

NTS Insight, no. IN22-03, August 2022

## Food Insecurity Beyond Borders: Untangling the Complex Impacts of Ukraine War on Global Food Security

By **Jose Ma. Luis Montesclaros** and **Margareth Sembiring**

*Conflict has historically influenced food insecurity within countries. However, Russia's invasion of Ukraine is of a different nature, as it is worsening food insecurity in other countries too, thereby undermining global food security. This NTS insight untangles the dynamics of conflict-induced food insecurity beyond borders amid the ongoing war. Today's conflict poses an unprecedented challenge to global food security given its timing, with countries inheriting fiscal challenges from previous bouts with the COVID-19 pandemic; concurrent disruptions to food and energy supply chains; and worsening climate threats to agriculture. Should the war be protracted, the world risks further instability through cost-of-living crises and food price crises. World leaders should therefore carefully weigh these risks, as they deliberate their stances in putting an end to the war.*



Source: Flickr/UNDP Ukraine via creative commons

## Contents

- [Introduction](#)
- [Food Trade Disruptions and Budget Challenges Inherited from COVID-19](#)
- [Double Crises: Concurrence with Higher Food and Energy Prices](#)
- [Climate Concerns as Threat Multipliers to Food Security amid Russia's War on Ukraine](#)
- [Complexities in Seeing an End to the War](#)
- [Concluding Thoughts](#)

Recommended citation: Jose Ma. Luis Montesclaros and Margareth Sembiring, 'Food Insecurity Beyond Borders: Untangling the Complex Impacts of Ukraine War on Global Food Security,' NTS Insight, No. IN22-03 (Singapore: RSIS Centre for Non-Traditional Security Studies (NTS Centre), Nanyang Technological University Singapore. 2022).

## Introduction

Conflict has long been identified as a significant driver of food insecurity and hunger. Food security is defined by the Food and Agriculture Organisation of the United Nations (FAO) as 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>1</sup> The extent of food insecurity is ultimately measured by undernourishment (hunger) levels, or the number and share of the population consuming insufficient quantities of nutritious food to meet their daily dietary needs, while key drivers of these outcomes lie in the availability and accessibility of food.<sup>2</sup>

In conflict settings, however, both food availability and accessibility are hampered, since farmers are driven away from fields/farms, agricultural assets and food stock are damaged, and logistics and supply chains are disrupted.<sup>3</sup> Food production in sub-Saharan African countries shrank by 12.3 percent on average during conflict times between 1970 and 1994.<sup>4</sup> Amid the civil war in the Central African Republic, the cereal production dropped compared to pre-conflict levels.<sup>5</sup> Combatants have also targeted agriculture infrastructure and production, placing food stock under siege. Islamic State fighters in Iraq reportedly sabotaged and destroyed irrigation wells with rubble, oil and foreign objects,<sup>6</sup> which contribute to the deaths of plants and livestock. In combination, these cause instability in food supplies and prices in conflict-

torn areas and contribute to farmers' income loss, and a lack of food availability and accessibility domestically.<sup>7</sup>

UN bodies over the past decades have further stressed the role of conflict situations in creating and exacerbating food insecurity, including the UN World Food Programme (WFP) in its annual Global Report on Food Crises.<sup>8</sup> In 2005, the FAO warned that ongoing conflicts in different countries hindered the achievement of the World Food Summit target of halving the world's hunger from 1990 to 2015.<sup>9</sup> In fact, the FAO's State of Food Insecurity in the World Report (SOFI) in 2017 raised a significant reversal of the trends of declining global hunger from the previous decade: global undernourishment increased from 777 million in 2015 to 815 million in 2016, or an increase in undernourished of approximately 38 million people.<sup>10</sup> UNICEF, the United Nations agency responsible for providing humanitarian and developmental aid to children worldwide, attributed the increase undernourishment from 2015 to 2016

<sup>1</sup> FAO, IFAD, WFP, *The State of Food Insecurity in the World 2015* (Rome: FAO, 2021), 53, <https://www.fao.org/publications/sofi/2015/en/>.

<sup>2</sup> Jose Ma. Luis Montesclaros, "Southeast Asia's Food Security: Inflection Point?" in Mely Caballero-Anthony (Ed.), Lina Gong (Ed.), *Non-Traditional Security Issues in ASEAN: Agendas for Action*, Singapore: ISEAS – Yusof Ishak Institute, 2020, <https://bookshop.iseas.edu.sg/publication/2426>.

<sup>3</sup> Marie Haga, 2021, "Breaking the vicious circle of hunger and conflict," *United Nations Food Systems Summit 2021*, <https://www.un.org/en/food-systems-summit/news/breaking-vicious-circle-hunger-and-conflict>.

<sup>4</sup> Ellen Messer, Cohen, Marc J.; & D'Costa, Jashinta, 1998, "Food from peace: Breaking the links between conflict and hunger." 2020 Vision for Food, Agriculture, and The Environment: Discussion paper No. 24. Washington, DC: IFPRI.

<sup>5</sup> Heinrich Böll Stiftung, 2021, War: Conflicts feed hunger, hunger feeds conflict, 15 September, <https://www.boell.de/en/war-conflicts-feed-hunger>.

<sup>6</sup> Susi Snyder (eds.), 2020, *Witnessing the Environmental Impacts of War*, Utrecht: PAX, <https://paxforpeace.nl/what-we-do/publications/witnessing-the-environmental-impacts-of-war>.

<sup>7</sup> Ellen Messer, Marc J. Cohen and Thomas Marchione, 2001, "Conflict: A Cause and Effect of Hunger", in Geoffrey D. Dabelko (ed.), *Environmental Change and Security Program Report 7*, 1-16, <https://medialibrary.uantwerpen.be/oldcontent/container2387/files/Messer%20et%20al%20-%20conflict%20a%20cause%20and%20effect%20of%20hunger.pdf>.

<sup>8</sup> Global Network against Food Crises, 2022, *Global Report on Food Crises – 2022*, <https://www.wfp.org/publications/global-report-food-crises-2022>.

<sup>9</sup> Peter Moszynski, 2005, "Armed Conflict is a Leading Cause of Hunger, says FAO," *British Medical Journal* 330(7503): 1286, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC558230/>.

<sup>10</sup> FAO, 2017, *State of Food Insecurity in the World 2017: Building Resilience for Peace and Food Security*, Rome: FAO. <https://www.fao.org/3/I7695e/I7695e.pdf>

to two key causes, namely, violent conflicts and climate-related shocks.<sup>11</sup> UNICEF highlighted that more than half of the world's 815 million hungry lived in conflict zones.<sup>12</sup>

### ***Conflict in Ukraine and Food Security Beyond Borders***

Ukraine is no stranger to the impacts of conflict on hunger. The country holds a painful collective memory of Holodomor ("death famine"), which killed millions in the first decade of Stalin's rule of the Soviet Union by 1933.<sup>13</sup> Today, Russia's invasion of Ukraine from late-February 2022 onwards is once again threatening the state's food security. The WFP reported that in the first month and a half of the war, one in three households at the national level were found to be food insecure due to a lack of physical food access in war-torn areas, as well as lack of economic access owing to higher domestic food prices.<sup>14</sup> The situation has been more dire for displaced or separated families, where one in two households have been found to be food insecure.<sup>15</sup> As the war continues raging, the share of food insecure population in Ukraine is expected to rise, as it has in other conflict areas around the world.

While the impacts of hunger on food security within countries are rather established, what makes today's crisis different, and worse, is that the conflict in Ukraine is also worsening food insecurity beyond Ukraine's borders. This NTS Insight discusses the factors making for a perfect storm for global food insecurity amid the war.

## **Food Trade Disruptions and Budget Challenges Inherited from COVID-19**

Russia's aggression in Ukraine is impacting on other countries owing to food trade interdependence in international markets. An FAO information note showed that Ukraine and Russia are "among the most important producers of agricultural commodities in the world,"<sup>16</sup> contributing 29 percent of global wheat exports and 62 percent of sunflower oil.<sup>17</sup> Furthermore, Russia and Belarus contribute 20 percent of global fertiliser exports.<sup>18</sup> The lack of access to affordable fertilisers reduces yields, and in turn, food production levels. In turn, the United Nations Global Crisis Response Group (GCRP) has projected ninety-four countries to be impacted by either food, energy, or finance concerns due to the war in Ukraine. Three-quarters of the 1.6 billion people living in these countries are likely to stand exposed to the three challenges at the same time, thus creating a 'perfect-storm' of cost-of-living crisis.<sup>19</sup>

Under normal circumstances, the increase in prices could have been remedied by states providing additional income support to their populations. However, we argue that the option of providing such income support is not as manageable for countries, owing to the legacies of economic woes owing to the COVID-19 pandemic. The pandemic made the impacts of the war in Ukraine on food security more acute, since the war came at a time when countries were already facing budgetary challenges from prolonged bouts with the pandemic. Countries imposed movement restrictions

---

<sup>11</sup> UNICEF, 2017, "World hunger again on the rise, driven by conflict and climate change, new UN report says," *UNICEF*, 15 September, <https://www.unicef.org/press-releases/world-hunger-again-rise-driven-conflict-and-climate-change-new-un-report>

<sup>12</sup> Ibid.

<sup>13</sup> Michael E. Ruane, 2022, "Cut off from food, Ukrainians recall famine under Stalin, which killed 4 million of them," *The Washington Post*, 12 March, [https://www.washingtonpost.com/history/2022/03/12/holodomor-famine-ukraine-stalin/?itid=co\\_retopolisukraine\\_1](https://www.washingtonpost.com/history/2022/03/12/holodomor-famine-ukraine-stalin/?itid=co_retopolisukraine_1).

<sup>14</sup> WFP, 2022, *Ukraine Food Security Report (May)*, Rome: World Food Programme, [https://docs.wfp.org/api/documents/WFP-0000139190/download/?\\_ga=2.196762155.681107227.1656204419-1248595755.1656204419](https://docs.wfp.org/api/documents/WFP-0000139190/download/?_ga=2.196762155.681107227.1656204419-1248595755.1656204419)

<sup>15</sup> Ibid.

<sup>16</sup> FAO, 2022, *The importance of Ukraine and the Russian Federation for global agricultural markets and the risks associated with the current conflict: 25 March 2022 update*, <https://www.fao.org/3/cb9236en/cb9236en.pdf>.

<sup>17</sup> Juergen Voegelé, 2022, "The Impact of War in Ukraine on Food Security – World Bank Expert Answers," *The World Bank*, 5 April, <https://www.worldbank.org/en/news/video/2022/04/05/the-impact-of-the-war-in-ukraine-on-food-security-world-bank-expert-answers>

<sup>18</sup> Ibid.

<sup>19</sup> GCRP, 2022, "Global Impact of the War in Ukraine: Billions of People Face the Greatest Cost-of-Living Crisis in a Generation," *Brief No. 2*, June, [https://news.un.org/pages/wp-content/uploads/2022/06/GCRG\\_2nd-Brief\\_Jun8\\_2022\\_FINAL.pdf?utm\\_source=United+Nations&utm\\_medium=Brief&utm\\_campaign=Global+Crisis+Response](https://news.un.org/pages/wp-content/uploads/2022/06/GCRG_2nd-Brief_Jun8_2022_FINAL.pdf?utm_source=United+Nations&utm_medium=Brief&utm_campaign=Global+Crisis+Response)



to prevent further COVID-19 infections starting early 2020. While lockdowns were necessary to address the pandemic, work closures led to reduced incomes and rising unemployment.

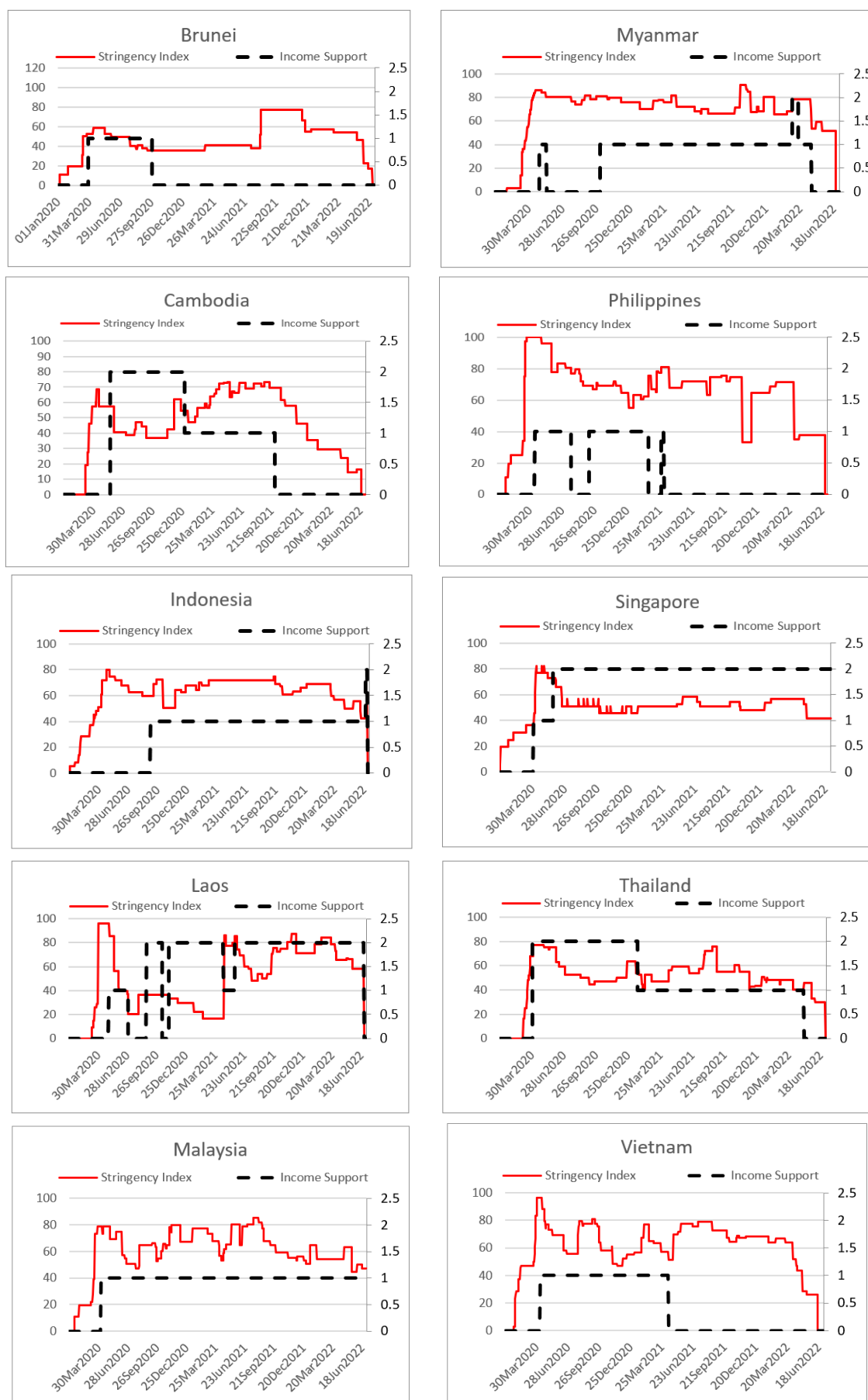
To maintain food availability, countries resorted to income support policies. In fact, the International Monetary Fund (IMF) called for “decisive monetary, financial, and fiscal policy actions—aimed at containing the fallout from the pandemic.”<sup>20</sup> However, countries were unable to sustain this economic support owing to debilitated economies. In the case of Southeast Asia, for instance, [Figure 1](#) shows that in the first year of the pandemic (March 2020 to March 2021), the increase in stringent lockdowns was accompanied by a significant increase in income support provided by governments to their constituents. In contrast, in the following year (March 2021 to March 2022), economic support dwindled for majority of the countries, even as Southeast Asian countries were facing a new wave of the deadlier Delta variant.



*Source: Rawpixel (Public domain) via creative commons.*

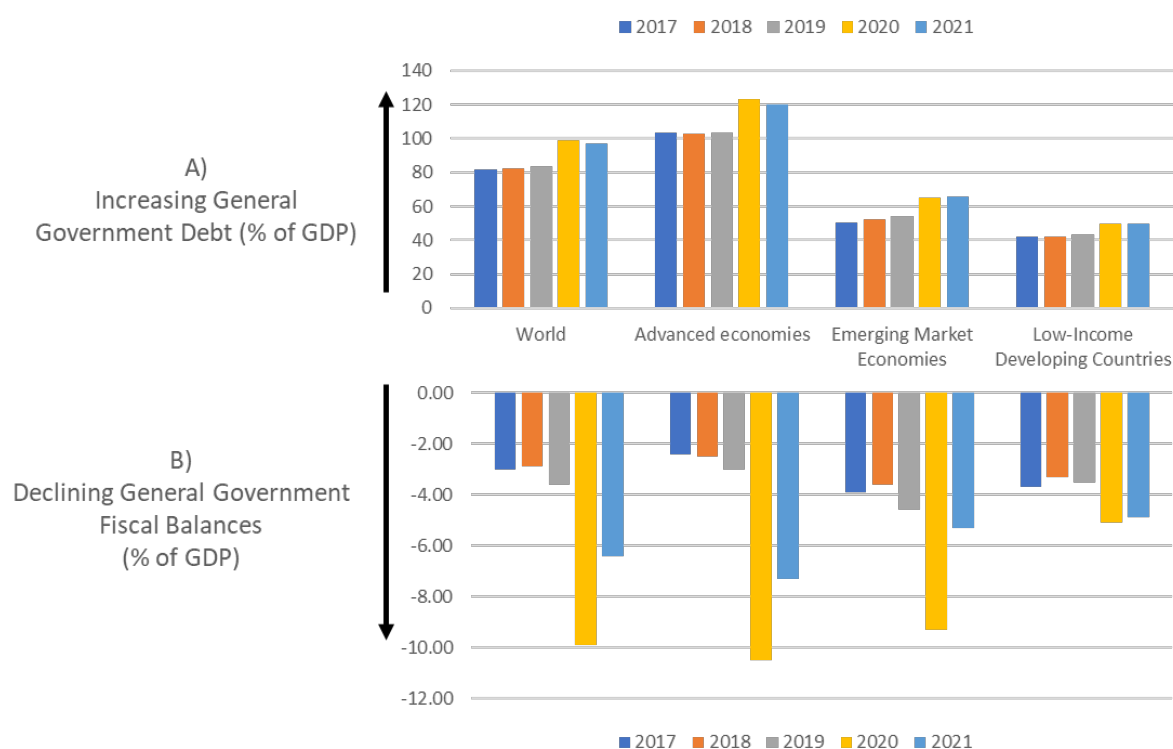
<sup>20</sup> IMF, 2020, *Global Financial Stability Report: Markets in the Time of COVID-19*, 14 April, <https://www.imf.org/en/Publications/GFSR/Issues/2020/04/14/global-financial-stability-report-april-2020>.

**Figure 1: Lockdown Stringency (—) and Income Support (---) in ASEAN**



Source: Thomas Hale et al., 2021, "A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker)." *Nature Human Behaviour*. <https://doi.org/10.1038/s41562-021-01079-8>

**Figure 2: Declining Fiscal Health Owing to COVID-19**



Source: Author, modified from IMF, 2022, *Fiscal monitor*. Washington D.C.: IMF.

While the reduction in income support from governments reflected a reduced need for economic support owing to the roll out of COVID-19 vaccinations in 2021, the discrepancy in income support between the latter year (March 2021-2022) and the previous year (March 2020-2021) also relates to limited fiscal budgets. Singapore, as a higher-income country with significant fiscal reserves, was able to provide sustained budgetary push for providing income support.<sup>21</sup> In contrast, for majority of countries in the region, there was less fiscal capacity to sustain the same level of income support. The IMF's Fiscal Monitor, in fact, reflects a significant growth in government debt from 2019 to 2020 (Figure 2A), as well as a significant decline in the overall fiscal balances of countries over this same period (Figure 2B), across advanced, emerging, and low-income developing countries. Thus, declining fiscal health provides one channel for the food insecurity induced by the war in Ukraine to spread beyond Ukraine's borders, since governments' worn-out budgets prevent them from taking stronger actions in providing income support to cushion against price impacts of the war.

## Double Crises: Higher Food and Energy Prices

The contagion in food insecurity amid the war in Ukraine further owes to its concurrence with a phase of higher energy and food prices amid the pandemic. Firstly, energy prices were on the rise even before the war started, owing to COVID-19 lockdowns. Reduced economic activity in early 2020 translated to a reduction of about eighteen million barrels per day (mb/d) in demand for oil, relative to the end of 2019.<sup>22</sup> This led to reduced oil prices, falling to lows of less than USD20 per barrel by end-2020, less than a third of pre-pandemic prices. Oil producers in turn cut production growth targets for oil in subsequent quarters, owing to low oil prices, leading to a fall in global oil supplies by approximately 7 mb/d from 2019 to 2020.<sup>23</sup> By 2021, though, when economies reopened, the world saw a significant (9%) increase in oil demand for

<sup>21</sup> Jose Ma. Luis Montecarlo and Mely Caballero-Anthony, 2020, "Lessons from Covid: Tackling disease with a city-by-city approach," *The Interpreter*, 29 October, <https://www.lowyinstitute.org/the-interpreter/lessons-covid-tackling-disease-city-city-approach>.

<sup>22</sup> International Energy Agency, *Market Report: Oil 2021*, [https://iea.blob.core.windows.net/assets/1fa45234-bac5-4d89-a532-768960f99d07/Oil\\_2021-PDF.pdf](https://iea.blob.core.windows.net/assets/1fa45234-bac5-4d89-a532-768960f99d07/Oil_2021-PDF.pdf).

<sup>23</sup> Trading Economics, 2022, "Brent Crude Oil", *Trading Economics*, <https://tradingeconomics.com/commodity/brent-crude-oil?embed>.

electricity generation in coal plants.<sup>24</sup> Thus, the combination of increased demand and reduced oil supplies led to demand-supply gap for oil, and in turn, a “coal crunch” of high energy prices by 2021.

Energy price inflation further aggravated food price inflation, since fertiliser production is an energy intensive process. Nitrogen fertilizer production alone accounted for more than 1% of global energy consumption in 1998, however.<sup>25</sup> As such, rising energy prices contributed to higher fertiliser prices. Food prices were also rising given to disruptions to food production in early 2020, including the fall army worm which impacted crops in Asia and Africa; the African swine fever which affected hogs in China and other Asian countries;<sup>26</sup> and droughts and floods in Pakistan and Thailand which were significant grain exporters.<sup>27</sup> Pandemic-induced lockdowns further led to disruptions in the movements of supplies and manpower, thus causing delays in the planting and harvesting schedules of crops, and reducing crop productivity.<sup>28</sup> In tandem, these events entailed higher production costs, and required food producers to raise prices to remain viable.

Thus, the war in Ukraine came at a time when the world was already reeling from price disruptions in the food and energy sector, which added to budgetary pressure from the COVID-19 pandemic. War-driven disruptions to food production and supply chains have further driven up global food prices, which by mid-May 2022 stood at 30 percent higher compared to the previous year.<sup>29</sup> Immediate impacts were felt by countries that were significant importers of grains, fertilizers and oils from Ukraine and Russia. These include many countries in North Africa and Western and Central Asia which source more than 30 percent of wheat imports from the two countries.<sup>30</sup>

## Climate Concerns as Threat Multipliers to Food Security amid Russia's War on Ukraine

While the war in Ukraine has brought to fore the importance of maintaining global food stability and addressing hunger, the world was already contending with climate-related challenges to food security as early as in 2015. From the start of the millennium, undernourishment globally fell from 945 million in 2005 to 784 million in 2014. However, progress plateaued, with undernourishment remaining at approximately 784 million. After this turning point, the number of undernourished increased to 804 million people in 2016, with estimates of further increases to 820 million by 2017.<sup>31</sup>

The FAO attributed this reversal in post-2015 progress in addressing undernourishment to the realisation of slow yet steady negative impacts of climate stresses on food production internationally, including extreme heat, drought, floods, and storms. Countries have been exposed to more frequent and more intense climate extremes in the last twenty years,<sup>32</sup> with a 30 percent rise in frequency of climate extremes from 1996-2000 to 2011-2016,<sup>33</sup> and a doubling in the number of countries experiencing three to four climate extremes per year over the same period.<sup>34</sup> Within Ukraine, temperatures have risen in the past 60 years at a rate faster than Europe and sometimes even faster than the world's,

<sup>24</sup> Jillian Ambrose, 2021, Global demand for coal could hit all-time high in 2022, *The Guardian*, 17 December, <https://www.theguardian.com/business/2021/dec/17/global-demand-coal-high-electricity-plants-covid-economic-recovery>.

<sup>25</sup> International Fertilizer Industry Association, 1998, *The fertilizer industry, world food supplies and the environment*: 14. [http://large.stanford.edu/courses/2014/ph240/yuan2/docs/1998\\_IFA\\_UNEP\\_worldfoodsupplies.pdf](http://large.stanford.edu/courses/2014/ph240/yuan2/docs/1998_IFA_UNEP_worldfoodsupplies.pdf).

<sup>26</sup> Paul Teng, 2020, “Swine Fever, Climate Change, Armyworm: A Perfect Storm for Asia's Food Prices”, *South China Morning Post*, 10 January, <https://www.scmp.com/week-asia/health-environment/article/3045515/swine-fever-climate-change-armyworm-perfect-storm>.

<sup>27</sup> European Commission Directorate-General for European Civil Protection and Humanitarian Aid Operations, 2020, “Thailand — Drought, DG ECHO Daily Flash of 10 January 2020”, <https://reliefweb.int/report/thailand/thailand-drought-dg-echo-government-media-echo-daily-flash-10-january-2020>.

<sup>28</sup> S. Aday and M.S. Aday, 2020, “Impact of COVID-19 on the food supply chain,” *Food Quality and Safety*, 4(4), pp.167-180.

<sup>29</sup> Matt Murphy, 2022, “Ukraine invasion could cause global food crisis, UN warns,” *BBC*, 19 May, <https://www.bbc.com/news/world-europe-61503049>.

<sup>30</sup> FAO, *Food Outlook: Biannual Report on Global Food Market*, Rome: FAO, <https://www.fao.org/3/cb9427en/cb9427en.pdf>.

<sup>31</sup> FAO, IFAD, UNICEF, WFP and WHO, 2018, *The State of Food Security and Nutrition in the World 2018: Building Climate Resilience for Food Security and Nutrition*, Rome: FAO, [https://docs.wfp.org/api/documents/WFP-0000074343/download/?\\_ga=2.157267836.693653410.1655791248-104706128.1655791248](https://docs.wfp.org/api/documents/WFP-0000074343/download/?_ga=2.157267836.693653410.1655791248-104706128.1655791248)

<sup>32</sup> FAO, IFAD, UNICEF, WFP and WHO, 2018, *The State of Food Security and Nutrition in the World 2018: Building Climate Resilience for Food Security and Nutrition*, Rome: FAO, [https://docs.wfp.org/api/documents/WFP-0000074343/download/?\\_ga=2.157267836.693653410.1655791248-104706128.1655791248](https://docs.wfp.org/api/documents/WFP-0000074343/download/?_ga=2.157267836.693653410.1655791248-104706128.1655791248)

<sup>33</sup> Ibid.

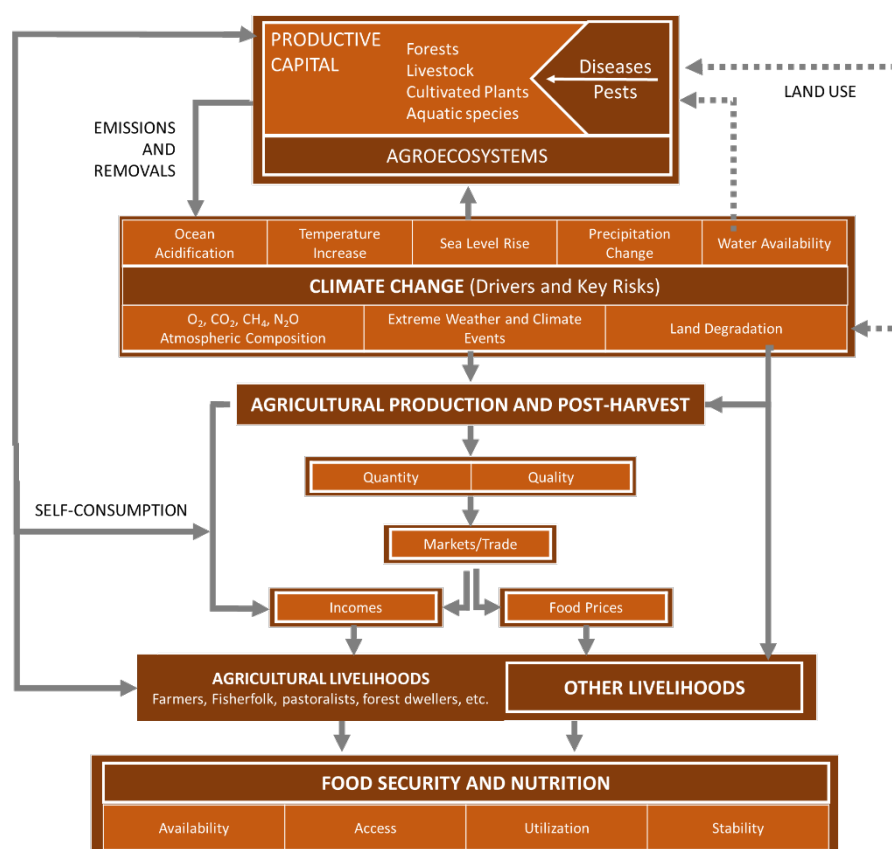
<sup>34</sup> Ibid.



on average.<sup>35</sup> This renders Ukraine susceptible to increasing frequency and intensity of extreme weather and climate events such as droughts and floods, high temperatures, heat waves, heavy rains, and mudflows, among others.<sup>36</sup>

Linkages between climate change and food production outcomes have been highlighted in the FAO's framework (Figure 1). Climate-related disruptions lead to reduced productivity in food production and higher prices, alongside reduced farmer incomes.<sup>37</sup> Within Ukraine, the projected impacts of climate change on crop yields vary. While wheat and soybean productions are likely to stand resilient, the yields of barley, maize and sunflower are estimated to face a significant decline in 2030 and worsen in 2050, with differentiated impacts across oblasts.<sup>38</sup> Khersonska, one of the oblasts attacked by Russia in eastern Ukraine, is among the top five oblasts projected to be most impacted.<sup>39</sup> These patterns apply to many other areas globally too. In parts of Africa, the changing rainfall patterns have forced farming communities to search for more fertile lands,<sup>40</sup> while changing weather patterns and climate extremes coincided with worsening undernourishment, with almost 36 percent of countries that experienced an increase in undernourishment also experiencing severe drought in the period between 2006 and 2016.<sup>41</sup>

**Figure 3: FAO Framework for Climate Change and Food Security**



Source: Author, Modified from FAO, 2016, *State of Food Security in the World*, Op. Cit.

<sup>35</sup> World Bank, 2021, Ukraine: Building Climate Resilience in Agriculture and Forestry. Washington, DC: World Bank <https://documents1.worldbank.org/curated/en/893671643276478711/pdf/Ukraine-Building-Climate-Resilience-in-Agriculture-and-Forestry.pdf>

<sup>36</sup> Climate Change Knowledge Portal, 2021, Ukraine, <https://climateknowledgeportal.worldbank.org/country/ukraine/vulnerability>

<sup>37</sup> FAO, 2016, *State of Food and Agriculture 2016: Climate change, agriculture, and food security*. Rome: FAO, 21.

<sup>38</sup> World Bank, 2021, Ukraine: Building Climate Resilience in Agriculture and Forestry. Washington, DC: World Bank <https://documents1.worldbank.org/curated/en/893671643276478711/pdf/Ukraine-Building-Climate-Resilience-in-Agriculture-and-Forestry.pdf>

<sup>39</sup> World Bank, 2021, Ukraine: Building Climate Resilience in Agriculture and Forestry. Washington, DC: World Bank <https://documents1.worldbank.org/curated/en/893671643276478711/pdf/Ukraine-Building-Climate-Resilience-in-Agriculture-and-Forestry.pdf>

<sup>40</sup> The United Nations Secretary General, 2021, Secretary-General's remarks at Security Council Open Debate on "Challenges of Maintaining Peace and Security in Fragile Contexts," The United Nations, 2 January, <https://www.un.org/sg/en/content/sg/statement/2021-01-06/secretary-generals-remarks-security-council-open-debate-%E2%80%9Cchallenges-of-maintaining-peace-and-security-fragile-contexts%E2%80%9D-bilingual-delivered-scroll-down-for-all-english>

<sup>41</sup> FAO, IFAD, UNICEF, WFP and WHO, 2018, *The State of Food Security and Nutrition in the World 2018*.



A further challenge to global food security was the gradual shift in land uses away from food production purposes, amid the push towards climate change mitigation. Countries sought for an energy transition away from non-renewable sources and towards renewable biofuel sources. This led to shifting land uses away from food crops and towards biofuel crops (e.g., ethanol production), leading to reduced food production levels. Over time, this has led to declining food stocks relative to normal demand, and has motivated food traders to raise their prices.<sup>42</sup> For instance, incentives to promote biofuel preceded the global food price crisis in 2008, when approximately one-third of land used for corn production in the US and rapeseed production in the European Union respectively were diverted to biofuel production.<sup>43</sup>

Yet, further challenges abound today, owing to the potential for hunger to feed into further conflict. Food insecurity has in the past induced inter-communal tensions. These include conflicts across national borders over access to natural resources such as fertile land and fresh water.<sup>44</sup> The current phase of higher food prices, may yet lead to further social instability especially when the poorer segments of the society perceive injustices over food access.<sup>45</sup> Historical hunger-driven schisms abound. For instance, civil wars raged in the Horn of Africa in the 1970s, 1980s and 1990s as droughts intensified hunger and chronic famines ensued in the politically unstable country,<sup>46</sup> while coups were triggered in Ethiopia and the Sahelian nations of Upper Volta and Niger in the 1970s when the rulers were not able to adequately respond to food crises.<sup>47</sup> During the 2007-2008 global food crisis, riots erupted in multiple countries in Africa, South America and Southeast and Central Asia, among others.<sup>48</sup>

Adding to these, worsening patterns of climate change can fuel further conflict. Hunger has risen faster in areas where agriculture serves as the main source of livelihood to the majority of the population, and yet where agriculture systems were already sensitive to climate variability and extremes to begin with.<sup>49</sup> Conflict zones experiencing climate shocks have seen more severe and acute instances of food insecurity, as observed in 14 out of 34 food-crisis countries in 2017.<sup>50</sup> Moreover, areas facing a combination of conflict, economic crisis and climate extremes have had larger numbers of populations deprived of food and healthy diets, compared to conflict-free areas.<sup>51</sup>

<sup>42</sup> David J. Tenenbaum, 2008, "Food vs. fuel: diversion of crops could cause more hunger." *Environment Health Perspectives*, A254-A257. Doi: 10.1289/ehp.116-a254

<sup>43</sup> Mark Rosegrant and S. Msangi, 2014, "Consensus and contention in the food-versus-fuel debate," *Annual Review of Environment and Resources*, 39(1), pp.271-294.

<sup>44</sup> United Nations Secretary-General, 2021, "Secretary-General's remarks at Security Council Open Debate on 'Challenges of Maintaining Peace and Security in Fragile Contexts,'" *United Nations*, 2 January, <https://www.un.org/sg/en/content/sg/statement/2021-01-06/secretary-generals-remarks-security-council-open-debate-%E2%80%9Cchallenges-of-maintaining-peace-and-security-fragile-contexts%E2%80%9D-bilingual-delivered-scroll-down-for-all-english>.

<sup>45</sup> Heinrich Böll Stiftung, 2021, War: Conflicts feed hunger, hunger feeds conflict.

<sup>46</sup> Ellen Messer, Marc J. Cohen and Thomas Marchione, 2001, "Conflict: A Cause and Effect of Hunger."

<sup>47</sup> Ibid.

<sup>48</sup> Judy L. Baker, 2008, "Impacts of financial, food, and fuel crisis on the urban poor," *Directions in Urban Development*. Washington, D.C.: Urban Development Unit, World Bank. December, <https://openknowledge.worldbank.org/bitstream/handle/10986/10263/475250BRI0GLB01ections020Box334118B.pdf?sequence=1&isAllowed=y>

<sup>49</sup> FAO, IFAD, UNICEF, WFP and WHO, 2018, *The State of Food Security and Nutrition in the World 2018*.

<sup>50</sup> Ibid.

<sup>51</sup> FAO, IFAD, UNICEF, WFP and WHO, 2021, *In Brief to The State of Food Security and Nutrition in the World 2021: Transforming Food Systems for Food Security, Improved Nutrition and Affordable Healthy Diets for All*, Rome: FAO, [https://docs.wfp.org/api/documents/WFP-0000130147/download/?\\_ga=2.128042948.952806932.1656297536-485968691.1656297536](https://docs.wfp.org/api/documents/WFP-0000130147/download/?_ga=2.128042948.952806932.1656297536-485968691.1656297536).

## Complexities in Seeing an End to the War

Less than a week since Russia's invasion began, over 141 countries voted in favour of a UN resolution demanding Russia to end the war as soon as possible.<sup>52</sup> Yet, Russia's attacks on Ukraine, and deaths and destruction of infrastructure continue unabated, with growing numbers of casualties (600 to 1,000 casualties daily).<sup>53</sup> The war has also claimed 4,731 civilians deaths, and 5,900 injuries as of end-June 2022,<sup>54</sup> with at least 12 million people already displaced, whether in Ukraine or across its borders.<sup>55</sup>

Multiple military, diplomatic, and economic measures likewise have been rolled out to force Russia's hand to halt its invasion of Ukraine. Ukrainian president Volodymyr Zelenskyi has been requesting the West to help "close the sky," or to provide military assistance to protect Ukraine's airspace from Russia's shelling.<sup>56</sup> However, these have failed to slow down Russia's aggression on Ukraine, and are having negative impacts on allied countries participating in these measures. Rather, these have only resulted in gradual shipments of military equipment that falls far short of providing full protection to Ukraine.

On one hand, third party countries fear that a harder stance by the West on Ukraine may be met by further Russian aggression that translates to a Third World War, which can harm their own security and economic interests.<sup>57</sup> This has led countries like India and China to take calibrated, business-as-usual approaches with Russia.<sup>58</sup> While Indonesia as 2022 G20 president has condemned Russia's aggression, it has not acceded to Ukraine's request for military assistance either.<sup>59</sup> Instead, it has taken the role of mediator. Indonesian President Joko Widodo visited presidents Putin and Zelenskyi to build peace between the two countries by urging Russia to stop the war immediately based on food security concerns, and invited Ukraine and Russia countries to attend the coming November 2022 G20 Summit.<sup>60</sup> Recently, Western leaders expressed their wishes of not wanting to see Russia win the war,<sup>61</sup> but could only foresee the termination of this conflict by the end of the year.<sup>62</sup> However, even the US, which has been disbursing approximately \$4.6 billion in security packages since the start of the war,<sup>63</sup> has started to resign itself to the potential this may not be enough in allowing Ukraine to defend its territorial integrity.<sup>64</sup>

---

<sup>52</sup> United Nations, 2022, "General Assembly Overwhelmingly Adopts Resolution Demanding Russian Federation Immediately End Illegal Use of Force in Ukraine, Withdraw All Troops," *GA/12407*, 2 March, <https://www.un.org/press/en/2022/ga12407.doc.htm>.

<sup>53</sup> Dan Sabbagh, 2022, "Ukraine's High Casualty Rate Could Bring War to Tipping Point," *The Guardian*, 10 June, <https://www.theguardian.com/world/2022/jun/10/ukraine-casualty-rate-russia-war-tipping-point>.

<sup>54</sup> The United Nations Office of the High Commissioner for Human Rights, 2022, "Ukraine: Civilian Casualty Update 27 June 2022," 27 June, <https://www.ohchr.org/en/news/2022/06/ukraine-civilian-casualty-update-27-june-2022>.

<sup>55</sup> BBC, 2022, "How many Ukrainian refugees are there and where have they gone?" 4 July, <https://www.bbc.com/news/world-60555472>.

<sup>56</sup> Reuters, 2022, "'Close the Sky over Ukraine,' President Zelensky Urges US Congress," *Radio New Zealand*, 17 March, <https://www.rnz.co.nz/news/world/463457/close-the-sky-over-ukraine-president-zelensky-urges-us-congress>

<sup>57</sup> Mike Lillis, 2022, "Pelosi Rejects Zelensky's Calls to 'Close the Sky' Over Ukraine," *The Hill*, 17 March, <https://thehill.com/homenews/house/598657-pelosi-rejects-zelenskys-calls-to-close-the-sky-over-ukraine/>

<sup>58</sup> Clifford Krauss, Alexandra Stevenson and Emily Schmall, 2022, "In Russia's War, China and India Emerge as Financiers," *The New York Times*, 24 June, <https://www.nytimes.com/2022/06/24/business/russia-oil-china-india-ukraine-war.html>

<sup>59</sup> Stanley Widiyanto, 2022, "G20 Host Indonesia Urges Zelenskyi, Putin to 'forge peace,'" *Reuters*, 29 April, <https://www.reuters.com/world/g20-host-indonesia-urges-zelenskiy-putin-forge-peace-2022-04-29/>.

<sup>60</sup> Bernadette Christina, Stanley Widiyanto and Christopher Cushing, 2022, "Indonesia President to Visit Ukraine, Russia on Peace-building Mission," *Reuters*, 26 June,

<sup>61</sup> Peter Walker, 2022, "Letting Russia Win in Ukraine Would be 'Absolutely Chilling', Says Boris Johnson," *The Guardian*, 27 June, <https://www.theguardian.com/world/2022/jun/27/letting-russia-win-in-ukraine-would-be-absolutely-chilling-says-boris-johnson> ; Zoe Strozewski, 2022, "Ukraine 'Must Win' War with Russia, Macron Says after Backlash for Remarks," *Newsweek*, 16 June, <https://www.newsweek.com/ukraine-must-win-war-russia-macron-says-after-backlash-remarks-1716571>

<sup>62</sup> 2022, "Russia Cannot and Must not Win this War,' Macron Tells G7 Leaders," *Radio France Internationale*, 28 June, <https://www.rfi.fr/en/international/20220628-russia-cannot-and-must-not-win-this-war-macron-tells-g7-leaders>

<sup>63</sup> U.S. Department of Defense, 2022, "Fact Sheet on U.S. Security Assistance to Ukraine" (press release), 1 June, <https://www.defense.gov/News/Releases/Release/Article/3049483/fact-sheet-on-us-security-assistance-to-ukraine/>

<sup>64</sup> Natasha Bertrand, 2022, "Biden Officials Privately Doubt that Ukraine Can Win Back All of Its Territory," *CNN*, 28 June, <https://edition.cnn.com/2022/06/28/politics/white-house-ukraine-projection/index.html>

## Concluding Thoughts

The problem of transborder food insecurity owing to the conflict in Ukraine presents a “wicked problem” which is by nature “complex, unpredictable, open ended, or intractable.”<sup>65</sup> The war budded in a period of higher food prices and reduced fiscal budgets, owing to previous bouts with COVID-19. Governments are thus less capable of providing income support to mitigate the impacts of rising food prices. A further risk is that hunger can feed into further conflict, raising the potential for further social instability driven by poorer segments of society with limited food access, especially should this coincide with climate disruptions in importing countries.

In the face of such wicked problems, the world is more likely to see further instability should the war fall into a protracted phase. Given challenges to offering stronger military assistance and imposing tougher economic sanctions, only incremental measures have been taken to mitigate the war’s impacts on food security. Indonesia recently brokered talks on food access among Ukraine, Russia, Turkey, and the United Nations, achieving the milestone of agreement on the principle of allowing the shipment of Ukrainian grains.<sup>66</sup> Moreover, the European Union recently granted candidacy status to Ukraine, as a symbol of the West’s support,<sup>67</sup> but this remains elusive within the next decades.<sup>68</sup>

However, the question remains of whether more can be done in putting an end to the war beyond economic sanctions which make Russia’s invasion costlier. Importantly, Ukraine was granted security assurance of its sovereignty and territorial integrity by Russia, the United Kingdom, and the United States in exchange for its nuclear arsenals as stated in the 1994 Budapest Memorandum.<sup>69</sup> Russia’s war in Ukraine and major powers’ jittery responses clearly undermine the credibility of such agreements and raise further questions on the prospect of international peace and security.<sup>70</sup>

At bottom, world leaders will need to earnestly consider putting an end to the war, against the ramifications of a potential global food crisis globally, while carefully weighing the consequences which can also be a significant destabiliser to their countries from economic, political, and societal perspectives.

---

<sup>65</sup> Brian W. Head and John Alford, “Wicked Problems: Implications for Public Policy and Management”, *Administration & Society* 47.6 (2015): 712.

<sup>66</sup> Beril Akman, Megan Durisin and Daryna Krasnolutska, 2022, “Ukraine Grain Talks With Russia Take Step Forward,” *Bloomberg*, 14 July, <https://www.bloomberg.com/news/articles/2022-07-13/turkey-says-initial-steps-made-toward-unblocking-ukraine-grain>.

<sup>67</sup> Jessica Parker, Joe Inwood & Steve Rosenberg, 2022, “EU Awards Ukraine and Moldova Candidate Status,” *BBC*, 23 June, <https://www.bbc.com/news/world-europe-61891467>.

<sup>68</sup> “Ukraine Bid to Join EU Will Take Decades Says Macron,” *BBC*, 10 May 2022, <https://www.bbc.com/news/world-europe-61383632>.

<sup>69</sup> David S. Yost, 2015, “The Budapest Memorandum and Russia’s Intervention in Ukraine,” *International Affairs* 91 (3): 505-538.

<sup>70</sup> Aldo Zammit Borda, 2022, “Ukraine War: What is the Budapest Memorandum and Why Has Russia’s Invasion Torn It Up?,” *The Conversation*, 2 March, <https://theconversation.com/ukraine-war-what-is-the-budapest-memorandum-and-why-has-russias-invasion-torn-it-up-178184>

## About the Authors

---

**Mr Jose Ma. Luis Montesclaros**, MPP is a Research Fellow with the Centre for Non-Traditional Security Studies (NTS Centre), S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University (NTU), Singapore where he is concurrently Ph.D. Candidate (International Political Economy). He is Co-Investigator of the Project “Enhancing Food Supply Chain Resilience and Food Security in ASEAN with Utilization of Digital Technologies”, in assessing digital technology adoption in ASEAN agriculture, to serve as a fact-base for future policy development to improve digital technology adoption in agriculture in Southeast Asia, together with the Economic Research Institute for ASEAN and East Asia (ERIA) and the ASEAN Secretariat. As consultant, he co-authored the World Bank’s ‘Bridging the Development Gap: ASEAN Equitable Development Monitor Report 2014’. He holds a master’s degree in Public Policy from the Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (ASEAN Scholar), and a BS Economics Degree from the University of the Philippines, Diliman.

**Margareth Sembiring** is a PhD candidate (International Relations) and an Associate Research Fellow at the Centre for Non-Traditional Security Studies (NTS Centre), S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore. She holds a master’s degree in International Peace and Security from the King’s College London where she was a Chevening scholar, and a scholarship-funded master’s degree in Defence Management from the Indonesian Defence University. Her current research at the NTS Centre focuses on environmental and climate change governance, especially in Southeast Asia. She is actively involved in the management of the NTS-Asia Consortium, a network of more than 30 member institutions that work on non-traditional security issues across Asia-Pacific, where she is currently serving as the manager.

## About the Centre for Non-Traditional Security Studies

---

The **S. Rajaratnam School of International Studies (RSIS)** is a think tank and professional graduate school of international affairs at the Nanyang Technological University, Singapore. An autonomous school, RSIS’ mission is to be a leading research and graduate teaching institution in strategic and international affairs in the Asia Pacific. With the core functions of research, graduate education, and networking, it produces cutting-edge research on Asia Pacific Security, Multilateralism and Regionalism, Conflict Studies, Non-Traditional Security, Cybersecurity, Maritime Security, and Terrorism Studies.



NTS Centre conducts research and produces policy-relevant analyses aimed at furthering awareness and building the capacity to address non-traditional security (NTS) issues and challenges in the Asia Pacific region and beyond. The Centre addresses knowledge gaps, facilitates discussions and analyses, engages policymakers, and contributes to building institutional capacity in Sustainable Security and Crises. The NTS Centre brings together myriad NTS stakeholders in regular workshops and roundtable discussions, as well as provides a networking platform for NTS research institutions in the Asia Pacific through the NTS-Asia Consortium.

For more details, please visit [www.rsis.edu.sg](http://www.rsis.edu.sg) and <http://www.rsis.edu.sg/research/nts-centre>. Join us at our social media channels at [www.rsis.edu.sg/rsis-social-media-channels](http://www.rsis.edu.sg/rsis-social-media-channels) or scan the QR code.