RESEARCH ARTICLE

A Review of Rice Tariffication in the Time of COVID-19: Rationale and Road to Rice Self-Sufficiency in the Philippines

David Michael M. San Juan
De La Salle University-Manila, Philippines
david.sanjuan@dlsu.edu.ph

Abstract: The Philippine government passed the Rice Tariffication Law (RTL) in 2019, despite a strong and united peasant opposition to rice industry liberalization, which the RTL facilitates and further accelerates. Amid falling Filipino farmers' incomes due to the deluge of imported rice, negligible milled rice price decreases for consumers, rising rice prices globally, and in the context of the COVID-19 pandemic that has already disrupted food supplies and is poised to cause continuing instability in the price of imports, this paper is aimed at reviewing recent rice tariffication policy literature. Such review will be a springboard in making a case in favor of RTL's reversal and presenting alternative policies towards prospective rice self-sufficiency in the Philippines. The paper contends that the RTL will only encourage the Philippines to rely on imports and also fail to make the local rice industry more competitive. Hence, the local rice industry must be supported rather than allowed to be gobbled up by liberalization, especially that the COVID-19 pandemic proved that countries cannot always rely on food imports. The paper prescribes drastic investments in agriculture and R&D, rural solar electrification, and promotion of more agriculture-oriented research focused on increasing yields, boosting productivity, and planting sustainably as feasible steps in the road to rice self-sufficiency.

Keywords: food policy, rice tariffication, rice industry, COVID-19 economy, Philippines

For all its capital region's First World pretensions, the Philippines is still a country of farmers. The country's population is "concentrated where good farmlands lie," and its rural population is still bigger than the urban population—with the latter pegged at 47.1% of the total population (Central Intelligence Agency, 2019). Writing for the government's think tank, the Philippine Institute for Development Studies (PIDS), Intal and Garcia (2005) emphasized that "(r)ice has been a pivotal political commodity…because of its importance as a staple food and calorie source for majority of the population…". The Philippine Statistics Authority (PSA, 2019a) pegs the number of Filipinos employed in agriculture at 10 million in 2018—a steady decrease from what is recorded in 2014–2017: 11.8 million, 11.29 million, 11.06 million, and 10.26 million—though a still sizable one-fourth of the total employment for 2018 (41.16 million). Hence,

any agriculture-related policy shifts—like the passage of Republic Act (RA) 11203 or the Rice Tariffication Law (RTL) – would be a source of contention and contestation in the academe, the policy realm, and beyond. Rice tariffication in the Philippines has precipitated the publication of at least a dozen journal articles or policy papers, countless social movement manifestos and organizational statements, a repeal-rice-tariffication petition backed by at least 50,000 signatures, and at least one repeal-rice-tariffication congressional bill.

Amid falling Filipino farmers' incomes due to the deluge of imported rice, the unrealized promise of low rice prices for consumers, rising rice prices globally, and in the context of the COVID-19 pandemic that has already disrupted food supplies and is poised to cause continuing instability in the price of imports, this paper is aimed at reviewing recent rice tariffication policy literature. Such review will be a springboard in making a case in favor of RTL's reversal and presenting alternative policies towards prospective rice self-sufficiency in the Philippines in favor of the side of globalization's "discontents" (Stiglitz, 2003) and to provide insights on "how the structure of society… should be changed in order to make human life as satisfying as possible" (Einstein, 2009). The need for a policy shift is backed by all ideological factions of the country's peasant sector, united in their opposition to RTL.

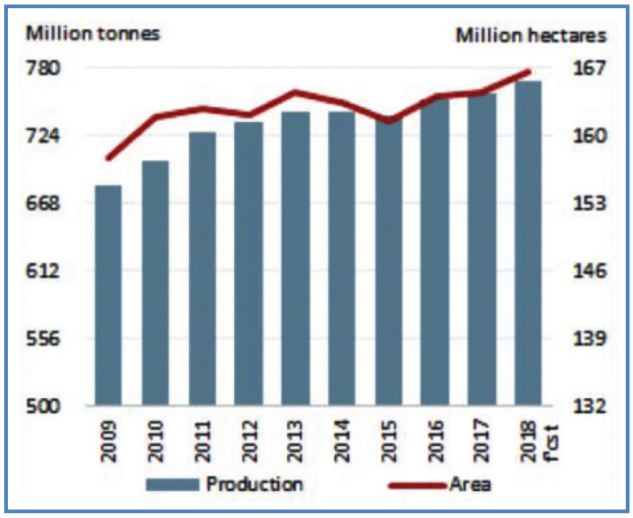
The most circumspect of observers would have cautioned against the early review of a law's implementation. Within the context of the Philippines' democratic system, where the lawmaking process is meant to be consultative, deliberative, and people-oriented, popular opposition to a law would have instantly warranted its review. When people's lives and livelihoods are also at stake, reviewing a contentious policy becomes a necessity rather than a mere academic exercise. In the tradition of public interest-oriented and socially committed research, the actual and continuing adverse effects of a law on a significant segment of the populace cannot be ignored.

In the early months of RTL's implementation, farmers' incomes drastically fell as rice tariffication caused *palay* (harvested, unmilled rice) prices to drop to merely 7 pesos per kilogram (Fenol, 2019; Inquirer Northern Luzon, 2019; San Juan, 2019). Such farmgate price is "much lower than production costs" pegged at over 12 pesos per kilogram (Rivas, 2019. In the last months of 2020, *palay* prices are still in a downtrend, and authorities have "recorded the lowest *palay* rate in recent memory" at 10 pesos per kilogram in November 2020 (Ocampo, 2020). *Palay* prices were so low in 2020 that Samahang Industriya ng Agrikultura/ Agriculture Industry Organization (Sinag) was compelled to appeal to the government for a 36-billion peso aid, warning that "(t)he low prices of *palay* means that our farmers will not be able to recoup their farm expenses during this cropping period, and may force them to stop planting palay for good" (Arcalas, 2020). An early January 2021 report remarked that "(w)hile palay prices are beginning to climb, the rates are still below the ideal buying price set by the National Food Authority at P19 a kilo" (Ocampo, 2021). Low prices make it all the more difficult "to convince the youth and adults in the rural population to go into rice farming" (Palis, 2020).

Comparing PSA's (2019b) data for 2nd week of February 2019 (when RTL was passed) and 3rd Week of December 2020 (the latest available official statistics as of this writing; PSA, 2021), the average retail price of well-milled rice dropped from 44.75 pesos per kilogram to 40.93 pesos per kilogram—a measly price difference of 3.82 pesos per kilogram. On the other hand, the average retail price of regular milled rice dropped from 41.09 pesos per kilogram to 36.17 pesos per kilogram—a measly price difference of 4.92 pesos per kilogram. In the same period, farmers suffered from the falling *palay* farmgate prices, which plummeted from 19.63 pesos per kilogram to 16.24 pesos per kilogram—a loss of 3.39 pesos per kilogram. The actual buying price of *palay* in some provinces is even below official farmgate prices. Consumers gained only slightly more than what farmers lost, and the negligible price difference is equivalent to merely 136 to 175 pesos worth of monthly savings (author's computation based on the average Filipino family's weekly rice consumption as reported by PSA in 2010). Such gains have been wiped out as the pandemic brought additional monthly expenses estimated at 2,448 to 5,988 pesos per family (San Juan, 2020a). Premium rates for SSS (social security system) and PhilHealth (national health insurance) also rise annually. Runaway inflation rates further obliterate consumer gains from RTL. The Kilusang Magbubukid ng Pilipinas/Peasant Movement of the Philippines (2021) pointed out that "(i)n December 2020, the inflation rate increased to a 21-month-high 3.5 percent. For the whole of 2020, the

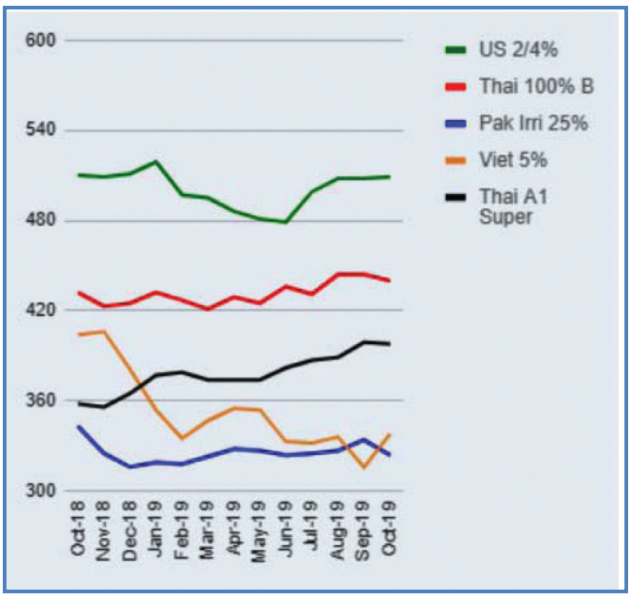
annual inflation of food and drinks was at 4.8%, pork products at 10%, vegetables at 19.7%, 6.3% in fruits, 3.1% in fish products, and 8.3% in transportation" . Even a government-published study admitted that "(t)ariffication causes a slight increase in income poverty, by 0.56 percentage points annually in 2019-21, and again in 2022-24… poverty gap and squared poverty gap both increase…" (Briones, 2020). Such negative effect on income poverty—projected to last for years—is observable in rural areas where rice farmers are. The pandemic has only exacerbated their plight as they face further reductions in income or disruptions in regular work/livelihood routines like almost everyone else.

Compelling reasons for retaining and pursuing rice self-sufficiency as a pillar of food security in contrast with RTL's focus on bringing in supposedly cheap imports abound. Firstly, in achieving genuine food security, a strong domestic rice sector is necessary, as imports will not always be available, considering that global supplies (Figure 1) and prices fluctuate (Figure 2) due to international crises, calamities, and the like. As shown in Figure 1, although global paddy production is on the rise, it must be noted that it fluctuated in 2015. Such fluctuations can happen again. Overall, the soaring trajectory of the FAO (Food and Agriculture Organization) all-rice price index should also caution countries against relying solely on imports (Figure 3).



Source: FAO, 2018.

Figure 1. Global Rice Paddy Production and Area



Source: FAO, 2019a.

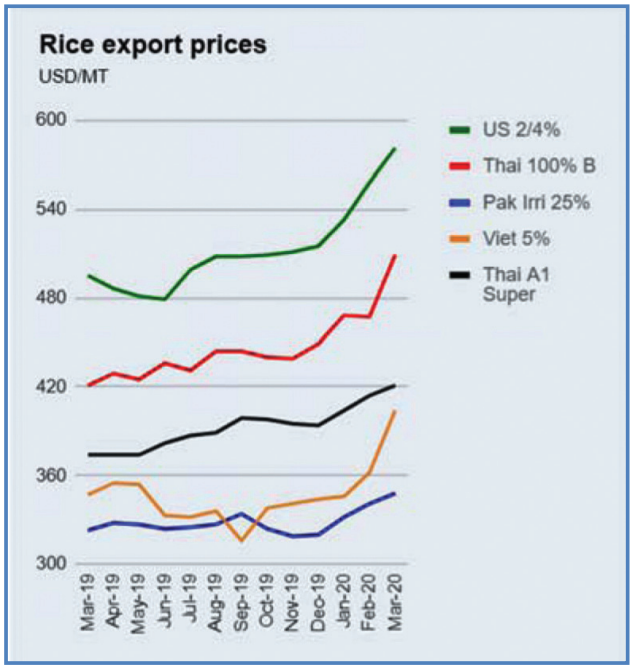
Figure 2. Rice Export Prices (Oct. 2018 to Oct. 2019) in U.S. Dollars/Metric Tons

Source: FAO, 2018.

Figure 3. Volume of Global Rice Exports vis-à-vis FAO All Rice Price Index

The COVID-19 global pandemic is a recent example of an unexpected occurrence that is now affecting both rice price and supply. Statistics from FAO's All Rice Price Index (FAO, 2020) showed rice export price hikes from February 20 to March 20 (Figure 4) for U.S., Thai, Pakistani, Vietnamese,

and Thai rice, the latter date being nine days after the World Health Organization's (WHO) declaration of COVID-19 as a pandemic (WHO, 2020). Vietnam, Thailand, and Pakistan are the Philippines' major rice import sources ("More than half of Philippines' 2020 rice import orders yet to be delivered–Minister," 2020; Arcalas, 2019a).



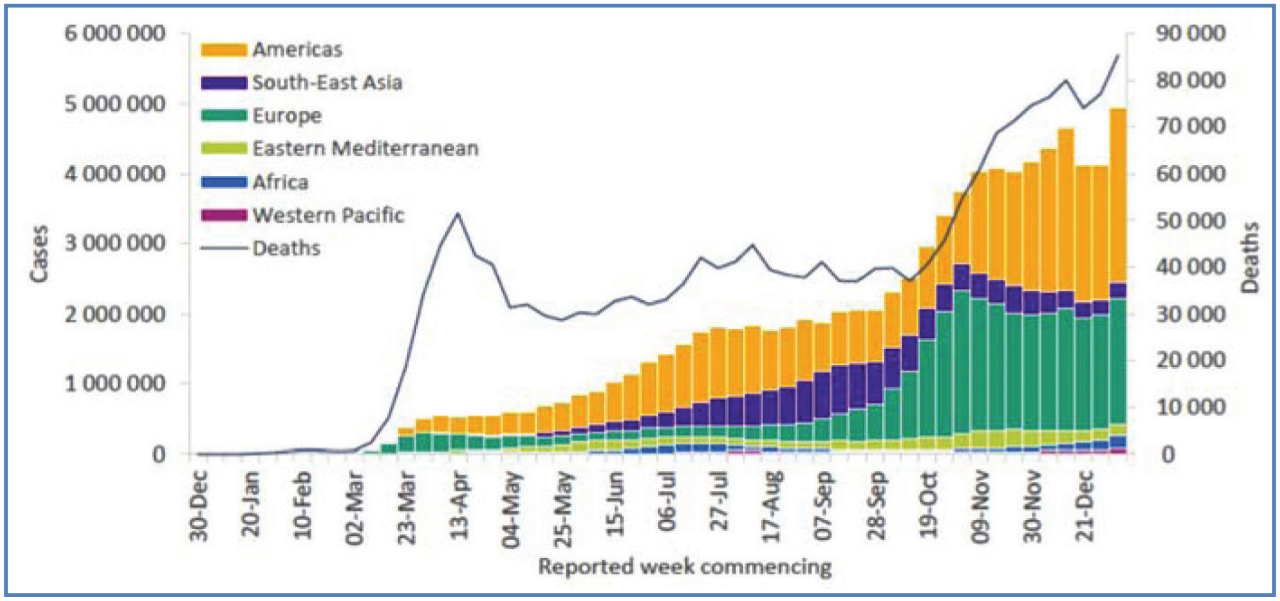
Source: FAO, 2020.

Figure 4. Rice Export Prices (March 2019 to March 2020) in U.S. Dollars/Metric Tons

The corresponding FAO report noted the immediate impact of the pandemic on prices: "The FAO All Rice Price Index (2002-2004=100) rose for the third successive month in March 2020, reaching 232 points, up 1.7 percent from February and 4.7 percent above its year-earlier level...Although currencies also depreciated in other suppliers, their influence on prices was overshadowed by concerns over the COVID-19 pandemic. These unleashed a stockpiling rush by consumers and traders" (FAO. The report adds that "(i)n Viet Nam, which witnessed the sharpest monthly price rise, the stockpiling exacerbated upward pressure on prices exerted by a fast pace of sales earlier in the year" prompting it "to temporarily stop signings of new export contracts…expectations of importers turning to Thailand to refurbish reserves provided a further boost to prices," and warns of "logistical constraints posed by quarantine measures" (). Writing for the United States Department of Agriculture (USDA), Childs (2020) gave a summary of the medium-term and even potentially long-term effects of the pandemic on rice supply: "Global exports in 2020 are further being limited by export bans and restrictions recently enacted by several Southeast Asian exporting countries to ensure adequate supplies for their domestic market amid the outbreak of the COVID-19 virus. These exporters have also seen their supplies tighten due to the adverse impacts of severe drought on their rice production. Although India, the world's largest exporter, has not banned exports, its 21-day lockdown…and the resulting labor shortage, which has hindered the movement of rice to ports and onto ships, has also halted traders from signing new contracts" (p. 7).

Current supply problems could worsen as the pandemic's impact deepens on production, transportation and logistics, and distribution channels as countries "carefully strategize how to ensure their own food supply, not only to get through the pandemic but also to control inflation" (Amanta, 2020). A World Food Programme/WFP report (Husain et al., 2020) explained how "COVID-19 is unfolding from a global health into an economic emergency – and could further unravel into a food security emergency if supply chain disruptions lead to panic buying and anxiety starts to rule global food trade". Global COVID-19 cases are still soaring (Figure 5), and the pandemic's economic impact is proving to be of long-term nature. Countries will have no recourse but to seek food self-sufficiency as import sources restrict exports to prioritize domestic needs. Balié and Valera (2020a) projected that the "potential impact of export bans on the world reference price of rice" range from a price hike of 19% ($84 per metric ton) to an increase amounting to 52% ($230 per metric ton) from the base level, and can even reach historic 2008 crisis levels.

Early in 2021, the Philippines' Department of Agriculture (DA) admitted that the global food supply is tightening due to the pandemic (DA, 2021). Pandemic-related setbacks and disruption in the global food supply will persist as new, more infectious COVID-19 strains have been detected (Hernandez & Cervantes, 2021; Fox, 2021; Mueller, 2021), pandemic deaths are still piling up, and the availability of vaccines is no panacea as "(t)he trajectory of vaccine deployment… will be determined by national competition and business profits, not by human need and cooperation"



Source: WHO, 2021; Unbound Medicine, Inc., 2021

Figure 5. Global COVID-19 Epidemic Curve - Cases & Deaths in WHO Regions From December 30, 2020 to January 12, 2021

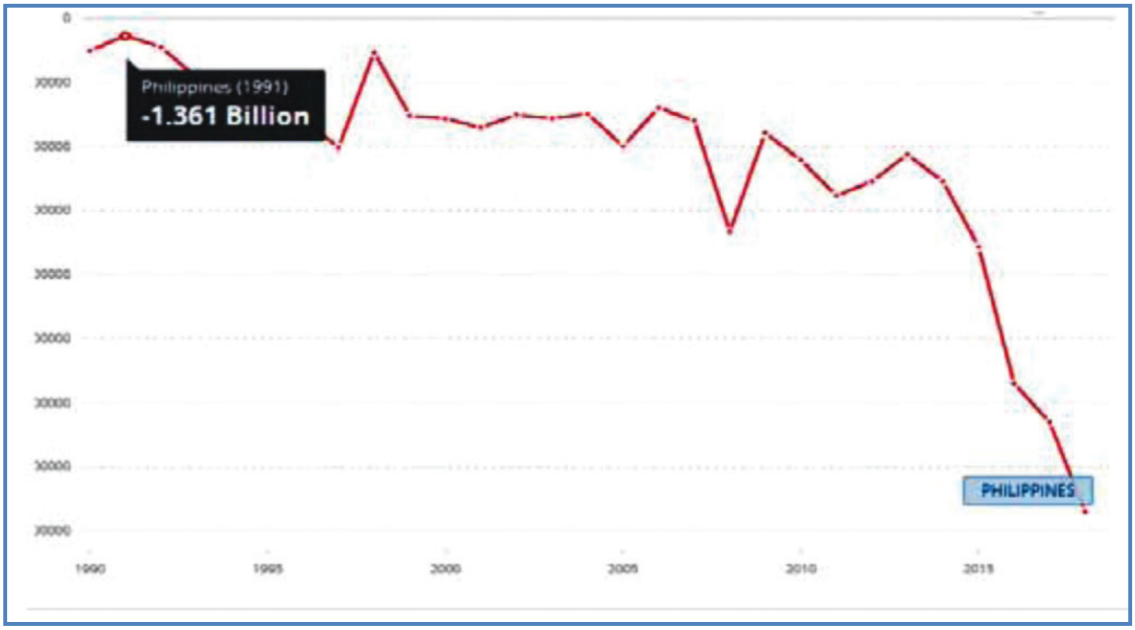
under contemporary capitalism (Lapavitsas, 2021), where rich countries hoard COVID-19 vaccines and "elsewhere, the pandemic may keep killing for years" (Bengali & Linthicum, 2020).

Unpalatable pandemic realities will be worse for the Philippines under an administration of "blunders" (Heydarian, 2021) and "delays and missteps" (Robles & Robles, 2020), failing to contain the pandemic, refusing "to give meaningful aid," and lacking budgetary priority for the public health crisis (IBON Foundation, 2020), aggravated by its debt binge, for which it now has the notoriety of breaking all recent regimes' records, with the country's debts reaching 10.1 trillion pesos as of November 2020 (latest data available in the Bureau of Treasury website as of January 19, 2021; https://www.treasury.gov.ph/?page_id=12407), up from a pre-pandemic level of 7.7 trillion pesos in 2019. Despite such accumulation of new huge debts, the World Bank expects the "Philippine economy to recover slower" than its "peers" (Rivas, 2020). It will be negatively affected by "further waves of COVID-19…in addition to natural disaster shocks," in a vicious cycle of "new bouts of infection cases" (World Bank, 2020, p. 10) and "stricter containment measures, which could dampen economic activities" (World Bank, 2020, p. 45).

Secondly, vis-à-vis food sovereignty, reliance on imports is not a very good policy in an increasingly volatile, uncertain, complex, and ambiguous world (Sharif & Irani, 2017). Thirdly, with regard to the country's weak currency, evident in the annual average of 52.6614/per dollar rate in 2018 (Central Bank of the Philippines, 2019) and negative balance of payments standing—a constant hemorrhaging of foreign currency (Figure 6), importation is generally not preferable. Fourthly, in the name of sustainable development, as importation means a higher carbon footprint due to maritime transportation/shipment that is now a major global carbon dioxide contributor (International Maritime Organization, 2015; Trimmer & Godar, 2019), local production should still be prioritized. With the current administration's ill record in responding to the pandemic and recent disasters (Novio, 2020; Buan, 2020; World Bank, 2020), the Philippines should really worry about extreme climate change more.

Methods

At least seven researches on rice tariffication (Tobias, 2019; Cororaton & Yu, 2019; Perez &



Source: World Bank, 2019

Figure 6. Net Trade in Goods and Services (Balance of Payments) in Current US$ From 1990-2018

Pradesha, 2019; Navata, 2017; Mendoza & Torres, 2019; Briones, 2012; Guzman, 2019) were closely surveyed for this paper. Some papers were published soon after the manuscript was submitted for review (Balié et al., 2021; Briones, 2019), but they either echo the same data, analysis, or take the same stances as the surveyed literature; mention RTL only in passing (Manangkil et al., 2020; Bautista, 2020; Atienza, 2020; Mendoza & Jaminola, 2020); or tackle it within the context of revenue generation (Alipio, 2020). Nevertheless, some of these newer studies were also cited (Balié & Valera, 2020b; Briones, 2020; Bacud et al., 2019; Montesclaros, 2019) whenever they presented unique points that can serve as springboards in elaborating on the current paper's contentions. Overall, this paper's literature review employed an analysis of points of convergences and divergences in literature as a springboard in discussing and filling the gaps.

Results

Tobias (2019) identified "lower retail prices for consumers" as among the "positive effects of rice tariffication," through "possible savings for the consumers as it allows no limit in terms of the volume of imports which will eventually stabilize prices." Perez and Pradesha's simulations (2019) showed that "with a 35% tariff policy…consumers are to gain by US$50.71 billion for the 20-year period 2020–2040" (p. 7). They also asserted that at 35% tariff rate, "rice liberalization encourages the importation of rice into the country, which in turn pushes down the domestic prices of rice by 26 percent" and explains that this will be beneficial to consumers because "rice constitutes 20 percent of consumers' food budgets" (p. 5).

Navata (2017) remarked that "rice tariffication will eliminate the market distortions that currently affect the supply and demand of locally produced rice…" and notes that such policy "could lower farmgate prices by PhP4.56 per kilogram and retail price by PhP6.97 per kilogram" (p. 4). He also claimed that "with the increased rice supply and lower rice prices, tariffication essentially reduces poverty by increasing the disposable income of poor households" and concludes by backing tariffication that "offers equivalent protection to its producers as well as a schedule of reduction that would eventually improve the availability and affordability of rice to consumers" (pp. 6-8). Similarly, Mendoza and Torres (2019) pointed out that by "setting these tariffs at a level that allows slightly more importation,

the additional supply in the market is projected to decrease rice prices by P2 to P7 per kilo" (p. 4). They expected rice tariffication "to benefit consumers – providing a boost to their real incomes... At least one estimate suggests that almost 4 million Filipinos could be lifted out of hunger due to this reform" (p. 4). Like the aforementioned papers, Briones (2012) said that tariffication, especially with progressively reduced tariffs (from the baseline 50% to 35%), would cause "cheaper foreign rice to be reflected in the retail price… From a baseline of PHP 35.7 per kilogram, the retail price declines to PHP 33.0 per kilogram (in fixed base year prices)" (p. 5).

Meanwhile, Cororaton and Yu (2019) noted that full liberalization lowers "import price of rice by 32.9%, which leads to 113.3% increase in rice imports," decreases output prices of paddy and rice, and reduces "consumer price of rice by 14.7%" (p. 176). Their simulations also showed that rice tariffication at 48.9% tariff rate (proceeds of which are allotted to "cash transfer" to vulnerable sectors) with "rice imports at the previous quota level" (Cororaton & Yu, 2019, p. 176). will reduce the import price of rice by only 0.13% and will also actually slightly cause the consumer price of rice to rise by 0.26%. The same study pointed out that "gradual reduction in tariff" with "cash transfer" will result to lower import price of rice by 8.13%, and consumer price of rice by 2%." Hence, in Cororaton and Yu's article, price movements will depend on what form of liberalization is adopted. Parallel with Mendoza and Torres' assertions, Cororaton and Yu's simulations showed that "retaining the protection on domestic paddy production through tariffication and earmarking the revenue generated as a cash transfer to poor households will reduce poverty considerably by four million in 10 years" (p. 180). Meanwhile, it is interesting to note that one quantitative study (Bacud et al., 2019) offered a relatively different perspective, as it found out that "imposing tariffs results to increasing wholesale prices as well as farmgate prices," which "would mean that more consumers will shoulder price increases as brought by tariffication" (p. 79).

Guzman's (2019) policy brief is the only anti-tariffication paper among the surveyed literature; it strongly criticized RTL as "it will worsen the jobs crisis and poverty". Guzman (2019) explained that "…the law imperils the more important dimension of accessibility – which is people having adequate incomes and livelihood – by subjecting the Filipino rice farmers to undue competition with subsidized imports". Guzman's criticism is buttressed by the peasant sector's declaration (Federation of Free Farmers et al., 2019) on the vastness and importance of the country's rice sector which "accounts for around 20% of the gross value added (GVA) of Philippine agriculture…employs 2.5 million households, broken down into 2.1 million farmers, 110,000 workers for post-farm activities and 320,000 for ancillary activities" and supplies "90% to 95% of the country's rice requirements. The welfare of rice farmers…is therefore crucial in ensuring the food security, economic well-being and political stability of the country".

Cororaton and Yu (2019) remarked in their conclusions that "the influx of imported rice will definitely affect the income of rice farmers" (p. 180). Perez and Pradesha (2019) computed that with a 35% tariff rate, "producers are set to lose US$29.73 billion…for the 20-year period 2020–2040," and in all tariff scenarios, "producers lose" (p. 7). Mendoza and Torres' paper (2019) pointed out that the policy could "put pressure on some farmers' incomes" as "they face stiffer competition from imported rice," especially in provinces such as Occidental Mindoro and Negros Oriental where, as in similarly uncompetitive provinces—"some farmers may need safety nets" (pp. 3-5). Even in seemingly competitive regions, many farmers complain that RTL caused *palay* prices to drop (Fenol, 2019; Inquirer Northern Luzon, 2019; San Juan, 2019).

Briones' (2012) projections showed that the reduction in the tariff rate leads to a fall in the producer price owing to availability of cheaper imported rice. The producer price is already falling under the Reference scenario [50% tariff rate]…From PHP 14.4 per kilogram, the producer price falls to PHP 13.5 per kilogram (again in fixed baseline prices). Under Tariff reduction scenario, the fall in the producer price is somewhat faster, falling to PHP 13.25 per kilogram. This is 1.9 percent below the producer price under the Reference scenario (pp. 5-6).

Briones (2012) further explained that the negative impact of tariffication on producer prices (and consequently, on farmers' incomes) "accounts for political resistance to tariffication" (p. 6). He downplayed producers' losses by noting that "together with gains from consumers," these "are relatively small" (2012, p. 6). Meanwhile, Tobias' (2019) paper noted that the law "lacks safety nets for Filipino farmers".

Beyond the typical discussion on the policy's impact on farmers (which was a feature of other available literature), Tobias' (2019) paper also discussed more negative effects of tariffication on various sectors: (a) lack of safety nets for Filipino farmers; (b) displacement of rice farmers, NFA employees, 90,000 accredited NFA retailers, 6,600 registered rice millers with 55,000 workers; (c) shortage of rice by-products such as rice bran (used for making animal and aquaculture feeds), and *binlid* or brewer's rice (used for alcoholic drinks), possibly leading to price hikes of pork, chicken, and beer; (d) shortage of rice hull ("used as fuel for biomass furnaces" and "as a binder for cement and land fillers"); and (e) resurgence of the rice trade cartel, which would push more people to go hungry. Both Tobias (2019) and Guzman (2019) pointed out that there are no guarantees that unlimited rice imports would mean lower retail rice prices, with the former warning that reliance on imports makes "the country vulnerable to higher world market prices as well as to rice production and export decisions of other countries." Tobias (2019) noted that Vietnam, India, and Pakistan "restricted their rice exports amid rising global rice prices" in 2008, and Guzman (2019) emphasizes that "the global rice market is narrow. Only 9.7% of global production ended up in the global market in 2018," with rice exporting countries consuming 90% of their production, in this world of uncertainties where "nothing replaces the role of stable local production in moderating the impact of emergencies." Guzman (2019) provided evidence on how the rice cartel took advantage of supposedly cheap rice imports: "…global rice has become cheaper due to increased production and exports after the 2008 crisis, but this did not translate to cheaper local prices… what the Philippine market had from 2011 to 2014 was record increase in smuggled rice and escalating rice prices at an annual average of Php1.20 increase per kilo." Only Tobias and Guzman acknowledged the strong possibility (if not continuing reality) of private cartel abuse under RTL.

Furthermore, Guzman (2019) provided broad counterpoints to the government's claims on cheaper global rice. On historical Thai and Vietnamese rice prices, Guzman asserted that "despite fluctuations and recent global trends showing that export prices are going down, global rice prices have actually increased since 2016" (2019. Using government statistics, she further remarked that "the landed cost of imported rice is not dramatically lower" as in February 2019 when the landed cost yielded "a still more expensive imported rice ranging from Php44.08 to Php44.75 per kilo" (2019). On tariffication's impact on peasants, Navata (2017) digressed with the rest by claiming that tariffication is also beneficial to small rice farmers because they "are net buyers of the commodity" (p. 6). Moreover, his paper noted that "at 35 percent tariff, which is the current rate under the Association of Southeast Asian Nations (ASEAN) Free Trade Area, local farmers would have price advantage..and about 35 of the country's rice producing provinces will be able to compete directly with their Vietnamese and Thai counterparts" (p. 5). The 35% tariff rate is now proven insufficient to maintain what Navata called as local farmers' "price advantage," with even Senator Imee Marcos (2019), a very pro-government legislator, joining the clamor for a higher tariff rate (500% to 800%). Unfortunately, just this May 15, 2021, instead of hiking the tariff rate on imported rice then (40%), President Rodrigo Duterte reduced the tariff rate to 35% by signing Executive Order No. 135 (Office of the President, 2021).

Tobias (2019) emphasized that "the core concern of the government should be on how to prevent 2.4 million rice farmers and farm workers from getting poorer." Beyond the law's 10-billion annual Rice Competitiveness Enhancement Fund (RCEF), Tobias also concluded that the DA should "strongly support the local rice industry" and that in the law's IRR, "research and development should be highlighted since it has been proven to help develop improved technologies and increase farmers' income." On farmers' post-RTL income levels, Cororaton and Yu (2019) highlighted "the importance of identifying the means of distributing the collections from rice tariffication," note that the "Philippine government should make sure that the cash transfers are targeted towards the rice farmers," (p. 180) and emphasize achieving both food security and poverty reduction.

Perez and Pradesha (2019) had "enhancing the competitiveness of the rice sector as an import-substitution industry" (p. 11) in their recommendations. They would want tariffication to help the domestic rice industry to develop and eventually be able to replace importation, as much as possible, prescribing "investment in agricultural R&DE…to develop climate-resilient technologies and increases in yields," engaging not only in "technology development, but also in technology transfer and adoption," investing

in "irrigation expansion" and "strengthening ancillary services to agricultural production…to enhance productivity, reduce post-harvest losses, and lower marketing costs" (p. 11). Navata (2019) listed almost the same policy recommendations while favoring importation by concluding that food security should not be equated with food self-sufficiency. Briones (2012) also supported tariffication and remarked—in contrast with the fears expressed by Tobias and Guzman—that "the best reason to tariffy is (to) improve governance and the investment climate for the rice supply chain. Tariffication eliminates a system that is inherently prone to rent-seeking and co-option of public institutions" (p. 6).

Echoing Briones' pro-tariffication stance on the basis of hoping to weaken if not eradicate the politics behind rice importation schemes, Mendoza and Torres (2019) emphasized that "the agricultural sector institutions need to depart from years of patronage-based influence" and encourage the government to develop "effective financing mechanisms and safety nets that could assist farmers to transition successfully" through "stronger cooperatives," "more efficient land agglomeration," and "mechanization and technology and financing access" (p. 8). They conclude that as "partners," "farmers should be given a stronger voice" (p. 10).

Sharing some general conclusions with Mendoza and Torres (2019)—especially on peasant empowerment—and emphasizing that food self-sufficiency is rooted in other structural socio-economic reforms that the country needs, Guzman blasted RTL as a means "to further justify open trading system and liberalization of traditional sectors such as agriculture" which "violate the people's right to food, their right to access resources…such as having free land to till and state support as well as their right to produce food of their own choice and decisions" (2019). She added that RTL "eventually abrogates…the people's inalienable right…to participate in, contribute to, and enjoy development processes."

Overall, most of the literature analyzed clearly claimed that rice liberalization or tariffication will be generally good to consumers as imported rice is expected to be cheaper even with tariffication. Almost all of the literature reviewed also favor tariffication as a policy. On the impact of rice liberalization on farmers, almost all surveyed researches concede that this policy is generally bad for local peasants. All papers—despite majority of the reviewed literature's support for tariffication—pointed out that the law's adverse effects on local farmers will have to be cushioned by strong measures. The available literature—except for Tobias' and Guzman's short discussions on cartels—did not discuss how foreign rice exporters and local corporate interests will benefit much from the rice tariffication policy. Such discussion is necessary to shed light on the overall pros and cons of the law on a macro-level.

Other than mentioning countries where the Philippines imports rice from, the surveyed literature failed to offer comparative perspectives on past and parallel tariffication/liberalization experiences of other countries too. Finally, the surveyed literature also lacks clear plans for the long-term competitiveness of the domestic rice industry, which, arguably, is an essential element of food security—a declared State policy. Even a more recent study on RTL's domestic and international impacts (Balié & Valera, 2020b) only mentioned salient policy prescriptions in its conclusion, but without any elaboration. To complement such positive suggestions, this paper will also outline a plan towards rice self-sufficiency that could help Philippine policymakers to implement the State's own objectives stated in the RTL's declaration of policy: "…to ensure food security and to make the country's agricultural sector viable, efficient and globally competitive" (Rice Tariffication Law, 2019, Section 2).

Discussion

On foreign interest on RTL, nine mostly Asian countries supplied the Philippines' rice imports (Santiago, 2019). At least one recent study admits RTL's "primary beneficiaries" are rice exporters in Vietnam and Thailand" (Balié & Valera, 2020b, p. 16). Montesclaros (2019) emphasized that "the lifting of Philippine import quotas means that a new export market is opened up" for farmers and traders in "rice exporting ASEAN countries (such as Vietnam, Myanmar, Cambodia and Thailand)." The general manager of the Agricultural and Processed Food Products Export and Development Authority (APEDA) under India's Ministry of Commerce and Industry, S.S. Nayyar (2019), remarked that RTL "will provide an opportunity to enhance exports of Indian rice to the Philippines." An embassy dispatch attached to Nayyar's letter noted the policy's implications:

"Indian exporters would be able to export more rice to Philippines beyond this limit also." In contrast with India's subtlety, the American-Chamber of Commerce in the Philippines (AmCham) and other big business groups in the Philippines openly campaigned for the passage of rice tariffication and even published a joint statement on the issue (AmCham et al., 2019). This is not an expression of concern for consumers, as AmCham itself described its main purpose in its website: "the Chamber exists to serve the interests of Philippine and American businesses through the participation of members in promoting their long-term objectives" (AmCham, n.d.).

An Act Repealing Republic Act No. 11203 Otherwise Known as the 'Rice Tariffication Law' (2019), hinted at big business' long-term objective in the rice sector: "…Since the start of the year, 180 trading firms from the private sector have sought NFA's approval to import rice, with most of the applicants having no record of rice importation at all." An investigative report by Arcalas (2019b) cited sources who claim "that many of these farmers' groups do not have the capacity to import and are just 'dummies' for Metro Manila-based traders" . In a published interview ("Pre- and post-rice trade liberalization law, big traders gaming farmer groups," 2019), a rice industry insider explained the corrupt connection between rice imports and corporate profits:

> by tapping the allowed importation capacity of farmers' groups…big rice industry players secured more control of the stocks coming into the country. Hence, this allowed these big players to easily calibrate the release of the staple in the market to maintain high profits.

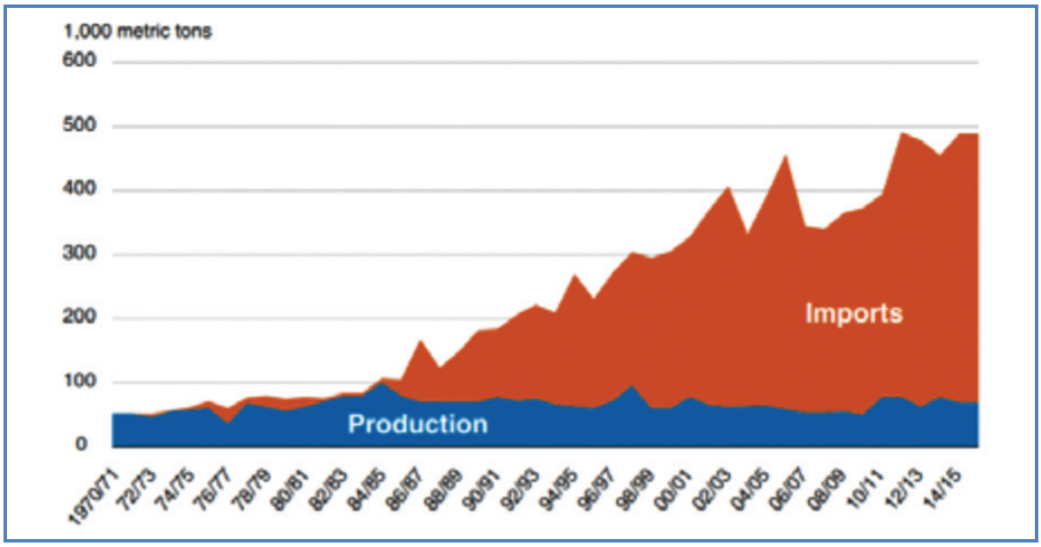
One curious case of importation is that of the Land Reform Farmers Association of Lambakin Multi-purpose Cooperative, which according to NFA data (2019a), was granted an import allocation of 7,000 MT. This cooperative was formed by land reform beneficiaries—farmers who are expected to be farming, but here, their organization was listed as a rice importer. Registered rice mills that are also registered as rice importers (NFA, 2019b) are more problematic, considering that they are supposed to mill rice rather than import milled rice and resell them. Beyond these small- and medium-sized enterprises, big corporate interests in rice importation must be scrutinized too. As per the Bureau of Plant and Industry's data, Puregold Price Club Inc. is the "leading rice importer in 2019" (Arcalas, 2021). Puregold Price Club, Inc.'s chairman is Lucio Co, "a personal friend" of the current Philippine president (Garcia, 2019). Nestor Ma's Davao San-Ei Trading Inc. is another big rice importer listed in the same year ("Co-ops, groups top rice importers under RTL," 2020). Ma has business links with the current president's family (Mangahas & Simon, 2019). Andrew Ng's River Valley Distribution, Inc. is also a bulk rice importer (Export Genius, 2019). . Ng supported at least one charitable institution linked to the president's political party (Abrematea, 2018). The possibility of big corporate rice importers gaining tax or duty exemptions should also raise alarm bells because Bayer Crop Science, an importer of hybrid rice seeds, was granted such status as proven by Department of Finance (2013) data that show it has imported worth 153.9 million pesos of rice (hybrid rice seeds) in 2013 and paid zero duties, despite the fact that its mother company Bayer Group earned a net income of 3,189,000,000 euros in the same year.

Comparative perspectives on past and parallel tariffication experiences of other countries are needed to ensure that the country's rice policy does good rather than harm the most, if not all, sectors in the Philippines. The experience of Haiti, a developing country like the Philippines then and now, can be instructive. The thesis "Impacts of trade liberalization policies on rice production in Haiti" (Altidor, 2004) provided ample lesson on this matter:

> The decline in rice production in Haiti corresponds directly with the trade liberalization that began during the mid-1980s. Before 1986, Haiti was self-sufficient in rice production even in the midst of low yields and traditional farming practices. An influx of rice imports from the United States priced lower than domestic rice has slowly displaced Haitian rice. Producers have found that they are unable to compete with the cheaper imported rice. The low tariffs on rice in Haiti prevent Haitian producers from being able to compete with lower priced imported rice…Since Haitian producers are not subsidized, Haitian producers are at disadvantage. (p. 2)

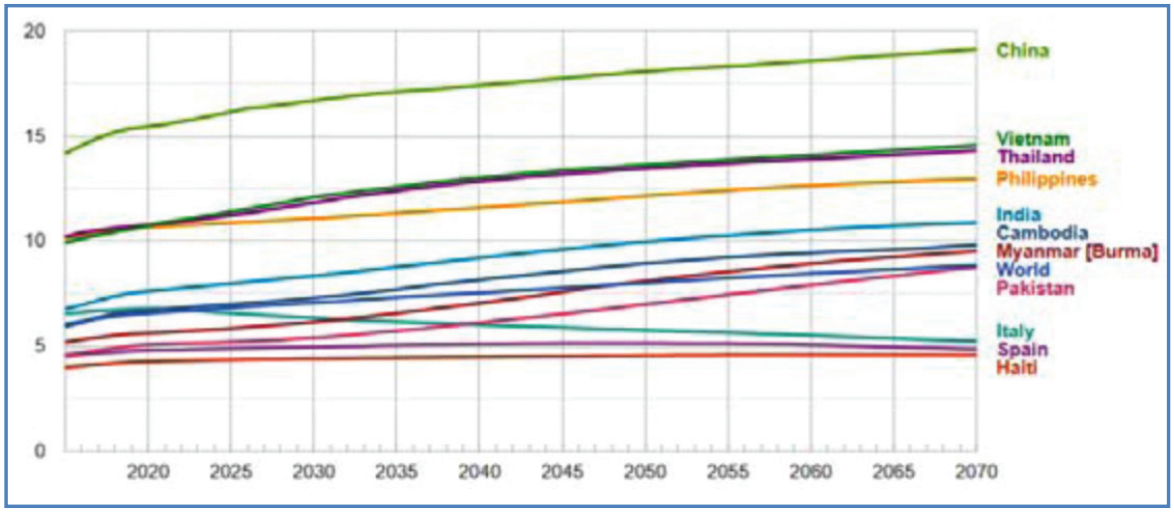
Although the Philippines' current tariff rates are still definitely higher than Haiti's, it must be emphasized that policymakers intend to reduce it towards prospective full liberalization slowly. It should also be noted that the exponential increase in the volume of Philippine rice imports after rice tariffication shows that the current tariff rates in the country are no longer enough to serve as a barrier for unlimited importation. The United States Department of Agriculture-Foreign Agricultural Services (2020) noted that "Philippine rice farmers struggle to compete with affordable imports from Southeast Asia…" and "forecasts that MY 20/21 rice imports will rise 27 percent to 3.3 million tons (p. 1)." The Federation of Chinese Chambers of Commerce and Industry Inc. has also supported moves to hike the tariff to even a 100% rate (Gonzales, 2019). Another senator claimed that "economists say 70% is the rate fair to local rice farmers" (Pangilinan, 2019). Haiti's present (low local production, high import volumes) could be the Philippines' future (Figure 7) unless the Philippines is able to make the local rice industry globally competitive even while suffering from the deluge of foreign rice imports.

The Philippines' prospective yield in agriculture



Source: Cochrane et al., 2016

Figure 7. Haiti's Rice Imports and Production (1970-1971 to 2014-2015)



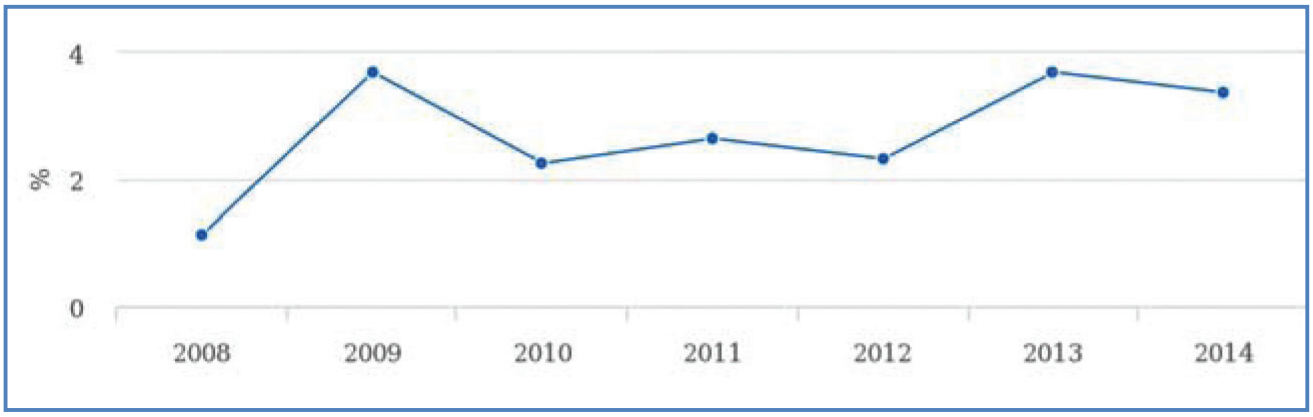
Source: Frederick S. Pardee Center for International Futures, 2019.

Figure 8. Projected Yield in Agriculture (Tons Per Hectare

vis-à-vis some of its major rice import sources paints a bleak picture of the country's future competitiveness (Figure 8). China has long been way above the Philippines' productivity in yield, whereas Vietnam and Thailand are projected to progressively outpace the Philippines (despite the fact that in 2015, their yield data can be statistically tied if rounded off, with 10.11 for the Philippines; 10.19 for Thailand; and 9.91 for Vietnam). That could mean that those countries are well-positioned further to increase their rice exports to an agriculturally sluggish Philippines. Meanwhile, it is shocking to note that despite the lower yield data of India, Cambodia, Myanmar, Pakistan, Italy, and Spain, these countries were still able to export rice to the Philippines. Such is the status of our rice industry's low competitiveness at this point.

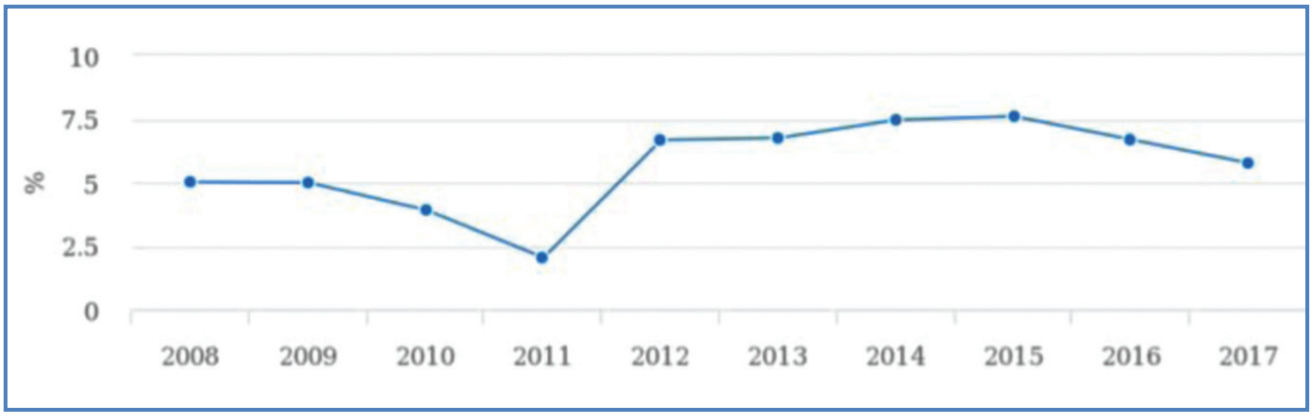
Catching up with China, Thailand, and Vietnam means seeking to mimic or replicate their policies in the agricultural sector, at the very least. One basic idea is to increase government expenditure for the agricultural sector. As per FAO data (Figure 9 and Figure 10), Vietnam's and Thailand's government expenditure on "agriculture, forestry, fishing" measured as "share of total outlays" are higher than the Philippines' (Figure 11) in the most recent year available. Although China's expenditure (Figure 12) is lower than the Philippines', it must be noted that such a seemingly minuscule percentage is big enough, as China's national budget is very big indeed.

Another way to catch up is to increase the research and development (R&D) expenditure and the number of R&D researchers for the Philippines. The World



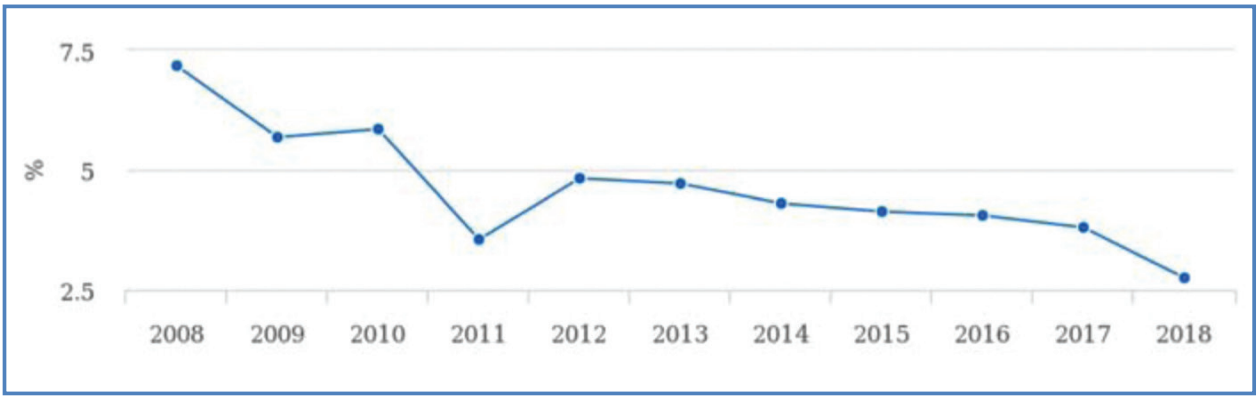
Source: FAO, 2019b

Figure 9. Agriculture, Forestry, Fishing (Central Government), Share of Total Outlays in Vietnam



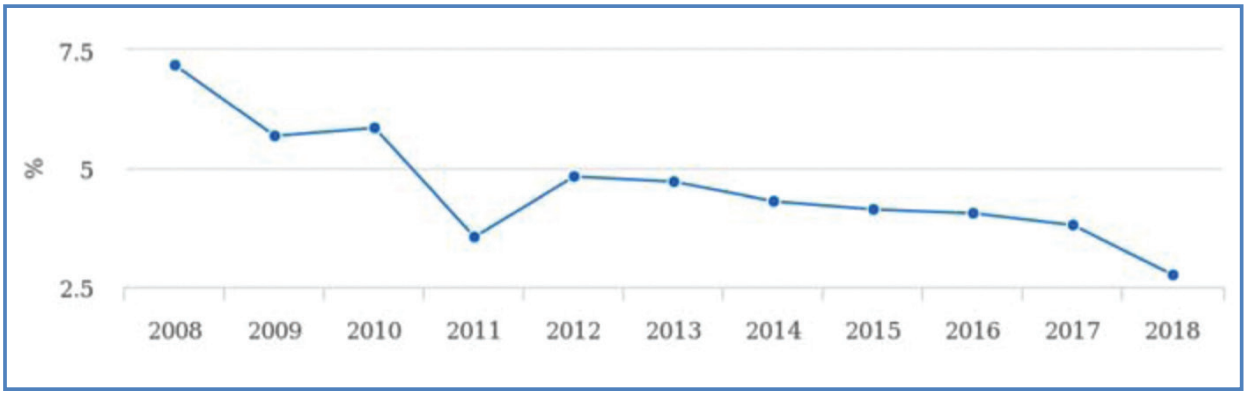
Source: FAO, 2019b

Figure 10. Agriculture, Forestry, Fishing (Central Government), Share of Total Outlays in Thailand



Source: FAO, 2019b

Figure 11. Agriculture, Forestry, Fishing (Central Government), Share of Total Outlays in the Philippines



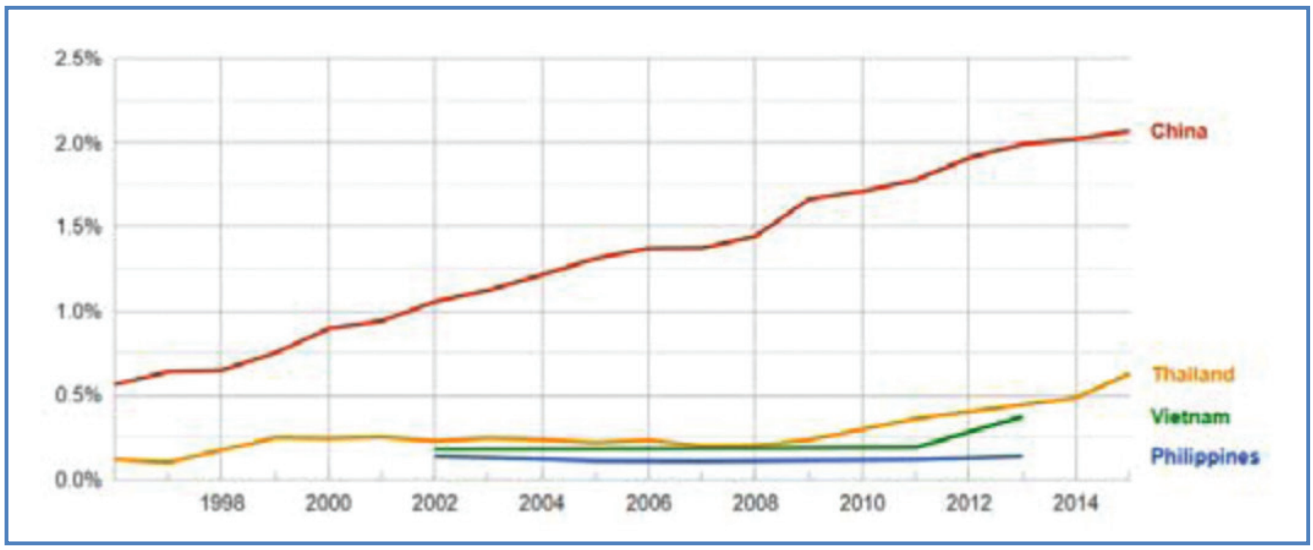
Source: FAO, 2019b

Figure 12. Agriculture, Forestry, Fishing (Central Government), Share of Total Outlays in China

Bank (2018a) adopted UNESCO's definition of R&D researchers as "professionals engaged in the conception or creation of new knowledge, products, processes, methods, or systems and in the management of the projects concerned". The data on the R&D expenditure (Figure 13) and the number of R&D researchers (Figure 14; no data available for Vietnam) show that the Philippines has a lot of catching up to do. Funding for R&D is necessary if the Philippines is to achieve the necessary technological leaps in agricultural innovation and infrastructure (and thus, possibly, avoid Haiti's fate).

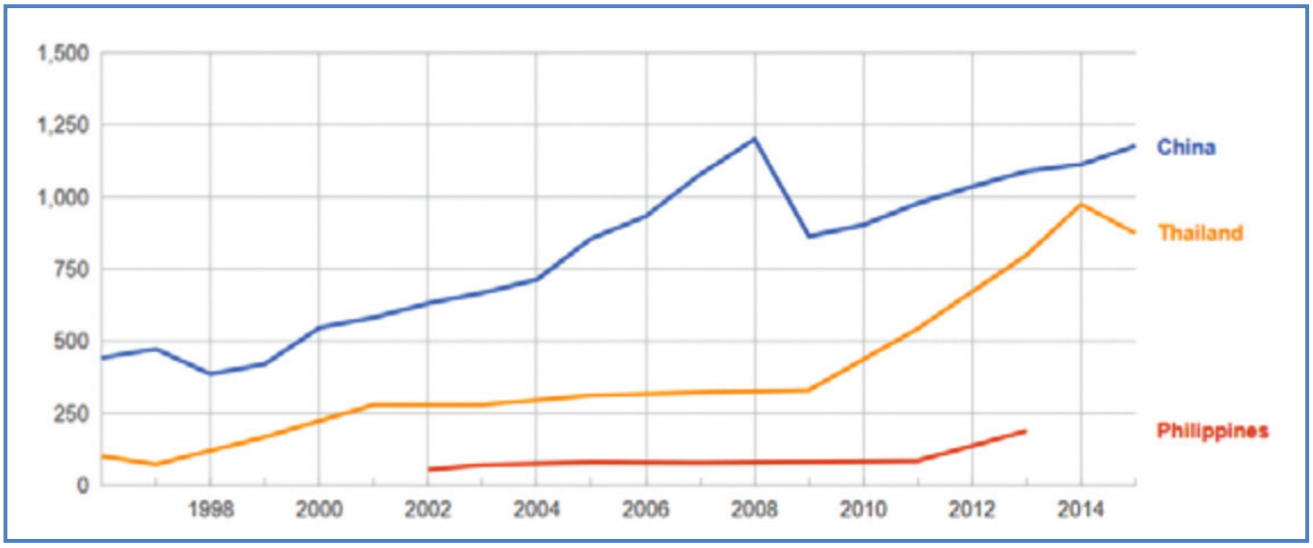
Related to expenditure, the government should analyze the necessary subsidy for the local agricultural sector, vis-à-vis other countries' subsidies. Economist Sonny Africa (2019), speaking for IBON Foundation, asserted that the 10-billion peso annual RCEF in the Rice Tariffication Law "is too little and too late" and "nothing compared to the estimated Php61 billion needed annually to truly develop domestic rice farming to be competitive, as proposed by House Bill 8512 or the Rice Industry Development Act of the Makabayan party-list bloc," especially that the country's "rice troubles are mainly due to long-standing government neglect of the agriculture sector" . He added that the country's RCEF is "much less than…US$1.1 billion annually that Vietnam supports its rice industry with, the US$4.4 billion of Thailand, the US$12 billion of India and the US$16 billion of Japan" (Africa, 2019). Furthermore, he said the RCEF

> is worth even less since it is only being given now that the domestic rice market has already been opened up. The government should have provided much more support for much longer and, especially, long before even considering opening up to cheap rice imports from abroad. (Africa, 2019)



Source: World Bank, 2018b

Figure 13. Research & Development Expenditure (% of GDP)



Source: World Bank, 2018a

Figure 14. Researchers in R&D (Per Million People)

In 2018 alone, Thailand allotted 61,564,000,000 baht (103,133,047,198 pesos) as cash subsidy for farmers, on top of "soft loan for farmer, farmer organizations and millers" (Poapongsakorn, 2019), dwarfing the Philippines' annual RCEF. It is in this context that the Haitian situation could possibly be the future Philippine scenario. The Philippines shares with Haiti that ignominious record of opening the rice sector right away, without moving towards making the domestic rice sector competitive first, at a time when the world's major rice producers still heavily subsidize their rice industry.

The Department of Trade and Industry's inclusion of "agribusiness" as among its five priorities in the "Comprehensive National Industrial Strategy" can be a positive starting point for a policy shift, as it acknowledged that "upgrading manufacturing

and integrating it with the agriculture and services sectors to promote strong forward and backward linkages can lay the foundation for the Philippine economy's structural transformation" (DTI, n.d.). Alongside Article XII, Section 1, & Article XIII, Section 8 of the Philippine Constitution and ideas from Lichauco (1986 and 1988), Salgado (1997), and Constantino (1979), the feasibility of crafting a more comprehensive industrial strategy that encompasses agricultural needs can be accomplished by reviewing the provisions on "rural industrialization" in the National Democratic Front of the Philippines' (NDFP, 2017) draft "Comprehensive Agreement on Social and Economic Reforms" (CASER) presented in peace talks with the Philippine government. The draft CASER supports "the improvement and development of agricultural production, such as in dairy, poultry and animal husbandry, in sugar, rice, corn," (NDFP, 2017, p. 47). It provides a framework for developing "manufacturing of agricultural inputs including organic fertilizers, pesticides and herbicides, tools, implements, and machinery," (NDFP, 2017, p. 47) and also enumerates areas where the NDFP thinks state resources should be harnessed, strikingly similar to those identified by Perez and Pradesha (2019). The draft CASER echoes DTI's declared strategy in hoping to "integrate all aspects of rural production, distribution, and processing to meet the needs of the people, local industries, and the domestic economy as a whole (NDFP, 2017, p. 47). Adopting such policies would help the country in swiftly catching up with more advanced agro-industrial countries. Rural industrialization could start from strong state support for agricultural mechanization, in which China's state-directed and state-subsidized program is instructive (Shuqi et al., 2019).

Assuming that the Philippines could still catch up with the major rice-producing countries, at least in terms of subsidies and expenditures, another helpful technological booster is the maximization of renewable energy, specifically solar energy, to literally power domestic agricultural mechanization/modernization. The Philippines' potential for further renewable energy development is very promising, as it is yet to maximize renewable energy in its energy mix (Figure 15).

The Philippines can potentially reap big benefits

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Indigenous Energy (KTOE)	60.24	61.42	60.31	56.61	56.62	52.43	53.86	50.92	50.15
Oil	2.23	2.01	1.61	1.51	1.81	1.39	1.29	1.07	1.00
Natural Gas	7.38	7.81	7.20	6.42	6.46	5.57	5.99	5.57	6.04
Coal	8.55	8.72	8.90	8.33	8.54	7.59	10.84	10.87	10.40
Hydro	4.73	5.77	5.86	5.54	4.84	4.21	3.70	4.13	3.92
Geothermal	20.80	20.43	20.25	18.36	18.86	18.52	17.44	15.24	15.04
Biomass	16.27	16.42	16.16	16.09	15.66	14.49	13.73	13.20	12.85
Wind	0.01	0.02	0.01	0.01	0.03	0.13	0.15	0.16	0.17
Solar	0.00	0.00	0.00	0.00	0.00	0.02	0.17	0.18	0.18
Biodiesel	0.25	0.24	0.26	0.28	0.28	0.32	0.33	0.29	0.28
Bioethanol	0.01	0.00	0.05	0.08	0.14	0.18	0.23	0.23	0.28
Imported Energy (KTOE)	39.76	38.58	39.69	43.39	43.38	47.57	46.14	49.08	49.85
Oil	30.92	28.54	29.65	29.06	28.88	32.17	32.69	32.86	32.52
Coal	8.58	9.75	9.67	13.90	14.11	15.06	13.13	15.83	17.00
Bioethanol	0.26	0.29	0.37	0.42	0.39	0.34	0.31	0.38	0.33
Total Energy (KTOE)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total RE (Ktoe)	42.34	43.17	42.96	40.78	40.20	38.21	36.06	33.80	33.05
Green Energy (RE + Natgas) (Ktoe)	49.72	50.98	50.17	47.19	46.66	43.78	42.05	39.36	39.08
Total Biofuels	0.52	0.53	0.67	0.78	0.81	0.85	0.87	0.89	0.89
Total Oil	33.15	30.55	31.26	30.57	30.69	33.57	33.97	33.94	33.51
Total Coal	17.13	18.46	18.57	22.23	22.65	22.65	23.97	26.70	27.40
Total Fossil Fuels	**50.28**	**49.02**	**49.83**	**52.81**	**53.34**	**56.22**	**57.95**	**60.64**	**60.92**

Source: Department of Energy, 2018.

Figure 15. Fuel Share (%) in the Philippines

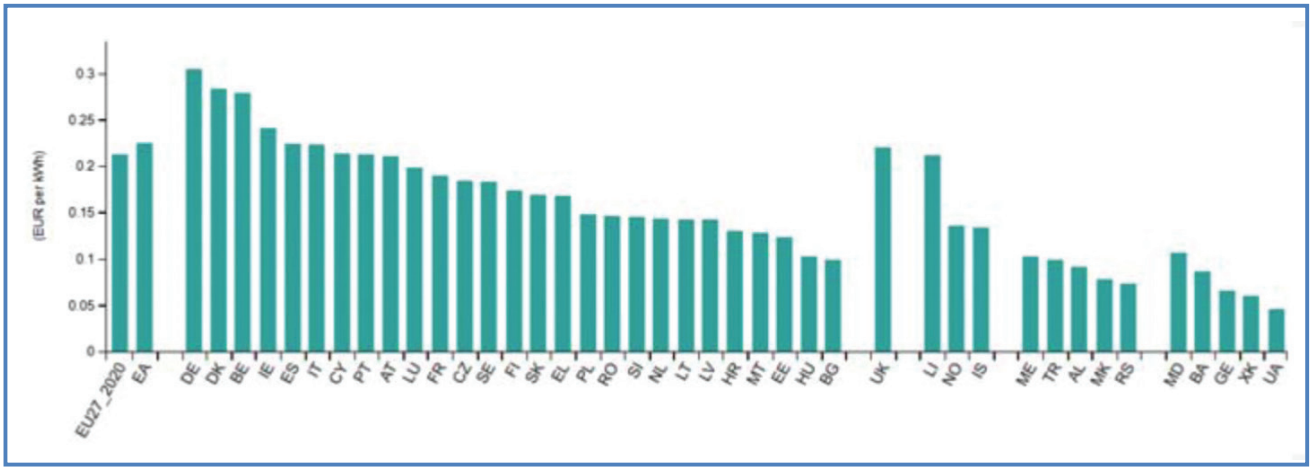
from the full-blast maximization of solar energy. The country can invest in the mass installation of solar panel roofing, which is now common in houses and industrial zones in countries such as Germany and Belgium (Gul et al., 2016). From India, the Philippines can learn how to maximize "solar energy generation potential along national highways" by "using the land above national road highways by constructing a roof structure" (Sharma & Harinarayana, 2013, p. 1). In other words, a solar panel is used as roofing for expressways, with "fringe benefits including longer road life, employment generation, reduced CO2 emission in the environment" (Sharma & Harinarayana, 2013, p. 1), aside from the obvious gain of extra gigawatts of cheap, renewable energy. This technological innovation is certainly feasible for Philippine agriculture as many national expressways are inside agricultural zones too. Reduced costs on electricity brought by using renewable energy would also reduce costs for mechanization, post-harvest, and storage facilities, and so forth. It must be noted that electricity rates in the country are very expensive, relative to costs in Southeast Asia and even in Europe (see Figures 16 and 17). Electricity rate in the Philippines is pegged at 9.56 pesos/kWh or 0.17 Euro/kWh in November 2019, whereas at least 25 European countries—including Norway, Netherlands, and Turkey, to name a few—have rates lower than 0.17 Euro/kWh (Eurostat, 2020a). Relatively lower electricity rates in Europe could partly be explained by their increasing use of green energy sources" (Eurostat, 2020b). In the Philippines, maximizing the use of renewable energy will drastically help farmers in achieving higher levels of technology-driven productivity at lower costs. Renewable energy-based rural electrification will just be an initial step in the Philippines' transition "to a progressive green economy," which, through technology transfer, will enable the Philippines "to graduate from becoming a mere replicator or producer of green technologies into a green innovator" (San Juan, 2020b).

TARIF ASEAN JULI 2018
(cUSD/kWh)

Jenis Pengguna	Indonesia	Malaysia	Thailand	Singapura	Philippines	Vietnam
Rumah Tangga	11,00	10,00	12,41	19,97	18,67	10,59
Bisnis menengah-TR	11,00	13,58	11,00	14,30	12,23	13,44
Bisnis besar-TM	8,36	9,60	11,00	14,02	11,98	12,36
Industri menengah-TM	8,36	8,29	8,36	13,05	11,69	7,81
Industri besar-TT	7,47	7,76	8,36	12,72	11,63	7,41

Source: Digital Energy Asia, 2018

Figure 16. Electricity Rates in Selected ASEAN Countries (July 2018)



Source: Eurostat, 2020a

Figure 17. Electricity Prices (Including Taxes) for Household Consumers, First Half 2020, in Europe

Recommendation

In view of the foregoing, the Philippine Senate and House of Representatives are called upon to consider repealing Rice Tariffication Law (2019). Although the law is yet to be repealed, the Philippine government should rechannel tariff payments collected from rice imports to activities that will implement the other policy recommendations outlined in this paper. In coordination with other government agencies that have vital connections with the agriculture sector, the Department of Agriculture should spearhead the plan to strengthen the domestic rice industry through direct financial aid aimed at modernizing it to improve yield and overall productivity towards rice self-sufficiency. For its part, the Department of Trade and Industry, National Economic and Development Authority, and other related agencies should revitalize and reorient the country's industrialization plan to encompass the needs of rural industrialization. The Department of Energy should include rural solar electrification in their future renewable energy plans to help lower the cost of agricultural mechanization and rice harvesting and processing. Meanwhile, universities and the Commission on Higher Education should seriously engage with farmers' cooperatives towards the goal of producing more agriculture-oriented research focused on increasing yields, boosting productivity, and planting sustainably (see Dr. Sabio's conceptualization of Freedom University in Amado V. Hernandez's novel *Mga Ibong Mandaragit/Birds of Prey,* 1982). The Cooperative Development Authority should provide seed capital meant to organize farmers into farmers' cooperatives, as cooperatives will ensure that the farmers are able to benefit much from the gains of a revitalized domestic rice industry (on the potentials of a vibrant cooperative movement; see Rolland, 2006; Flecha & Santa Cruz, 2016; Lebowitz, 2014; San Juan, 2016). It must be emphasized that profits of cooperatives are exempted from taxes in the Philippines; thus, encouraging and helping farmers to establish their cooperatives will also help them financially.

Surveys on the average price of farm inputs (seeds, fertilizers, etc.) and studies on policies to further lower the price (or subsidize) inputs should be accomplished. Studies on actual retail rice price in public markets are also recommended to improve data collection used in comparing rice prices. Such data will be necessary to check if official average prices do reflect local realities. A closer comparative look at the land reform experiences of the Philippines vis-à-vis that of its neighboring countries (especially rice-exporting or high-yield countries) should be done as a possible way of explaining (and hopefully reversing) the Philippine rice industry's lack of competitiveness. Related to bolstering academe-agriculture sector practical research linkages, a review of agriculture-related programs in Philippine universities and consequently benchmarking with countries with strong agriculture-oriented universities is also in order.

Declaration of ownership

This report is my original work.

Conflict of interest

None.

References

Abrematea, N. (2018, April 15). Partymates bring DK to Leyte, Samar. *Manila Bulletin.* https://mb.com.ph/2018/04/15/partymates-bring-dk-to-leyte-samar/

Africa, S. (2019, February 24). *Cheaper rice for now, but at what cost?* IBON Foundation. https://www.ibon.org/cheaper-rice-for-now-but-at-what-cost/

Alipio, M. (2020). *Revenue administration in the Philippines: Significant collection reforms, TRAIN law, fiscal incentives, excise tax, and rice tariffication law*. Center for Open Science. doi: 10.31219/osf.io/b7whv

Altidor, P. (2004). *Impacts of trade liberalization policies on rice production in Haiti* [Master's Thesis, Massachusetts Institute of Technology]. DSpace@MIT.

Amanta, F. A. (2020, April 4). Preventing global food crisis caused by COVID-19. *The Jakarta Post*. https://www.thejakartapost.com/academia/2020/04/04/preventing-global-food-crisis-caused-by-covid-19.html

American Chamber of Commerce in the Philippines. (n.d.). About AmCham Philippines. https://www.amchamphilippines.com/about-amcham/

American Chamber of Commerce in the Philippines, Bankers Association of the Philippines, Financial Executives Institute of the Philippines, Foundation for Economic Freedom, Makati Business Club, & Management Association of the Philippines(2019, September 26). *Joint statement on the rice tariffication law and agricultural development*. https://mbc.com.ph/2019/09/26/joint-statement-on-the-rice-tariffication-law-and-agricultural-development/

An Act Repealing Republic Act No. 11203 Otherwise Known as the 'Rice Tarrification Law', H.R. 00476, 18th Congress. (2019). http://www.congress.gov.ph/legisdocs/basic_18/HB00476.pdf

Arcalas, J. Y. (2019a, October 14). PHL could be 2nd top rice importer. *BusinessMirror.* https://businessmirror.com.ph/2019/10/14/phl-could-be-2nd-top-rice-importer/

Arcalas, J. Y. (2019b, November 21). Farmer groups 'top rice importers'–are they? *BusinessMirror*. https://businessmirror.com.ph/2019/11/21/farmer-groups-top-rice-importers-are-they/

Arcalas, J. Y. (2020, October 12). Drop in palay price prompts group to seek P36-billion aid for farmers. *BusinessMirror*. https://businessmirror.com.ph/2020/10/12/drop-in-palay-price-prompts-group-to-seek-p36-billion-aid-for-farmers/

Arcalas, J. Y. (2021, January 20). 2.1-MMT rice imports just 45% of volume applied for. *BusinessMirror*. https://businessmirror.com.ph/2021/01/20/2-1-mmt-rice-imports-just-45-of-volume-applied-for/

Atienza, M. E. L. (2020). The Philippines in 2019: Consolidation of power, unraveling of the reform agenda. *Asian Survey*, *60*(1), 132–139. https://doi.org/10.1525/as.2020.60.1.132

Bacud, E. S., Torres, M.A.C., & De los Reyes, J. (2019). *Unveiling the effects of liberalizing rice imports on domestic rice markets and poverty: Case in the Philippines*. Paper presented at the 1st World Allied Trade Associations Biennial Meeting Jointly with the 22nd IAGBT-KITRI Bi-Annual Conference and Research Symposium held in Busan, South Korea on August 12-14, 2019. Retrieved from http://www.dbpia.co.kr/Journal/articleDetail?nodeId=NODE08765229&language=en_US#

Balié, J., & Valera, H. G. (2020a, July 8). *Is COVID19 a threat to the stability of rice price and supply?* International Rice Research Institute. https://www.irri.org/news-and-events/news/covid19-threat-stability-rice-price-and-supply

Balié, J., & Valera, H. G. (2020b). Domestic and international impacts of the rice trade policy reform in the Philippines. *Food Policy*, *92*. https://doi.org/10.1016/j.foodpol.2020.101876

Balié, J., Minot, N., & Valera, H.G.. (2021). Distributional impacts of the rice tariffication policy in the Philippines. *Economic Analysis and Policy*, *69*, 289–306. https://doi.org/10.1016/j.eap.2020.12.005

Bautista, L. (2020). The ones who don't walk away from the Philippines. *Southeast Asian Affairs*, (1), 274–292. https://www.muse.jhu.edu/article/754751

Bayer Group. (2013). *Annual Report 2013.* https://www.bayer.com/sites/default/files/2020-05/ar-2013.pdf

Bengali, S., & Linthicum, K. (2020, December 22). Rich countries are hoarding COVID-19 vaccines. Elsewhere, the pandemic may keep killing for years. *Los Angeles Times*. https://www.latimes.com/world-nation/story/2020-12-22/rich-nations-snap-up-covid-19-vaccines-leaving-less-for-the-poor

Briones, R. M. (2012). *Should the Philippines tariffy its quantitative restriction on rice?* (Policy Notes, No. 2012-16). https://dirp4.pids.gov.ph/ris/pn/pidspn1216.pdf

Briones, R. M. (2019). *Welfare impacts of rice tariffication* (PIDS Discussion Paper Series, No. 2019-16). https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1916.pdf

Briones, R. M. (2020). *Did the opening up of rice importation in the Philippines worsen income poverty and inequality? A general equilibrium with microsimulation*

approach. (PIDS Discussion Paper Series No. 2020-43). https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps2043.pdf?fbclid=IwAR3FhULB7fQ1YqgzQMAaPIELVVZHP96-spi2Fhs604fLJbCU9gImOvyCl4U

Buan, L. (2020, November 18). What went wrong during Typhoon Ulysses? *Rappler*. https://www.rappler.com/newsbreak/in-depth/what-went-wrong-protocol-communication-leadership-typhoon-ulysses

Central Bank of the Philippines. (2019). *Daily, monthly (average and end-of-period) and annual*. www.bsp.gov.ph/statistics/excel/pesodollar.xls

Central Intelligence Agency. (2021). *The CIA World Factbook 2021-2022.* Simon and Schuster.

Childs, N. (2020, April 13). *Rice outlook*. https://www.ers.usda.gov/publications/pub-details/?pubid=98249

Cochrane, N., Childs, N., & Rosen, S. (2016). *Haiti's U.S. rice imports*. https://www.ers.usda.gov/publications/pub-details/?pubid=39145

Constantino, R. (1979). *The nationalist alternative.* Foundation for Nationalist Studies.

Co-ops, groups top rice importers under RTL.(2020, February 24). *BusinessMirror.* https://businessmirror.com.ph/2020/02/24/co-ops-groups-top-rice-importers-under-rtl/

Cororaton, C. B., & Yu, K. D. S. (2019). Assessing the poverty and distributional impact of alternative rice policies in the Philippines. *DLSU Business & Economics Review*, *28*(2), 169–182. https://www.dlsu.edu.ph/wp-content/uploads/2019/03/13_CORORATON-revised-021319.pdf

Department of Agriculture. (2021, January 11). *DA eyes bigger rice production in 2021*. https://www.da.gov.ph/da-eyes-bigger-rice-production-in-2021/

Department of Energy. (2018). Key energy statistics (1990-2018). https://www.doe.gov.ph/sites/default/files/pdf/energy_statistics/1990-2018_kes-primary_energy.pdf

Department of Finance. (2013). *Tax watch.* https://www.dof.gov.ph/index.php/tax_watch/top-rice-importers/

Department of Trade and Industry. (n.d.) *Comprehensive National Industrial Strategy*. http://industry.gov.ph/comprehensive-national-industrial-strategy/.

Digital Energy Asia. (2018, December 6). *Competitive Indonesian electricity rates in the ASEAN region*. https://digitalenergyasia.com/competitive-indonesian-electricity-rates-in-the-asean-region/

Einstein, A. (2009, May 1). Why socialism? *Monthly Review, 61*(1). https://monthlyreview.org/2009/05/01/why-socialism/

Eurostat. (2020a). *Electricity price statistics*. European Union. https://ec.europa.eu/eurostat/statistics-explained/index.php/Electricity_price_statistics

Eurostat. (2020b). *Renewable energy in the EU in 2018.* European Union. https://ec.europa.eu/eurostat/documents/2995521/10335438/8-23012020-AP-EN.pdf/292cf2e5-8870-4525-7ad7-188864ba0c29

Export Genius. (2019). River Valley Distribution, Inc. https://www.philippinestradedata.com/en/river-valley-distribution-inc-importer-of-philippines

Flecha, R., & Santa Cruz, I. (2016). Cooperation for economic success: The Mondragon case. *Analyse & Kritik*, *33*(1),157–170. https://doi.org/10.1515/auk-2011-0113

Federation of Free Farmers, Kilusang Magbubukid ng Pilipinas, Pambansang Kilusan ng mga Samahang Magsasaka, Kilusan Para Sa Repormang Agraryo at Katarungang Panlipunan, Butil Party List, Magsasaka Party List, Alyansa Agrikultura, Freedom from Debt Coaliton, Bantay Bigas, PARAGOS, Task Force Mapalad, National Movement for Food Sovereignty, National Food Coalition, Pambansang Koalition ng mga Kababaihan sa Kanayonan, Aniban ng Magsasaka sa Agrikultura, PKSK, Centro Saka, Inc., Aniban ng mga Magsasaka, Mangingisda at Manggagawa sa Agrikultura, Alab Katipunan-BPMP...(2019, November 18). *No to rice liberalization manifesto*. Facebook. https://www.facebook.com/notes/286431952377776/Fenol, J. (2019, October 14). In the Philippines' rice granary, farmers endure falling grain prices. *ABS-CBN News*. https://news.abs-cbn.com/business/10/14/19/in-philippines-rice-granary-farmers-endure-falling-grain-prices

Food and Agriculture Organization. (2018). *FAO rice market monitor (RMM)*. http://www.fao.org/economic/est/publications/rice-publications/rice-market-monitor-rmm/en/

Food and Agriculture Organization. (2019a). *FAO rice price update*. http://www.fao.org/economic/est/publications/rice-publications/the-fao-rice-price-update/en/

Food and Agriculture Organization. (2019b). *Food and agriculture data.* http://www.fao.org/faostat/en/#data

Food and Agriculture Organization. (2020). *FAO rice price update (April 2020)*. https://listserv.fao.org/scripts/wa-fao.exe?A3=2004&L=RICE-MARKET-L&E=quoted-printable&P=5743&B=--_000_VI1PR05MB7136A5257CBBD039686A82A588C60VI1PR05MB7136eurp_&T=text%2Fhtml;%20charset=Windows-1252&XSS=3&header=1

Fox, M. (2021, January 16). New, contagious coronavirus variant could worsen pandemic, CDC warns. *CNN*. https://edition.cnn.com/2021/01/15/health/covid-variant-cdc-spread-us/index.htm

Frederick S. Pardee Center for International Futures. (2019). *Yield in agriculture (tons/hectare) – Base case*. Retrieved from https://www.google.com/publicdata/explore?ds=n4ff2muj8bh2a_&ctype=l&met_y=YL#!ctype=l&strail=false&bcs=d&nselm=h&met_y=YL&fdim_y=scenario:1&scale_y=lin&ind_y=false&rdim=world&idim=world:world&idim=country:HT:PH:VN:TH:IN:PK:CN:MM:KH:ES:IT&ifdim=world&hl=en_US&dl=en_US&ind=false

Garcia, I. R. (2019, November 25). Wanderlust | Deluxe hotel brand opens property in Davao. *Mindanao Times*. https://mindanaotimes.com.ph/2019/11/25/wanderlust-deluxe-hotel-brand-opens-property-in-davao/

Gonzales, I. (2019, July 22). Traders call for review of rice tariffication. *Philippine Star*. https://www.philstar.com/business/2019/07/22/1936667/traders-call-review-rice-tariffication#RSkTJsmAidmwuV1l.99

Gul, M., Kotak, Y., & Muneer, T.(2016). Review on recent trend of solar photovoltaic technology. *Energy Exploration & Exploitation*, *34*(4), 485–526. https://doi.org/10.1177/0144598716650552

Guzman, R. (2019). *What the rice tariffication law violates*. Ibon Databank. https://www.ibon.org/what-the-rice-tariffication-law-violates/

Hernandez, A. (1982). *Mga ibong mandaragit* [Birds of Prey]. Progressive Printing Palace.

Hernandez, A. (2021). *Birds of Prey.* (E. Pangilinan, Trans.). Tanglaw Books LLC. (Original work published 1982).

Hernandez, D., & Cervantes, A. (2021, January 16). Why the new Covid-19 variants could be more infectious. *The Wall Street Journal*. https://www.wsj.com/articles/why-the-new-covid-19-variants-could-be-more-infectious-11610802327

Heydarian, R. (2021, January 11). Duterte's COVID blunders will set the Philippines back generations. *Nikkei Asia*. https://asia.nikkei.com/Opinion/Duterte-s-COVID-blunders-will-set-the-Philippines-back-generations

Husain, A., Sandström, S., Greb, F., Groder, J., & Pallanch, C.. (2020). *COVID-19: Potential impact on the world's poorest people (A WFP analysis of the economic and food security implications of the pandemic).* World Food Programme. https://docs.wfp.org/api/documents/WFP-0000114040/download/

IBON Foundation. (2020, December 9). *Duterte gov't fails to meet its human rights obligations amid the pandemic*. https://www.ibon.org/duterte-govt-fails-to-meet-its-human-rights-obligations-amid-the-pandemic/

Inquirer Northern Luzon. (2019, August 29). Falling palay prices worry Luzon farmers. *Inquirer.net.* https://newsinfo.inquirer.net/1158686/falling-palay-prices-worry-luzon-farmers

Intal, P., Jr., & Garcia, M. C. (2005). *Rice and Philippine politics* (PIDS Discussion Paper No. 2005-13). https://dirp3.pids.gov.ph/ris/dps/pidsdps0513.pdf

International Maritime Organization. (2015). *Third IMO greenhouse gas study 2014.* http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Documents/Third%20Greenhouse%20Gas%20Study/GHG3%20Executive%20Summary%20and%20Report.pdf#page=32

Kilusang Magbubukid ng Pilipinas. (2021, January 15). *Black Friday protest against food price shocks.* https://peasantmovementph.com/2021/01/15/black-friday-protest-against-food-price-shocks/

Lapavitsas, C. (2021, June 1). How capitalist competition hobbled the COVID-19 vaccine rollout. *Jacobin*. https://jacobinmag.com/2021/01/capitalist-competition-covid-19-vaccine-rollout

Lebowitz, M. A. (2014). Proposing a path to socialism: Two papers for Hugo Chávez. *Monthly Review, 65*(10). https://monthlyreview.org/2014/03/01/proposing-path-socialism-two-papers-hugo-chavez/

Lichauco, A. (1986). *Towards a new economic order and the conquest of mass poverty*. SPP.

Lichauco, A. (1988). *Nationalist economics: History, theory, and practice*. Institute for Rural Industrialization.

Manangkil, O. E., Abdula, S. E., & Quilang, E. J. P. (2020). Role of biotechnology in rice breeding strategy of the Philippines. *Plant Biotechnology Reports, 14*, 247–253. https://doi.org/10.1007/s11816-020-00618-5

Mangahas, M., & Simon, F. (2019, April 3). The Duterte wealth: Unregistered law firm, undisclosed biz interests, rice import deal for creditor. *Rappler*. https://www.rappler.com/newsbreak/investigative/227315-pcij-report-rodrigo-sara-paolo-duterte-wealth

Marcos, I. (2019). *Marcos: Bring back support price of palay*. Philippine Senate. https://www.senate.gov.ph/press_release/2019/0902_marcosi1.asp

Mendoza, R. U., & Torres, A. G. (2019). *Rice tariffication, good governance, and real food security*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3348966

Mendoza, R., & Jaminola, L. (2020). Is Duterte a populist?: Rhetoric vs. reality. *Horizons: Journal of International Relations and Sustainable Development,* (15), 266–279. doi:10.2307/48573652

Montesclaros, J. (2019). *Manila's tariff move on imported rice: Implications for the region* (RSIS Commentaries No. 239). Retrieved from https://www.rsis.edu.sg/rsis-publication/nts/manilas-tariff-move-on-imported-rice-implications-for-the-region/#.YXz4S55Bw2w

More than half of Philippines' 2020 rice import orders yet to be delivered – Minister. (2020).Reuters. https://ph.news.yahoo.com/more-half-philippines-2020-rice-062859687.html?guccounter=1&guce_referrer= aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8& guce_referrer_sig=AQAAAH3tUBrp-xcETMtrpZLJ0E4LkBGxEZqHjbVNm85c-8KEud_CK8PL5dI9yy_4BRKpv1nvLSpeDu4pKoAXM0xgDWgS5w-NpoCq9fgS7WT4c3JIfhz_Nbbr6RV8ZGQyuQ8flU1qtpW9TMu0g-asKFqusxQbF6XALpPRLPyO6bFRUChY

Mueller, B. (2021, January 16). How British scientists found the more infectious Coronavirus variant. *The New York Times*. https://www.nytimes.com/2021/01/16/world/europe/uk-coronavirus-variant.html

National Democratic Front of the Philippines. (2017). *Comprehensive agreement on social and economic reforms*. https://ndfp.org/wp-content/uploads/2019/08/FINAL-Jan-17-2018-NDFP-CASER-2017-Web-version-Ver2.0.pdf

National Food Authority. (2019a). *List of applicants for the NFA out-quota rice Importation by the private sector as of March 05, 2019*. http://nfa.gov.ph/images/files/announcement/2019/lapp-oqrip-ps.pdf

National Food Authority. (2019b). *Status report of arrivals and issued import permits under NFA out-quota rice importation program*. http://nfa.gov.ph/images/files/announcement/2019/sraaiip-oqrip.pdf

Navata, P. N. (2017). *Rice tariffication: Why is it a necessary public policy?* Senate Economic Planning Office. https://www.senate.gov.ph/publications/SEPO/PB_Rice_Tariffication_19Dec2017.pdf

Nayyar, S. S. (2019). *Philippines introduced rice tariffication law (RTL) 2019.* https://apeda.gov.in/apedawebsite/Announcements/Rice_Tarrification_Philippines.pdf

Novio, E. B. C. (2020, November 17). Duterte regime doing too little to reduce disaster risk. *Asia Times*. https://asiatimes.com/2020/11/duterte-regime-doing-too-little-to-reduce-disaster-risk/

Ocampo, K. R. (2020, December 8). Palay price slumps to low of P 10/kilo. *INQUIRER.net*. https://business.inquirer.net/313509/palay-price-slumps-to-low-of-p-10-kilo

Ocampo, K. R. (2021, January 4). Palay farm gate prices improving, average rate hits 8-week high. *INQUIRER.net.* https://business.inquirer.net/315146/palay-farm-gate-prices-improving-average-rate-hits-8-week-high

Office of the President, Temporarily Modifying The Rates of Import Duty on Rice Under Section 1611 of Republic Act No. 10863, Otherwise Known As The "Customs Modernization and Tariff Act" (May 15, 2021) (Phil.). https://www.officialgazette.gov.ph/2021/05/15/executive-order-no-135-s-2021/

Palis, F. (2020). Aging Filipino rice farmers and their aspirations for their children. *Philippine Journal of Science*, *149*(2), 351–361. https://philjournalsci.dost.gov.ph/97-vol-149-no-2-june-2020/1189-aging-filipino-rice-farmers-and-their-aspirations-for-their-children

Pangilinan, F. (2019, September 12). *Pangilinan welcomes proposed rice tariff hike*. Philippine Senate. https://www.senate.gov.ph/press_release/2019/0912_pangilinan1.aspPerez, N., & Pradesha, A. (2019). *Philippine rice trade liberalization: Impacts on agriculture and the economy, and alternative policy actions*. International Food Policy Research Institute and National Economic and Development Authority. http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/133371/filename/133582.pdf

Philippine Const., (1987), art. xii, § 1, & art. xiii, § 8. https://www.officialgazette.gov.ph/constitutions/1987-constitution/

Philippine Statistics Authority. (2010). *A Filipino family consumed 8.9 kg of ordinary rice a week in 2006*. https://psa.gov.ph/content/filipino-family-consumed-89-kg-ordinary-rice-week-2006-results-2006-family-income-and

Philippine Statistics Authority. (2019a). *Selected statistics on agriculture 2019*. https://psa.gov.ph/sites/default/files/Selected%20Statistics%20on%20Agriculture%202019.pdf

Philippine Statistics Authority. (2019b). *Updates on Philippine palay, rice, and corn prices second week of February 2019.* https://psa.gov.ph/sites/default/files/Updates%20on%20Palay%2C%20Rice%20and%20Corn%20Prices%2C%20February%202019%20%28Week%202%29.pdf

Philippine Statistics Authority. (2021). *Updates on Philippine palay, rice, and corn prices week 3 of December 2020.* https://psa.gov.ph/sites/default/files/Updates%20on%20Philippine%20Palay%2C%20Rice%2C%20and%20Corn%20Prices%20Week%203%20of%20December%202020_3.pdf

Poapongsakorn, N. (2019). *Overview of Rice Policy 2000-2018 in Thailand: A political economy analysis*. Retrieved from https://ap.fftc.org.tw/article/1426

Pre- and post-rice trade liberalization law, big traders gaming farmer groups. (2019, October 31). *BusinessMirror.* https://businessmirror.com.ph/2019/10/31/pre-and-post-rice-trade-liberalization-law-big-traders-gaming-farmer-groups/

Rice Tariffication Law of 2019, Rep. Act No. 11203 (Feb. 14, 2009) (Phil.), https://www.officialgazette.gov.ph/downloads/2019/02feb/20190214-RA-11203-RRD.pdf

Rivas, R. (2020, September 29). Philippine economy to recover slower vs most peers – World Bank. *Rappler.* https://www.rappler.com/business/philippine-economy-forecast-2020-world-bank-report

Rivas, R. (2019, September 2). Farmers seek floor price as palay sells for just P7 per kilo. *Rappler*. https://www.rappler.com/business/farmers-seek-floor-price-palay

Robles, A., & Robles, R. (2020, December 31). Delays and missteps: How Duterte's Philippines struggled against Covid-19. *South China Morning Post*. https://www.scmp.com/week-asia/politics/article/3116026/delays-and-missteps-how-dutertes-philippines-struggled-against

Rolland, S. (2006). Mondragon Corporation Cooperatives, people working together. *UW-L Journal of Undergraduate Research, IX,* 1–11. https://www.uwlax.edu/globalassets/offices-services/urc/jur-online/pdf/2006/rolland.pdf

Salgado, P. (1997). *Social encyclicals: Commentary and critique*. Lucky Press, Inc.

San Juan, R. (2019, November 13). Farmers submit 50,000 signatures to House vs rice tariffication law. *Philippine Star*. https://www.philstar.com/headlines/2019/11/13/1968476/farmers-submit-50000-signatures-house-vs-rice-tariffication-law

San Juan, D. M. M. (2016). Bigwas sa neoliberalismo, alternatibo sa kapitalismo: Adbokasing pangwika at sosyalistang programa sa nobelang *Mga Ibong Mandaragit ni Amado V. Hernandez* [Punch on Neoliberalism, Alternative to Capitalism: Language Advocacy and Socialist Program in Amado V. Hernandez' Novel *Birds of Prey*]. *Daluyan: Journal ng Wikang Filipino*, *22*(1-2), 67–102. https://journals.upd.edu.ph/index.php/djwf/article/view/5742

San Juan, D. M. M. (2020a). Economic relief in the time of COVID-19: Rationale, mechanics, costing, and prospective impact of temporary value-added tax (VAT) suspension and income tax waiver for the poor and the middle class in the Philippines. https://www.researchgate.net/publication/340510753_Economic_Relief_in_the_Time_of_COVID-19_Rationale_Mechanics_Costing_and_Prospective_Impact_of_Temporary_Value-Added_Tax_VAT_Suspension_and_Income_Tax_Waiver_for_the_Poor_and_the_Middle_Class_in_the_Ph

San Juan, D. M. M. (2020b). Transitioning to a progressive green economy in the Philippines. *Journal of Developing Societies*, *36*(2), 155–181. https://doi.org/10.1177/0169796X20912632

Santiago, D. (2019). *Philippines rice imports by country*. http://www.philippinesaroundtheviworld.com/philippines-rice-imports-by-country/

Sharif, A., & Irani, Z. (2017). Policy making for global food security in a volatile, uncertain, complex and ambiguous (VUCA) world. *Transforming Government: People, Process and Policy*, *11*(4), 523–534. https://doi.org/10.1108/TG-08-2017-0050

Sharma, P., & Harinarayana, T. (2013). Solar energy generation potential along national highways. *International Journal of Energy and Environmental Engineering, 4*. https://link.springer.com/article/10.1186/2251-6832-4-16

Shuqi, S., Jiasheng, W, & W. Dongwei. (2019). Development of agricultural mechanization in China and its current strategic focus. *Agricultural Machinery and Technologies, 13*(3), 4–7. doi: 10.22314/2073-7599-2019-13-3-4-7

Stiglitz, J. (2003). *Globalization and its discontents.* W. W. Norton & Company.

Tobias, A. (2019). *The Philippine rice tariffication law: Implications and issues*. Food and Fertilizer Technology Center for the Asian and Pacific Region (FFTC-AP). http://ap.fftc.agnet.org/ap_db.php?id=960&print=1

Trimmer, C., & Godar, J. (2019). *Calculating maritime shipping emissions per traded commodity* (SEI Brief). Stockholm Environment Institute. https://www.sei.org/publications/shipping-emissions-per-commodity/

Unbound Medicine, Inc. (2021, January). *Daily epidemic (Epi) COVID-19 curves, graphs & forecasts for Coronavirus*. https://relief.unboundmedicine.com/relief/view/Coronavirus-Guidelines/2355041/all/Epidemic__Epi__Curves_for_Coronavirus_COVID_19

United States Department of Agriculture-Foreign Agricultural Services. (2020). *Philippines: Grain and feed annual.* https://www.fas.usda.gov/data/philippines-grain-and-feed-annual-4

World Bank.(2018a). *Researchers in R And D (per million people)*. Retrieved from https://www.google.com/publicdata/explore?ds=d5bncppjof8f9_&ctype=l&met_y=ag_lnd_irig_ag_zs#!ctype=l&strail=false&bcs=d&nselm=h&met_y=sp_pop_scie_rd_p6&scale_y=lin&ind_y=false&rdim=country&idim=country:CHN:PHL:THA&ifdim=country&hl=en_US&dl=en_US&ind=false

World Bank. (2018b). *Research and development expenditure (% of GDP).* Retrieved from https://www.google.com/publicdata/explore?ds=d5bncppjof8f9_&ctype=l&met_y=gb_xpd_rsdv_gd_zs#!ctype=l&strail=false&bcs=d&nselm=h&met_y=gb_xpd_rsdv_gd_zs&scale_y=lin&ind_y=false&rdim=country&idim=country:CHN:PHL:THA:VNM&ifdim=country&hl=en_US&dl=en_US&ind=false

World Bank. (2019). *Net trade in goods and services (BoP, current US$) – Philippines*. https://data.worldbank.org/indicator/BN.GSR.GNFS.CD?end=2018&locations=PH&start=1990

World Bank. (2020). *Building a resilient recovery*. https://openknowledge.worldbank.org/handle/10986/34899

World Health Organization. (2020, March 11). *WHO Director-General's opening remarks at the media briefing on COVID-19*. https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020

World Health Organization. (2021, January). *Coronavirus disease (COVID-19) situation reports*. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports