, where the consequences of geopolitics on food security are already clear. Deeper analysis and engagement to address and mitigate the negative effects of geopolitics are, and will remain, important prerequisites for successful achievement of Zero Hunger. The paper concludes (in section VII) by integrating the main findings with a discussion of possible pathways for progress towards achieving SDG 2.

## II. Between governance and geopolitics: Room for analysis

Geopolitics is not restricted to states but is embedded in a complex web of state and non-state actors involved in food security governance. Food security has historically been considered the remit of development practitioners, who in turn have tended to focus on the technical and micro-foundations of global hunger.<sup>9</sup> However, broader international attention to the issue began to emerge after the global food crises of 2007–2008 and 2011–12. These

<sup>6</sup> This definition has four pillars: availability, access, utilization and stability. Food and Agriculture Organization of the United Nations (FAO), *The State of Food Insecurity in the World 2001: When People Live with Hunger and Fear Starvation* (FAO: Rome, 2001), p. 49.

<sup>7</sup> Agnew, J., *Geopolitics: Re-visioning World Politics*, 2nd edn (Routledge: Abingdon, 2003).

<sup>8</sup> Mead, W. R., ‘The return of geopolitics: The revenge of the revisionist powers’, *Foreign Affairs*, vol. 93, no. 3 (May/June 2014), pp. 69–79.

<sup>9</sup> Jachertz, R., ‘“To keep food out of politics”: The UN Food and Agriculture Organization, 1945–1965’, eds M. Frey, S. Kunkel and C. R. Unger, *International Organizations and Development, 1945–1990* (Palgrave Macmillan: London, 2014), pp. 75–100; and Shepherd, B., ‘Thinking critically about food security’, *Security Dialogue*, vol. 43, no. 3 (June 2012), pp. 195–212.



crises—international price spikes that precipitated dozens of food riots in import-dependent countries—stimulated a range of international initiatives to address global hunger. Among these were the UN secretary-general's High Level Task Force on Global Food and Nutrition Security (HLTF) and two initiatives by the Group of Eight (G8, later the G7): the L'Aquila Food Security Initiative and the New Alliance for Food Security and Nutrition in Africa. The World Trade Organization (WTO), the UN Framework Convention on Climate Change (UNFCCC), international financial organizations and regional organizations have also increasingly expanded their remit to address global hunger.<sup>10</sup>

Beyond states and state-based multilateral institutions, transnational corporations, civil society organizations, private philanthropic foundations and financial actors—both within and outside the food and agriculture sector—are increasingly shaping the governance landscape for food security.<sup>11</sup> Their initiatives and efforts may align with SDG 2, as well as the long-standing mandates to address global hunger of intergovernmental organizations such as the World Food Programme (WFP)—which received the Nobel Peace Prize in 2020—the FAO, the International Fund for Agricultural Development (IFAD) and the multi-stakeholder Committee on World Food Security (CFS).

Much of the nascent analysis of food security governance, in both grey and academic literature, takes an optimistic perspective on these problem-solving efforts.<sup>12</sup> However, while there has been a new wave of international cooperation on the hunger agenda, the global food crises have also served to entrench the idea of food as an object of strategic national importance.<sup>13</sup>

As certain countries acted to secure access to overseas natural resources, others acted to reduce exposure to international markets and increase domestic self-sufficiency—concerned about the impact of food prices or hunger on domestic political stability and violent unrest.<sup>14</sup> Meanwhile, climate change and shifting resource landscapes are having an impact on the balance of material power across states as traditional export giants in the Global North are being challenged by emerging agricultural powers such as Brazil, China, India and Russia. Moreover, most analysts acknowledge that the foundation of multilateralism is currently under significant strain, whether from great power competition or populist nationalism. António Guterres, the UN secretary-general, has described relations between China, Russia and the United States as having 'never been as dysfunctional' as they

<sup>10</sup> Margulis, M. E., 'The global governance of food security', eds R. Biermann, and J. A. Koops, *Palgrave Handbook of Inter-organizational Relations in World Politics* (Palgrave Macmillan: London, 2017), pp. 503–25.

<sup>11</sup> Clapp, J., *Food*, 3rd edn (Polity: Cambridge, 2020); and Margulis, M. E. and Duncan, J., 'Global food security governance: Key actors, issues and dynamics', eds M. Koç, J. Sumner and A. Winson, *Critical Perspectives in Food Studies*, 2nd edn (Oxford University Press: Oxford, 2016), pp. 270–95.

<sup>12</sup> Candel, J. J. L., 'Food security governance: A systematic literature review', *Food Security*, vol. 6, no. 4 (Aug. 2014), pp. 585–601.

<sup>13</sup> Sommerville, M., Essex, J. and Le Billon, P., 'The "global food crisis" and the geopolitics of food security', *Geopolitics*, vol. 19, no. 2 (2014), pp. 239–65.

<sup>14</sup> Watson, D. D., 'A political economy synthesis of food price policy in 14 countries', ed. P. Pinstrup-Andersen, *Food Price Policy in an Era of Market Instability: A Political Economy Analysis* (Oxford University Press: Oxford, 2015), pp. 102–30.



are today.<sup>15</sup> These tensions have contributed to deadlock and contestation in key organizations, including the UN Security Council, the World Health Organization (WHO) and the WTO. They have also contributed to the politicization of food itself: Russia imposed a ban on Western agricultural products in 2014; and in mid-2018 China imposed a de facto ban on imports of US soya beans as part of the China–USA trade war.<sup>16</sup> In 2020, these geopolitical trends have merged with the COVID-19 pandemic, which has accelerated some countries' isolationist and unilateral tendencies, with the governments of certain major countries placing greater emphasis on national-level risk management rather than global coordination.<sup>17</sup>

Indeed, the World Economic Forum's *Global Risks Report 2019* notes how heightened international tensions increase the risk of 'geopolitically motivated food-supply disruptions'.<sup>18</sup> Geopolitical competition—in addition to affecting food security itself—also hinders efforts to improve dialogue and coordination, if not cooperation, among various actors on achieving the goal of eradicating hunger for 'all people'.<sup>19</sup> In other words, geopolitics affects both food security and the environment within which Zero Hunger is pursued. The following four sections touch on the former, outlining the impacts in four areas: natural resources, trade, violent conflict and climate change. These individual areas may be familiar to many analysts and practitioners. However, when taken together they reflect a need for proponents of the Zero Hunger agenda to more explicitly engage with the complex network of geopolitical issues that underpin hunger, as a precondition for its eradication.

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### III. The competition for natural resources

Global competition for agricultural resources highlights the inherent asymmetries in natural resource endowments and constraints, which are closely related to the food security of states and their populations. Following the global food crises, concerns about resource insecurity became prominent among countries with deficits of productive land, water and nutrients. The governments of middle- and high-income states, such as the oil-producing states of the Gulf and East Asian countries, have subsequently engaged in the strategic acquisition of and investment in agricultural resources abroad.<sup>20</sup> Such 'resource grabs', including of agricultural land, have frequently taken place in developing countries that have available productive resources but

<sup>15</sup> UN News, 'Guterres in Davos: "Dysfunctional" response to common problems shows need for effective multilateralism', 24 Jan. 2019.

<sup>16</sup> Russian Presidential Decree 'On special economic measures to protect the Russian Federation's security', no. 560, 6 Aug. 2014 (in Russian); and Durisin, M. and Dodge, S., 'Why soybeans are at the heart of the US–China trade war', Bloomberg, 9 July 2018.

<sup>17</sup> Borrell, J., 'The coronavirus pandemic and the new world it is creating', European External Action Service, 23 Mar. 2020; and Zhou, J. and Delgado, C., 'The impact of COVID-19 on critical global food supply chains and food security', SIPRI Backgrounder, June 2020.

<sup>18</sup> World Economic Forum (WEF), *The Global Risks Report 2019*, 14th edn (WEF: Geneva, 2019), p. 69.

<sup>19</sup> Candel (note 12).

<sup>20</sup> Woertz, E., *Oil for Food: The Global Food Crisis and the Middle East* (Oxford University Press: Oxford, 2013); and Lisk, F., "'Land grabbing" or harnessing of development potential in agriculture? East Asia's land-based investments in Africa', *Pacific Review*, vol. 26, no. 5 (2013), pp. 563–87.



face higher levels of food insecurity, weaker institutions and lower levels of social protection than the acquiring or investor state.<sup>21</sup> Estimates of the extent of the acquisitions range into the tens of millions of hectares globally.<sup>22</sup> However, such resource acquisitions frequently lack transparency, which complicates efforts to measure their scale and impact.

As well as land and soil, uneven distribution and heightened demand and competition apply to other relevant resources such as water and nutrients. Agriculture accounts for approximately 70 per cent of global consumption of freshwater and has been argued to be a factor in disputes related to trans-boundary water resources in water-scarce regions.<sup>23</sup> Beyond this potential risk, transnational water appropriations and processes labelled as ‘water grabbing’ require attention, as they can also have a negative impact on local socio-environmental conditions.<sup>24</sup>

Phosphorus is a critical resource that sustains soil fertility and, thus, crop yields. Limited availability and accessibility of phosphate fertilizers plays a significant role in the vulnerability of food production in many regions.<sup>25</sup> Approximately 90 per cent of the phosphate rock mined globally is used in food production, the majority as mineral fertilizer.<sup>26</sup> During the global food crisis of 2007–2008, the price of phosphate rock rose significantly, increasing eightfold over a period of months.<sup>27</sup>

Phosphate rock reserves are unequally distributed—the main share of the known reserves is concentrated in a few countries.<sup>28</sup> The US Geological Survey (USGS) estimates that Morocco and Western Sahara hold 72 per cent of the known global reserves.<sup>29</sup> China, Algeria, Syria and Brazil together account for a further 13 per cent. China provides close to half of the world’s current phosphate rock production even though it has less than 5 per cent of known reserves (the second largest share).<sup>30</sup> Import-dependent states such as India and most European countries are therefore highly vulnerable to any

<sup>21</sup> Cotula, L., *Addressing the Human Rights Impacts of ‘Land Grabbing’* (European Parliament, Directorate-General for External Policies, Dec. 2014).

<sup>22</sup> Cotula (note 21).

<sup>23</sup> Wolf, A. T., ‘Shared waters: Conflict and cooperation’, *Annual Review of Environment and Resources*, vol. 32 (2007), pp. 241–69.

<sup>24</sup> Dell’Angelo, J., D’Odorico P. and Rulli, M. C., ‘The neglected costs of water peace’, *WIREs Water*, vol. 5, no. 5 (Nov./Dec. 2018), e1316; and Dell’Angelo, J., Rulli, M. C. and D’Odorico, P., ‘The global water grabbing syndrome’, *Ecological Economics*, vol. 143 (Jan. 2018), pp. 276–85.

<sup>25</sup> Cordell, D. and White, S., ‘Tracking phosphorus security: Indicators of phosphorus vulnerability in the global food system’, *Food Security*, vol. 7, no. 2 (Apr. 2015), pp. 337–50; Cordell, D. and Neset, T.-S. S., ‘Phosphorus vulnerability: A qualitative framework for assessing the vulnerability of national and regional food systems to the multi-dimensional stressors of phosphorus scarcity’, *Global Environmental Change*, vol. 24 (Jan. 2014), pp. 108–22; and Nanda, M., Cordell, D. and Kansal, A., ‘Assessing national vulnerability to phosphorus scarcity to build food system resilience: The case of India’, *Journal of Environmental Management*, vol. 240 (15 June 2019), pp. 511–17.

<sup>26</sup> Cordell and Neset (note 25); and Mew, M. C., ‘Phosphate rock costs, prices and resources interaction’, *Science of the Total Environment*, vol. 542, part B (15 Jan. 2016), pp. 1008–12.

<sup>27</sup> Cordell and Neset (note 25); and Mew (note 26).

<sup>28</sup> Cordell, D. and White, S., ‘Life’s bottleneck: Sustaining the world’s phosphorus for a food secure future’, *Annual Review of Environment and Resources*, vol. 39 (2014), pp. 161–88; and de Ridder, M. et al., *Risks and Opportunities in the Global Phosphate Rock Market: Robust Strategies in Times of Uncertainty*, The Hague Centre for Strategic Studies (HCSS) Rapport no. 17 (HCSS: The Hague, Dec. 2012).

<sup>29</sup> US Geological Survey (USGS), *Mineral Commodity Summaries* (USGS: Reston, VA, Jan. 2020), p. 123.

<sup>30</sup> US Geological Survey (note 29), p. 123.



geopolitical changes related to the mining of phosphate rock and the supply of fertilizer products.<sup>31</sup>

It is not just governments concerned about security of supply that have undertaken large-scale resource acquisitions: transnational and domestic corporations and financial firms have also acquired land and associated agricultural resources, for more speculative, non-food-based motives.<sup>32</sup> This is particularly concerning considering that financial speculation was one of the factors that precipitated the global food crises in the first place.<sup>33</sup>

Finally, the drive for environmental sustainability is a further phenomenon that has contributed to a competition for agricultural resources—referred to as ‘green grabbing’—that has the potential to endanger local livelihoods and food security.<sup>34</sup> Green grabbing includes the production of biofuels and biomass energy through forestry and other activities that have an impact on land use. Managing the trade-offs of competing imperatives—such as environmental sustainability and food security—while finding synergies that can simultaneously improve efficiency in food production, soil and water quality and assist climate change mitigation and adaptation will be increasingly important for ensuring sustainable pathways to food security.<sup>35</sup>

#### IV. The necessity of trade

Natural resource constraints, prohibitive costs or environmental concerns mean that food self-sufficiency is not possible for all countries.<sup>36</sup> Trade has become a key feature of the contemporary food system. Approximately one quarter of the food produced for human consumption is traded internationally; the role of trade in food security is only expected to increase due to climate change, population growth and changing diets.<sup>37</sup>

<sup>31</sup> Nanda et al. (note 25); and van Dijk, K. C., Lesschen, J. P. and Oenema, O., ‘Phosphorus flows and balances of the European Union member states’, *Science of the Total Environment*, vol. 542, part B (15 Jan. 2016), pp. 1078–93.

<sup>32</sup> For a partial list of the major investments see Prequin, *Prequin Special Report: The Natural Resources Top 100* (Prequin: New York, Aug. 2017); Network for Social Justice and Human Rights, *Transnational Corporations and Land Speculation in Brazil* (Outras Expressões: São Paulo, 2018); and Borras, S. M. et al., ‘Transnational land investment web: Land grabs, TNCs, and the challenge of global governance’, *Globalizations*, vol. 17, no. 4 (2019), pp. 608–28.

<sup>33</sup> Mitchell, D., *A Note on Rising Food Prices*, Policy Research Working Paper no. 4682 (World Bank: Washington, DC, July 2008); and Lagi, M. et al., ‘Accurate market price formation model with both supply-demand and trend-following for global food prices providing policy recommendations’, *Proceedings of the National Academy of Sciences of the United States of America*, vol. 112, no. 45 (10 Nov. 2015), pp. E6119–28.

<sup>34</sup> Fairhead, J., Leach, M. and Scoones, I., ‘Green grabbing: A new appropriation of nature?’, *Journal of Peasant Studies*, vol. 39, no. 2 (2012), pp. 237–61; Roy, J. et al., ‘Sustainable development, poverty eradication and reducing inequalities’, eds V. Masson-Delmotte et al., *Global Warming of 1.5°C* (Intergovernmental Panel on Climate Change: Geneva, 2019), pp. 445–538; and Pradhan, P. et al., ‘A systematic study of Sustainable Development Goal (SDG) interactions’, *Earth’s Future*, vol. 5, no. 11 (Nov. 2017), pp. 1169–79.

<sup>35</sup> Mbow, C. et al., ‘Food security’, eds P. R. Shukla et al., *Climate Change and Land* (Intergovernmental Panel on Climate Change: Geneva, 2019), pp. 492–507; and Doelman, J. C. et al., ‘Making the Paris Agreement climate targets consistent with food security objectives’, *Global Food Security*, vol. 23 (Dec. 2019), pp. 93–103.

<sup>36</sup> Fader, M. et al., ‘Spatial decoupling of agricultural production and consumption: Quantifying dependences of countries on food imports due to domestic land and water constraints’, *Environmental Research Letters*, vol. 8, no. 1 (Jan.–Mar. 2013).

<sup>37</sup> D’Odorico, P. et al., ‘Feeding humanity through global food trade’, *Earth’s Future*, vol. 2, no. 9 (Sep. 2014), pp. 458–69; and Fader (note 36).



International trade can moderate production shocks in individual countries and regions, while more broadly helping to smooth the uneven distribution across countries of land, water and nutrient resources.

While trade is and will continue to be necessary to ensure global food security, heated debate continues about the optimal degree of liberalization in agricultural trade, as well as about the effects of those policies on global and national food security and welfare.<sup>38</sup> While proponents of trade liberalization have stressed the benefits of open markets in increasing economic efficiency and human welfare, others—including governments—have highlighted the geopolitical risks posed by dependence on food trade.<sup>39</sup> Indeed, the perils of import dependence were made apparent during the global food crisis of 2007–2008, as international price volatility was transmitted to domestic markets. Although the initial spikes in the prices of staple commodities had multiple causes, states subsequently engaged in export restrictions as well as panic buying. These policies in turn tipped a tighter world market into ‘a full-blown crisis’.<sup>40</sup>

Estimates suggest that this behaviour—attempting to insulate domestic trade from international volatility—was a primary cause of a crisis in the rice trade, with lesser but still concerning effects in the wheat and corn markets.<sup>41</sup> These crises highlighted deficiencies in the regulatory framework of the global trading system. WTO provisions continue to allow export restrictions on essential supplies, and continued disagreement between states has prevented the adoption of new provisions to regulate export restrictions.<sup>42</sup>

Furthermore, these problems are embedded in an international trade system whose terms are highly uneven across countries. Agriculture in particular is one of the least liberalized sectors of trade, especially among the member states of the Organisation for Economic Co-operation and Development (OECD).<sup>43</sup> Unequal terms of agricultural trade have been

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<sup>38</sup> McCorrison S. et al., *What is the Evidence of the Impact of Agricultural Trade Liberalisation on Food Security in Developing Countries? A Systematic Review* (University of London, Institute of Education, Evidence for Policy and Practice Information and Co-ordinating (EPPI) Centre: London, Feb. 2013); and Hertel, T. W. et al., *Distributional Effects of WTO Agricultural Reforms in Rich and Poor Countries*, World Bank Policy Research Working Paper no. 4060 (World Bank: Washington, DC, Nov. 2006).

<sup>39</sup> Clapp, J., ‘Food self-sufficiency: Making sense of it, and when it makes sense’, *Food Policy*, vol. 66 (Jan. 2017), pp. 88–96; President of Russia, [Food Security Doctrine of the Russian Federation], approved by Russian Presidential Decree no. 20, 21 Jan. 2020 (in Russian); and Wang, K., [Constructing a diversified soya bean import supply system], *People’s Daily*, 11 Aug. 2018 (in Chinese).

<sup>40</sup> Headey, D., ‘Rethinking the global food crisis: The role of trade shocks’, *Food Policy*, vol. 36, no. 2 (Apr. 2011), pp. 136–46, p. 138.

<sup>41</sup> Headey (note 40); Martin, W. and Anderson, K., ‘Export restrictions and price insulation during commodity price booms’, *American Journal of Agricultural Economics*, vol. 94, no. 2 (Jan. 2012), pp. 422–27; and Jensen, H. G. and Anderson, K., ‘Grain price spikes and beggar-thy-neighbor policy responses: A global economywide analysis’, *World Bank Economic Review*, vol. 31, no. 1 (Feb. 2017), pp. 158–75.

<sup>42</sup> Korinek, J. and Kim, J., *Export Restrictions on Strategic Raw Materials and Their Impact on Trade and Global Supply*, Organisation for Economic Co-operation and Development (OECD) Trade Policy Working Paper no. 95 (OECD: Paris, 29 Mar. 2010); and Karapinar, B., ‘Export restrictions and the WTO law: “Regulatory deficiency” or “unintended policy space”’, World Trade Organization (WTO), 21 May 2010.

<sup>43</sup> Organisation for Economic Co-operation and Development (OECD), ‘Measuring distortions in international markets: The agricultural sector’, Agriculture Policy Brief, June 2020.



the primary point of dispute that has led to the failure of the WTO's Doha Development Round of trade talks, and agriculture remains one of the most contentious trade issues between developed and developing states, including notably China and the USA.<sup>44</sup> At the same time, national positions and alignments on these issues in various forums are shifting beyond traditional divisions between developed and developing states. They have changed to reflect new geopolitical and resource landscapes, including the growing influence of agricultural powers such as Brazil, China, India and Russia.<sup>45</sup> Critically, these debates about food trade intersect directly with the geopolitical contest between states.

In addition, food and agriculture have been exploited in broader economic and political disputes. Russia's ban on Western food imports since 2014 has employed arguments that cite national security, based on the exception allowed by Article XII of the 1947 General Agreement on Tariffs and Trade (GATT).<sup>46</sup> Meanwhile, the trade war between China and the USA that began in 2018 has also disrupted normal agricultural flows, particularly in the soybean sector. The secretary-general of the UN Conference on Trade and Development (UNCTAD) has described such trade wars as 'huge threats to food security'.<sup>47</sup> Moreover, in addition to their immediate material effects on food security, these geopolitical frictions also make it more difficult to achieve consensus on further reform to increase openness, fairness and inclusiveness in multilateral institutions, including the WTO.

Economic unilateralism and protectionism have seemingly only accelerated as a result of the COVID-19 pandemic, with trade interdependence increasingly treated as a liability by national governments. While fewer trade restrictions associated with the pandemic have been imposed so far than during previous global food crises, states have increasingly attempted to mitigate risks by pursuing self-sufficiency, diversifying supply sources and shortening supply chains.<sup>48</sup> However, these national risk-mitigation strategies may yet prove counterproductive by limiting the scope for international economic cooperation, which remains critical for sustainable development.

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## V. The interactions with armed conflict

Armed conflict is one of the main drivers of food insecurity, and it has been largely responsible for the increase in global food insecurity since 2014.<sup>49</sup> In 2016 the majority of undernourished populations lived in countries

<sup>44</sup> Hopewell, K., 'US-China conflict in global trade governance: The new politics of agricultural subsidies at the WTO', *Review of International Political Economy*, vol. 26, no. 2 (2019), pp. 207-31.

<sup>45</sup> Margulis, M. E., 'Trading out of the Global Food Crisis? The World Trade Organization and the geopolitics of food security', *Geopolitics*, vol. 19, no. 2 (2014), pp. 322-50.

<sup>46</sup> General Agreement on Tariffs and Trade, opened for signature 30 Oct. 1947, entered into force 1 Jan. 1948, *United Nations Treaty Series*, vol. 55 (1950), pp. 194-316.

<sup>47</sup> Kituyi, M., 'Trade wars are huge threats to food security', United Nations Conference on Trade and Development, 22 Jan. 2020.

<sup>48</sup> Laborde, D., Mamun, A. and Parent, M., 'COVID-19 food trade policy tracker', International Food Policy Research Institute (IFPRI), 2020.

<sup>49</sup> Food and Agriculture Organization of the United Nations et al. (note 2), p. xviii.



affected by armed conflict.<sup>50</sup> Similarly, three quarters of the young children who suffer from stunted growth due to chronic undernourishment were in conflict-affected countries.<sup>51</sup> These countries thus face a particularly high burden as early-childhood stunting has long-term effects on health, with potential spillover effects on economic development.

Armed conflict has an impact on food security in a variety of ways, both direct and indirect, from physical disruptions to agricultural production and food availability to disruptions that affect local trade, transport, and physical, social and economic access to food.<sup>52</sup> Ongoing warfare also impedes humanitarian actors that seek to assist food insecure populations and face logistical barriers to reaching the most vulnerable. Belligerents in some contexts have even purposely used violence to exacerbate food insecurity. The use of starvation of local populations as a tactic of war has been documented in Nigeria, Somalia, South Sudan, Syria and Yemen, and was condemned by the UN Security Council in 2018.<sup>53</sup> The combination of high levels of food insecurity and armed conflict creates complex humanitarian emergencies that require holistic, coordinated responses from the international community.

While most armed conflicts are intrastate conflicts that pit the government against one or more non-state actors, geopolitical questions greatly influence the conflict–food security link. Intrastate conflicts are increasingly internationalized.<sup>54</sup> For example, in Syria, regional powers and major global powers have sent troops or supplied weapons to parties to the conflict. Internationalized armed conflicts are in turn often more violent and more difficult to resolve.<sup>55</sup> These intractable internationalized armed conflicts thus result in particularly prolonged and aggravated impediments to food security.

In addition, geopolitical interests have great influence on the international community's response to conflicts and crises. Due to the requirements for a qualified majority or unanimity when dealing with security policy in decision-making bodies of key multilateral institutions, such as the Council of the European Union and the UN Security Council, the ability of regional organizations and the UN to intervene and dampen violence is often limited. For example, China and Russia have been unwilling to support UN peace

<sup>50</sup> Food and Agriculture Organization of the United Nations (FAO), International Fund for Agricultural Development (IFAD), United Nations Children's Fund (UNICEF), World Food Programme (WFP) and World Health Organization (WHO), *The State of Food Security and Nutrition in the World 2017: Building Resilience for Peace and Food Security* (FAO: Rome, 2017), pp. 35–36. The FAO defines a country as conflict-affected if it experienced armed conflict for 5 consecutive years between 1996 and 2015 and suffered 500 or more battle-related deaths during that 5-year period. Battle-related death figures are taken from Pettersson, T. and Öberg, M., 'Organized violence, 1989–2019', *Journal of Peace Research*, vol. 57, no. 4 (July 2020), pp. 597–613.

<sup>51</sup> Food and Agriculture Organization of the United Nations et al. (note 50), pp. 35–36.

<sup>52</sup> Brück, T. and d'Errico, M., 'Food security and violent conflict: Introduction to the special issue', *World Development*, vol. 117 (May 2019), pp. 167–71.

<sup>53</sup> UN Security Council Resolution 2417, S/RES/2018/2417, 24 May 2018; Save the Children, *Hunger—A Lethal Weapon of War* (Save the Children: London, 2018); and Conley, B. and de Waal, A., 'The purposes of starvation: Historical and contemporary uses', *Journal of International Criminal Justice*, vol. 17, no. 4 (Sep. 2019), pp. 699–722.

<sup>54</sup> Melander, E., Pettersson, T. and Themnér, L., 'Organized violence, 1989–2015', *Journal of Peace Research*, vol. 53, no. 5 (Sep. 2016), pp. 727–42.

<sup>55</sup> Cunningham, D. E., 'Veto players and civil war duration', *American Journal of Political Science*, vol. 50, no. 4 (Oct. 2006), pp. 875–92.



operations that seem to infringe on national sovereignty.<sup>56</sup> The inadequate response of the international community to major crises is now more obvious than ever, as disputes among the permanent members of the UN Security Council meant that it took three months to agree on a global ceasefire even in the midst of the COVID-19 pandemic.<sup>57</sup>

While it is clear that armed conflict affects food security, climate change has led to more attention being paid to the opposite relationship: the possible impact of food insecurity on armed conflict and social unrest, with repercussions in the international system. Increasing attention has been given to the role that food insecurity and food prices may play in precipitating or exacerbating armed conflict, and the vicious cycle that can result.<sup>58</sup> Overall, there is evidence that there are indeed such links, but only under

***Armed conflicts and social unrest events that are partly driven by food insecurity can have geopolitical repercussions***

certain conditions.<sup>59</sup> Social unrest following food price shocks is more likely in semi-democracies and democracies, where mobilization for protest is relatively easier.<sup>60</sup> In these countries, civil society organizations can channel grievances and organize protests.<sup>61</sup> However, food is not all that drives people to the street—there are often additional grievances such as corruption and inequality.<sup>62</sup> Whereas social unrest and riots are predominantly urban phenomena, in rural areas food production shocks may increase the risk of intrastate conflicts. Specifically, there is evidence that shocks to agricultural production aggravate risks of intrastate conflict, in the presence of other risk factors, such as in countries where a large part of the population work in agriculture and where the government excludes relevant ethnic groups from political power.<sup>63</sup>

It is clear that armed conflicts and social unrest events that are partly driven by food insecurity can have geopolitical repercussions. The 2008 riots over food prices that spread across the countries of the Middle East and North Africa, and eventually led to the Arab Spring of 2010–11, is one such example.<sup>64</sup> Yet, because precise pathways are highly context-specific, two important tasks are to advance the understanding in general of when

<sup>56</sup> Diehl, P. F., 'Triage or substitution? The changing face of UN peacekeeping in the era of Trump and nationalism', *International Peacekeeping*, vol. 26, no. 5 (2019), pp. 540–44.

<sup>57</sup> UN News, 'Stalled Security Council resolution adopted, backing UN's global humanitarian ceasefire call', 1 July 2020; and UN Security Council Resolution 2532, 1 July 2020.

<sup>58</sup> Hendrix, C. and Brinkman, H. J., 'Food insecurity and conflict dynamics: Causal linkages and complex feedbacks', *Stability: International Journal of Security & Development*, vol. 2, no. 2 (2013), article 26; von Uexkull, N., 'Sustained drought, vulnerability and civil conflict in sub-Saharan Africa', *Political Geography*, vol. 43 (Nov. 2014), pp. 16–26; and Rudolfson, I., 'Food insecurity and domestic instability: A review of the literature', *Terrorism and Political Violence*, vol. 32, no. 5 (2020), pp. 921–48.

<sup>59</sup> Rudolfson, I., 'Food price increase and urban unrest: The role of societal organizations', *Journal of Peace Research*, July 2020.

<sup>60</sup> Hendrix, C. S. and Haggard, S., 'Global food prices, regime type, and urban unrest in the developing world', *Journal of Peace Research*, vol. 52, no. 2 (Mar. 2015), pp. 143–57.

<sup>61</sup> Rudolfson (note 59).

<sup>62</sup> Heslin, A., 'Riots and resources: How food access affects collective violence', *Journal of Peace Research*, Apr. 2020; and Rudolfson (note 59).

<sup>63</sup> Vesco, P. et al., 'Climate variability, crop and conflict: Exploring the impacts of spatial concentration in agricultural production', *Journal of Peace Research*, forthcoming 2021; and von Uexkull, N. et al., 'Civil conflict sensitivity to growing-season drought', *Proceedings of the National Academy of Sciences of the United States of America*, vol. 113, no. 44 (1 Nov. 2016), pp. 12391–96.

<sup>64</sup> Costello, M., Jenkins, J. C. and Aly, H., 'Bread, justice, or opportunity? The determinants of the Arab Awakening protests', *World Development*, vol. 67 (Mar. 2015), pp. 90–100.



and under what circumstances food insecurity drives armed conflict; and to understand how this applies during particular major events of geopolitical importance, such as the Syrian War. In terms of policy interventions, there is a need for further research on measures that can effectively address food insecurity and conflict simultaneously.<sup>65</sup>

## VI. The impact of climate change

Climate change interacts with the above three phenomena—resource security, trade and armed conflict—in their various effects on food security. Moreover, the global food system currently contributes up to one quarter of anthropogenic greenhouse gas emissions.<sup>66</sup> It thus makes a substantial contribution to increases in global mean temperature and resulting adverse effects for human societies. At the same time, agriculture is one of the sectors most vulnerable to climate change. The most recent assessment report of the Intergovernmental Panel on Climate Change (IPCC) suggests that, while estimates of the medium-term impact of climate change on agricultural production vary, significant long-term problems for food security are likely, particularly under high-emission scenarios.<sup>67</sup> Beyond the direct effects on food security, key actors—including the UN Security Council—are also increasingly discussing how climate change intersects with other political, social and economic factors to have an impact on both geopolitics and human security simultaneously.<sup>68</sup>

*Climate change interacts with resource security, trade and armed conflict in their various effects on food security*

Importantly, the medium-term effects of climate change on agricultural and food systems are likely to be uneven: low-latitude countries are most exposed, while northern latitudes may even benefit in certain cases.<sup>69</sup> Given that food insecurity is currently concentrated in developing countries in low latitudes, climate change may exacerbate and widen inequality on an international scale.<sup>70</sup> Increased pressure on agricultural production due to climate change may also accentuate existing geopolitical tensions over resources. Widening gaps and shifting distributions of material power due to climate change have the potential to create new geopolitical leverage

<sup>65</sup> Recent work on the linkages includes Delgado, C. et al., *The World Food Programme's Contribution to Improving the Prospects for Peace*, Preliminary report (SIPRI: Stockholm, June 2019); Martin-Shields, C. P. and Stojetz, W., 'Food security and conflict: Empirical challenges and future opportunities for research and policy making on food security and conflict', *World Development*, vol. 119 (July 2018), pp. 150–64; and Brück and d'Errico (note 52).

<sup>66</sup> Poore, J. and Nemecek, T., 'Reducing food's environmental impacts through producers and consumers', *Science*, 1 June 2018.

<sup>67</sup> Mbow et al. (note 35).

<sup>68</sup> European Commission, 'Climate change and international security', Paper from the High Representative and the European Commission to the European Council, S113/08, 14 Mar. 2008; UN News, 'Climate change recognized as "threat multiplier"', UN Security Council debates its impact on peace', 25 Jan. 2019; and Remling, E., 'The European Green Deal: A chance to promote a people-centred take on climate security', SIPRI Background, 17 June 2016.

<sup>69</sup> Porter, J. R. et al., 'Food security and food production systems', eds C. B. Field, *Climate Change 2014: Impacts, Adaptation, and Vulnerability*, part A, *Global and Sectoral Aspects*, Working Group II Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press: New York, 2014), pp. 485–533.

<sup>70</sup> Food and Agriculture Organization of the United Nations (FAO), International Fund for Agricultural Development (IFAD), United Nations Children's Fund (UNICEF), World Food Programme (WFP) and World Health Organization (WHO), *The State of Food Security and Nutrition in the World 2019: Safeguarding against Economic Slowdowns and Downturns* (FAO: Rome, 2019).

points—for instance in the context of trade.<sup>71</sup> Russia, for example, is currently positioning itself to become a major agricultural exporter, with grain exports already described as its ‘second oil’.<sup>72</sup>

Recent studies suggest that climate risks can be transmitted via agricultural trade networks, affecting consumers many thousands of kilometres away.<sup>73</sup> These transboundary climate risks can be especially problematic in cases of high import dependency or when multiple concurrent events disrupt global food production and distribution, generating for instance price spikes.<sup>74</sup>

As a plausible response, some have argued that import diversification and reduction in trade barriers constitute an effective adaptation strategy.<sup>75</sup> However, while this may reduce transboundary risks in some cases, it will be less effective for large importers and well-integrated economies that already have substantial and diverse import portfolios.<sup>76</sup> As trade policy is already a subject of geopolitical contestation, efforts by governments to address transboundary climate risks have the potential to accentuate existing tensions but they can also present new opportunities to promote food security through multilateral cooperation.

Warmer temperatures may also contribute to the opening of new shipping lanes and transportation routes in the Arctic, in particular the North West Passage. Analysts have already pointed to the vulnerability of strategic nodes or chokepoints of the global food system to politically motivated restrictions—and these sorts of risk could potentially also apply to the Arctic in the future.<sup>77</sup> Risks of food insecurity may therefore include multiple concurrent events, including geopolitical crises, that disrupt global food production or distribution.<sup>78</sup> Various governments are already pursuing strategies to mitigate risks of food supply insecurity. These strategies include import diversification and pursuing self-sufficiency to address these transboundary, compound risks.<sup>79</sup> However, there may be further second-order risks for food insecurity in the absence of cooperative and coordinative multilateral governance frameworks (as described in section II).

The impact of climate change on food security is not limited to production and trade. A growing body of literature suggests a linkage between climate

<sup>71</sup> Hildén, M. et al., ‘Cascading climate impacts: A new factor in European policy-making’, Policy brief, Cascades, Jan. 2020; and Hedlund, J. et al., ‘Quantifying transnational climate impact exposure: New perspectives on the global distribution of climate risk’, *Global Environmental Change*, vol. 52 (Sep. 2018), pp. 75–85.

<sup>72</sup> Russian Presidential Decree ‘On national goals and strategic objectives of the Russian Federation for the period up to 2024’, no. 204, 7 May 2018 (in Russian); and ‘Russia has emerged as an agricultural powerhouse’, *The Economist*, 1 Dec. 2018.

<sup>73</sup> Hedlund et al. (note 71).

<sup>74</sup> Cottrell, R. S. et al., ‘Food production shocks across land and sea’, *Nature Sustainability*, vol. 2, no. 2 (Feb. 2019), pp. 130–37.

<sup>75</sup> Janssens, C. et al., ‘Global hunger and climate change adaptation through international trade’, *Nature Climate Change*, vol. 10, no. 9 (Sep. 2020), pp. 829–35.

<sup>76</sup> Adams, K. M. et al., *Climate Change, Trade, and Global Food Security* (Stockholm Environment Institute: Stockholm, forthcoming 2020).

<sup>77</sup> Bailey, R. and Wellesley, L., *Chokepoints and Vulnerabilities in the Global Food Trade* (Chatham House, Royal Institute of International Affairs: London, June 2017); Murphy, J., ‘Is the Arctic set to become a main shipping route?’, BBC, 1 Nov. 2018; and Klimenko, E., ‘The geopolitics of a changing Arctic’, SIPRI Background Paper, Dec. 2019.

<sup>78</sup> Cottrell et al. (note 74).

<sup>79</sup> Janssens et al. (note 75); and Clapp (note 39).



change and conflict, including increases in inter-communal and intrastate conflict, albeit only in combination with other risk factors.<sup>80</sup> Equally, it is important to note that armed conflicts also present major barriers to adaptation to climate change, including in the agricultural sector.<sup>81</sup> Taken together, this suggests that climate change is likely to interface with all the other geopolitical challenges related to food security. A failure to address climate change will thus not only be to the direct detriment of SDG 2 but will also amplify the geopolitical challenges identified elsewhere in this paper.

## VII. Conclusions: Beyond the return of geopolitics

Greater attention must be given to the geopolitical dimensions of global hunger, including—but not limited to—their effects in the areas of natural resources, trade, armed conflict and climate change. While some or all of these areas are often beyond the remit of institutions and agencies with food security-related mandates, they are integral to the broader Zero Hunger agenda and should be analysed and addressed as such. All are entangled in the broader complex of global food insecurity; actively grappling with these themes and working to address and mitigate their consequences are prerequisites for its successful eradication.

In many of the areas presented here, unilateral measures by one country to obtain national food security can have a negative impact on the broader Zero Hunger agenda, unless well coordinated or regulated. Resource competition must be understood as distinct from equal resource distribution; the former can work at odds with that latter. Transnational trade linkages, in addition to local production, are essential for food security. But as trade becomes politicized, and without a well-functioning and equitable trade framework, it can be as harmful—due to asymmetric dependencies—as it is helpful. Armed conflict is not only one of the main drivers of food insecurity, but also has a direct impact on the ability of the international community to resolve such crises. Finally, climate change interacts with all of the above issues. It presents serious risks not only in the biophysical landscape for food security, but also in the geopolitical landscape—as new risks and opportunities emerge unevenly across countries and regions. This complex of geopolitical challenges will continue to present barriers to the achievement of SDG 2.

However, power-based politics is by no means a foregone outcome either now or in the coming decades. Robust multilateral institutions continue to play a role—including norm-setting—in support of wider, more inclusive notions of security. However, there is a risk that broader interstate and geopolitical tensions are determining behaviour in key international forums, including the WTO, WHO and the UN Security Council. As

***Robust multilateral institutions continue to play a role—including norm-setting—in support of wider, more inclusive notions of security***

<sup>80</sup> van Baalen, S. and Mobjörk, M., 'Climate change and violent conflict in East Africa: Integrating qualitative and quantitative research to probe the mechanisms', *International Studies Review*, vol. 20, no. 4 (Dec. 2018), pp. 547–75; and Koubi, V., 'Climate change and conflict', *Annual Review of Political Science*, vol. 22 (2019), pp. 343–60.

<sup>81</sup> Abraham, D. and Carr, E. R., 'Understanding the connections between climate change and conflict: Contributions from geography and political ecology', *Current Climate Change Reports*, vol. 3, no. 4 (Dec. 2017), pp. 233–42.

frictions in one domain or across specific bilateral relationships spill over into others, diminished multilateralism inevitably affects the opportunities for cooperation on global food security and the eradication of hunger for ‘all people’.<sup>82</sup> In this regard, dedicated forums for multi-stakeholder dialogue, coordination and cooperation on world hunger, such as the CFS, need to be protected from the spillover of geopolitics.

Shifting models of global governance, including towards non-state and market-based organizations, open possibilities—for state and non-state actors alike—to establish new interest coalitions and partnerships that can potentially bypass interstate rivalries and zero-sum logic. However, the current complex of actors involved in the governance of food security is not necessarily cohesive or effective: there is a widely recognized need for greater dialogue that cuts across various spheres of policymaking to reduce policy incoherence and fragmentation.<sup>83</sup> Moreover, the actors have divergent priorities, interests and values, including on the appropriate balance between the state and the market; between agroecological and industrial food systems; and between perspectives based on local production (e.g. food sovereignty) and international trade. To overcome this will require more democratic dialogue among stakeholders—to ensure transparency, accountability, legitimacy and representativeness—and greater practical coordination and information sharing among actors. Moreover, the perspectives of social movements, civil society and local communities representing those most affected by the risk of food security should be given ample voice and policy space, alongside emergent national actors.<sup>84</sup> Without such cross-cutting cooperation, efforts to eradicate hunger will continue to fail.

In short, both geopolitical competition and diversified governance are hallmarks of the current global food security landscape. However, more needs to be understood about both the new risks of competition and the opportunities for collaboration that this diversity brings about. Analysts and practitioners of global food security should base their understanding on an account that combines awareness of shifting power dynamics and frictions with a holistic appreciation of rapidly evolving global governance institutions. Better understanding of the former will also help proponents of SDG 2 to address and combat exclusionary understandings and practices of security, leading towards the positive-sum, inclusive frameworks so necessary to obtain food security ‘for all’.

<sup>82</sup> Food and Agriculture Organization of the United Nations (note 6), p. 49.

<sup>83</sup> Margulis, M. E., ‘The regime complex for food security: Implications for the global hunger challenge’, *Global Governance*, vol. 19, no. 1 (Aug. 2013), pp. 53–67.

<sup>84</sup> Duncan, J. and Claeys, P., ‘Politicizing food security governance through participation: Opportunities and opposition’, *Food Security*, vol. 10, no. 6 (Dec. 2018), pp. 1411–24.



## Abbreviations

CFS	Committee on World Food Security
COVID-19	Coronavirus disease 2019
FAO	Food and Agriculture Organization of the United Nations
SDG	Sustainable Development Goal
UN	United Nations
WHO	World Health Organization
WTO	World Trade Organization

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# THE GEOPOLITICS OF FOOD SECURITY: BARRIERS TO THE SUSTAINABLE DEVELOPMENT GOAL OF ZERO HUNGER

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