Then and Now

Campaigns to Achieve Rice Self-Sufficiency in Indonesia

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Abstract

This article argues that comparisons between the success of Soeharto's Green Revolution rice production campaign in the early 1980s and the struggles of today's democratic governments to achieve self-sufficiency in rice are disingenuous, since they fail to take into account the changed structural, economic, and political contexts. Once such changes are adequately considered, especially such key political factors as the lack of support today from the international community in achieving this policy goal, and governance differences between authoritarianism and democracy, Indonesia's performance in the rice sector should be evaluated more positively than it typically has been.

Keywords

Indonesia – rice self-sufficiency – Green Revolution – agricultural protectionism

Introduction

In an important article, published in 2014, leading international relations scholar Etel Solingen sought to counter the popularity of drawing parallels between the escalation of geopolitical tensions in the run-up to World War I and

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the rise in seemingly similar pressures today, especially in East Asia (Solingen 2014).¹ In this article I borrow Solingen's analogical exercise and apply her 'then and now' approach to debates over Indonesia's latest attempt to boost rice production in order to achieve self-sufficiency.² Drawing on Solingen's critical analytical bent, I intend to show how efforts to draw an analogy between today's production programme and the 'then'—namely, the period of 1984–1986 when, under former President Soeharto, Indonesia last achieved rice self-sufficiency—are misguided and disingenuous.³ As the Italian political scientist Giovanni Sartori warned more than 45 years ago, making comparisons can be fraught with difficulties and thereby susceptible to abuse (Sartori 1970). While Soeharto's attainment of rice self-sufficiency serves as the baseline for comparisons with today's rice production programmes—famously, Soeharto was recognized for the feat in 1985 by the Food and Agriculture Organization (FAO)—I will show how this comparison is not as straightforward as it appears.

Of late mass pro-farmer groups and Indonesian politicians have roundly criticized Indonesia's perennial rice imports. Activists bristle at the irony of a predominantly agrarian country, despite evidence to the contrary, being dependent on imports of its chief staple (Febrawati 2011). Government ministers have used such words as 'shame' or 'embarrassment' in the relevant discourse.⁴ Popular anger is also easily aroused; crowds have gathered at ports to reject shipments of foreign rice. Tellingly, despite acute differences between Indonesia's 2014 presidential contestants—Joko 'Jokowi' Widodo was portrayed as democratic, pluralist, and internationalist in contrast to the pugnacious, Islamist, and ultra-nationalist Prabowo Subianto (Mietzner 2014)—both candidates pledged to increase domestic rice production in order to bring the serial imports to an end. In short, much of the impetus for today's production campaign has been driven by the comparative logic of Soeharto's success—if he could do

1 This was prior to the most recent escalation in tensions between North Korea and a Trump-led United States.

2 As will be shown below, the Indonesian leadership's conception of food security differs from the market/trade-based approach of the World Bank. Nor is self-sufficiency synonymous with the concept of food sovereignty, which is commonly associated with left-leaning food and farmer advocacy groups; see Vel, McCarthy, and Zen 2016.

3 Achieving rice self-sufficiency is not the sole policy goal today. Maintaining a national stockpile for disasters, providing access for the poor, and stabilizing the domestic rice price are some of the additional elements taken into account (Patunru and Basri, 2011:208).

4 For one example, see 'Dahlan: Malu kalau Indonesia masih impor beras!', *Tempo.co*, 17-6-2012, bisnis.tempo.co/read/news/2012/06/17/090411075/dahlan-malu-kalau-indonesia-masih-impor-beras (accessed 28-8-2017).

it, the argument goes, so can we. This theme is prominently featured in today's domestic press, and it was a strong point of emphasis in an interview I held with members of the country's Badan Ketahanan Pangan (Food Security Council) in 2016.⁵

This article aims to check the popularity of comparing Indonesia's Green Revolution production programme with those of today. Most comparisons gloss over the great changes that Indonesia has experienced since the 1970s. To help drive an analytical wedge between 'then' and 'now' comparisons, below I group such changes into structural, economic, and political categories. The boundaries among them are not watertight and while some of the changes that I put forth have been well documented, others have been overlooked. In fact, this article maintains that three key political constraints pertaining to Indonesia's rice self-sufficiency campaigns have been downplayed. The first concerns the sea change in views of Western powers on the matter. In the 1970s and 1980s, in the context of Cold War rivalries, these countries had geopolitical reasons for desperately wanting Soeharto's New Order government to reach rice self-sufficiency as a means to fortify his anti-communist regime. Today, these same countries decry state efforts that strive to replicate the feat. Characterizing such campaigns as inefficient and wasteful of scarce resources, they would prefer Indonesia to purchase greater quantities of cheaper rice on the international market. (Indonesia's domestic rice costs more because of high production costs.) This policy stance reflects broader efforts by these countries and the international financial institutions (IFIs) to compel Indonesia to further liberalize its agricultural trade policies.

Besides a changed international environment, Indonesia's altered domestic environment yields two more underappreciated political variables. First is the differential effects that authoritarianism and democracy have on the time horizons of political leadership. Soeharto enjoyed long-term horizons. They enabled him not only to pursue long-term planning, but, more importantly, they provided him with the latitude to recover from planning blunders without being punished electorally. Below I show how it took more than a decade for Soeharto's New Order government to turn the proverbial corner in rice production. Placed in today's context, Soeharto might have been voted out of office for this halting developmental record. These same ten years equal the maximum period an elected president today can serve in democratic Indonesia: two five-year terms. By facing competitive elections every five years, today's politicians

5 Interviews, Ir. Sudirman Maman and Eddy Suntoro, Food Security Council, Kementerian Pertanian (Ministry of Agriculture), Jakarta, 19-5-2016.

must produce developmental results in a far shorter time frame. In other words, my analysis underscores the mistakes and mishaps of Indonesia's famed Green Revolution production programme in a way that challenges the nostalgic longings of its unfettered success.

The second differentiating factor in the domestic sphere concerns the concentration of political power under Soeharto that allowed him to develop a single-policy focus with little opposition (when he belatedly focused on rice production). Today's diffused political order means that leadership faces more resistance from local officials now in charge of autonomous districts and also from a more robust civil society. Democracy and decentralization have emboldened all sorts of actors and organizations, leading to a much more complex policy-making environment (Aswichayono, Bird, and Hill 2009). In all, these international and domestic factors, when taken together, help us challenge the conventional wisdom that has been dismissive of democracy's developmental record in Indonesia. Comparisons between the New Order and today's governments need to be made, I suggest, by adjusting for appropriate context. The conclusion re-examines some commonplace policy recommendations regarding Indonesia's rice sector and extends the paper's scope beyond Indonesia.

Today's Drive for Rice Self-Sufficiency

At the outset, it behoves us to explain the current drive for rice self-sufficiency; its prominence should not be assumed. After all, a chief developmental outcome of the New Order was its orchestration of a structural transformation of the country's economy. Regime policies helped to shift the economy from being predominately based on agricultural activities to one fuelled by industrial development (Timmer 2005). Given the high rates of growth achieved under the New Order, on average 7 % per year, and the consequent rapid growth in income and urbanization, one might reasonably question why rice remains a politicized commodity and why fervent anti-import sentiments persist.

For starters, we need to understand how the emergence of an agrarian form of economic populism rooted in Java has informed the country's ideology. The power of this type of populism in the main has grown from the significance it acquired as a key component of the anti-colonial movement that gained irreversible momentum by the 1920s. Although the movement comprised disparate elements, it coalesced through the combusive combination of anti-Dutch, anti-capitalist, and anti-local-Chinese feelings. Sukarno, the proclama-tor of the country's independence in 1945 and subsequently its first president, epitomized attempts at unification of the movement's components. Through

this he championed a people's economic democracy. His economic philosophy, known as Marhaenism—inspired by his probably imaginative meeting with a Javanese peasant—propagated support for the rice-cultivating peasant in an agrarian economy and society. Marhaenism's influence can be seen in Indonesia's well-known economic democracy clause—Article 33(3)—inserted into the country's 1945 constitution, which mandates that exploitation of the country's resources must contribute to the prosperity of the greatest number of Indonesians possible (Legge 2003).

While not all of Indonesia's elite have embraced this ideology equally (Robison 1986), the agrarian question as it pertains to Java has resonated loudly in the national consciousness, given the island's place of prominence in the country's cultural and nationalist history. It is the demographic and political epicentre of the archipelago and hosted the heaviest revolutionary violence against the Dutch. It was also home to the agrarian radicalism of the 1950s and 1960s that precipitated the 1965–1966 anti-communist massacres—the majority of which transpired on Java—through which Soeharto and his New Order regime rose to power.

In the aftermath of these killings, which were orchestrated by Soeharto's army, the general understood poverty and food insecurity as root causes of the radicalism. These in turn informed his support for the Green Revolution (Elson 2001). But Soeharto's motivations extended beyond material considerations. As the self-styled 'Father of Development' (*Bapak Pembangunan*), he also cultivated an image of himself as the chief patron of the Javanese peasantry. In so doing, Soeharto paradoxically helped to carry forward the legacy of Sukarno's Marhaenism from the colonial and post-revolutionary eras into the late twentieth century of a more prosperous, urban, and capitalist Indonesia (Vu 2009).

There are other immediate reasons why an economic nationalism in defence of the rice grower and in opposition to rice imports reverberates in post-authoritarian Indonesia. Here the role played by successive crises has been instrumental. The first includes the 1997–1998 Asian Financial Crisis (AFC) and the harsh conditionality measures imposed by the International Monetary Fund (IMF), to which Soeharto's cash-strapped government agreed in exchange for billions of dollars in loans to rescue the crumbling economy. By pushing economic liberalization, the IMF sought to rid Indonesia of what it saw as a crony-istic and protectionist style of economic governance, characteristic of Soeharto's rule (Robison and Hadiz 2004). In agriculture specifically, the IMF took aim at the import monopoly held by the Badan Urusan Logistik (Bulog, State Logistics Board). The issuing of such licences to Soeharto's cronies had been a key source of graft and rent-seeking (Robison 1986; Mulholland and Thomas 1999; Yonekura 2005). The forced liberalization of the rice trade with-

out proper institutional safeguards or regulatory framework proved to be disastrous, with Indonesia importing record amounts of rice in 1998 and 1999. (That El Niño-related factors depressed local production did not help matters either.) This experience continues to haunt many Indonesian policymakers, convincing them of the need to avoid rice trade liberalization at all costs (Sawit and Lokollo 2007). The 2008 regional rice crisis reinforced the distrust of the market, even though in Indonesia rice shortages were more apparent than real (Saifullah 2010). Finally, fallout from the 2008–2010 global recession helped to spark a virulent form of economic nationalism. Like the 2008 regional rice crisis, Indonesia's economy fared relatively well (Basri 2015). But as the country's economic resiliency, based on a boom in commodity prices, drew heavy foreign investment into the country's natural-resource extraction sectors, it sparked a countermovement in support of domestic control over such resources. This explains why the movement is often referred to as resource nationalism (Habir 2013; Warburton 2017).

The dynamics of today's competitive, democratic elections have also contributed to the burgeoning of economic populism and nationalism (Aspinall 2015). To be sure, politicians, especially in the dense heartlands of Java, aggressively court the rural vote, where the handing out of such 'freebies' as combine harvesters has been commonplace. But today's freedoms of association and expression have also emboldened farmer groups. Some are headed by politicians who dubiously claim to promote cultivator welfare;⁶ the leadership interests of other farmer organizations are more genuine.⁷ Whatever their sincerity, a *sine qua non* for both is vocalizing animus against rice imports.

A final factor to be discussed here is the implications of Indonesia's worsening income inequality. Much has been made of the rising gap between Indonesia's top 20% and the rest of the population since the 2008 global recession (World Bank 2016).⁸ Of particular concern has been Indonesia's worsening rural-urban divide (Booth 2016:183–98). Even though macroeconomic growth has averaged about 5.5% over the last decade, in 2013, 15.5 million poor, mostly rural households still qualified to receive specially subsidized rice (Julaikah 2014).⁹

6 Here a representative example has been the New Order-established Himpunan Kerukunan Tani Indonesia (Indonesian Farmers Association).

7 These include the Serikat Petani Indonesia (Indonesian Farmers Union), the Konsortium Pembaruan Agraria (Consortium for Agrarian Reform), and the Koalisi Rakyat untuk Kedaulatan Pangan (People's Coalition for Food Sovereignty).

8 In fact, inequality was on the rise during the late New Order (Rigg 2016:39–41).

9 Because of conflicting approaches to measuring poverty, such data in Indonesia are open to multiple interpretations and thus should be treated as inconclusive (Booth 2016:183–98).

In sum, the common policy response has been to protect Indonesia's cultivators by shielding them from the dumping of cheap, imported rice. While it remains true that less expensive, foreign rice would benefit the urban and rural poor (the latter of whom remain net consumers of rice), these interests remain politically unorganized. In today's Indonesia, save for a handful of urban, pro-market think tanks, there are no mass organizations—political parties or social organizations, or other large groups representing the interests of the urban poor, for example—that publicly champion the lowering of rice prices through increased imports. Whether promoting the production of rice at domestic prices that remain above international prices helps the rural poor is an open question.

The Green Revolution in Indonesia—Brief Recap

A great deal has been written about the Green Revolution in general and in Indonesia in particular; only a rudimentary outline need detain us here. Basic statistics confirm the production success of the New Order-led programme. (They say little of its redistributive effects.) Nationally, paddy production grew from 18 million metric tons in 1969 to 38.1 million in 1984, an increase of 112%. Over the same period, yield growth rose from 2.5 tons per hectare to 4.1 tons, or a 64% rise. Nearly three-quarters of the raised production on Java stemmed from yield growth with no marked expansion in acreage devoted to the planting of rice.¹⁰ In the country's outer islands, yield growth contributed to 59% of that area's production increase; the remainder resulted from wet-rice land expansion (especially in eastern Indonesia). A key factor behind this production spurt nationally was the enormous growth in the use of chemical fertilizers. In 1970, rice farmers on Java, for instance, used 101 kilograms per hectare on average; by 1985, their use had increased by more than threefold (Booth 1988:39, 41, 150, Tables 2.7, 2.8, 5.9).

Besides improvements in extension services, research on high-yielding seed varieties, farm-to-market roads, rural banking services, and post-harvest facilities (Mears 1981), specific policy interventions played their part. Soeharto's government fervently defended a floor price, with the aim of inducing cultivators to grow more paddy. At the same time, the New Order deployed state expenditures to defend a ceiling price. The latter was important, according to Bulog's first head, to protect potentially restive urban consumers (Tirto-

10 Java's frontier had closed by the early 1930s (Van der Eng 1996:144; Elson 1997:120).

sudiro 1997:19). And although Bulog actively procured rice, its purchasing operations did not crowd out private trade. In fact, flourishing rural trade in private hands sparked broader, market-based economic activities (Ellis 1993). In all, the regime's policies combined to create a reliable framework for stabilizing prices, which allowed rich and poor alike to plan and invest appropriately, regardless of whether domestic prices were above international market prices (Timmer 1993; Arifin 2008).¹¹ In short, Indonesia's Green Revolution success led to one of the largest mass poverty reductions of the twentieth century (Timmer 2005; Henley 2015).

Then-and-Now Comparisons

Structural Challenges

To show the disingenuousness of comparisons made between this programme and that of today's campaign, we start with structural constraints and the undeniable fact that there is no second Green Revolution on the horizon. If anything, such research and development (R&D) centres as the International Rice Research Institute (IRRI), based in the Philippines, are forgoing research on productive, wet-rice seed varieties. Instead, they are focusing on developing seeds that can better survive droughts and floods, or thrive in harsh upland environments that lack modern irrigation systems.¹² Efforts are also being made to develop genetically modified, nutritionally enhanced seeds—known as 'golden rice'—to enhance the nutritional deficiencies found in white rice.¹³ This change in R&D emphasis is one reason among others that explains recent sluggish yield growth, not only in Indonesia—1.23% per annum from 2000 to 2010, which is below the country's annual population growth of 1.4% over the same period—but also in neighbouring Philippines and Malaysia. As president-elect, Jokowi was reportedly shocked to learn that Indonesia's average planter produced four to five tons of rice per hectare; he pledged to lift this average to eight to twelve tons (Anwar 2014).

11 This pertained more to the 1980s than to the 1970s, when domestic prices were lower than international prices (Pearson et al. 1991:12, 14).

12 The latter, in part, is in response to criticism that the original technology favoured farmers of larger, wet-rice farmland. IRRI calls these new varieties 'climate change-ready' rice. See <http://irri.org/our-work/research/better-rice-varieties/climate-change-ready-rice> (accessed 09-1-2017).

13 See <http://www.goldenrice.org/> (accessed 29-8-2017).

Besides the absence of a second Green Revolution, Indonesia faces sizeable demographic and dietary challenges. Today's self-sufficiency proponents miss the obvious fact that obtaining rice self-sufficiency was easier when there were fewer mouths to feed. In 1984, Indonesia's population stood at 159 million; 30 years later, it was 254 million. Tellingly, Indonesia achieved self-sufficiency in 1984 by cultivating *less than half* of what it produced in (unmilled) rice in 2014. That more Indonesians eat rice today is not merely a consequence of population growth; it has been an enduring legacy of the New Order's Green Revolution programme and the aforementioned expansion of wet-rice lands in the country's eastern half. There the diet of millions of people shifted from being predominantly based on cassava and sago to one based on rice (Van der Eng 1998).¹⁴

Whereas paddy lands may have expanded in eastern Indonesia, in Indonesia's rice granary of Java the rate of land conversion out of agriculture has been unprecedented. While urbanization is often to blame, the processes of suburbanization today pose a greater threat to the existence of the island's rice-producing capacity. The never-ending building of motorways, for example, enables industrial and housing estates to be built further from urban centres, which, in turn, accelerates land conversion (Davidson 2015). Over the last decade the weak regulation of land use, despite stringent laws on the books, has led to an estimated 1.7 million hectares of agricultural land on Java and Bali to be converted to non-agricultural uses (Shirestha 2017:69).¹⁵ The situation in the outer islands looks equally bleak. There government promotion of palm oil and, especially, sugar competes with rice production (Vel, McCarthy, and Zen 2016).¹⁶

Finally, climate change deleteriously affects rice cultivation. A broad range of fluctuating temperatures and unpredictability in rainfall patterns—in part

14 As incomes rise for the top half of the population, rice consumption tends to decline, as people eat more wheat-based products. Indonesia has become the world's largest importer of wheat. But the bottom half—and much of eastern Indonesia is relatively poor—eats more rice and fewer tubers as their incomes rise. The two opposing forces tend to balance each other out. Indicatively, estimates of rice consumption per capita in the early to mid 1980s are nearly equal to the rate from 2007–2011 (roughly 150 kg per annum) (Mohanty 2013). It bears mention that there is no single estimate for rice consumption per capita in Indonesia. Estimates vary widely and government departments (controversially) use different figures.

15 Java has lost (and continues to lose) valuable paddy lands due to soil erosion, too (Lukas 2014).

16 Palm oil, planted in former forest tracts, also competes with hill cultivation of dry rice.

due to the intensified frequency of the El Niño weather phenomenon impacting Indonesia and the region—contributes to a decrease in paddy land acreage. Even with access to modern irrigation, producers cannot plant without guaranteed rainfall (World Bank 2008). Inescapably, rice remains sensitive to climate change because of its heavy dependence on large volumes of water. That other crops, such as maize and cassava, have lower water requirements makes them more resilient to climate change.

Economic Challenges

During the early New Order, Western allies bankrolled Soeharto's anti-communist government by underwriting generous aid packages—for instance, 60% of the regime's first five-year development plan in 1969 was sourced from foreign assistance (Mas'od 1983:142, 147–8). Subsequently, the economic importance of aid was surpassed by massive oil and gas tax receipts as a result of the 1970s oil booms. These oil price hikes, along with improved investment rates and technological progress achieved in the manufacturing and agricultural sectors, fuelled rapid growth. Multifold increases in the country's development budgets reflected such economic expansion: they soared from Rp. 5,734 billion in 1972 to Rp. 13,958 billion in 1980 (Sundrum 1986:49, Table 5). For rice production specifically, burgeoning fiscal capacity was deployed to subsidize inorganic fertilizers used by the country's rice farmers. From Rp. 32 billion in 1977–1978, subsidies ballooned to over Rp. 730 billion by 1983–1984 (Tabor 1992:182, Table 6.11).

Today's current fiscal situation looks less promising. For starters, there have been no windfall oil-boom receipts. In fact, oil price spikes now damage Indonesia's financial standing, since the country has become a net oil importer since 2003. Nor does Indonesia today enjoy reams of Cold War aid pumping through its economy. To be sure, in late 2014 President Jokowi boldly slashed trillions of rupiah from fuel subsidies that were acting as a drag on economic growth. A large portion of these savings has been redirected into a badly needed infrastructure improvement programme. Some of these monies have been allocated, for example, for the building of large-scale irrigation reservoirs; about 50 are planned. These savings, however, have also been directed into infrastructure beyond the agriculture sector, including the construction of high-speed trains, toll roads, harbours, airports, and electrical power stations. In short, the attainment of rice self-sufficiency, while a high-profile goal, lacks the single fiscal focus that it once had under Soeharto. The country's current economic priorities are simply more complex than they were in the early 1980s. Then, in 2015, Indonesia's economy was hit by a slide in commodity prices. A tax revenue shortfall of Rp. 219 trillion (US\$19 billion) forced Jokowi to slash government expenditures by Rp. 137 billion in the second half of 2016.

Meanwhile, revenues forecast for the state budget in 2017 were 0.03% below those from 2016 (Negara 2016) (This figure is worse than it appears when we factor in 4% inflation.) In short, Indonesia's days of financial profligacy in pursuit of rice self-sufficiency at all costs are a thing of the past.

Political Challenges

International Dimension

Economists have argued against Indonesia's efforts to reach rice self-sufficiency from a cost-efficiency perspective (McCulloch 2008; Warr 2011; Osorio et al. 2011). Yet political constraints are as formidable economic objections, which is ironic given that the production programme is in essence a political project. The first part of my argument can be summed up as follows: while the international community backed Soeharto's pursuit of rice self-sufficiency, it does not support the same aim as pursued by today's democratic governments.

In the context of the Cold War, Western powers hoped that voluminous lending combined with judicious spending would stabilize Soeharto's incipient anti-communist regime as well as boost its legitimacy. Key to this geopolitical project was enhancing food security. As hinted at above, food insecurity was deemed to have contributed to the radicalization and instability of Sukarno's government (Arifin 1997:5–6).¹⁷ Borrowing the language of today's democratization literature (although with a twist): while the killing of hundreds of thousands of communists and those suspected thereof might have enabled the transition to authoritarianism, the achievement of rice self-sufficiency would help to consolidate it.

While the high-yielding seed varieties were produced by IRRI in the Philippines, the United States Agency for International Development (USAID) coordinated early Green Revolution-related projects in Indonesia. The aid agency was blunt about the visibility of its role:

AID's role in this assistance effort is specifically designed to strengthen the administration, and operation of the BIMAS¹⁸ program, an extension service program for increasing rice production through wide-scale application of modern technology, supply and distribution of new agricultural inputs including seed of high yielding varieties and credit on reason-

17 Arifin headed Bulog from 1973 to 1993.

18 Bimbingan Massal (Mass Guidance).

able terms. AID's assistance to BIMAS includes both a technical assistance project and a development loan component.

HAWES 1970:113

This same source then details key roles that were being played by foreign coalition partners: the Harvard Development Advisory Service (sponsored by the Ford Foundation) was conducting surveys; the Asian Development Bank (ADB) was lending agro-economists; the FAO and the Australia Freedom from Hunger Campaign were conducting fertilizer demonstrations; Germany was providing technical and commodity assistance; France was conducting fertilizer trials; the United Kingdom and the FAO were conducting rice-processing studies; Japan was training seed inspectors and providing farm equipment; the Ford Foundation was testing rice varieties; and, finally, the Netherlands Economic Assistance Mission was conducting pest control research (Hawes 1970:114–6). Even prior to these multi-national aid activities, the World Bank, from 1966, had been working to rehabilitate Indonesia's dilapidated irrigation structures (Van der Eng 1996:61–2).

The urgency of the West to secure the country's food situation can be gleaned from the following figures: from 1969 to 1978, the US exported about 2.51 million tons of rice to Indonesia, or 72,000 tons more than Thailand did over the same period. This was despite the fact that Thailand was then the region's predominant rice exporter and located only 3,000 kilometres from Jakarta, Indonesia's primary port (Mears 1981:30, Table 2.5).

Today, the IFIs have pivoted on the matter. They (and their government creditors) no longer see the domestic production of rice as the appropriate means to achieve food security in Indonesia (or in other rice-deficit countries). Instead, they view food security through primarily a market-based lens. That the global North favours trade liberalization, while protecting their home markets, has made agricultural trade policy arguably the most contentious issue at World Trade Organization negotiations (McMichael 2014). More specifically, the IFIs see self-sufficiency campaigns as an excuse to maintain protectionist barriers (in order to protect powerful, vested interests) and as a waste of scarce public resources.

Instead, they prefer rice-deficit countries like Indonesia (but also neighbours like the Philippines and Malaysia) to defer to the comparative advantage of the traditional rice exporters of mainland Southeast Asia, characterized by their wide river deltas, favourable rice-land-to-people ratios, and low domestic production costs (Dawe 2006). As such, rice importers—Indonesia imports between 1 and 4 % of its consumption and stockpiling requirements per year, the Philippines roughly 10 %, and Malaysia about 30 %—should purchase more

of the cheaper foreign rice. These rice-growing yet rice-deficit countries typically retort that they cannot trust the international market because of its price volatility. Volatility is a result of this market's thinness—only 10% or so of all rice produced is traded internationally. The IFIs, in turn, respond that if such large countries as Indonesia import higher amounts, this will then 'thicken' the market and dampen volatility. This policy recommendation explains the opening phrase in the title of a major study on rice trade liberalization published by the World Bank: 'Trusting trade' (Alavi et al. 2012). Even IRRI now publically frets over the consequences if countries pursue self-sufficiency 'at any cost' (Mohanty 2012).

Meanwhile, the research and resulting policy recommendations of foreign organizations that have been critical of Indonesia's rice self-sufficiency drive have been received harshly by the country's policymakers and officials. Findings by the likes of the World Bank, in 2006, and the Organisation for Economic Cooperation and Development (OECD), in 2012, have stressed the detrimental effects that protectionism (in order to achieve rice self-sufficiency) has had on the incomes of the tens of millions of urban poor and small-scale farmers (the majority of whom remain net consumers of rice) as a result of high domestic rice prices. The poor spend nearly one-third of their income on food (McCulloch 2008). Indonesia's high production costs are undeniable. In 2007, the cost to produce a ton of medium-quality rice in Indonesia was US\$365 versus US\$267 in Thailand. A decade later, according to the FAO, rice in Indonesia on average was selling for US\$0.79 per kilogram compared to US\$0.42 in Thailand and US\$0.31 in Vietnam (Sugiharto 2017).

Regardless, Indonesian commentators, officials, and agricultural economists have lambasted the findings of the World Bank and the OECD for their shallow understanding of Indonesia's domestic situation—for example, they noted how higher prices provided inducements to farmers who generated record harvests that allowed Indonesia, as was mentioned above, to avoid rice shortages during the 2008 regional scare. They also underlined the hypocrisy of Western powers imposing agricultural trade liberalization on Indonesia without the reciprocal opening up of their own home markets (Sugema 2006).¹⁹ In all, in the 1970s and 1980s, the international community wanted Indonesia to achieve rice self-sufficiency. Today, it does not. If Indonesia does achieve self-sufficiency, it will likely have done so by itself.

19 See also 'Indonesia's agriculture minister lashes out at OECD food report', *Jakartaglobe.id*, 15-10-2012. <http://jakartaglobe.id/archive/indonesias-agriculture-minister-lashes-out-at-oecd-food-report/> (accessed 09-1-2017).

A Critique of the Green Revolution's Production Success

Observers have criticized Soeharto's Green Revolution programme, despite its production success, on a number of fronts—for its creation of a kulak class of farmers (Robison 1986; Hart 1986),²⁰ for its disruption of traditional planting and irrigation schedules (Lansing 1991), for its coerciveness (Hansen 1972), for its cynical denigration of swidden rice cultivation (Dove 1985), and for its threat posed to the country's genetic diversity of seed varieties (Fox 1991). Below I, too, offer a critique, but from a novel perspective. I focus on what appears to be an unassailable feature of the programme's success: its production. The crux of my argument lies in the length of time it took Soeharto's government to reach rice self-sufficiency—sixteen years, if we take the starting point of Soeharto's rule as 1968. This was a long duration given the generous amount of foreign support highlighted above and the absence of meaningful domestic opposition. After all, the anti-communist massacres had recently concluded and a repressive atmosphere clung to Java's heartlands for years subsequently.

The programme's early missteps in production output have been obscured by its eventual success. Yet we should be reminded that officials had set 1973 as the original target for self-sufficiency (Wharton 1969:472; Hawes 1970:113; Higgins 1972:9). In that year—which would already approximate one term in today's presidency—the country missed its production target by a whopping 23%. As a result, Indonesia imported a record 1.2 million tons of rice (Mears 1981:232). Soeharto's government was able to stabilize rice prices only because of these imports. Subsidized by sizeable foreign-aid receipts, the average import volume per annum from 1969 to 1973 was nearly twice that of 1964 to 1968 (Mubyarto 1975:125, 127). Not only is it questionable whether a sitting president today could be re-elected with this blot on his or her developmental record; it also indicates that, after five years or so, Soeharto's progress on rice production was hardly an improvement over the much maligned programmes instituted by the previous Sukarno government.²¹

20 This has been refuted by others. Manning (1988:1) stresses that 'in rural Java in the early 1980s' there was 'a remarkable turnabout in the fortunes of poorer, landless households compared with the rather dismal picture given by village studies conducted in the late 1960 and 1970s'. Although I focus on production, Manning's findings (that it was not until the early 1980s that there was a dramatic turnaround) corroborates this article's argument. Still, despite Manning's conclusion, later studies such as Pincus (1996) insist that the Green Revolution worsened Java's inequality.

21 Without a doubt, Indonesia suffered a drought in 1972, but Sukarno's government faced similar natural disasters; 1961 and 1963 were especially dry (Van der Eng 1996:35). Meanwhile, Mubyarto (1975:129) suggests that pest infestations (as a result of the monocropping

Rice production continued haltingly for years after the missed target of 1973. Imports, for instance, comprised 10% of domestic consumption on average from 1977 to 1980 (Mears 1981:2). Other statistics tell a similar story. In 1965, arable rice lands under irrigation stood at 24% nationwide; ten years later, this figure had inched up slightly. As for per-capita food production, using a baseline of 100 from 1953–1957 (a period when Indonesia suffered from chronic food shortages), Indonesia's productive capacity, from 1973 to 1977, improved marginally to 107 (Hayami and Kikuchi 1981:43, 47, Tables 3.3, 3.7).

In 1977, the regime's burgeoning oil tax revenue helped to finance a new import record (1.96 million tons).²² If we readjust this 1977 import figure to match today's population on a per-capita basis, it would equate to 3.59 million tons of imported rice some ten years after Soeharto seized power. Yet, in 2015 Indonesia imported a mere 0.85 million tons, although this figure is still bemoaned by self-sufficiency proponents. Apologists for Soeharto might counter that other priorities held his attention at the time—in the late 1960s and early 1970s, for instance, mop-up operations against the communists (and alleged communists) were still ongoing. The general also fretted over purging Sukarnoists from government and solidifying his coalitional network of support to sustain his leadership. There was also raucous fallout from internal power struggles that required containing—notably the Malari riots of Jakarta of 1974 (Crouch 1978). In this light, Soeharto may not have acquired the single-policy determination to achieve rice self-sufficiency until the mid to late 1970s. But, as it was shown above, the international support system for the Green Revolution had been in place a decade earlier. Again, if adjusted for today's context, this time period (the late 1960s to the late 1970s) represents what amounts to the maximum that today's presidents can serve: two five-year terms.

Meanwhile, once Indonesia reached rice self-sufficiency and the FAO awarded Soeharto its prize, the regime shifted its resources and energies out of food crop agriculture. The government's development budget devoted to agriculture, for instance, declined from 9.6% in 1978–1983 to 5.7% by 1993–1998

of the high-yielding varieties) and the late distribution of fertilizers contributed to the poor harvest of 1972, although these aspects went unmentioned in government reports. Even Bulog officials admitted the mistakes they made in lowering the procurement target of Bulog prior to the 1972–1973 season (Ali et al. 1996:126).

- 22 See <http://ricepedia.org/indonesia> (accessed 30-8-2017). While dips in production in the mid 1970s in part was on account of an infestation of the brown plant hopper (Pearson et al. 1991:14), as it was mentioned above, the monocropping of the high-yielding varieties and the widespread application of inorganic fertilizers increased the frequency and intensity of such infestations.

(Sawit and Lokollo 2007:8). Cuts in the large fertilizer subsidies accounted for the lion's share of this decline.²³ Understandably, the World Bank had grown concerned over the great expense of Indonesia's rice production programme (Tabor 1992).

As the urgency behind rice production waned, policymakers shifted the economy toward export-oriented manufacturing concentrated in Jakarta's suburbs. Driven by the oil price decline of the early 1980s, the export of non-oil manufactured products generated the foreign exchange needed to pay down the government's large external debt (Azis 1994:392). Import schemes and duties were dismantled to help exporters, and currency devaluations also took place in 1983 (28%) and in 1986 (31%), making Indonesia's manufactured products more competitive on the international market.

Then, in the late 1980s, successive deregulation packages helped to spark a bull run on the stock market as the country's financial and banking sectors became the primary drivers of economic growth under the late New Order (Matsumoto 2007). This refocus inexorably placed constraints on the country's rice sector. From 1990 to 2000, for example, rice production rose a mere 1.4% on an annual basis, with yield growth contributing less than half to this marginal growth. Combined with steady population growth and the shrinking of acreage devoted to the planting of rice on Java, pressures to import high quantities of rice mounted. Accordingly, Indonesia imported 3 million tons in 1995 (then a record) and another 2.1 million in 1996. The timing of these enormous imports matter, for they preceded the 1997–1998 AFC and the period's El Niño weather phenomenon. In other words, they occurred under the watch of Soeharto, the self-styled patron of the Javanese peasant.

Domestic Political Constraints

To considerably raise yields and the overall production of rice constitutes a complicated developmental task. It requires a wellspring of resources and, equally as important, the ability to coordinate multidimensional policies and their implementation across ministries and down to field-level bureaucrats. Meanwhile, millions of cultivators need to be convinced to switch to the new technology. These complexities are heightened when compared to the simplicity of purchasing large amounts of rice on the international market to meet consumption (and stockpiling) demands. Given the developmental difficulty of such a programme as the Green Revolution, failures are bound to happen, as they did under Soeharto. But analytically speaking, problems arise when

23 From Rp. 842.5 billion in 1986–1987, they had plunged to Rp. 175 billion by 1991.

selective comparisons are made with his past success, as if the New Order's programme was implemented flawlessly and its success achieved seamlessly. Not only does the luminous glow surrounding the accomplishment obscure the programme's blunders, but rarely is the country's vastly changed context surrounding the comparison taken into account adequately. As we saw above, with a tight grip on political power, the authoritarian Soeharto was not pressured by re-election imperatives. He enjoyed long-time horizons that facilitated long-term planning and enabled him to recover from missteps in ways that today's leadership cannot. The latter are under more pressure to produce immediate results. The following hypothetical should reinforce this point. If Jokowi's administration were to import record amounts of rice in consecutive years (as Soeharto did in the 1970s and in the mid 1990s), Jokowi's re-election chances would plummet. It would amount to political suicide.

In addition to the problem of shortened time horizons, today's leadership has had to contend with a more plural and open political environment than Soeharto did. Soeharto was unencumbered by resistance or political opposition, especially during the 1980s, when his power was at its peak. The former general had created a tightly centralized system not only for the distribution of rents, but also for policy formation at the national level and for its implementation on the ground (McLeod 2005).

Today, presidents grapple with more fractious administrations across ministries and across government units. I shall tackle the former first. By design the Indonesian presidency was weakened under democratization to forestall future dictatorship and to create a system of checks and balances (Horowitz 2013). An emboldened parliament has been a key part of these changes in governance. For example, in 2011, parliamentarians threatened to block President Yudhoyono's budget proposal (specifically, allocations for Bulog) until rice imports were stopped; such actions were unheard of under Soeharto.²⁴ Moreover, publicized, intra-cabinet tensions have hampered Yudhoyono's and Jokowi's administrations. Illustratively, squabbles over rice imports between the Kementerian Perdagangan (Ministry of Trade) and Kementerian Pertanian (Ministry of Agriculture) have been particularly prominent (Patunru and Basri 2011). It was widely believed, for example, that in 2014 Yudhoyono's trade minister, Gita Wirjawan, was forced to resign from his cabinet post because of a controversy surrounding the apparent illegality of rice imports from Vietnam.²⁵ In

24 'DPR ancam tahan anggaran Bulog', *Hukumonline.com*, 14-3-2011. <http://www.hukumonline.com/berita/baca/lt4d7e27b73fd63/dpr-ancam-tahan-anggaran-bulog> (accessed 28-8-2017).

25 'Mundur dari kabinet, Gita Wirjawan sangkal terkait kisruh impor beras', *Tribunnews.com*,

general, the Agricultural Ministry has been a strident opponent of imports (in part, because imports imply the ministry has failed to fulfil its mandate). The pro-import technocrats in the Ministry of Trade (few in number), meanwhile, do not trust the statistics the Agriculture Ministry publicizes to argue against imports. But even the pro-import side suffers from rifts. Bulog and the Trade Ministry, for instance, have tussled over the right to determine the size and timing of the imports, as well as the distribution of the import licences. Rent-seeking considerations are one cause of this specific fissure (Arifin 2001:59; Yonekura 2005:123, 141). The Trade Ministry had the upper hand under President Megawati Sukarnoputri (2001–2004), as her administration was busily reorganizing Bulog's corporate structure so that it would fit with Indonesia's new, decentralized governance (Rachman, Purwoto, and Hardono 2005). By the time of Yudhoyono's second administration (2009–2014), however, Bulog had clearly regained the authority over rice import decisions (save for the president's own power) (Pratomo 2012).

A second arena of increased plurality and power diffusion in democratic Indonesia involves changing national-local government relations. In contrast to Soeharto's centralistic governance system, today the situation has changed dramatically; a post-Soeharto programme of decentralization has devolved genuine fiscal, administrative, and political power to local governments.

One result has been the empowerment of district governments to raise local revenue for development.²⁶ Yet, this imperative threatens rice production, since paddy lands produce lower returns on capital investment than housing or industrial estates or other commercial establishments. This dilemma has public-policy and private-interest implications. As for the former, the measly amount of taxes raised from rice farming are insufficient to fill local budget gaps for development purposes—from improving local roads to building new market centres, let alone paying for routine expenditures such as the salaries of thousands of civil servants. As for private interests, with the introduction of direct elections (in 2005) of district executives, victorious candidates are now compelled to repay major campaign donors. Repayment methods typically involve distributing licences to more lucrative construction projects than paddy fields can generate (Aspinall 2013).²⁷

31-1-2014. <http://www.tribunnews.com/nasional/2014/01/31/mundur-dari-kabinet-gita-wirjawan-sangkal-terkait-kisruh-impor-beras> (accessed 29-8-2017).

26 This does not mean many have done so successfully, but most have increased efforts to do so (Lewis 2014).

27 Research on Java has shown that only when farming-specific issues, such as irrigation,

The wrangle over the interpretation and implementation of food security directives also illustrates the discord between central and regional government objectives.²⁸ In the original 1999 decentralization legislation, for instance, the central government retained authority over matters pertaining to national security (*keamanan*).²⁹ Yet, in Indonesian, ‘food security’ is translated as *ketersediaan pangan* (the phrase *keamanan pangan* is usually rendered as ‘food safety’). So a certain degree of administrative and legal uncertainty was created, of which local governments have sought to take advantage. Nor have all shared the central government’s enthusiasm for increased rice production; even in rice-surplus areas, some prefer crop diversification.³⁰ While the central government sought to eliminate such ambiguity with the passage of a new Food Law in 2012,³¹ it did not get its wish. Such legislation in Indonesia (as elsewhere) is often a product of compromise. The law states that the central and regional governments are both responsible for food provision (*ketersediaan pangan*) (Article 12). To shore up this deficit in legal authority, Jokowi has borrowed from a tried-and-tested tactic of the New Order—leaning on the material power of the army to get one’s policy objective implemented. With Jokowi’s blessing, the army has been active in mobilizing farmers in the name of food security (Syailendra 2017). The key institution in this development has been the Babinsa, a revitalized version of the village military unit that was an infamous component of the New Order military’s control over the civilian population.³² For democracy advocates, Jokowi’s militarization of food security cannot be a comforting trend.

Finally, the proliferation of farmer groups, an outcome of the comparative freedom of Indonesia’s democracy, has also complicated domestic rice policy. It might appear that the empowerment of such groups would bolster Indonesia’s drive for rice self-sufficiency, and often this is the case. But central government objectives and those of these organizations can also clash. For example, in their advocacy for land reform, many farmer groups want millions of hectares

become a prominent local political issue, do district leaders pay adequate attention to rice-cultivation concerns (Ricks 2016).

28 For more on this dilemma, see Vel, McCarthy, and Zen 2016.

29 This has remained unchanged in subsequent amendments to the 1999 legislation.

30 This sentiment was expressed in interviews with local agricultural officials (head of the Agricultural Department, Manggarai District, West Flores, 18-5-2017; assistant head of the Agricultural Department, Maros District, South Sulawesi, 21-2-2017).

31 Undang-Undang Pangan, UU18/2012.

32 ‘Babinsa’ is an abbreviation for Bintara Pembina Desa, which is the title of a non-commissioned officer at the village level.

of unused state lands to be redistributed to landless or other land-poor farmers. This issue informs much of the debate behind efforts to pass a new parliamentary land law.³³ Some officials, however, question whether redistributing land to poor farmers is an effective means to achieve rice self-sufficiency. They contend that larger farms, which they believe to be more productive, should be the beneficiaries of special government assistance.³⁴ Of course, these farms are also the main beneficiaries of the country's high rice prices. Similarly, not all farmer advocates embrace the central government's obsessive focus on rice production. What about the millions of poor, non-rice agriculturalists, they query, who frustratingly receive less government assistance? Some activists would also prefer livelihood enhancement schemes to receive priority. Among other things, this can imply shifting government support to such higher-value crops as vegetables and tree crops.³⁵ Finally, some of these groups have joined forces with Indonesia's environmental movement to promote the use of organic pesticides as a component of a more sustainable, integrated pest management approach (in contrast to the chemical dependency fuelled by the Green Revolution).³⁶ Given the gravity of these aforementioned obstacles, it might come as a surprise to learn that from 2004 to 2014, unmilled rice production under a democratic Indonesia rose 2.37% on an annual basis, higher than the 1.96% achieved during the last decade of Soeharto's authoritarian rule.³⁷

33 For a discussion of the draft law, see Bedner (2016:82–5). The law, if passed, would aim to supplement, not replace, the iconic 1960 Basic Agrarian Law (Undang-Undang Pokok Agraria). See also chapters in Lucas and Warren 2013 and Neilson 2016.

34 See interviews with Ir. Sudirman Maman and Eddy Suntoro, Food Security Council, Ministry of Agriculture, Jakarta, 19-5-2016; see also Ambarwati et al. (2016:289–90). Despite the longstanding debate, the preponderance of evidence suggests that on a per-hectare basis smallholdings are more productive than larger farms.

35 Perhaps more importantly (and controversially, from the point of view of advocacy groups) is the promotion of more opportunities for off-farm income generation. This was the largest factor in reducing poverty, especially on Java, in the 1970s and 1980s.

36 Interviews with Said Abdullah, director of Koalisi Rakyat untuk Keadaulatan Pangan, Bogor, 14-7-2016; Adrianus Harsi, staff of Baku Peduli, Labuan Bajo, West Flores, 15-5-2017; and Ambarwati et al. (2016:268). On the interplay between the agrarian and environmental movements in Indonesia, see Peluso, Afiff, and Rachman 2008 and Bachriadi, Lucas, and Warren 2013.

37 See <http://ricepedia.org/indonesia> (accessed 09-1-2017).

Conclusion

Policy recommendations on Indonesia's rice sector abound. Market liberals pine for Bulog's import monopoly to be repealed so that freer trade could result in lower rice prices. While pockets of technocrats in Indonesia's bureaucracy may support this option, this policy for the foreseeable future is politically not viable. The vocal interests, from politicians to leaders of mass organizations, support increased domestic production to reduce the country's dependency on rice imports. Trade proponents maintain that Indonesia's 'silent majority' wants cheaper food, and there may be good reasons to make this assertion. At the same time, there is little evidence to suggest that the majority wants cheaper food via higher imports. While this stance may appear contradictory, this is currently the impasse at which Indonesian politics and society finds itself.

Meanwhile, supporters of rice self-sufficiency celebrate Soeharto's past production success—albeit selectively. They underplay the great expense of the programme, which benefited from generous foreign aid (financial and technical) that today is unavailable. The international community no longer supports rice self-sufficiency as it once did. Self-sufficiency proponents also insufficiently appreciate the programme's mistakes, which resulted in record imports, and the lengthy time it took to achieve its goal under authoritarian conditions unencumbered by political opposition. Many other structural challenges, like the lack of seed-varietal technological breakthroughs, the country's rapid urbanization and population growth, and now decentralization can be added to this list. Comparisons across eras need to be made judiciously, adjusting for changes in context.

If we split the middle between the polarized positions of liberalization (freer trade, more imports) and productionism (or high-price protectionism), what less politicized policies are available to recommend? Boosting post-harvest efficiency would be advantageous, since this would increase the amount of rice brought to market, thereby reducing the urgency behind the costly expansion of irrigation systems and paddy lands expansion. It would even lessen the imperative of applying evermore environmentally damaging inorganic fertilizers. Equally as important, an increased supply of rice available in the domestic market should bring down local prices, but only if the country's long distribution chains were shortened. So, upgraded post-harvest facilities (like milling and drying capacities), more farm-to-market roads (especially outside Java), and a streamlined marketing network would bring tangible welfare gains—as would broadening government objectives to include livelihood enhancement schemes, including off-farm income generation.

Democratic Indonesia could also more assertively trumpet its successes in the face of the severe constraints laid out in this article, from the short-term time horizons of democratically elected officials and tight fiscal space, to central and local government policy discord and international pressures to ditch rice production schemes. This public-relations campaign could counter the negativity that pervades most assessments of the rice sector (see, for example, Barichello and Patunru 2009). Indonesia imports rice on a per-capita basis far less than it did during most years of the New Order. The country also on average imports a much lower percentage of its domestic requirements than such neighbouring countries as the Philippines and Malaysia. This is commendable because all three countries push domestic rice prices above those on the international market, yet Indonesia outperforms them at producing rice for domestic requirements.

In fact, besides Indonesia, the Philippines and Malaysia have also controversially embarked on pricey rice self-sufficiency campaigns following the 2008 rice scare. Distrust of the international market is not *sui generis* to Indonesia. Neither is the issue of rice imports in these two countries, however, as politicized as it has become in Indonesia, even though these cases share key features. These include Green Revolution production increases, food parastatals with monopoly powers over rice imports, competitive elections that can lead to the adoption of populist-oriented policies, and worsening income inequality. A key difference among them lies in their nationalist pasts. Neither in the Philippines nor in Malaysia did the role of the poor rice farmer in their respective nationalist imaginations prove as potent as it did in Indonesia. Philippine nationalism was characteristically more top-down and elitist than in Indonesia, and the negotiated process of Malaysia's independence, along with its deep ethnic divides, has dampened the power of similar agrarian, nationalist sentiments (Sidel 2012).

Seen in this light, Indonesia's rice policy is not solely at the mercy of the short-term, material interests of the protectionists, as market liberals seem to imply frustratingly (see, for example, Patunru and Basri 2011:208). Ironically, as Indonesians become wealthier and more urban, the politicization of rice is not waning, but on the rise. Indonesia's nationalist past powerfully retains its hegemonic grip over today's rice sector, and this mighty historical force is not as amenable to change as key policy reforms are. The lifting of a monopoly on rice imports can be accomplished with a stroke of a presidential pen. An ideology born out of a country's nationalist past cannot be as easily undone.

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