



Fall 2022 Case Note

Fighting in the Fields: The Weaponization of Agriculture & its Legal Significance

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National prosperity depends on agricultural production for life-sustaining food, fiber, and by-products. Due to the inherent importance of the agricultural industry, it is often targeted in conflict to gain leverage against opposing forces. The Russo-Ukraine War provides a prime example of agriculture's role during conflict, especially considering direct attacks to agricultural infrastructure and the Black Sea Grain Initiative. While this is an on-going conflict with emerging developments, this note will briefly examine the aspects of international humanitarian law and trade law that relate to the weaponization of agriculture. Furthermore, the analysis will evaluate whether there is sufficient legal deterrence to prevent targeted attacks on agriculture that may destabilize global markets.

I. Introduction

Agriculture is fundamental to the world economy and contributes to the national security of every nation. With the evolving international order, the importance of agricultural commodities continues to serve a leading role in international affairs, and agriculture is frequently a leverage point in international competition and conflict. Rising global food prices, commodity shortages and surpluses, trade restrictions, and supply chain failures are just a few of the many disruptions impacting every nation. Recent developments across the globe have emphasized the importance that agricultural commodities continue to play in all countries. Specifically, the Ukraine-Russia War brings to light the legal issues surrounding the weaponization of agriculture and the possible impacts the world will witness as the conflict continues. Two areas of law relate to the weaponization of agriculture: international humanitarian law and trade law. Russia will likely face formal consequences under these laws, but it is uncertain whether the world order has the influence to reprimand substantiated violations.

A. Importance of Agriculture

While most recognize that agriculture provides food, fiber, and various byproducts necessary for life, its leverage and influence in the international realm are frequently undervalued. Societal developments have steered many scholars to focus on the impacts of technology, globalization, leadership, manufacturing, and immigration far before agriculture, but the necessities of survival—food, water, air, and shelter—are all outcomes of agricultural production. Agriculture and food security play an integral role in political, economic, and social stability.²

Food insecurity results in diminished food supplies, reduced safety, and reduced agricultural development, which harms political stability, human security, and the global economy.³ In 2021, agriculture, the second largest source of employment worldwide, employed 874 million people, or

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² GEORGE E. KATSOS. THE U.S. GOVERNMENT'S APPROACH TO FOOD SECURITY: FOCUS ON CAMPAIGN ACTIVITIES. JOINT FORCE QUARTERLY 87 (2017), https://ndupress.ndu.edu/Portals/68/Documents/jfq/jfq-87/jfq-87_112-121_Katsos.pdf?ver=2017-09-28-093039-667 [<https://perma.cc/TTB9-JUJ4>].

³ *Id.*

27% of the global workforce.⁴ Agriculture serves a role in every foundational aspect of life, which is why it has become a leverage point in many global conflicts.

B. History of Agriculture and War

Agriculture has a long history of being weaponized because of its significant contributions to national security. Historians have reflected on the nexus between agriculture and war but often focus on how agriculture supplies wartime efforts and contributes to domestic stability. For example, leading up to and throughout World War II, Great Britain developed agricultural policies protecting the production of supplies necessary for wartime efforts and military sustenance.⁵ Specifically, the British government declared agriculture a reserve occupation and established programs to furlough service members with agricultural experience to support the production needed to feed and clothe its civilians and military throughout the conflict.⁶

Because of its immense importance, agricultural production is also a target during conflict. Attacks on food production, embargos to disrupt trade, and market distortions aimed at increasing the price of agricultural commodities have repeatedly appeared in the arsenals of conflicting nations throughout history. During the American Indian Wars, General Philip Henry Sheridan led "scorched earth" tactics against the Native American population, which included the devastating slaughter of their primary food and fiber source—buffalo.⁷ Germany attacked horses with anthrax and glanders during World War I to undermine the Allies' ability to transport.⁸ During the Somali Civil War, rebel groups intercepted the United Nations' (UN) humanitarian food aid to incite violence and deprive their rivals of necessary sustenance.⁹

The agricultural industry may be targeted less conspicuously by methods such as embargos and trade restrictions. For example, during the first World War, Great Britain countered German submarine warfare campaigns on merchant vessels by making food a contraband material that could not be imported into conflict areas.¹⁰ This resulted in the German people's profound suffering, leading to over fifty food-related riots in 1916.¹¹ While unsuccessful, attempts were made by the Germans during both World Wars to restrict the flow of food to Great Britain.¹²

⁴ FAO. WORLD FOOD AND AGRICULTURE – STATISTICAL YEARBOOK 2021. 4, 20 (2021), <https://www.fao.org/3/cb4477en/cb4477en.pdf> [https://perma.cc/BFR3-UMQS].

⁵ ALAN F. WILT. FOOD FOR WAR 190 (2001).

⁶ *Id.*

⁷ Gilbert King, *Where the Buffalo No Longer Roamed*, SMITHSONIAN MAGAZINE (July 17, 2012), <https://www.smithsonianmag.com/history/where-the-buffalo-no-longer-roamed-3067904/> [https://perma.cc/ENT5-XGZH] (Last visited Sep. 30, 2022).

⁸ R. Roffey, A. Tegner & F. Elgh. *Biological Warfare in Historical Perspective*, 8 Is. 8 CLINICAL MICROBIOLOGY AND INFECTION. 450 (2002).

⁹ MARYANN K. CUSIMANO. OPERATION RESTORE HOPE: THE BUSH ADMINISTRATION'S DECISION TO INTERVENE IN SOMALIA. VOL. CASE 210. 1, 3 (1995), available at <https://isd-georgetown-university.myshopify.com/products/operation-restore-hope-the-bush-administrations-decision-to-intervene-in-somalia> [https://perma.cc/G3PU-P2BU].

¹⁰ Robert A. Doughty & Harold E. Raugh, Jr. *Embargoes in Historical Perspective*, 21 no. 1 THE US ARMY WAR COLLEGE QUARTERLY: PARAMETERS. 26 (1991), available at <https://apps.dtic.mil/sti/pdfs/ADA527979.pdf> [https://perma.cc/FZ6X-YCL6].

¹¹ *Id.* at 27.

¹² *Id.* at 24.

Throughout the Cold War, the United States also implemented this embargo strategy on wheat exports to the Soviet Union, forcing them to purchase more from Canada and Australia.¹³

These many examples demonstrate the vast ways the agricultural industry has found itself wedged between conflicting parties. Despite the progression of technology and society, agriculture remains foundational and is exploited accordingly during warfare. Most recently, Russia—which has a long history of coercing its adversaries into compliance by targeting agricultural production—has made headlines for its attention to agriculture during wartime.

C. Changing World Order

A changing world order proposes new opportunities for agricultural production to be weaponized. Richard Haass summarizes the recent trend in international affairs as "widespread rejection of globalization and international involvement and ... a questioning of long-standing postures and policies, from openness to trade and immigrants to a willingness to maintain alliances and overseas commitments."¹⁴ The "liberal democratic order" that arose following World War II theoretically allowed countries to collectively pursue economic, political, diplomatic, and strategic efforts.¹⁵ The global push for these objectives led to the creation of the Bretton Woods system.¹⁶ Through the Bretton Woods and subsequent modifications, the World Bank, the International Monetary Fund (IMF), and the World Trade Organization (WTO) came to promote and govern international trade.¹⁷

The UN Charter also orders member nations to seek solutions through "negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement, the result of regional agencies or arrangements, or other peaceful means of their own choice," and asks that member nations be able to take whatever action is needed using air, land, and sea forces "to maintain or restore international peace and security."¹⁸ While this international law sets a structure to improve international cooperation and decrease conflict, this system was not well positioned to respond to the new diffusion of world power, the emergence of non-state actors, and other challenges of globalization.¹⁹ Recent movements away from global cooperation highlight the weaknesses of these organizations. For the UN and WTO to have legitimate influence, countries must be willing to abide by global agreements and respect the findings of the organizations. The active conflict between countries was, theoretically, supposed to be prevented with the creation of the United Nations and its system of peaceful conflict resolution, but asymmetric warfare associated with great power competition was not a prevalent consideration when governments formed these charters. As countries leverage agriculture to achieve their objectives, international organizations and soft law must evolve to maintain pace with these new global challenges.

II. Agriculture as a Weapon in the Ukraine-Russia Conflict

¹³ *Id.*

¹⁴ Richard Haass, *A WORLD IN DISARRAY: AMERICAN FOREIGN POLICY AND THE CRISIS OF THE OLD ORDER* 2 (2017).

¹⁵ *Id.* at 55.

¹⁶ *Id.* at 57.

¹⁷ *Id.*

¹⁸ *Id.* at 57-58.

¹⁹ *Id.* at 72.

Recent events in the global agricultural industry continue to demonstrate the critical role that agriculture plays in conflict. In the last five years, the world has witnessed the United States-China trade war over agricultural commodities, recurring attacks on food and fiber products, and other events that threaten agrarian stability, but none have been as widely felt as the current Ukraine-Russia War. Since the beginning of the conflict, Russia has targeted agricultural production in Ukraine. When Russia invaded Ukraine in February 2022, it actively blockaded Ukrainian ports, and "the Russian military hit grain terminals, blew up silos and burned fields, hijacked Ukrainian grain to sell as Russian exports, stole agricultural equipment, and destroyed a bridge linking Ukrainian farmers to export markets in Romania."²⁰ By targeting agricultural production, Russia deprives Ukraine of a stable food supply and its export earnings. Both are necessary for a nation at peace, and a deficiency in either is crippling for a country.

Reports of starvation as a warfare method have surfaced repeatedly. On March 23, Janusz Wojciechowski, the European Union's Agriculture Commissioner, stated: "The only interpretation is that [the Russians] want to create hunger and to use this method as a method of aggression."²¹ Secondly, Russia is distorting agricultural markets to undermine Ukraine and supporting countries. The spike in food prices because of the Ukraine-Russia Conflict has caused disturbances worldwide.²² Granted, this conflict is not the only reason that food prices have increased drastically, but those contributing factors do not let Russia avoid responsibility.²³ Former Russian President Dmitry Medvedev recognized the importance of these agricultural disruptions when he wrote: "many countries depend on our supplies for their food security. It turns out our food is our silent weapon. Quiet, but mighty."²⁴

Analysis of the Ukraine-Russia July 2022 grain deal indicates the strategic thought associated with agricultural production and shipping. Michael Kofman, a Senior Research Scientist at the Center for Naval Analyses' Russia Studies Program, points out that Russia was strongly incentivized to sign this deal because it desires to export fertilizer, grain, or grain stolen from Ukraine.²⁵ Additionally, it is theorized that this deal came so late in the year that Ukraine would not be able to get its grain to market; Russia was only using this deal for convivence and to appear conciliatory to Europeans.²⁶ It is evident that Russia wishes to exercise its leverage using agricultural markets.

Russia's attacks on Ukraine's agricultural industry have had a significant impact across the world. Normally, Ukraine is a top agricultural producer and exporter of oilseeds and grains.²⁷ Before the

²⁰ John Feffer, *The Weaponization of Food*, FOREIGN POLICY IN FOCUS (July 27, 2022), <https://fpif.org/the-weaponization-of-food/> [<https://perma.cc/8PA3-MFEB>] (Last visited Sep. 30, 2022).

²¹ Eddy Wax, *The Starvation of a Nation: Putin uses Hunger as a Weapon in Ukraine*, POLITICO (Apr. 1, 2022), <https://www.politico.eu/article/the-starvation-of-a-nation-how-putin-is-using-hunger-as-a-weapon-in-ukraine/> [<https://perma.cc/QYE6-NKHL>] (Last visited Sep. 30, 2022).

²² John Feffer, *supra* note 20.

²³ *Id.*

²⁴ *Id.*

²⁵ *Ukraine's Window of Opportunity?*, WAR ON THE ROCKS (July 28, 2022), <https://warontherocks.com/2022/07/ukraines-window-of-opportunity/> [<https://perma.cc/V59G-9UA2>] (Last visited Sep. 30, 2022).

²⁶ *Id.*

²⁷ Foreign Agricultural Service. Ukraine Agricultural Production and Trade; July 2022, UNITED STATES DEPARTMENT OF AGRICULTURE. 1 (2022), *available at* <https://www.fas.usda.gov/sites/default/files/2022-07/Ukraine-Factsheet-July2022.pdf> [<https://perma.cc/ZEX5-RRRK>].

Russian invasion, they provided one-third of the world's sunflower oil (nearly half of global exports) and two-thirds of its sunflower meal.²⁸ Additionally, they were the fourth-largest corn exporter and the eighth-largest wheat exporter.²⁹ Following Russia's invasions, "blockade[s] resulted in a sharp reduction in exports as grain was diverted to alternate routes," and exports fell to approximately one-third of the typical level.³⁰ In July 2022, "about 20 million tons of grain from 2021, including 6 million tons of wheat (13% of 2021 harvest), still [had] not shipped."³¹ The exports sent through nonconventional routes increased prices severely, which analysts estimated added approximately \$100 per ton to the cost of Ukraine grain, decreasing demand for Ukrainian agricultural exports and limiting farmers' incentive to plant in the future.³² The Russia-Ukraine grain agreement may assist in reducing these impacts, but as discussed above, some scholars are skeptical of the agreement's efficacy.³³

Given that Russia and Ukraine are leading world exporters of agricultural products, it is not surprising that the impact of this conflict is being felt far outside of these two nations. Reports from the WTO indicate that this conflict contributes to food insecurity and increases agricultural commodities' prices worldwide.³⁴ The Center for Strategic and International Studies attributes increased global food insecurity and political instability to the rise in food prices associated with the Ukraine-Russia War.³⁵ Russia's attacks on Ukrainian agriculture negatively impacts Ukraine, dependent nations' stability, and the world order.

III. Legal Context of Agricultural Weaponization

In the new emerging world order, the legal context of the weaponization of agriculture is framed primarily by international law and treaties. But each nation's respective domestic policies and statutes also provide insight into how a country conducts itself within this nexus. Ukraine and Russia are both members of the UN and the WTO, and as such, they are responsible for adhering to agreements within these organizations.³⁶

A. International Humanitarian Law

²⁸ *Id.* at 2.

²⁹ *Id.*

³⁰ Joseph Glauber & David Laborde, *The Russia-Ukraine grain agreement: What is at stake?*, INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE (July 27, 2022), <https://www.ifpri.org/blog/russia-ukraine-grain-agreement-what-stake> [<https://perma.cc/6JZD-JXNK>] (Last visited Sep. 30, 2022).

³¹ *Id.*

³² *Id.*

³³ *See generally, Id.*; *See also Ukraine's Window of Opportunity?*, *supra* note 25.

³⁴ World Trade Organization, *Russia-Ukraine conflict puts fragile global trade recovery at risk*, WORLD TRADE ORGANIZATION (Apr. 12, 2022), https://www.wto.org/english/news_e/pres22_e/pr902_e.htm [<https://perma.cc/K668-NJFZ>] (Last visited Sep. 30, 2022).

³⁵ Caitlin Welsh, *The Russia-Ukraine War and Global Food Security: A Seven-Week Assessment, and the Way Forward for Policymakers*, THE CENTER FOR STRATEGIC & INTERNATIONAL STUDIES (Apr. 15, 2022), <https://www.csis.org/analysis/russia-ukraine-war-and-global-food-security-seven-week-assessment-and-way-forward> [<https://perma.cc/D3AA-5972>] (Last visited Oct. 13, 2022).

³⁶ *Member States*, UNITED NATIONS, <https://www.un.org/en/about-us/member-states> [<https://perma.cc/PK5J-75AH>] (Last visited Oct. 25, 2022); *see also Members and Observers*, WORLD TRADE ORGANIZATION, https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm [<https://perma.cc/RPP5-MTRM>] (Last visited Oct. 25, 2022).

International humanitarian law prohibits the intentional use of starvation as a warfare tactic.³⁷ Countries are strictly required to protect civilians by "distinguish[ing] between the civilian population and combatants and between civilian objects and military objectives and accordingly ... direct their operations only against military objectives."³⁸ Civilians may not be the object of a military attack, and indiscriminate attacks without distinction are barred.³⁹ Military objectives may only include "those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage."⁴⁰ Any attempt to "attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as foodstuffs, [and] agricultural areas . . . for the specific purpose of denying them for their sustenance value to the civilian population or to the adverse Party, whatever the motive,"⁴¹ is prohibited explicitly by the UN Articles and the International Criminal Court, though action against sustenance for armed forces or military supplies is permissible.⁴²

Many scholars have contemplated whether Russia has violated distinction requirements. Finding a violation will determine whether Ukraine's agricultural sector is considered a military objective. Michael Schmitt, G. Norman Lieber Distinguished Scholar at West Point's Lieber Institute, argues that the "food and associated infrastructure may qualify as a military objective if used, at least in part, for military purposes" and "Ukraine's agricultural sector would arguably qualify as war-sustaining given the extent to which the Ukrainian economy relies upon agricultural exports."⁴³ In his analysis, he points to opposing opinions on whether war-sustaining objects are military objectives or whether the war-sustaining approach provides a greater opportunity to violate distinction.⁴⁴

Former Department of Defense General Counsel Jennifer O'Connor addressed questions involving revenue-generating targets from the perspective of U.S. policy.⁴⁵ She stated that the U.S. must "consider each potential target on a case-by-case basis and evaluate it in light of the information ... in order to assess whether it meets the definition of a military objective."⁴⁶ In establishing a

³⁷ Rome Statute of the International Criminal Court (last amended 2010), 17 July 1998, art. 8, *available at* <https://www.refworld.org/docid/3ae6b3a84.html> [<https://perma.cc/2YDW-27KC>] (last visited 30 September 2022).

³⁸ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), art. 48, June 8, 1977, 1125 U.N.T.S. 3; *See also* ICRC, Customary IHL Database, Rule 1. https://ihl-databases.icrc.org/customary-ihl/eng/docindex/v1_rul_rule1 [<https://perma.cc/NV9P-PZ48>] (Last visited Sep. 30, 2022).

³⁹ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), art. 51, June 8, 1977, 1125 U.N.T.S. 3.

⁴⁰ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), art. 52, June 8, 1977, 1125 U.N.T.S. 3.

⁴¹ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), art. 54, June 8, 1977, 1125 U.N.T.S. 3.

⁴² *Id.*

⁴³ Michael N. Schmitt, *Weaponizing Food*, ARTICLES OF WAR (Mar. 28, 2022), <https://lieber.westpoint.edu/weaponizing-food/> [<https://perma.cc/D86H-6KXX>] (Last visited Sep. 30, 2022).

⁴⁴ *Id.*

⁴⁵ Just Security, "*Applying the Law of Targeting to the Modern Battlefield*" – Full Speech Given by DOD General Counsel Jennifer O'Connor, JUST SECURITY (Nov. 28, 2016), <https://www.justsecurity.org/34977/applying-law-targeting-modern-battlefield%E2%80%8E-full-speech-dod-general-counsel-jennifer-oconnor/> [<https://perma.cc/P5C2-RPLK>] (Last visited Sep. 30, 2022).

⁴⁶ *Id.*

military objective, the U.S. must determine that the objective is an (1) "effective contribution to military action;" and (2) "definite military advantage."⁴⁷ Additionally, attacks must be proportional, and this assessment is highly fact-dependent because it can raise questions about the impact on civilians.⁴⁸ The U.S. policy aligns with UN prohibitions on denying sustenance to the civilian population.⁴⁹

International trends indicate that many nations would support disciplining Russia for mass starvation violations. The partnership between the Global Rights Compliance and The World Peace Foundation works to ensure that UN resolutions and charters are operational when prosecuting violators of mass starvation crimes.⁵⁰ Despite this endeavor, bringing a war crime claim against a nation and its leaders is complicated and costly. Even if a claim is brought against Russia, it takes years and millions of USD to see a war crime suit from start to finish.⁵¹

B. Market Distortions & Trade Agreements

While no laws outright prohibit warring nations from preventing their adversaries from engaging in world markets, the outcomes of such actions may lead the adversary and third-party nations to consider alternative legal redress. Targeting Ukraine's agricultural market results in decreased grain and sunflower oil supply for many countries. This reduced supply leads to global product shortages and increased prices, affecting millions of consumers who go without necessary sustenance. Impacted nation leaders must consider the legal options that would persuade Russia to halt its attack on Ukraine and its agricultural market.

Early in the conflict, the U.S. and many other nations applied sanctions against Russia and removed its Most Favorable Nation (MFN) status.⁵² Russia's MFN status comes from its membership in the WTO.⁵³ Stripping Russia of this title allows these countries to impose higher tariffs on Russia and prevent them from borrowing from international institutions.⁵⁴

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ OFFICE OF GENERAL COUNSEL DEPARTMENT OF DEFENSE. DOD LAW OF WAR MANUAL 315 (Dec. 2016), available at <https://dod.defense.gov/Portals/1/Documents/pubs/DoD%20Law%20of%20War%20Manual%20-%20June%202015%20Updated%20Dec%202016.pdf?ver=2016-12-13-172036-190> [<https://perma.cc/HMU4-5T59>].

⁵⁰ World Peace Foundation, *Reports Chart Path to Accountability to Mass Starvation*, TUFTS UNIVERSITY, <https://sites.tufts.edu/wpf/accountability-for-mass-starvation/> [<https://perma.cc/8KV4-7DPP>] (Last visited Sep. 30, 2022).

⁵¹ Jeff Neal, *The International Criminal Court: Explaining War Crimes Investigations*, HARVARD LAW TODAY (Mar. 4, 2022), <https://hls.harvard.edu/today/the-international-criminal-court-explaining-war-crimes-investigations/> [<https://perma.cc/M26D-QYLY>] (Last visited Oct. 25, 2022); see also Jon Silverman, *Ten years, \$900m, one verdict: Does the ICC cost too much?*, BBC (Mar. 14 2012), <https://www.bbc.com/news/magazine-17351946> [<https://perma.cc/5JAP-QP3W>] (Last visited Oct. 25, 2022).

⁵² Ana Swanson, *U.S. and Allies Move to Further Isolate Russia From Global Economy*, THE NEW YORK TIMES (Mar. 11, 2022), <https://www.nytimes.com/2022/03/11/business/economy/russia-trade-status-us.html> [<https://perma.cc/GL9F-HRUE>] (Last visited Oct. 13, 2022).

⁵³ See generally WTO, *Principles of the trading system*, WORLD TRADE ORGANIZATION (Nov. 28, 2016), https://www.wto.org/english/thewto_e/whatis_e/tif_e/fact2_e.htm [<https://perma.cc/24LX-W38D>] (Last visited Oct. 13, 2022).

⁵⁴ Ana Swanson, *supra* note 53.

Removing Russia from the WTO may be an option. The WTO provision lacks a section to expel a nation, but Article X of the WTO agreement allows its members to alter the agreement with a two-thirds vote, which would require at least 110 of 164 member countries to vote affirmatively for the removal of the Russian Federation. Following this, Russia may then accept or refuse the changes.⁵⁵ If they refuse, a three-fourths vote by the Ministerial Conference could expel the country.⁵⁶ Therefore, a legal alternative exists to further punish Russia for its actions against Ukraine and global agricultural markets. Yet, the usefulness of this alternative turns on whether international politics support the Russian Federation's removal from the WTO.

Ukraine may also seek redress via its grain-export agreement with Russia. These countries signed this agreement with the assistance of the UN, and both nations are members of the WTO. Therefore, if Ukraine can support a claim that the grain agreement was violated, it may utilize the WTO dispute settlement function intended for use "when one country adopts a trade policy measure or takes some action that one or more fellow-WTO members considers to be breaking the WTO agreements, or to be a failure to live up to obligations."⁵⁷ If the WTO found in favor of Ukraine, the WTO cannot force Russia to change its policy. Rather, Russia could comply with the ruling and change its policy (no redress for the past), offer compensation, or retain its policy while Ukraine imposes trade sanctions equivalent to the market harm it sustained.

IV. Analysis

The jurisprudence indicates that mass starvation is clearly a war crime. Violations of international trade laws are less clear, and only through the WTO dispute settlement system can Russia be held accountable for weaponizing agriculture to undermine Ukraine and drastically increase world food prices. As a member nation of the UN and the WTO, Russia is responsible for upholding the responsibilities of both organizations. While these organizations have limited power to enforce these responsibilities, given the applicable international law, it is likely that Russia will encounter consequences for its deliberate action against Ukraine's agricultural industry through the application of international humanitarian law and trade agreements.

A. Violations of International Humanitarian Law

International humanitarian law provides substantial protection for agriculture during wartime, given civilians' dependency on the industry. Ukraine could likely prove that Russia has violated the rules of distinction when attacking Ukrainian agriculture and associated infrastructure because the agricultural sector is more likely to be considered a civilian object and not satisfactorily war-sustaining. To avoid a determination that it has violated the rule of distinction, Russia would have to prove that the attacks impacting Ukrainian agriculture were associated with clear military objectives at the time of the attack and would have to overcome facts indicating that general agricultural production, by nature, is a civilian-sustaining mechanism far before it is considered military-sustaining.

⁵⁵ WTO Agreement: Article X, June 2022, 1867 U.N.T.S. 154 (1994), *available at* https://www.wto.org/english/res_e/publications_e/ai17_e/wto_agree_art10_jur.pdf [<https://perma.cc/CJN4-CFN8>].

⁵⁶ *Id.*

⁵⁷ World Trade Organization, *Understanding The WTO: Settling Disputes*, WORLD TRADE ORGANIZATION, https://www.wto.org/english/thewto_e/whatis_e/tif_e/disp1_e.htm [<https://perma.cc/T5JY-SDET>] (Last visited Sep. 30, 2022).

Determining a civilian or military object will require a case-by-case evaluation of whether the agricultural product or infrastructure falls into the description of Article 52, Subsection 2.⁵⁸ Russia would have to prove that each attack on the agriculture industry is associated with a military action through its nature, location, purpose, or contribution to the military, or in the alternative, that chosen agricultural targets offer a definite military advantage. But proving either of these possibilities would be incredibly difficult given that other provisions expressly forbid attempts to attack objects indispensable to the civilian population's survival, including foodstuffs and agricultural areas, regardless of intent.⁵⁹ Even if Russia describes attacks on agriculture as an attempt to undermine a "definite military advantage," the motive element of Article 54 demonstrates a global intolerance for military strategies that result in the starvation of civilians. Therefore, Articles 52 and 54 indicate that Ukraine may find redress for attacks endured on grain terminals, silos, fields, grain supplies, and agricultural equipment.⁶⁰

Whether Ukrainian agriculture becomes a military objective as a war-sustaining activity is far more debatable. Given the context, it is reasonable to conclude that Ukrainian agriculture is not sufficiently war-sustaining to be an acceptable target. Agriculture does sustain war because it provides needed sustenance for militaries and generates national revenue, making it an attractive target for an opposing military. But this analysis fails to consider the civilian population that the industry supports, and thus would not satisfy the internationally accepted rules of distinction. The U.S. Department of Defense's policy to consider each potential target on a case-by-case basis is the most attractive and adaptable solution to the two policy approaches.⁶¹ Under this approach, Russia would still fail to prove that its agricultural attacks have not unduly impacted civilians given that Ukraine's agricultural production supports far more than just the military.⁶²

B. Violations of International Trade Agreements

It is unclear whether the world order can effectively reprimand a nation for distorting international trade by attacking an agricultural industry. There is no international agreement or even soft law that outlaws a nation from distorting world markets as an outcome of their conflicts, even if the distortion is deliberate. Given the immense impact of this war on international agricultural markets, international organizations may benefit from considering a provision that discourages military actions that undermine the stability of global food security.

There are avenues for impacted nations to legally retaliate against a wrong-doing country. Western governments have already placed extensive sanctions on Russia, and while these were implemented to oppose the war generally, nations could use them to discourage specific action against Ukrainian agriculture. Further, removing Russia's WTO membership would pose a significant hindrance to Russian markets. This option could cause long-lasting, unintended

⁵⁸ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), art. 52, June 8, 1977, 1125 U.N.T.S. 3.

⁵⁹ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), art. 54, June 8, 1977, 1125 U.N.T.S. 3.

⁶⁰ John Feffer, *supra* note 20.

⁶¹ Just Security, *supra* note 47.

⁶² Foreign Agricultural Service, *supra* note 28.

consequences to international markets and seems less achievable because of the extensive requirements for modifying WTO agreements.⁶³

Finally, the nation whose agricultural industry has been attacked can seek justice via the dispute settlement system of the WTO. Since Ukraine and Russia are both WTO members, Ukraine has standing to claim that Russia has unfairly restrained agricultural trade for their country and violated the Ukraine-Russia Grain Agreement. But this method does not ensure appropriate compensation, because the WTO cannot force Russia to change its policy or provide damages. If the WTO finds in favor of Ukraine, Russia may choose to ignore the outcome. The only option left for Ukraine is to retaliate with tariffs placed on Russian goods imported into the country. This is not viable, assuming few Russian imports flow into Ukraine following the war.

V. Conclusion

Agriculture and war have a long, intertwined history. Current events indicate that this vital industry will continue to play a leading role in the success and demise of nations in conflict. Social, economic, and political stability all depend on the presence of safe and dependable food and fiber sources. It is a global responsibility to protect these industries since each nation has become interdependent through globalization and trade. Despite a fluctuating world order, each government benefits from stable agricultural production worldwide since the availability of food and fiber is connected to social, political, and economic security everywhere.

This nexus is often associated with international humanitarian law and prohibitions on mass starvation. But distinction, military objectives, and economic value complicate the fact analysis in these situations. The Ukraine-Russia War requires the world to consider this interplay to determine if Russia will be accountable for attacks on Ukraine's agricultural industry. Given the direct attacks on grain facilities, agricultural supply chains, and other associated civilian-supporting infrastructure, it is likely that Russia may face war crimes following this conflict. While Russia can argue that these are military-sustaining objectives, it seems unlikely that other nations would agree since Ukrainian civilians have suffered severely.

Markets and food supplies fluctuate worldwide, impacting the availability and price of agricultural commodities, byproducts, and agriculture-dependent services, following an attack on a major agricultural exporter like Ukraine. Further, attacks on agricultural exporters can have long-lasting impacts on growing and processing time as well as economic incentives to limit output in the future. Each of these factors substantially contributes to market access. When shortages or prices are unaffordable for a population, nations will make drastic decisions to protect their people, yet no international provision prevents a country from leveraging this sensitive market. Because of world market volatility, international organizations should consider codifying language that prevents a government from taking deliberate action against agriculture for political gain.

In the future, the world must continue to protect the agricultural industry during times of unrest. International organizations must have the power and resources to enforce distinction laws and prosecute those that violate international humanitarian laws. In addition, close attention should be paid to international trade markets, and nations should be held accountable for undermining the

⁶³ See generally WTO Agreement: Article X, June 2022, 1867 U.N.T.S. 154 (1994), available at https://www.wto.org/english/res_e/publications_e/ai17_e/wto_agree_art10_jur.pdf [<https://perma.cc/CJN4-CFN8>].

world economy. The world must decide to stand against any threat to agricultural production because of the industry's contributions to long-sought-after peace. The Russian Federation uses every weapon available to take advantage of its adversaries. For the U.S. and many others, this impedes international trade and markets. For Ukraine, its valuable exports, food supply, and civilians are in imminent danger. Despite the shifting international order, countries must choose to stand together on behalf of each other to obtain a brighter tomorrow where peace is practiced, and agricultural production is secure.