

Public Stockholding in Southeast Asia: Review and Prospects

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1. Introduction

Food reserves, both private and public, command a renewed level of attention in today's era of food price volatility. In the 1980s and 1990s, public stockholding fell into disfavor, particularly with the worldwide failure of price stabilization schemes. At the same time, economic theory developed an increasing understanding of private storage. By the 2000s however the role of public storage is being reassessed as a possible safeguard against recurring food crises.

In this context, this paper examines the actual practice of public stockholding in the case of Southeast Asian countries. Southeast Asia hosts some of the world's largest producers and consumers of rice, a key grain staple in Asia. Some of the largest exporters in the world are in the region, namely Thailand and Vietnam; likewise some of the largest importers, namely Indonesia and the Philippines. Malaysia is also a significant importer. Brunei and Singapore, the two high income economies, rely almost entirely on imports (but are small players in the market). The Association of Southeast Asian Nations (ASEAN), together with the the Plus Three countries, namely China, Japan, and Republic of Korea, have recently established a regional emergency rice reserve. The experience of the region may serve to illuminate the potentials as well as pitfalls of relying a public stockholding approach to short-term food security.

The rest of this paper is organized as follows: the rationale for public stocks as emergency food reserves is discussed in Section 2. National level experience with public stocks is taken up in Sections 3 and 4, with the latter focusing on the case of the Philippines. Section 5 looks at the regional emergency rice reserve scheme. Section 6 concludes with a brief summary and looks forward to the future of public stockholding in Southeast Asia.

2. Rationale for public stocks

In competitive equilibrium theory, the problem of risk is solved under the ideal of complete markets. Information is assumed to be common to all agents, who trade a set of state-contingent securities. In this case, general equilibrium exists and is Pareto optimal.¹ In fact information is not symmetric and the set of state-contingent securities are far from complete owing to transaction cost, adverse selection, and related problems. Nevertheless the complete

¹ Arrow, K., 1953. The Role of Securities in the Optimal Allocation of Risk Bearing. *Review of Economic Studies*, 31(2):91-96.

markets model offers a benchmark by which to evaluate the presence of market failure.

State-contingent securities is not the only mechanism by which private markets deal with risk. If storage is feasible, traders who foresee a higher price tomorrow can hold stocks today in anticipation of making a profit. The release of stocks in response to a realized higher price in turn attenuates the price increase. Such intertemporal arbitrage is the central idea behind the competitive storage model. A convenient stylization is as follows:

- a representative risk-averse consumer maximizing intertemporal utility;
- a representative risk-averse producer maximizing intemporal utility;
- a representative risk-neutral trader who performs marketing and storage, and maximizes intertemporal profit;
- all agents are price-taking and behave according to rational expectations.

Under these conditions, competitive equilibrium implies a level of storage such that the marginal cost of stocks (storage service, deterioration, and opportunity cost of capital) equals the marginal gain (the expected future price of the stock). This level of stock is not necessarily the optimal from a social perspective. The risk-neutral trader fails to take into account risk-aversion of the representative consumer to price variability, hence underprovides storage.²

Even worse problems arise in relation to food security. *Ex post*, intertemporal arbitrage will in case of extreme shocks, fail to address price increases owing to the non-negativity restriction in stocks (i.e. there is no borrowing from future stocks). Nor does the motive of intertemporal maximization of expected profit take into account wider social consequences of extreme price increases, such as humanitarian crisis (starvation and death of the most vulnerable), and breakdown in law and order (e.g. food riots).

Under this new approach, public stocks are held as emergency reserves. Releases from public stocks can be triggered by a severe supply contraction and/or price increases. To address humanitarian goals, releases may take the form of targeted safety nets. Price stabilization is not a goal of emergency reserves, although sizable and well-timed releases may exert a calming effect on markets and thereby stave off even worse price increases.

Such a rationale for public stocks contrasts sharply with traditional public buffer stock schemes which usually do aim at price stabilization. In such schemes, stocks are usually owned and procured by parastatal agencies, often as part of a domestic producer support scheme. Releases are supposedly made during periods of rising prices to protect consumers, in some countries at below market rates. The aim is to maintain a target price for producers

² Gouel, C., 2013. Optimal food price stabilization policy. *European Economic Review* 57 (1): 118–134.

and consumers, or at least keep prices within a band.

The new rationale for public stocks for food security may unfortunately end up promotion of public stock schemes in the traditional mould. Price stability is narrowly equated to food security and the considerable powers of the state placed at the service of the traditional stabilization program. The association of food security with market-distorting schemes is explored in detail in the following case studies.

3. Approaches to public stocks in selected Southeast Asian countries

Thailand

Historically, Thailand has not kept a food security reserve for rice, citing its status as a surplus country. Since the 1970s, the government has been implementing a price hedging scheme under a paddy pledging program. Farmers take out a loan, pledging their harvest as collateral; the loan could be settled at the government price, which was normally on par with the market price. If the market price turns out to be higher, the farmer could then sell to the market and settle its loan on favorable terms.

In 2011, the newly elected government raised the settlement price to about \$500 per ton of paddy, about \$770 per ton of milled equivalent. This already far above the prevailing FOB prices, even disregarding processing and marketing costs. The pledging program was transformed into an expensive produce price support scheme.

Naturally, public stockholding was deployed in service of this scheme. Government stockpiles ballooned, reaching 16.7 million tons in milled equivalent by in end-2013, compared to 7.2 million tons at end-2011, at the start of the new pledging scheme. The program was successful in raising the paddy price; however Thai rice exports have fallen, with the country now ceding the top position to India³. The program has furthermore more imposed an enormous fiscal burden; since 2011, government has spent THB 680 billion, purchasing 44 million tons of paddy, but managing to sell only THB 200 billion.⁴

The program has been roundly criticized for its cost, distortionary effect on the rice market, and vulnerability to corruption. Nonetheless the Minister of Commerce has defended the scheme, claiming that "government has to manage the rice stock on hand both in terms of pricing for export and domestic stock, which is an important [sic] to **national food security** [underscoring supplied]".⁵

³ FAO, 2013. Rice Market Monitor November 2013, vol. XVI No. 4.

⁴ <http://www.bangkokpost.com/business/news/387566/seeking-a-grain-of-truth>

⁵ <http://www.thaigov.go.th/en/news-room/item/72404-the-governments-rice-pledging-policy.html>.

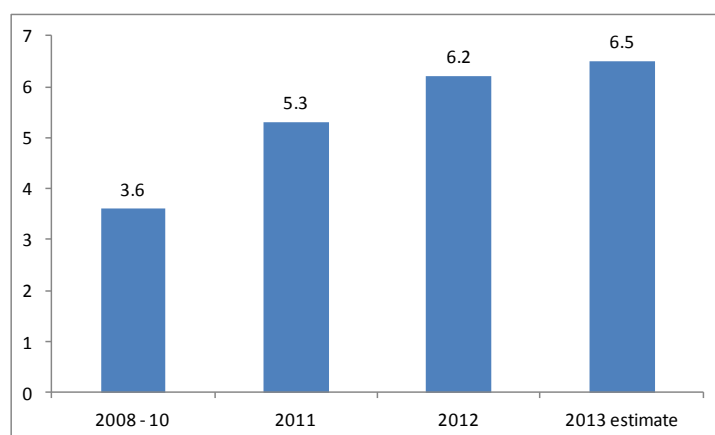
Indonesia

In contrast to Thailand, Indonesia has formulated an explicit state policy on food reserves based on national law. The Food Law of 2012 enacts a system of public food reserves, based on a hierarchy from government food reserve, down to provincial, regency/city, and to village food reserve. The Law furthermore mandates *food self sufficiency*, i.e. ensuring domestic production and reserves be adequate to meet food demand. Imports are prohibited except when necessary in case of a shortfall of domestic production and reserves. The system will be operationalized by implementing rules and regulations which are underway.

Unfortunately self-sufficiency provisions in Indonesia (and similar regulations in other countries) suffer from vagueness; after all, when domestic supplies are low (relatively say to past harvest or to trend growth), domestic demand can be fit to that supply simply by making domestic price sufficiently high. The Food Law does provide for Food Affordability, but assumes that imports can be eliminated without compromising this norm; presumably this can be achieved by promoting domestic production and reserves.

In fact, the Perum BULOG – a state trading enterprise – stockpile 2 million tons of rice by end-2013, following government instruction.⁶ Total stocks in the country are estimated at 6.5 million, up from 3.6 million tons in 2008 – 10 (the years of the food crisis). Clearly this is to ensure that the country need not resort to imports in the event of a domestic production shortfall.

Figure 1: Stocks of rice in Indonesia, in million tons milled equivalent



Sources: FAO Rice Market Monitor November 2013 (years 2012 and 2013); FAO Rice Market Monitor January 2013 (years 2008-10 and 2011).

⁶ USDA FAS 2013. Indonesia Grain and Feed Annual Report 2013. GAIN Report No. ID 1318

Meanwhile on the production side, since 2002 government has been implementing a massive fertilizer subsidy scheme. By 2009 the subsidy reached IRP 16.3 trillion (\$1.63 billion); in 2012 the subsidy was adjusted downward to hold down costs, but still at IRP 13.9 trillion, compared to IRP 19.5 trillion budget of the Ministry of Agriculture.⁷

Malaysia

The food security argument in favor of public stocks does not necessitate public ownership of stocks; the desired level can be reached by some incentive or regulation scheme (or both) on private stocks. Malaysia is an example of deployment of private stocks, in this case owned by BERNAS, for national food security. The company is under contract with the government to maintain a National Rice Stockpile, currently at 292,000 tons, up from 92,000 tons before 2008. The contract confers exclusive import rights to BERNAS, effectively making it a monopoly (though the right can be assigned by BERNAS to other traders). BERNAS views the National Rice Stockpile not only as food security but also for price stabilization.⁸ Such treatment of the stockpile is understandable in the context of the overall distortion caused by the import monopoly and producer support schemes of the national government. One may therefore regard Malaysia policy, despite private sector participation, as falling well within the traditional mould of buffer stocking.

Singapore

In contrast to Malaysia, Singapore exemplifies the case of full private sector engagement for the food security requirement of the state. Such engagement is enforced by a minimalist regime of market regulation. Singapore imports all its rice requirement; by law, government implements a Rice Stockpile Scheme, which compels importers to store two months worth of imports in a private warehouse designated by government. The importers continue to own the stocks; however government can acquire the stocks subject to compensation. Importers are also responsible for rotating stocks; any batch of stock may be stored for a maximum of one year.⁹

4. Case of the Philippines

Among the Southeast Asian countries, the Philippines presents a timely case of effectiveness of public stockholding for price stabilization. In mid-2013, retail price of regular milled rice jumped by 13% over a span of four months, catching many consumers by surprise, especially since rice prices had remained stable over the past two years (Figure 2). As the rice price hike made headlines, the Senate Committee on Food and Agriculture has called a series of

⁷ World Trade Organisation, 2013. Indonesia Trade Policy Review. WTO, Geneva.

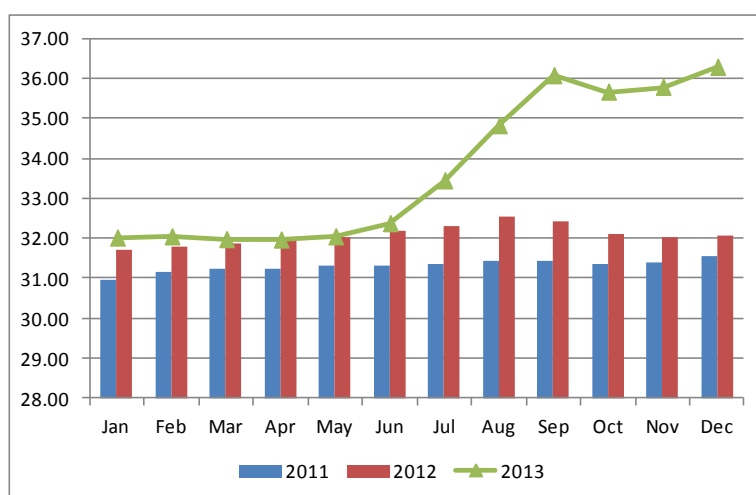
⁸ http://www.bernas.com.my/index.php?option=com_content&view=article&id=83:national-stockpile&catid=48.

⁹ ADB (2013). Complementing Regional Rice Reserves with Novel Domestic Reserve Mechanisms. Technical Assistance Consultant's Report prepared by Roehlano M. Briones. ADB, Manila.

hearings on, among others, the true supply situation for rice in the country.¹⁰ The Secretary of the Department of Agriculture (DA) blamed the spike on an "artificial shortage" caused by some unscrupulous traders or possibly even smugglers.¹¹ Likewise a nationwide farmer's organization has blamed the machinations of a nefarious cartel.¹²

Empirically however collusion in the rice market has been difficult to establish; all the available evidence points rather to a competitive rice market along the supply chain.¹³ Rather than changes in private stocks – always difficult to measure in real time – the following analysis focuses on other elements of the supply-demand balance to explain the price jump. The answer proposed here is succinctly stated thus: *the mid-2013 price hike is due to government clampdown on imports, not matched by either increased domestic production, nor accelerated releases from the buffer stock.*

Figure 2: Retail prices of regular milled rice, monthly, 2011 – 2013, in pesos per kg



Source: BAS CountryStat.

The first element is imports. Imports are under statutory monopoly of the National Food Authority (NFA), a state trading agency. The NFA sets imports annually based on a quota (or "quantitative restriction" in WTO parlance). In the last three years, the country's imports have fallen sharply (Table 1). In 2013 the relatively small amount of imports for the year had largely entered by July, and almost none thereafter.

¹⁰ The author testified as resource person in the hearing held on 24 February 2014 on the very subject matter of this section.

¹¹ <http://newsinfo.inquirer.net/484215/da-building-cases-vs-rice-smugglers-hoarders-says-alcala>.

¹² <http://www.philstar.com/nation/2013/09/01/1156591/rice-price-hike-blamed-cartels>.

¹³ Briones, R., B. de la Pena, 2014. Diagnostic Country Report: Food Staples Sector. Report submitted to CUTS Jaipur, India. Philippine Institute for Development Studies, Manila.

The reason for this downward trend is simple: the country has been aggressively pursuing 100% rice self-sufficiency under the Food Staples Sufficiency Program (FSSP). Under FSSP the target period for self-sufficiency is end-2013, hence the programmed decline in imports from 1 million tons in 2011, down to just 210 thousand tons in 2013.

Table 1: Import arrivals by source, Philippines, 2011 - 2013

	2011	2012	2013
Jan	-		
Feb	-		
Mar	-		
Apr	51,300		
May	61,000		91,650
Jun	77,300		107,450
Jul	36,600	50,091	6,600
Aug	25,100	27,076	
Sep	-	4,998	
Oct	-	37,611	
Nov	-		
Dec	-		
Direct by NFA	251,300	119,777	205,700
Under NFA tax subsidy	654,995	373,189	0
Under country-specific quota	157,691	199,255	4,746
TOTAL	1,063,985	692,221	210,446

Sources: NFA Accomplishment Reports 2011, 2012; www.nfa.gov.ph.

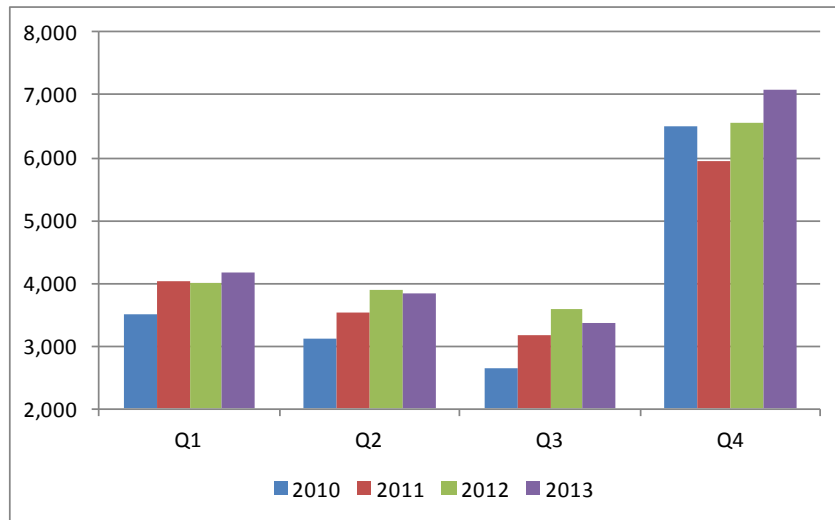
The second element is supply. To maintain stable prices, the sharp decline in imports must be compensated by a commensurate increase in domestic production. This is precisely the assumption of FSSP, which has a production target of 20 million tons of paddy, 8% higher than the 2012 production target of 18.5 million tons. The 1.5 million ton increase is supposed to match the reduction in imports to self-sufficiency levels by 2013. In fact total production in 2013 was only 18.44 million tons, or 2.3% above the actual harvest of about 18 million tons of 2012. The 439,000 tons increment is far below the annual targeted increase, and also far below the amount needed to compensate the loss in imports (about 740,000 tons of paddy). In fact for the first semester of 2013, paddy harvests were only 1.1% higher year-on-year, or a little over 100 thousand tons (Figure 3).

The third element is public stocks; releases from public stocks is the final option for staving off a price increase (particularly if private stocks are indeed being hoarded); however this is of course a temporary remedy. Public stocks are held by NFA and released under its rice distribution program, or as support for government welfare or disaster relief. For the former, rice must be sold at 26 – 28 pesos/kg (depending on type of rice), about 4 – 6 pesos/kg cheaper than the market even before the price spike.

Monthly NFA rice distribution is shown in Figure 4, up to September 2013. Releases in 2013

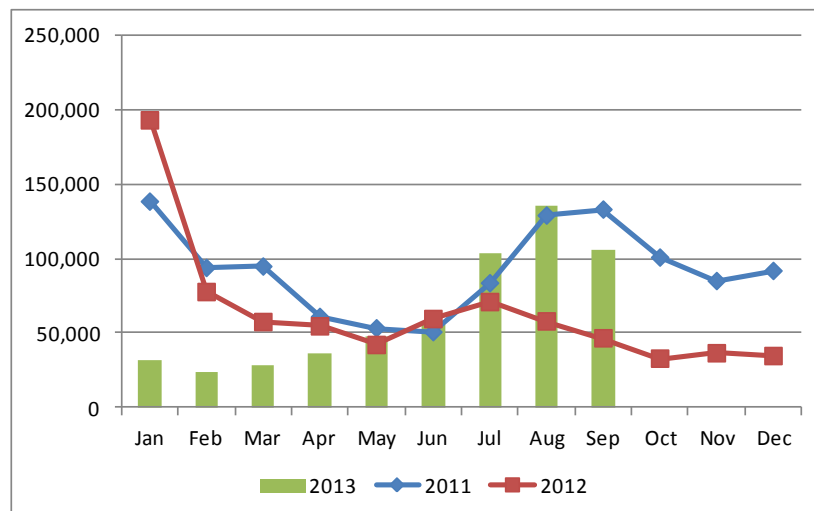
are similar to monthly releases in 2012 – clearly not in response to an extraordinary situation in 2013. Why was NFA release so inadequate? First, stocks held were already low to begin with (Figure 5). NFA stocks in end-June were 655,000 tons, already below its target of 930,000 tons by July 1 (equivalent to 60 days consumption); the draw-down should bottom out to 465,000 tons, the minimum required by government to be held as strategic reserve at any one time (equivalent to 15 days consumption). Inventory was much higher in 2011 (when imports were available to beef up stocks).

Figure 3: Quarterly production of paddy rice, Philippines, in '000 tons



Source: BAS CountryStat.

Figure 4: NFA rice distribution, monthly, 2011 – 2013, in tons

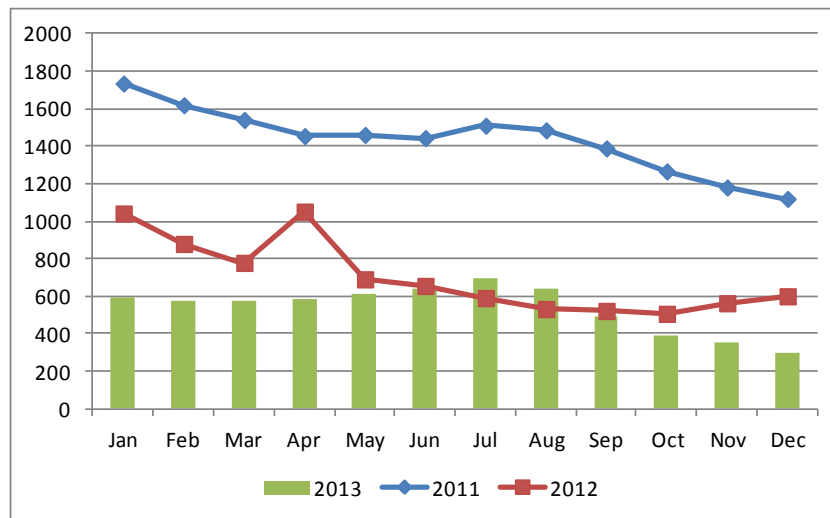


Source: NFA.

In short, the government had limited stocks to start with as the supply situation deteriorated,

and needed to hold onto its stocks should the situation deteriorate further. As the months passed however the NFA did draw down its stocks to even lower than the strategic reserve target, to meet the needs of emergency relief in the aftermath of severe calamities that affected the country in late 2013, most notably typhoon Haiyan.

Figure 5: Monthly rice inventory of NFA, 2011 - 2013



Source: BAS CountryStat.

Second, NFA had instituted a number of controls to prevent past abuses of its rice distribution program, namely the diversion of NFA rice by traders who would then resell at market rates. Controls include: sales only through accredited retailers; limits on the amount purchased in a single transaction; and related checks.

Third, NFA has difficulty undertaking unprogrammed crisis response owing to its precarious financial position. In 2014, its liabilities equaled about \$4.3 billion, most of which were incurred during the importation binge of 2008 – 2010 when rice prices were at all-time highs. It is under pressure from the finance, budget, and planning ministries to reduce its debt (which falls under sovereign guarantee) as well as limit its subsidies. This reduces its flexibility for unprogrammed and loss-making market participation.

The distortionary regime (based on import restrictions and delayed response from the buffer stock) is indeed supportive of domestic farmers; however for consumers the adverse effect is amplified with ever-tightening restrictions (Table 2). The border price is based on Vietnam White Rice 5% FOB, with adjustment for landing cost. At the beginning of the year, world prices were elevated, but fell fairly rapidly over the year, from \$540/ton down to \$400/ton by year-end (a decline of 26% in 12 months). In contrast, the domestic price (based on average wholesale price of regular milled rice) rose by 15% over the same period. As a result, the nominal protection rate rose from just 28% to as high as 84% by year-end.

Table 2: Nominal protection rate, monthly, 2013

	Border Price (P/kg)	Domestic Price (P/kg)	NPR (%)
Jan	23.24	29.81	28.28
Feb	23.18	29.76	28.41
Mar	23.04	29.70	28.91
Apr	23.32	29.71	27.42
May	22.20	29.82	34.32
Jun	21.92	30.34	38.41
Jul	20.81	31.57	51.73
Aug	19.72	32.90	66.80
Sep	19.79	34.00	71.84
Oct	19.27	33.45	73.57
Nov	18.63	33.55	80.10
Dec	18.60	34.16	83.70

Source: Author's calculation based on data from World Bank Pink Sheet, PIDS EconDB, and BAS CountryStat.

5. Regional cooperation in public stocks

The roots of regional cooperation

From country-level experience, the discussion now shifts to regional cooperation in public stocks. In Southeast Asia, such regional cooperation was initiated in the late 1970s after the world rice crisis of 1972 – 1974. The ASEAN Food Reserve (AFSR) Agreement was signed in 1979 by the original five member countries, namely Indonesia, Malaysia, Philippines, Singapore, and Thailand. The Agreement establishes the ASEAN Emergency Rice Reserve (AERR), consisting of rice stocks that are earmarked to meet emergency requirements in the region. The earmarks can be part of, or over and above, the national food security reserve. The Agreement does not require distinct physical stocks of rice, as long as the member state makes its earmark available to other members, as a permanent commitment

Earmarks of the original five signatories are as follows (in tons):

Indonesia:	12,000
Malaysia	6,000
Philippines	12,000
Singapore	3,000
Thailand	<u>15,000</u>

Total **50,000**

The original level of AERR earmarks is equivalent to about 8.8% of imports in 1975, or about 0.2% of consumption.¹⁴

The release mechanism is predicated on bilateral negotiation: the country in emergency must direct its request to another member country for release from the earmark of the latter. Other member countries are notified of this request; the demanding and supplying countries then agree on the terms and conditions of release.

Upon accession of additional countries to ASEAN, the AERR also expanded, eventually reaching 87,000 tons, broken down as follows:

ASEAN – 5	50,000
Brunei	3,000
Cambodia	3,000
Laos	3,000
Myanmar	14,000
Vietnam	<u>14,000</u>
Total	87,000

The definition of "emergency" in the AFSR Agreement is very stringent: it is *the state or condition in which an ASEAN Member Country, having suffered extreme and unexpected natural or man-induced calamity is unable to cope with such state or condition through its national reserve and is unable to procure the need through normal trade* (Art. IV, Sect. 5).

As seen in the foregoing, the size of the reserve is small; despite continuing growth of imports in the region, the reserve has stayed below 90,000 tons. Moreover the means of accessing the reserve appears to duplicate a normal trade process among member countries, which is government-to-government (G-to-G) trade. Lastly the definition of emergency legally restricts the reserve to be an instrument of last resort, i.e. only when normal trade *and* national reserves are inadequate to meet the shortage. In practice therefore no cross-border releases of rice were ever made by AERR over the next three decades.

¹⁴ Hanpongpanh, S., 1982. Modeling the impact of the ASEAN Food Security Reserve. In: Chisolm, A., and R. Tyers, ed. Food security: theory, policy, and perspectives from Asia and the Pacific. DC Heath and Co., Lexington, MA.

The East Asia Emergency Rice Reserve

In 2003, after an evaluation of AERR, an expanded version of regional reserve was initiated, involving the Plus Three countries. This expanded scheme began as a pilot project of the ASEAN Plus Three Ministers of Agriculture and Forestry, called the East Asia Emergency Rice Reserve (EAERR). The project, approved in 2003 and launched in 2005, was implemented until 2010. The EAERR carried over the AERR stocks, and eventually included the earmarks of the Plus Three countries, expanding the regional reserve to 787,000 tons:

ASEAN – 5	50,000
China	300,000
Japan	250,000
Korea, Republic	<u>150,000</u>
Total	787,000

The EAERR furthermore added a new kind of reserve, which is the stockpiled emergency rice reserve (or stockpiled rice for short). This consists of donated rice stocks administered by EAERR to meet an "acute emergency" in a member country; in practice, this is a humanitarian response in the aftermath of a calamity.

In total, the EAERR released nearly 3,000 tons of rice to households affected by calamities, in Cambodia, Indonesia, Laos, Myanmar, the Philippines, and Vietnam. In 2010, the EAERR also implemented a release of earmarked rice stocks equivalent to 10,000 tons from Vietnam, to address the "lingering effect of calamity" in the Philippines after Typhoon Ketsana.

The ASEAN Plus Three Emergency Rice Reserve

The EAERR pilot was converted to a permanent mechanism called the ASEAN Plus Three Emergency Rice Reserve (APTERR). The APTERR Agreement was signed in 2011, and Agreement entered into force in 2012. The APTERR is to be governed by a Council with day-to-day management by a Secretariat. The APTERR was formally launched in March 2013 with the first meeting of the APTERR Council, composed of thirteen members, or one representatives from each APTERR Party.¹⁵ The Secretariat is based in the host country Thailand.

The APTERR carried over the earmarked and stockpiled emergency reserves of EAERR, as well as the definition of emergency from AERR. Operation of APTERR is supported by financial contributions of APTERR Parties as stated in the APTERR Agreement. Governance is vested on the Council; day-to-day management is assigned to the Secretariat. Based on the

¹⁵ At the time South Korea had yet to ratify the APTERR Agreement and was invited as an observer.

APTERR Agreement, the Council votes by consensus. An APTERR Party is permitted to unilaterally suspend its obligation

The Council formally adopted a set of internal rules and regulations on establishment and release of APTERR stocks, based on the APTERR Agreement, best practice in emergency reserves, and the experience of the EAERR pilot. Earmarked stocks are now subject to replenishment within one year upon release. The stocks are defined to be milled rice, must be owned and/or controlled by an APTERR Party, and safe for human consumption; there are otherwise no requirements imposed on earmarked rice.¹⁶

APTERR adopted three programs or "Tiers" by which APTERR stocks could be released. Under Tier 1, earmarked reserves are pre-positioned on standby basis between a supplying and a receiving country in case of emergency in the latter. The standby arrangement already specifies quantity of rice, rice grade, and terms and conditions of release, to avoid protracted negotiations in the even of emergency. The target date of arrival of earmarked stocks is one month or earlier after request by the country in emergency. Contingent delivery is formalized by a forward contract which is valid for three years and renewable. In case earmarked stocks are requested in the absence of a forward contract, release can still be authorized under Tier 2, which is open to bilateral negotiation between requesting and supplying countries. Lastly, release of donated stocks to meet acute (and likely localized) emergency falls under Tier 3.

A particularly contentious issue for release of earmarked stocks is the price. Tier 1 does not require price to be agreed going forward; however it does mandate that the *formula* for determining price be agreed *ex ante*. One formula offered is to simply use the prevailing FOB price of a comparable rice grade under forward contract to be adopted, with predetermined adjustment for quality difference and terms of delivery (e.g. supposing delivery CFR or CIF, as is often the case).

6. Summary and prospects

Reflections on national experience in Southeast Asia

As discussed in Section 2, the resurgent interest in food reserves can be justified in response to market failure in assuring short-term food security. In particular, private storage cannot be expected to address extremes of supply shocks or market instability. The new approach to public stocks rationalizes these as emergency reserves, in contrast to traditional buffer stock approaches for price stabilization and in service of price support schemes.

In practice, since 2008 the expanded role of public stocks in Southeast Asia is mostly

¹⁶ The flexibility accorded to ownership is intentional: Singapore and Brunei deploy private stocks (under government regulation) as their food security reserve, part of which is earmarked to APTERR. In principle this creates an opening for private sector participation in the regional reserve.

consistent with the traditional deployment of buffer stocks. Thailand stumbled upon, as it were, its food security stock as a consequence of an expensive and highly distortionary producer price support scheme. Indonesia has built up its government reserves in support of a self-sufficiency policy and avoid the need for imports. Malaysia meanwhile relies on private stocks but within a distortionary import regime, and for the purpose of price stabilization.

The one exception is Singapore, whose scheme may be described as a minimalist regime of controls on private storage. There is no effort at import controls, nor price stabilization (let alone price support), though the government stands ready to procure stocks in the event of an emergency. This scheme is consistent with Singapore's open and market-oriented policies overall, combined with a strong logistics infrastructure and a credible regulatory framework. These factors may constrain other countries in Southeast Asia from emulating its example.

The last case considered is the Philippines, which illustrates the numerous constraints confronting public stockholding in a traditional setting. The response to the 2008 crisis was to reinvigorate self-sufficiency policies and clamp down on imports. However overestimated increases in production led to rapid price spike in mid-2013. The public agency for buffer stocks was largely ineffectual in addressing this spike as financial and institutional constraints prevented it from responding quickly to the brewing crisis.

Reflections on regional experience

In contrast to national stocking policies (except Singapore), the design of the regional cooperation scheme for public stocks does adhere to the new approach to emergency food reserves. The regional reserve is not to be deployed to achieve a target price or even price band, but only to meet food requirements of a member country *in extremis*. The release mechanism is designed to implement a cross-border release of rice in a timely fashion.

However, whereas national stocking policies tend to be conducted under dedicated enforcement and generous financial support, the regional reserve is weakened by tepid commitment of the participating member countries. The terms of the Agreement place caution above rapid response: Council decisions (including release of the reserve) require a consensus; clauses in the APTERR Agreement allow a country to unilaterally suspend its obligation or even withdraw from APTERR, without penalties.

Ultimately the reason for such caution is political: each APTERR Party is reluctant to acknowledge the inadequacy of its domestic response to emergency, and need for external assistance. Nor are the Parties willing to risk the political fallout from deploying the national food security reserve for non-domestic purpose, especially in case of a worldwide crisis in the rice market (as in 2008).

Prospects for public stock policies

Will policy attitudes towards public stocks change from traditional to more modern approaches based on emergency food reserves? In Southeast Asia at least there is little reason to be optimistic. The lobbying by entrenched groups – farmers, millers, the government bureaucracy – will likely sustain politicization of food security policy in the medium to long

term, particularly in democracies such as Indonesia, Malaysia, the Philippines, and Thailand. In a similar vein regional emergency reserves will likely continue to be an fine concept but rarely operational.

Nonetheless there is a reason to be hopeful. The one force proven effective in moving towards a more open and liberal domestic environment is the impetus towards economic integration and international cooperation. In Southeast Asia this impetus is responsible for the ASEAN itself and its dramatic turn towards a single economic community by 2015. While seemingly ineffectual on specific issues, integration and cooperation have served as underlying fundamentals in countervailing parochial interests in the member countries.