

PROCEEDINGS OF THE POLICY SEMINAR  
ON PHILIPPINE RICE TRADE POLICIES  
AND RICE SECURITY:

# **FUTURE DIRECTIONS**

SEPTEMBER 26, 2012  
AIM CONFERENCE CENTER, MAKATI CITY  
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Proceedings of the Policy Seminar on  
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# FOREWORD

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Tariffs and quantitative restrictions (QRs) are two policy instruments used in dealing with international trade of goods. Tariffs are the taxes imposed by the government on both imported and exported products, while quantitative restrictions (QRs) are measures such as quotas, bans, and licensing requirements imposed by the government to limit the volume of particular commodity that enters the country.

The Philippines acceded to free trade agreements in 1995, but rice was exempted from this because of food security issues. This special treatment on rice expired in 2005 but the government requested for QR extension to retain protection until 2012. However, the government once again negotiates for another extension in 2012 because the country targets rice sufficiency by 2013. For several years, the government has adhered to rice QR in protecting the local rice industry. It is then interesting to review this policy and assess the impact it has brought to the economy.

The Philippine Rice Research Institute (PhilRice) desires to help create a favorable policy environment to address issues related to rice sufficiency. As trade liberalization is one of these, the institute organized and conducted the Policy Seminar on Philippine Rice Trade Policies and Rice Security: Future Directions on 26 September 2012 at AIM Conference Center, Makati City. This event convened researchers and representatives from the government, non-government organizations (NGOs), private sector, and State Colleges and Universities (SCUs) to discuss updates and issues on rice trade policies. Information and policy options based from the discussion are hoped to be considered by decision-makers in the government involved in trade.

This book was published to serve as a reference material on Philippine rice trade policies, its impact, and its future direction. We hope that this will be useful for researchers, policymakers, and players in international trade.

EUFEMIO T. RASCO JR., Ph.D.  
Executive Director

# ACKNOWLEDGMENT

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We wish to acknowledge the effort of the Policy Research and Advocacy (PRA) Team in successfully organizing the policy seminar titled Philippine Rice Trade Policies and Rice Security: Future Directions that became the basis of this publication. We are also grateful for the support given by the Socioeconomics Division in planning for the activity and in taking part in the seminar.

We would like also to express our deepest gratitude to the seminar speakers and discussants that provided their research and discussion papers for this publication. Finally, appreciation is given to the PRA Team and the Development Communication Division who comprised the editorial team of this proceeding.

## SEMINAR ON PHILIPPINE RICE TRADE POLICIES AND RICE SECURITY: FUTURE DIRECTIONS

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### **Rationale**

Tariffs and quantitative restrictions (QRs) are two policy instruments used in dealing with problems on international trade. Tariffs are the taxes imposed by the government on both imported and exported products, while quantitative restrictions (QRs) are measures such as quotas, bans, and licensing requirements imposed by the government to limit the volume of a particular commodity entering into the country during a specified time period.

Tariffs and QRs limit the entry of imports into the country. Tariffs, however, can generate government revenue while QRs only protect the local industry against competition from imported goods.

The Philippines acceded to the World Trade organization (WTO) in 1995. Under the agreement on agriculture, QRs and other protective measures that may distort free trade will be removed and replaced by reduced tariff rates. Rice was, however, exempted from the removal of QR because of food security issues (Cororaton, 2004).

This special treatment on rice, however, expired in 2005. The government requested for its extension for 7 more years, until 2012, to continue protecting the farmers and avoiding influx of cheap imported rice in the Philippine market. The request was approved but the government had to concede on increasing the Minimum Access Volume (MAV) for rice to 350,000 metric tons (MT) with a reduced tariff of 40%.

In light of the country's target for rice sufficiency, the government is requesting once again for a 3-year extension of QR that is due to expire in June 2012. The new negotiations may involve further reduction of tariff on rice from 40% to 35%. Some member-countries are likewise bargaining for the entry of greater volume of other goods, like pork, in exchange for the retained protection on rice. However, if this negotiation would be costly, the government might have to resort to tariffication (GMA News Online, 2012, May 01).

For several years, the government has adhered to rice QRs in protecting the local rice industry. It is then interesting to review this policy and assess the impact it has brought to the industry. Several researches have already studied issues on rice trade liberalization but these need updating.

This activity will gather information about updates on and future directions of the rice trade policies. A synthesis of policy options or recommendations based on the seminar discussions will be provided to policymakers for their consideration.



## Updates on rice QR

The quantitative restrictions on rice imports will expire in June 2012. According to the National Food Authority (NFA) administrator, the country submitted a petition regarding the extension of QR on rice imports for another 5 years in March 2012 during the WTO committee meeting in Geneva, Switzerland (Oryza, 2012).

The WTO petition states that in exchange to the waiver, the Philippines would observe the following conditions: (1) further reduce the current 40% in-quota tariff to unspecified lower level, (2) it should agree to annual reviews which implies that the Philippines should be ready for future amendments or termination of the waiver, (3) after the expiration of the waiver on June 2017 should collect ordinary customs duties on rice imports (Oryza, 2012).

The Philippines strongly seek for this extension as it still needs to prepare its rice farmers for the competition in the world market if ever tariffication will be pursued. However, according to the Department of Agriculture Secretary, the country is ready to forego QR on rice if the "stakes are too high". As of this writing, talks about the decision over the extension of the QR are ongoing (Oryza, 2012).

## Studies on rice QRs and tariffs

The removal of QRs may cause the consumer price to drop due to the influx of rice in the Philippines (Cororaton, 2004). This positive result, however, is not enough to alleviate the decline in income of households engaged in rice-based business. Majority of them are farmers whose major source of income is rice farming.

The inevitability of market reform requires careful implementation. Cororaton (2004) suggests enforcement of measures that may mitigate tariff effects to rice-dependent groups such as productivity improvement through a vigorous program of intensified use of high-yielding rice varieties, irrigation, better farm-to-market roads, and measures to encourage growth of other non-rice crops.

Tariffication is only an instrument to promote trade liberalization and greater market access in agriculture. QR will only lower the prices of the small farmers produce. As a result, investment of farmers to agriculture may decline, leading to a decrease in production of primary agriculture products (Rice Watch and Action Network, 2006)

Meanwhile, Briones and Parel (2011) recommend that the government should consider tariffication as it promotes fair, efficient, and credible allocation of the import quota. Regarding food security issues, rice self-sufficiency is neither necessary nor sufficient for food security. The Philippines can manage food insecurity through rice importation (Briones and Parel, 2011).

**Objectives** The policy seminar on Philippine rice trade policies and rice security: Future Directions aimed to:

- Review history and the current status of rice trade policies in the Philippines;
- Assess implications of 2005 QR extension to the rice industry, particularly on rice sufficiency and price stability;
- Assess the competitiveness of Philippine rice industry;
- Determine the advantages and disadvantages of rice tariffication; and
- Identify future directions of the Philippine rice industry under the tariff regime.

**References** Briones, R.M. and D.C. Parel 2011. "Putting rice on the table: Rice policy, the WTO, and food security" <http://dirp4.pids.gov.ph/ris/pn/pidspn1111.pdf> Accessed 2 May 2012.

Cororaton, C.B. 2004. "Can the poor benefit from the removal of QR on rice?" <http://dirp4.pids.gov.ph/ris/pn/pidspn0404.pdf> Accessed: 2 May 2012.

GMA News Online. 2012. "Agri. Dept.: PHL may give up quantitative restrictions on rice if it proves costly", <http://www.gmanetwork.com/news/story/256793/economy/agricultureandmining/agri-dept-phl-may-give-up-quantitative-restrictions-on-rice-if-it-proves-costly>.

Oryza 2012. "Philippines Ready to Forego Rice QR if 'Stakes Are Too High'" <http://www.oryza.com/Rice-News/14995.html>.

Oryza 2012. "Philippines seek extension on quantitative restriction", <http://oryza.com/Asia-Pacific/Philippines-Market/Philippines-Seek-Extension-On-Quantitative-Restrictions.html>.

Rice Watch and Action Network 2006. "Rice QRs vs Rice Tarification: Which is better?" In R1 Secretariat, ed, Development Prospects for the Rice Industry: Proceedings of A Series of Round Table Discussions on Rice. Quezon City, Manila: Rice Watch and Action Network. 48-60.

# PAPER 1

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## BACKGROUND ON THE PHILIPPINE RICE TRADE POLICIES

Ma. Eden S. Piadozo, Ph.D

Paper

Discussion

Open Forum

**Introduction** Rice is considered as the single most politically important commodity in the country. It accounts for 9% of total household spending and about 1/3 of total food consumption. It is grown in 1/3 of the country's crop land or about 4 million ha. out of the total 13 million ha. contributing 19% of the total output of agriculture. The rice industry employs about 3 million farmers and agricultural workers comprising about 30% of the total employed in agriculture.

The Philippines, however, remains a top importer of rice owing to the rapid increase in population and the low yield in rice compared to its Asian neighbors. The country's population had more than doubled since the first high-yielding varieties of rice were developed.

Owing to the economic and political importance of rice in the Philippines, rice self-sufficiency has been a major government policy goal. Whether or not a policy goal can be achieved without significant efficiency cost depends on the country's comparative advantage in rice production and the host of economic policies it will undertake to support this goal (Baulita-Inocencio and David, 1995). Thus, this paper presents the background on the trade policies, undertaken in the agriculture sector and the corresponding policies affecting the rice industry.

**Trade Policy Reforms** Rice trade policies are intertwined with trade reforms undertaken by the government. Trade reforms are, in most countries, an integral part of a package of policy measures implemented to correct perceived imbalances in an economy and/or to achieve specific sectoral objectives (FAO, 2006). Policies that will ensure self-sufficiency in production were undertaken as early as 1949 when the country embarked on a development strategy of industrial import substitution. The strategy provided high tariffs on competing imports and low tariffs on essential producer inputs so as to protect the domestic producers of final goods. In 1970, the government shifted toward export promotion. The imposition of export taxes and the implementation of maintaining an overvalued exchange rate policy regulated domestic prices but were likewise meant to draw off the gains from domestic and international trade with the increase in international commodity prices during this period.

The import tariff and export tax structures favored heavily the import competing non-agricultural industries (especially consumer goods manufactures), and were strongly biased against agriculture and agricultural trade (Intal, 1985) (Table 1). The bias in the tariff structure has been in place since the 1950s. It reflects an

<sup>1</sup>Paper delivered during the seminar on Philippine trade policies and rice security: Future Directions, AIM Conference Center, Makati City, 26 September 2012.

<sup>2</sup> Professor, Department of Agricultural Economics, College of Economics and Management, UP Los Baños.

industrialization strategy that is based on artificially raising the prices of manufactured goods and reducing prices of food and raw materials to increase the profitability of the industrial sector. The exchange rate and trade policies during the 1970s became even more biased against agricultural exports (Bautista, 1984).

The restrictive trade policies adopted between the 1950's and the late 1970's created serious market distortions (Austria and Medalla, 1996 as cited by Cororaton, 2007; Intal, 1985; David, 1997). They penalized the domestic economy in several ways (1) import controls resulted in an overvalued exchange rate that favoured import-substituting firms; (2) continued protection increased domestic output prices, which became an impediment to forward linkages; and (3) tariff escalations and import controls weakened backward linkages, as tariffs on capital and intermediate goods were kept low relative to those on finished products. These policy biases promoted rent-seeking activities and distorted economic incentives against investments in agriculture. The agricultural sector, which served as the backbone of the country's economy, providing the necessary foreign exchange needed by the import-dependent manufacturing sector, stagnated, and its comparative advantage eroded. This system of protection led the industrial sector to concentrate on import-dependent, assembly-type operations with minimal value-added and few or no forward and backward linkages. Realizing the pitfalls of the import-substitution policy and the following export-promotion strategy, the government commenced implementing a series of tariff reform programs (TRPs) in 1981.

The tariff reform and import liberalization programs adopted during this period were implemented as a condition for a World Bank structural adjustment loan package. The TRP reduced tariff rates from 100% to between 10% and 50%. The Import Liberalization Program reduced the proportion of restricted items from 24% to 20%. This was, however, postponed by 3 years because of the 1983 economic crisis. The balance of payment crisis reversed the trade liberalization process. Additional tariffs and taxes were imposed. Foreign exchange was prioritized, with virtually no allocation for consumer goods manufactures. Hence, the domestic import substitutes became more protected while exports became more penalized. Import liberalization resumed in 1986 mostly on industrial goods, agricultural export taxes were removed, fertilizer and wheat imports were likewise liberalized, but not for imports of agricultural commodities.

After the completion of the TRP in 1985, a new round of unilateral tariff reductions was implemented. Executive Order (EO) 470 in 1991 signaled the advent of TRP II, which reduced the number of high-tariff commodity lines over a 5-year period ending in 1995 and decreased the number of high-tariff commodity lines and increased the low-tariff commodity lines. EO 8 issued in 1992 removed

quantitative restrictions (QRs), which were replaced by tariffs. This was, however, reversed by the Magna Carta for Small Farmers, which required QRs on agricultural products grown domestically in sufficient quantities. Thus, in 1993, through Memorandum Order 95, QRs for corn, pork and poultry were restored, but not for beef and sugar.

In 1995, the Philippines, under the World Trade Organization (WTO), committed to gradually remove QRs from imports of sensitive agricultural products (products identified by the government as being politically sensitive), with the exception of rice, by switching to tariff measures. Under the WTO, the Philippine tariff commitments for agricultural commodities have the highest rates of protection followed by textiles and metals. In the same year, the government implemented TRP III, which established a 4-tier tariff schedule: 3% for raw materials and capital equipment not available locally, 10% for raw materials and capital equipment available from local sources, 20% for intermediate goods, and 30% for finished goods. The overriding goal of TRP III, however, was to implement a uniform tariff rate of 5% by 2005.

In 1996, also under TRP III, the government implemented a tariff quota system for sensitive agricultural products. According to the minimum access volume (MAV) provision of the Marrakesh Agreement establishing the WTO, a relatively low tariff rate was imposed on imported sensitive agricultural products up to a minimum import level (in-quota tariff rate), while a higher tariff rate was levied beyond the minimum import level (out-quota tariff rate).

Appendix Table 1 shows the products included in the MAV provision and their in-quota and out-quota tariff rates. From this table, it can be gleaned that, while there has been a reduction in the out-quota tariff rates across commodities, the in-quota rates remained generally unchanged since 1996. By 2005, the in-quota and out-quota tariffs for several products had been equalized, although still at relatively high levels. In 1998, TRP IV was undertaken to recalibrate the tariff rate schedules implemented under the previous TRPs. This decision to recalibrate resulted from a review process that evaluated the pace of tariff reduction in line with the level of competitiveness of local industry and the need to raise additional government revenues. With TRP IV, the planned uniform tariff rate was suspended.

TRP III (1996-2003) aimed at a uniform tariff rate of 5% in 2004. A series of EOs, (EO 189 (machinery and capital equipment); EO 204 (garments and textiles); EO 264 (industrial products); EO 288 (non-sensitive agricultural products); and EO 311 (tariffication of quantitative restrictions in agricultural commodities)), were issued to gradually restructure the economy. Since 1996, tariff rates have been clustered at 3% (Austria, 2002). Tariff adjustments were likewise made in response to the adverse effects of the Asian financial crisis on the economy (EO 465) was issued in

1998 and (EO 63) in 1999 to alleviate the difficulties faced by domestic industries adversely affected by the crisis. The applied tariff rates on 694 tariff lines for chemicals, textiles, metals and machinery were temporarily raised to a level at or below those bound in WTO but only for 1999, after which they would revert back to their old rates (WTO, 1999). Appendix Table 2 summarizes the major episodes of trade policy reforms in the Philippines.

#### **Uruguay Round (UR) Agreement on Agriculture**

Another important development in the trade policy reform efforts of the Philippines is its ratification of the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO) Uruguay Round Agreement in 1995. This ratification set a decisive path towards liberalization in agriculture. Two types of commitments were made by the Philippines in the Agreement on Agriculture (AoA): (1) external commitments of the Philippines in compliance with the agreement; and (2) internal commitments to Filipino farmers. Philippine external commitments included enhanced market access, removal of domestic support (13% reduction from 1995 to 2004 for trade-distorting support), and suspension of export subsidies; tariffication of all QRs; prohibition of non-tariff barriers (NTBs); minimum access volumes (MAVs) of 3% on 1986 to 1988 consumption for 1995 and 5% on 1986 to 1988 consumption for 2004; reduction in tariff bindings by 24% with minimum 10% cut per tariff line from 1995 to 2004; and plant variety registration and protection (patent or sui generis system) (FAO, 2003).

For its internal commitments to farmers, the Philippines promised to provide an action and budget plan for UR adjustment measures (safety nets); enactment of appropriate legislation (e.g. Agriculture and Fisheries Modernization Act [AFMA]) to provide tariff reductions on inputs, as well as trade remedies to act as safeguards against import surges, injuries to domestic industries and dumping; reforms in the value-added tax for agro-processors; budgetary support to agriculture amounting to P73 billion from 1995 to 1998 under the UR Action Plan; and support for irrigation of P28.4 billion from 1995 to 1998 and P6 billion per annum from 1999 to 2004 (FAO, 2003). As early as 1999, the assessment of Philippine compliance was substantial in terms of the external agreement but mixed and inadequate under domestic or internal commitments, and less than satisfactory under the AFMA (Habito, 1999 as cited by FAO, 2003).

#### **Regional Trade Agreement**

The ASEAN Free Trade Area (AFTA) was organized in 1992 to address the possible trade effects of other regional trade agreements. The aims of the AFTA were to reduce tariffs to between 0% to 5%, and to abolish QRs and other non-tariff barriers by 2010. The AFTA free trade mechanism is governed by the common effective preferential tariff (CEPT) scheme, under which products are classified into several categories: inclusion list, temporary inclusion list, sensitive list, highly sensitive list and general exception. Their levels of tariffs are directly proportional to their degree of sensitivity.



Unprocessed agricultural products were commonly included in the sensitive list (SL) and trade liberalization was started between 2001 to 2003. Member countries are required to achieve the 0% to 5% tariff targets by 2010. Moreover, each member country had set its preferential tariff on commodities coming from member countries at rates no higher than the Most Favored Nation (MFN) rates. However, in June 2010, the Philippine government invoked the protocol to provide special consideration for rice and sugar. Thus, rice still retains its tariff of 40% from 2010 to 2014 and 35% in 2015. Sugar will have a gradual reduction in tariff from 38% in 2010 to 28% in 2012, 18% in 2013 and 10% and 5% by 2014 and 2015, respectively.

#### **Rice Trade Policies**

With due consideration to developing countries, their predominant staples were exempted from tariffication. However, MAV's (Minimum access volume) have to be provided corresponding to 1% of the base period domestic consumption of the product concerned increasing over time up to 4% of domestic consumption in the final year of implementation.

Hence, rice, as the basic staple of the Philippines, was not tariffied during the Uruguay Round. The National Food Authority retains the first right to import rice in accordance with the government's food security policy. The rate of duty on rice started at 50%. In 2000, the MAV was at 119,460 mt and increased to 134,396 mt in 2004. The Philippine government filed for the extension of the Special Treatment on rice until 2012 since the 10-year rice quota under Annex 5 of the WTO Agreement on Agriculture expired on 30 June 2005. To compensate other WTO member-countries for the requested 7-year extension of the special treatment on rice, EO 627 was issued, which reduced the MFN rates on certain agriculture products (i.e., mechanically deboned meat).

Meanwhile, WTO temporarily waived the lifting of rice QRs so that the Philippines could conduct bilateral talks with other countries after it requested an extension. As a result, negotiations with interested WTO member countries were initiated. The Philippines MAV for rice has increased to 350,000mt annually at reduced tariffs equal to 40%. The NFA imports 35% of the import allocation while 65% goes to the private sector. A duty-free import quota is allocated for the private sector subject to a minimum fee of PhP 100 per 50 kg bag (Table 2).

#### **Structure of Protection**

The rice industry is one of the highly protected sectors in the economy, and its nominal rate of protection (NPR) has been rising, reaching 87% in 2000, thus reflecting a drastic reversal of rice price policy from the historically pro-urban to pro-farm bias (David, 1996). Its NPR was negative in the second half of the 1970s and the first half of the 1980s. This negative NPR had little effect on producers because of high world commodity prices together with the impacts of the Green Revolution, under which irrigation programs were expanded and new seeds and fertilizers were introduced, all of which increased rice productivity. The government



likewise expanded credit facilities to rice farmers. There were also land reform programs, under which tenant farmers became owner-operators. The sharp fall in investments in irrigation and the stagnating yield potential of newer rice varieties, however, in the 1980's slowed the domestic production of rice significantly. The drop in the world price of rice increased the NPR of rice from an average of 16% in 1985-89 to 67% in 1995-99, after which it has been a general decline. In 2005, the NPR dropped to its lowest level, 15%. The increase in the world price of rice and the depreciation of the Philippine currency were the main culprits. In 2007, the NPR and the EPR for rice were 27% and 31%, respectively.

**Conclusion** The MAVs or QRs for rice serve to limit the entry of commodities to the country and may lead to unstable prices as market players react spontaneously to the erratic level of deficits or surpluses. In contrast, although the imposition of import tariffs raises prices above the world level, there is no limit placed on the allowed level of imports and prices therefore tend to be more stable. The government's current trade policy under prevailing international commitments, which charges in-quota tariffs for imports within prescribed MAVs and out-quota tariffs for volumes outside of them, functions like a QR because of the difficulty often experienced in obtaining import licenses for shipments beyond the limit. Restrictions on the supply of goods relative to their demand results in higher prices, and thus adversely affects final consumers due to its inelastic demand.

Moreover, the import restrictions had insulated the domestic market from the international rice market thus making rice production profitable to farmers but not to society (Estudillo et al., 2002). This can be seen in the higher nominal protection rates accorded to rice and the lower effective protection rates given to the industry. This had also enhanced rice import competitiveness in the market.

- References** Aldaba, R.M. 2005. Policy Reversals, Lobby Groups and Economic Distortions. PIDS Discussion Paper Series No. 2005-04.
- Aldaba, R.M. 2005. The Impact of Market Reforms on Competition, Structure and Performance of the Philippine Economy Paper presented at the "Workshop on Policies to Strengthen Productivity in the Philippines", AIM Policy Center, Makati City.
- Austria, M.S. 2002. The Philippines in the Global Trading Environment: Looking Back and the Road Ahead. PIDS Discussion Paper Series NO. 2002-15.
- Baulita-Inocencio, A. and C. C. David. 1995. Comparative and Competitive Advantage of Philippine Rice Production: 1966-1990. PIDS Discussion Paper Series No. 95-03.
- Cheong, D. 2008. The Effects of AFTA: A Disaggregated Analysis. John Hopkins University.

- Cororaton, C.B. and E.C. Corong, 2009. Philippine Agricultural and Food Policies : Implications for Poverty and Income Distribution. IFPRI Research Report 161.
- Cororaton, C.B. 2003. Philippine Tariff Reforms:A CGE Analysis. PIDS Discussion Paper Series No. 2005-35.
- Cororaton, C.B. 1999. The Philippine Tariff Structure: An Analysis of Changes, Effects and Impacts. PIDS Discussion Paper Series No 99-08.
- Cororaton, C.B. 1996. Simulating the Income Distribution Effects of the 1998-1992 Tariff Reduction using the APEX Model. PIDS Discussion Paper Series.
- Costales, A.C. 2003. Changes in Incentives, Infrastructurral and Institutional Environments Impacting on Maize Cultivators in the Philippines. Paper presented during the 1st Annual Philippine Corn Symposium and Planning, January 16, 2003.
- David, C.C., P.Intal and A.M. Balisacan. 2007. Distortions to Agricultural Incentives in the Philippines. Agricultural Distortions Working paper 28.
- David, C.C. 1997. Agricultural Policy and the WTO Agreement.: The Philippine Case. PIDS Discussion Paper Series No. 97-13.
- Estudillo, J. et al. 2002. The Comparative Advantage of Rice Production in the Philippines, 1966-1999. Journal of Development Studies.
- FAO. 2006. Trade Reforms and Food Security: Country Case Studies and Synthesis. Harmon Thomas Editor
- Habito, C. F. and Briones, R.M. 2005. Philippine Agriculture over the Years: Performance, Policies and Pitfalls. Paper presented "Policies to Strengthen Productivity in the Philippines," Conference sponsored by the Asia-Europe Meeting (ASEM) Trust Fund, Asian Institute of Management Policy Center, Foreign Investment Advisory Service, Philippines Institute of Development Studies and the World Bank, Makati City.
- Intal Jr., P. 1985. The Macroeconomic Policy Environment of Philippine Agricultural Performance. Journal of Philippine Development, no 22, vol 12, no 2 1985.
- Piadozo, Ma.E.S. et al. 2011. Philippine Agriculture Trade Policies. UPLB-CEM Policy Paper Series 1. Policy Paper 11.
- Tobias, A. et al, 2012. Handbook on Rice Policy for Asia. IRRI\_Google Books.
- World Trade Organization (WTO), 1999. Trade Policy Review: The Philippines, Washington D.C., World Trade Center.

## TABLES

Table 1. Structure of agricultural protection in the Philippines.

SECTOR	EPR <sup>a</sup> INDEX
A. Agriculture and Primary	100
Manufacturing	489
All Sectors	400
B. Exportables	100
Nonexportables	1525
All Sectors	900

Source: Tan (1979) as cited by Intal (1985).

<sup>a</sup> The effective rate of protection is a measure of the total effect of the entire tariff structure on the value added per unit of output in each industry, when both intermediate and final goods are imported.

Table 2. Philippine Rice Import Policy, 2011

IMPORT POLICY	
State Trading	The NFA imports 35% of the import allocation while 65% goes to the private sector.
Import duty	A duty-free import quota is allocated for the private sector subject to a minimum fee of PhP 100 per 50 kg bag.
Quantitative restriction	Importation of rice into the country is subject to a 40% tariff, and duty-free importation is limited to a concessionary amount of only 350,000 mt.
Minimum access volume	The minimum access volume of the Philippines for rice is 350,000 mt annually at reduced tariffs equal to 40%.

Source: A. Tobias et al. (2012) Handbook on Rice Policy on Asia (2012).

Table 3. Nominal protection rate (%) by commodity and by year, 1960-2007.

YEAR	RICE	CORN	SUGAR	COCONUT		BEEF	CHICKEN	PORK
				Oil	Copra			
1960-64	20	53	9	-16	-24	30	115	-13
1965-69	12	44	86	-29	-31	-32	163	-24
1970-74	4	19	-37	-31	-35	-53	84	-38
1975-79	-13	30	-26	-20	-28	-25	91	-39
1980-84	-13	25	19	-28	-37	15	100	-28
1985-89	16	67	122	-16	-31	6	56	2
1990-94	26	70	51	-7	-26	31	69	43
1995-99	67	86	107	-12	-20	103	43	88
2000	87	104	82	-17	-33	73	23	53
2001	83	79	73	-21	-33	26	8	37
2002	63	51	111	-13	-18	18	5	76
2003	49	30	86	21	-20	28	-2	49
2004	21	41	47	-10	-30	-1	-5	32
2005	15	53	15	-16	-34	5	0	47
2006	19	51	2	-11	-32	16	22	80
2007	27	32	80	-10	-28	26	27	94

Source: David et al, 2009 and Cororaton, 2007.

Table 4. Effective protection rates for selected agricultural products, 2000-2007.

YEAR	RICE	CORN	PINEAPPLE	SUGAR	COCONUT	MANGO, GUAVA, MANGOSTEEN
2000	101	120	16	108	-36	17
2001	96	91	16	96	-36	17
2002	73	59	11	147	-19	11
2003	57	34	7	113	-22	8
2004	24	47	11	62	-32	17
2005	17	61	11	19	-37	17
2006	22	59	11	26	-35	17
2007	31	37	11	105	-30	17

Source of basic data: Philippine Tariff Commission, 2007.

Appendix Table 1. In-quota and out-quota tariff rates of selected commodities (in %).

COMMODITY/TARIFF RATE	1996	2000	2005-10
<b>Live pork swine</b>			
Less than 50 kg			
In-quota	30	30	30
Out-quota	60	45	35
50 kg or more			
In-quota	30	30	30
Out-quota	40	35	35
<b>Live sheep and goats</b>			
In-quota	30	30	30
Out-quota	60	45	40
<b>Live poultry (2 kg or more)</b>			
In-quota	40	40	35
Out-quota	80	50	40
<b>Pork meat (swine)</b>			
In-quota	30	30	30
Out-quota	100	60	40
<b>Sheep and goat meat</b> (fresh or chilled)			
In-quota	30	30	30
Out-quota	60	40	35
<b>Chicken meat</b>			
In-quota	50	45	40
Out-quota	100	60	40
<b>Duck meat</b>			
In-quota	50	45	40
Out-quota	100	60	40
<b>Potato (fresh or chilled)</b>			
In-quota	50	45	40
Out-quota	100	60	40
<b>Onions</b>			
In-quota	30	30	40
Out-quota	100	60	40
<b>Garlic</b>			
In-quota	30	30	40
Out-quota	100	60	40
<b>Coffee</b>			
In-quota	50	45	30
Out-quota	100	60	40
<b>Sugarcane</b>			
In-quota	50	50	50
Out-quota	100	65	65
<b>Corn</b>			
In-quota	35	35	35
Out-quota	100	65	50
<b>Rice (milled or wholly milled)</b>	50	50	50

Appendix Table 2. Major episodes of trade policy reform in the Philippines.

YEAR	EVENT	DESCRIPTION
1980	Marcos Administration Tariff Reform Program I EO 609 and EO 632-A (January 1981)	TRP I reduced the level and dispersion of tariff rates from 0 to 100% in 1980 to 10 to 50% and removed quantitative restrictions from 1981 to 1985.
1983	Assassination of Benigno Aquino Balance of payment crisis Suspension of the TRP I	
1986	EDSA I Aquino Administration Revival of Import liberalization	
1990	EO 413 (July 1990)	EO 413 to simplified the tariff structure by reducing the number of rates to four, ranging from 3 to 30% over a period of 1 year, but was not implemented
1991	EO 470 (July 1991) Tariff Reform Program II RA 7607 Magna Carta of the Small Farmers	TRP II reduced the tariff range to 3% to 30% by 1995 Restricted agricultural imports competing with domestic production
1992	Ramos Administration EO 8 Tariff Reform Program II CB Circular Nos 1348 and 1356 MO 95/AO 23 (based on the Magna Carta of Small Farmers) RA 7308 Seed Law	EO 8 tariffied quantitative restrictions for 153 agricultural products and tariff realignment for 48 commodities Liberalized 220 items majority of which were agricultural products Imposed trade restrictions on 53 farm products including sugar, corn, and their substitutes (wheat, feeds, sorghum), poultry and livestock products Regulated the imports of seeds and planting materials
1994	Ratification of the GATT-WTO	
1995	EO 264 (August 1995) Tariff Reform Program III  EO 288 (December 1995)	EO 264 further reduced the tariff range to 3% and 10% levels, reduced the ceiling rate on manufacture goods to 30% while the floor remained at 3% and created a four-tier tariff schedule, 3% for raw materials, 10% for locally available raw materials and capital equipment, 20% for intermediate goods, and 30% for finished goods. EO 288 modified the nomenclature and import duties on non-sensitive agricultural products.
1996	EO 313 ( March 1996)	EO 313 modified the nomenclature and increased the tariff rates on sensitive

Source: Rafaelita M. Aldaba. 2005. Policy Reversals, Lobby Groups and Economic Distortions. PIDS Discussion Paper 2005-04.

The paper traces the progression and main features of the country's trade reforms from unilateral efforts to participation in multilateral and regional trading agreements. All these serve as stimulating background in today's seminar wherein the discussions in succeeding papers focus on specific important topics on rice trade such as quantitative restrictions, its advantages and disadvantages, and comparison of the competitiveness of the rice industry in the Philippines with other countries in the Southeast Asian region.

While it is true that the increasing population which is rising at an average annual rate of 2.2% and the low yield of paddy which keep the Philippines as a top importer of rice, the area on rice in the country is also a contributing factor. Table A shows that the yield of paddy in the Philippines is higher than that of Thailand, in spite of this, Thailand is a major rice exporter because of its large paddy area not because of its yield.

Table A. Comparisons of paddy yield, yield growth, area and production in selected Asian countries, 2010.

Country	Yield (mt/ha)	Yield growth (%) 2000-2010	Effective area, (M hectares)	Production (Mmt)
China	-	0.71	30.1	197
India	6.55	1.3	37	121
Indonesia	5.01	1.4	13.2	66
Philippines	3.62	1.83	4.4	16
Thailand	2.88	1.37	11	32
Vietnam	5.32	2.24	7.5	40

Source: Paper presentation of Dr. Liza Bordey, on September 7, 2012 at the Philippine Carabao Center, Nueva Ecija.

The discussion on regional trade agreement was focused on the ASEAN Free Trade Area or AFTA. Developments showed that 100% of all products in the inclusion list (IL) are already at 0% tariff. With the proliferation of regional trading agreements (FTAs) perhaps it may also be worthwhile to mention the other regional trading agreements where the Philippine maintain trade engagements with ASEAN Dialogue partners such as:

- CHINA: ASEAN-China Free Trade Area (ACFTA)
- KOREA: ASEAN-Korea Free Trade Area (AKFTA)

<sup>3</sup>Statistician, Bureau of Agricultural Statistics, Department of Agriculture

- JAPAN: ASEAN-Japan Comprehensive Economic Partnership (AJCEPA)
- AUSTRALIA and NEW ZEALAND: ASEAN-Australia & New Zealand Free Trade Agreement (AANZFTA)
- INDIA: ASEAN-India Free Trade Agreement (AIFTA)
- EU: Asean-European Union Free Trade (AEUFTA)

In the foregoing FTAs, the common elements are flexibility in utilizing the special and differential treatment principle, recognition of domestic concerns/interests, private sector consultations, transparency, comprehensiveness and World Trade Organization (WTO) consistency.

In Table 2 (Philippine rice import policy, 2011), it was stated that the policy in terms of state trading on rice specifies that the NFA imports 35% of the total import allocation while 65% goes to the private sector. This was verified from the National Food Authority (NFA) if there have been changes in this policy. Based on actual annual allocations in recent years, 2011 and 2012, it was reported that the percentage import allocations during these years were not fixed. In 2011, out of the total rice imports of 500,000 mt, only 120,000 mt or 24 % were imported by NFA while the private sector's (registered NFA importers) share was 380,000 mt or 76%. In 2012, volume of rice import determined by the NFA Council was 860,000 mt. Of these, the share of NFA was 200,000 mt or 23.3% while 660,000 mt or 76.7% were allocated to registered NFA importers. Rice imports are auctioned to the private sector with a service fee and subject to the import tariff of 40% as mentioned in the paper. The duty-free import quota allocated to the private sector which was mentioned in the paper is a tax expenditure subsidy.

The import allocation depends to some extent on domestic rice supply conditions. Also, a buffer stock is required, 30 days during lean months which start in June and 15 days starting December as a result of peak harvest from the fourth quarter of the year.



### Private importation under NFA accounts

Clarifications were forwarded on issues relating to private sector importation. In the past, the National Food Authority (NFA) monopolized rice importation, which has resulted in its ballooning financial deficit. The government then allowed the private sector to participate in importation during the latter part of the Arroyo Administration to reduce the financial pressure on NFA. This was also to prepare the private sector to participate in international trading. Nevertheless, the NFA still decides on matters relating to the country's import volume, and the extent of private sector participation.

NFA rice importation is under two accounts: (1) Minimum Access Volume (MAV); and (2) Tax Expenditure Subsidy (TES). MAV requires tariff payment. A portion of MAV is allocated to the private sector with 40% tariff when they apply for a letter of credit through the Landbank of the Philippines. On the other hand, the TES program does not involve physical payment of tariff. DOF granted this subsidy to NFA to exempt it from actual tariff payment. This, however, is applicable only to the volume outside of MAV. Similarly, a portion of NFA's TES is allotted to the private sector so the latter could bring in rice free of tariff. Importers are just charged with a service fee that is based on an auction starting at PhP2.00 per kg. Distribution among private importers under the TES is also based on this auction.

### Regional free-trade agreements

Under free-trade agreements, member-countries will move, decide, or participate in trading as a bloc. This, however, also means that the Philippines will have to compete with other ASEAN member-countries. Hence, support for farmers is necessary. There are reports noting that farmers clamor for efficient postharvest facilities as they can reduce cost, increase profit, and eventually allow them to sell rice at a lower price.

# PAPER 2

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## **SHOULD THE PHILIPPINES EXTEND (AGAIN) ITS SPECIAL TREATMENT ON RICE?**

Ramon L. Clarete, Ph.D.

Paper

Discussion

Open Forum

**Introduction** The Philippines has applied to the World Trade Organization (WTO) for a second extension of its special treatment on rice for of 3 years. The first extension was supposed to have expired on 30 June 2012, but the country was able to obtain more time in order to negotiate for the second extension.<sup>6</sup>

The US government is apparently linking this extension to a mutually acceptable resolution of its row with the Philippines on the issue of the sanitary requirements for the handling of frozen meats (ISTSD, 2012).

Article 4(2) of the WTO Agreement on Agriculture (AoA) requires all quantitative import restrictions on agricultural products to be converted into their appropriate tariff equivalent rates, which are then to be phased down through the period of implementation of the AoA starting in 1995. The concomitant obligation requires a quota of rice imports that should be allowed to come into the country at the low nominal tariff rate. Yet, before the Uruguay Final Accord was signed at Marrakesh in 1994, the Philippines secured the approval from the WTO to instead avail of the special treatment annex in the AoA.<sup>7</sup> The 10-year privilege allowed the Philippines to defer its tariffication obligation under Article 4 of the AoA. Prior to expiration in 2005, the country was able to extend the treatment for 7 years, i.e. 2005 to 2012.

The Philippines apparently has been extending protection of the local rice farmers while the agriculture in general and the rice industry in particular is adjusting to increased competition from imported rice. Another reason, which comes out clearly under the current Aquino government, is that the Philippines aim to become self-sufficient in rice by 2013. Still a third reason is that rice trade is thin, which if the country is dependent on rice trade, places the rice security of the country at risk. Rice is a staple food to the Filipinos.

In this policy brief, I take the view that the Philippines should no longer seek a second extension of its special treatment. Indeed, it should not have availed of special treatment in the first place. The entire 17-year period of deferring the integration of rice to the larger world rice industry ironically has continued to make the local industry unprepared for any competition in the future, and has required substantial economic cost. Indeed, the very arguments why it had been seeking this privilege will remain beyond 2015.

<sup>4</sup>Paper delivered during the Seminar on Philippine Trade Policies and Rice Security: Future Directions, AIM Conference Center, Makati City, 26 September 2012

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<sup>6</sup>As of this writing, the author does not know if the WTO's General Council had already decided on the application of the Philippines.

<sup>7</sup>Other countries that availed of Annex 5 were Japan (1995 to 2000), and South Korea (1995 to 2013). The Philippines was encouraged by Korea's successful application for extending the privilege.

Special treatment in rice entitles, under the WTO rules, to continue its quantitative import restriction but requires the country to implement a tariff rate quota. Figure 1 illustrates how domestic prices of rice are going to be determined by these policies. Without the restrictions represented by the quota, the consumption of rice would have been CW while local supply would be at QW, and imports of rice would be equal to  $CW - QW$ . The quota, however, reduces the amount of imports, which causes local rice price to be above its world level.

The size of the quota is determined by the government upon the recommendation of an inter-agency technical working group made up of the NFA, the DA and the BAS. The quota in the figure, which the TWG recommends to the President, is not fixed but variable. Its size depends upon such variables as the expected local production, beginning inventories, and target ending stocks, consumption, and other uses of rice.

Consumers are worse off, forced to pay the higher price. This group also includes the majority of the rice farmers, who for the most part of any calendar year are consumers rather than producers of rice. But because of their diffused state of organization, rice consumers hardly complain about how rice prices have been pushed up higher than world because of the rice quota.

If the TWG makes a mistake in their assessment and recommends a very small size of the quota, then the rice prices would go up higher than pL. This is what happened in 1995 during an election year, when the TWG over-estimated local output of rice, and recommended that the country does not need to import rice. That caused a spike in rice prices, and the shortage caused a rationing of the available rice in that year. When the government decided to import, the crisis had already unfolded.

The TWG could likewise err on the other side, and recommends a relatively large import quota. This happened in 2008. Faced with a global rice price crisis in the first 4 months of that year, the TWG erred on the side of having more than less rice. The country imported at that time 2.4 million mt. of rice, at a time when there was hardly an imbalance in the demand and supply of local rice. The result was that rice stocks swelled, some of which were laid to waste in 2 years. The concern of the TWG at the time was to make sure local rice prices would not shoot up in tandem with the world market. It accomplished that objective, but at a very high cost. The Philippines was not only cited in the literature on the rice crisis as responsible for pushing up rice prices in 2008 to past 1,000 USD per mt. or 3 times more than where rice prices were at the end of 2007.

Either way, rice producers are not necessarily made better off because of the quota, particularly when it is of the nature that is prone to volatility. When rice

prices are high, it would not be the rice producers who benefit from those high prices, but those traders and processors/traders in the supply chains of rice in the country. In fact, rice producers who also consume rice pay the penalty of higher prices. However, rice farmers are not happy with volatile rice prices, since price volatility, particularly the extreme fluctuations, introduces uncertainty in rice farming.

An important flaw in the current policy regime of quantitative restriction (QR) to rice imports is that it is the government who makes the decision for the entire country. The likelihood that an erroneous assessment drags the local rice market to larger waste is higher compared with a situation when those who can import rice are many and are price takers. Admittedly, private importers do make mistakes in their business decisions. However, the likelihood that they will all make mistakes simultaneously is very low. Moreover, the effect of their mistakes is spread out and may tend to be offset by the positive effect of the better decisions of the other private traders.

In having the QR, the country is exposed to this risk. That risk is illustrated by the 2008 rice price crisis, when the Philippines not only imported a rather unnecessarily large amount of rice, but did so when rice prices shot up to unprecedented heights. In that year, the NFA suffered a financial loss of nearly PHP 40 billion, or nearly a billion dollars.

Before the 2000s, the Philippines was like Indonesia today. Indonesia imports rice as last resort. Its local rice procurement ratio is high, compared with import injection in the local rice market. The rice crisis in 1995 was precisely driven by this frame of mind that imports of rice was an admission of failure in rice production. Things changed after the 1995 rice crisis, which was followed by the 1997 El Nino phenomena. The DA at that swung to the other side of making sure there was adequate supply of rice, regardless of source. Since that time and particularly during the 9-year regime of the Arroyo government rice imports dominated the procurement of rice by the NFA.

The TWG justifies the size of the import quota as one resulting from "disappearance method" of estimating local consumption. The approach proceeds from the supply utilization equation as follows. In any given year, the available supply of rice for consumption comes from local production ( $Q$ ), imports ( $M$ ), and beginning rice stocks ( $S_b$ ).

On the demand side rice is used for seeds ( $S_d$ ), waste and animal use ( $W$ ), exports ( $X$ ), if any, processed into rice-based products ( $Pr$ ), stored ( $S_e$ ), and consumed ( $C$ ) as foods. The NFA has all these information about these variables, and computes ( $C$ ) as residual. It has fixed target storage in a given year, a third of

the country's consumption of rice during the lean months, plus provision for any emergencies due to natural calamities. Particularly,  $C = S_d + W + X + P_r + S_e - Q - M - S_b$ .

The problem of this approach is that it sustains a process of increasing rice imports. In any given year, per capita consumption using the disappearance method is  $C/Pop$ , the denominator being the population. When the NFA using its QR powers determines how much to import in the following year, it now uses the following equation:  $M = Pop * C/Pop + S_d + W + X + P_r + S_e - Q - S_b$ . The mechanism has a built in capacity of grandfathering any error on the amount of imports. Let there be an exogenous increase in  $M$  in any given year of whatever reason. The spike of  $M$  results in a corresponding increase in  $C$ , which in turn requires a higher  $M$  in the following year, then a higher  $C$ , and on and on. This mechanism may help explain why in the 2000s, the country tended to import rice at an increasing amount each year.

According to dela Pena (2011), rice consumption from 2006 to 2009 was estimated at between 105 (lowest estimate in 2006) and 130 (highest estimate in 2009) kilos per capita per year. The author computed the lower estimate in 2006 using the FIES survey data in 2006. In the same year, BAS estimate was placed in 119 kg using the disappearance method. It conducted a survey of Food Demand for the period of 2008 and 2009, and BAS obtained the same estimate it had in 2006, 119 kg. It is interesting to note that when BAS computed the per capita consumption for the period from 2008 to 2009, using the disappearance method, the figure rose from 119 in 2006 to a range from 120 to 130 kg.

**Promoting a high-cost commodity** In Figure 1, setting the out quota tariff rate,  $t^o$ , at very high level makes it redundant. Domestic prices are determined by the size of the quota that the TWG has recommended to the government. The government does not get any revenue in the first place, since the NFA would not be able to pay the duties implied by the out-quota tariff rate.

Recent DA administrations had pursued agriculture and fisheries modernization, implementing programs built around seven key commodities. These include rice, corn, livestock, high value commercial crops, sugarcane, coconut and fisheries. It is unclear how the DA had selected these commodities, but it is plausible that political dimension of rural development, i.e. being helpful to most of the farmers of the country, might have been an important factor to the selection. These sectors are the most active in agriculture in terms of value-added and jobs created. Two of these, coconut and fruits or other high-value commercial crops, have been regarded as where agriculture has the comparative advantage.

Yet, the bulk of public spending for modernization of the sector is set aside not for these but for the rice industry despite the fact that it has the lowest net social profitability. This decision may be politically driven. After all, the rice farmers make up the bulk of the farming population.

Using domestic resource cost (DRC) analysis, Gergely (2010) measured the relative comparative advantages of the major crops grown in the Philippines. The DRC indicates the level of efficiency of domestic resources in earning foreign exchange. It is a ratio between the total social cost measured in pesos of non-tradable primary inputs like land, labor and capita to the social value added of tradable inputs using the shadow exchange rate to convert tradable inputs and outputs from their border price in foreign currency to pesos. If this ratio is greater than one, the agricultural activity is revealed to have no comparative advantage. The country is better off sourcing the supply elsewhere in the world than producing it.

It is useful to express this measure in terms of the net social profitability of the agricultural activity as follows. It may be thought that the country is maximizing the profit it gets from the various production activities that go on the economy. Net social profitability (NSP) is equal to 1 less the DRC multiplied by its net foreign exchange earnings in the case of exportable products or saved in the case of import substitutes. The higher the DRC and/or the lower its net foreign exchange earnings, the lower the net social profitability of the activity.

In Table 1, rice has the highest DRC at PhP2.6 per dollar. The country is paying PhP2.6 per kilo of rice over and above what it would have paid for it had the rice been sourced from the world's most efficient producer. The Philippines consumed about 11 million mt. of rice in 2009, and undoubtedly such an amount if sourced from the world market would have raised world prices. The indicator suggests not abandoning rice production altogether, since that would only create more problems than solve existing ones. The indicator, however, tells us how much farther the rice sector needs to improve its productivity in order to save domestic resource costs. Improved rice productivity can save part of that extra cost per kilo. On the other hand, additional savings can be obtained by sourcing some of the requirements from abroad to the extent that the world market can supply without raising its price to the country. Just to illustrate, if those two strategies can save the country half of the extra cost, the country saves about PhP14.3 billion.

Accordingly, the commodity has negative net social profit, in proportion to its net foreign exchange saved, its NSP is -1.6. With most of the public spending for rural and agricultural development devoted to rice, the DA is promoting an

industry that has the potential of contributing the least to poverty alleviation. Ironically, the production activities that tended to have the highest NSPs are those that are primarily organized by the private sector with little public support and government policy distortions. These include in terms of DRC bananas, broilers, coconut, mango, milkfish, pineapple, sugarcane, and yellow corn.

Why do the country's farmers continue to grow rice, if it has the lowest net social profitability? There are at least two possible answers. For the large farmers who have marketable surpluses of rice, they may earn because of public subsidies such as those, which the DA plans to provide in the next 6-years to attain rice self-sufficiency. There are other forms of support such as farm price supports, and import restrictions, which the National Food Authority (NFA) administers.

On the other hand, there are subsistence farmers who must grow rice to survive. These farmers face severe market transaction costs. They may have the potential of growing higher value crops, but they do not. If they did, they may incur a financial loss due to production and marketing costs, which they cannot pass on to the market. These costs erode the private profitability of higher value production activities. As such, their alternative is to use the available land that they own to grow rice for their own household requirements.

Transaction costs are expended in gathering information about what, how much, when and where to sell a given crop or farm product. If the farm is small, there is not enough production activity to justify the farm household's investments in gathering information. Secondly, negotiating a sale of their products with buyers is likewise costly. If a farmer is an off and on producer of a high-value products, he does not have the incentive to come to terms with the ultimate buyer, and vice-versa. Lastly and assuming an agreement was made, the enforcement of it can be costly. In the course of implementing the terms of the sale, the buyer may depart from the terms of the sale because of better market opportunities outside of the contract. To bring back the buyer to the original terms of reference can be costly. Given all these market obstructions, small farmers have taken the rational decision to stay in rice given the public support to the industry in its bid to make this country self-sufficient.

In the past when market opportunities of agricultural exports were few and trade costs were relatively high, rice considering that it is a staple food might have positive net social returns, and thus deserved public support to further develop. But in the course of time, market opportunities change, there are better ideas of improving farmers' income. If the structure of public support to the sector is less responsive to changing income opportunities, the DA inadvertently provides farmers signals to continue producing rice, inadvertently depriving farmers of opportunities for higher incomes.



### Economic cost of rice policy

Earlier work in estimating the economic cost of rice policies in the Philippines (e.g. Roumasset, 1999) pointed out that the government's rice policies had not prevented the general public from paying relatively high rice prices and farmers from receiving less than the trade protection implied by current policies. Building on the work of Roumasset, a report commissioned by the USAID-funded AGILE technical assistance project (AGILE, 2000) for the NFA quantified the losses to society of the current program.

Five components of rice market inefficiencies were defined and estimated using a partial equilibrium model of the rice market: foregone tariff revenues, consumer surcharges, producer losses, excess burden for consumers, and excess burden for producers. From 1995-1998, on a yearly basis, the total of all these estimated rice market inefficiencies ranged from PhP 11.95 billion to PhP 31.24 billion. On average, the total loss amounted to PhP 31.24 billion a year.

The AGILE report documented that the government lost revenues amounting to PhP3.72 billion a year by restricting rice importation to the NFA. If permits to import rice were auctioned to the private sector, the government would have earned revenues. Alternatively, if rice imports were liberalized subject to import taxes, tariff revenues would accrue to the government.

Currently, the NFA, that is the sole importer of rice in the country, receives a deferment on tariff payments to the government from its rice importation. About PhP6.67 billion was the loss of consumers each year due to segmented rice marketing system and less transparent and predictable import regime - conditions giving rise to imperfect competition in the Philippine rice market. On a per unit basis, the penalty is measured by the excess of the actual price of rice resulting from the pricing and import policies over the equilibrium price of rice under an integrated rice marketing system and a tariffs-only import regime. In addition, consumers suffered losses due to the policy of protecting rice producers, amounting to PhP 4.24 billion each year.

World Bank (2007) estimated the welfare cost of rice policies also using also a partial equilibrium model but involving the following items: (1) the consumer income losses due to implicit trade protection; (2) the producer gains due to the same policies of restricting imports, and (3) public spending (net taxes collected on rice imports if any) by the government for the rice self-sufficiency program and the pricing interventions of the NFA. Table 2 shows the estimates of the World Bank (2007) of the welfare cost of rice policies in the Philippines

Because they pay rice prices higher than border prices, consumers reduce their use of rice. Their loss ranged from PhP100.1 billion to PhP38.9 billion. Their loss

is partly gained by producers. Due to higher take home prices, producers increase their production relative to if they had to operate on the basis of the lower border price. The gains of producers ranged from PhP31.1 billion to as low as PhP2 billion. If the government collected the import duties, which was at 50% from 2000 to 2005, then the budget surplus would have risen. The government provides a tax subsidy to the NFA, who is the sole importer of rice in the Philippines. Adding up all the changes in agent surpluses, the Philippine economy suffered welfare efficiency effects ranging from PhP38.7 billion to PhP60.8 billion.

The average annual welfare cost was PhP56 billion. The bulk of this amount is accounted for by the average annual loss of rice consumers of PhP72.8 billion. Gains of producers were 23% of the losses of consumers.

A schematic diagram of the computation of the welfare cost is shown below in Figure 2. Inefficiencies on the consumption side are due to the policy of restricting rice imports through the NFA. Consumers forego the benefit of consuming rice at the border price. The larger inefficiency is due to rice self-sufficiency. In the government's drive to produce all the rice that the country needs, it provides farm price supports. In this graph, the rectangular area above the domestic price of rice,  $P_d$ , represents the outlay for price support. The production inefficiency is due to the fact that local producers produce rice at cost above the world cost, represented in the graph by  $P_b$  or border price. In other words, the Philippines could just have bought the added rice the producers harvested at a lower cost but it did not. The black triangular area below the supply curve depicts this inefficiency. The other black triangular area is for consumption inefficiency. It is the NFA that procures rice at the government's price support. The net operating loss of the company in Table 3 covers this, operational inefficiencies, and any leakages of the rice producer or consumption subsidy programs (not shown in Fig. 2). In Table 2, World Bank (2007) accounted for only the tax subsidy. The same is shown also in Figure 2 with the rectangular area between  $P_b$  and  $P_d$ .

Table 3 shows an update or the computation of welfare cost for the years 2006 to 2009. Consumer losses and producer gains are larger compared with those reported out in Table 2. The former ranges from PhP68.21 billion to PhP152.22 billion in 2007. Average annual consumer loss is PhP116.03 billion. Annual gains of rice farmers amount to PhP54.75 billion, less than a half of the loss of consumers. The change in government surplus comprises the net operating loss of the NFA, whose business operations are virtually all in rice. Since the government owns the company, taxpayers pay for the net operating loss of the NFA. The average annual loss of the NFA is about PhP22.6 billion.

It appears from this analysis that all these resources are spent for the benefit of all the rice farmers in country. However, Dawe (2006) noted that the top 40 % of rice farm households enjoy two-thirds of the benefits of the rice policies. The remaining third are distributed across the bottom 60% of rice farm households. In terms of all agricultural households, only 12% of them receive these benefits.

The AGILE report reported that rice farmers were penalized as well by the current NFA intervention system. Rice farmers lose PhP4.47 billion a year because farmgate prices ended up lower than if the NFA implements a price stabilization program at below market prices. As a result, farmgate prices are depressed as well, which confers the penalty. Farmgate prices are approximately half of the retail price. If the NFA ends up supporting the price at below market, then farmgate prices in turn reflects the distortion. To the extent, that consumer prices are above the world market levels, then the protection that import restrictions are designed to provide to rice farmers are partly offset.

The welfare cost levels of rice policies in Table 3 are substantially higher than the added cost of producing rice in the country, as the DRC figure for rice in Table 1 shows. In the latter, local rice costs PhP2.6 per kg more than if that rice was sourced from the world's most efficient supplier. The added cost reflects the price distortions implied by the approach taken by the government to make the country become self-sufficient in rice and at the same time ensure food security. As the figures show, the current constellation of programs and policies to attain rice self-sufficiency and food security is costly. For every kilogram of rice produced locally - and in 2009 some 10.633 million tons were locally produced, it appears from the numbers in Table 3 that taxpayers pay about PhP7.89 pesos per kilo over and above the world market value of the locally produced rice. The current approach needs drastic innovation to mitigate these costs.

- References** AGILE 2000. "Strategic Reorganization of the NFA for the New Millennium." Unpublished report commissioned by the USAID-supported AGILE project for the National Food Authority.
- Dawe, D. 2006. "Rice Trade Liberalization Will Benefit Poor". In: D. Dawe, P. Moya and C. Casiwan (eds.). Why does the Philippines import rice? Meeting the challenge of trade liberalization. Joint Publication of International Rice Research Institute (IRRI) and PhilRice.
- Dela Pena, B. 2011. "Philippine Country Report". A national rice industry study commissioned by the ADB for the ASEAN Secretariat. Unpublished report.
- Gergely, N. 2010. "Quantitative Assessment of Comparative Advantage for Major Agricultural Crops in the Philippines". Unpublished report prepared for the Food and Agricultural Organization and World Bank.

ISTSD 2012. "Philippines: US Linking Rice Import Deal to Frozen Meat Standards". Bridges Weekly Trade News Digest .Volume 16.Number 8.29th February 2012. In <http://ictsd.org/i/news/bridgesweekly/126844/>. Accessed September 24, 2012.

Roumasset, J.A. 1999. "Market Friendly Food Security: Alternatives for Restructuring NFA." Unpublished report commissioned by the USAID-supported AGILE project for the NFA.

World Bank 2007, "Philippines: Agriculture Public Expenditure Review", Technical Working Paper No. 40493. Washington, DC: World Bank

## TABLES AND FIGURES

Table 1. Domestic resource cost and net social profitability of selected agricultural production activities in the Philippines.

	<b>DRC</b>	<b>NSP**</b>
Banana (cavendish)	0.86	0.14
Broilers	0.51	0.49
Coconut	0.7	0.3
Hogs	1.08	-0.08
Mango*	0.41	0.59
Milkfish	0.32	0.68
Pineapple*	0.19	0.81
Rice	2.6	-1.6
Sugarcane	0.78	0.22
White corn	1.33	-0.33
Yellow Corn	0.92	0.08

\* at farmgate; otherwise at wholesale \*\* in proportion to net foreign exchange earned or saved  
Source: Gergely, N. (2010) for the DRC; author's computation for NSP

Table 2: Welfare cost of rice policies in the Philippines, 2000-2005 (in billion pesos).

	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>Average 2000-2005</b>
Changes in producer surplus	31.1	20	23.9	12.7	0.2	1.7	16.8
Changes in consumer surplus	-100.1	-79.7	-84.7	-66.9	-38.9	-61.1	-72.8
Changes in budget surplus	0	0	0	0	0	0	0
Collected and paid duties	0	0	0	0	3.9	12	2.7
Reimbursement via tax subsidy	0	0	0	0	3.9	12	2.7
Net Change	-69	-59.7	-60.8	-54.9	-38.7	-59.4	-56

Source: World Bank (2007)

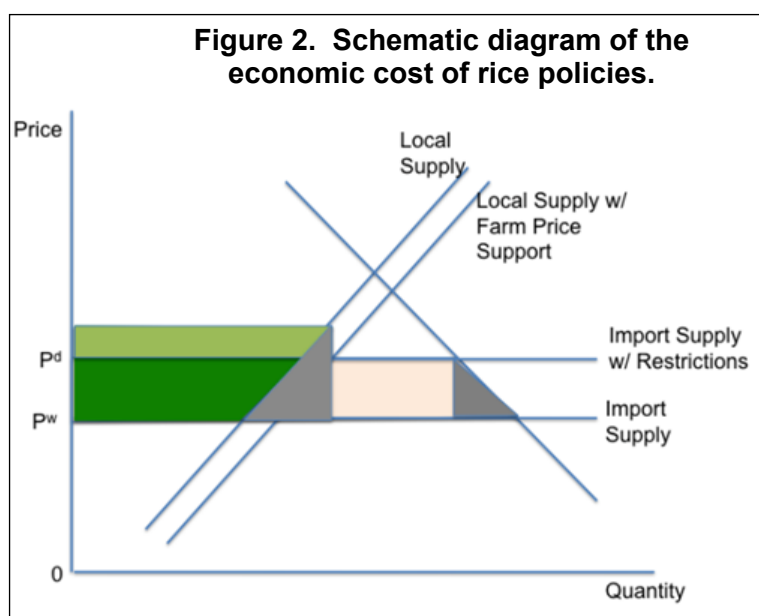
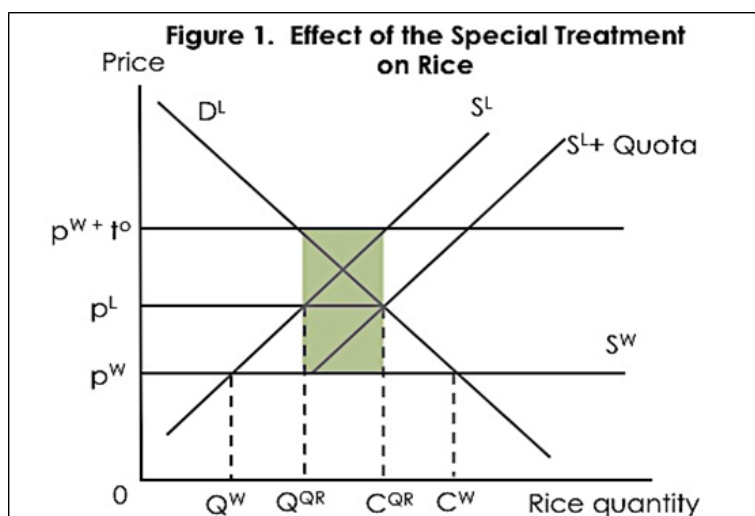
Table 3. Welfare cost of rice policies in the Philippines, 2006-2009 (in billion).

	2006	2007	2008	2009	Average 2006-2009
Changes in producer surplus <sup>1</sup>	61.85	79.05	20.4	57.7	54.75
Changes in consumer surplus <sup>1</sup>	-120.39	-152.22	-68.21	-123.29	-116.03
Changes in government surplus	-11.4	-5	-36.8	-37.19	-22.6
NFA Net Operating Loss <sup>2</sup>	-11.4	-5	-36.8	-37.19	-22.6
Net Change	-69.94	-78.17	-84.6	-102.78	-83.87

<sup>1</sup> The demand and supply equations used in computing this are respectively:  $Q_t = A_t + 350 \cdot P_t$  and  $Q_t = A_t + 300 \cdot P_t$ . The intercepts are calibrated each year to account for supply shifters.

<sup>2</sup> Source: COA Audited Financial Statements up to 2007; NFA Unaudited Statement for 2008 and budget estimate for 2009

Source: Author's computation



I tried to read the literature. I cite a lot but the most recent one I think was not cited. It was very recent, it came others on it et al 2012 paper and there was the paper by Peter War. So I hope you don't later accuse me of plagiarism because I'm sort of hurry so I'd picked up a certain portion there. Like Dr. Clarete I say NO to extending QRs of rice, otherwise, the problem of NFA will persist. If you have the justification for keeping the NFA and as you will recall, I think Dr. Bruce Tolentino would recall this in 1986 in that Green Book: Abolish NFA, shift to variable import tariff on rice. With due respect to the NFA representative here, we already recommended the abolition of NFA and the substitution of tariffs to QRs for rice. Unfortunately, and of course that's very-very difficult even if the new government thinks it's a good idea but politically it's very difficult to achieve but I think they were at least trying to minimize and make transparent the operations of NFA. With the WTO agreement in Agriculture: Led to higher protection and widening/persistence of QRs not just on rice, but other products-meats and vegetables, I thought the things got worst and earlier what it did is to really raised tariffs more than what it used to in a way all these MAVs etc. You just really even widen the use of quantitative trade restriction and up to now we really have QRs and we cannot really import garlis or onions without going to BPI and some import permit. So there are real QRs.

**Slide 1**

**Table 1. Domestic Resource Cost and Net Social Profitability of Selected Agricultural Production Activities in the Philippines**

	<u>DRC</u>	<u>NSP**</u>
Banana (cavendish)	0.86	0.14
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????		
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????		
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????		

\* at farmgate; otherwise at wholesale

\*\* in proportion to net foreign exchange earned or saved

Source: Gergely, N. (2010) for the DRC; author's computation for NSP

**Transcription**

I agree with what Dr. Clarete has presented in this paper and overall. I have problem with this table here on Domestic Resource Cost (DCRs). I really didn't have a chance to first of all I didn't know the title of the paper. But it's really clear to me here that DCRs if it's more than one would mean that you really don't have any comparative advantage in producing this. And if it's less than one this is basically exportable. It's clear that example for broilers, the

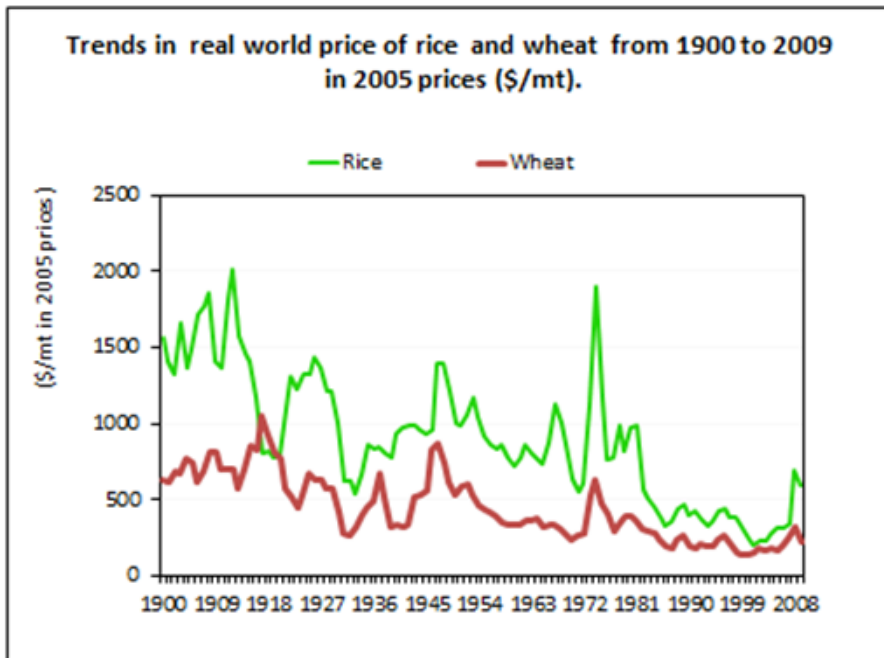
average NPR is about 50%, so we don't have comparative advantage in producing broilers. Definitely, for sugarcane we also don't have the comparative advantage in producing sugarcane. With white corn and yellow corn I think there is a problem/wrong with the way they made the estimates. To me this is very dangerous table that we really should point out. Definitely, the sugarcane, we only export in the US premium market but we cannot export in the real world

<sup>8</sup>International Rice Research Institute



market. So there are some gross errors but I hope you give me time, I'll sort of pick up some of my previous graphs. I think this will supplement Ramon's (Clarete) presentation. I think the government people, in the sense for good reason, want to intervene in a quantitative way because what rice market is perceived to be volatile.

## Slide 2



## Transcription

So this is what we got this originally from David (Dawe). This is the trend in the real rice price: the green one and the red one is the price of wheat in real terms since the 1900. There are two or three things here that you see. First of all yes, it is somewhat volatile; but you know what is clear is that the real rice price in real terms has been declining from more than a century. And despite the fact that there are rare periods like in the mid-70s, or somewhere during the 1st

world war, there were major peaks every 20 years. The long-term trend is downwards and I don't think that's going to change maybe it's going to be not as fast and that is the case. The reasons for the price hikes are not really market reasons within rice. It's very clear in 2007 and 2008 for example that there are reasons besides the panic buying. They have said that it's not really the reduction or lowering of grain spots but you know that was the biofuel sort of trend, example the use of food, corn to feed our cars. Now these things may also change, I mean the biofuel sort of approach in trying to address the energy question. If we were able to really make good headway in solar energy that is well-done. The issue is whether or not the policy instruments being used for countries to be insulated from this volatility in rice price are doing us good.

## Slide 3

Source:  
Anderson  
et.al.,2012

- Fluctuations in national trade barriers are not an effective way of dealing with international price spikes; when many exporting and importing countries so act, they tend to neutralize each other's domestic market stabilizing efforts and at the same time accentuate the international price spike and so push more countries into acting similarly.
- There is a strong case for multilateral agreement to desist from using trade measures for this purpose, especially in situations where only a few countries account for most of the world's production and consumption.
- Fluctuations in the international price of rice may be mitigated by agreeing to use fixed ad valorem tariffs rather than variable or volumetric import taxes or quantitative trade restrictions. (Anderson et al 2012)

## Transcription

He says that if you use quantitative trade restrictions, this are not the effective way of dealing with the international price hikes because, when many exporting and importing countries so act, they tend to neutralize each other's domestic markets stabilizing efforts and at the same time accentuate the international price

spike. Thus, he says that the shift from QRs to tariffs really is the way to promote more stable world prices. He says that there is a strong case for multilateral agreement to desist from using trade measures for this purpose, especially in situations where only a few countries account for most of the world production and consumption in the case of rice. He suggested that, fluctuations in the international price of rice may be mitigated by agreeing to use fixed ad valorem tariffs rather than variable or volumetric import taxes or quantitative trade restrictions.

#### Slide 4

Source:  
Anderson et.  
al., 2012;  
Wright, 2011;  
and Gilbert,  
2010)

- Government involvement in grain stock holding crowds out private stock holding; it adds to market uncertainty, since predicting the sporadic and often politically driven purchase and selling decisions of a parastatal agency is typically very difficult.
- If all governments agreed not to engage in large-scale grain storage, there would be no need for any government to do so because the private sector would then find it profitable to purchase and store when prices were low (thereby putting a floor under farmer prices), and to sell from those stock holdings when prices are high (Wright 2011).
- Attempts to establish multi-country joint stock holding program with firmly agreed rules for buying and selling, are unlikely to succeed, because previous international commodity agreements have led at best to disappointing outcomes (Gilbert 2010). (Anderson et al 2012)

#### Transcription

Anderson et al., (2012) also made statements about government involvement in grain stock holding crowds out private stock holding. It adds to market uncertainty, since predicting the sporadic and often politically driven purchase and selling decisions of a parastatal agency is typically very difficult. If all governments agreed not to engage in large-scale grain storage, there would be no need for any government to do so because

the private sector would then find it profitable to purchase and store when prices were low and to sell from those stock-holdings when prices are high. I think Ramon (Clarete) talked about that. I just want to flag this because ADB starts to promote this and others attempt to establish a multi-country joint stock-holding program with firmly agreed rules for buying and selling... are unlikely to succeed, because previous international commodity agreements have led at best disappointing outcomes.

#### Slide 5

Source: FAO

- **Food security:** "when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life". Depends on family's income and assets, pro-poor economic growth, and thus per capita food consumption.
- **Rice self-sufficiency:** when ratio of rice production to consumption is unity, i.e., imports are zero.
- Objective of achieving rice self-sufficiency to attain food security is not necessarily "bad". The issue is the appropriate choice of policy instrument.

#### Transcription

Now, as I prepare earlier, I received a paper that I thought a complimentary to your own presentation I want to clarify that food security is achieved "When all people at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs. And food preferences for an active and healthy life". That is a sort of FAO wording. There you can see that food security depends in family's income



and assets, pro-poor economic growth which will lead through food security when we see per capita food consumption rising. Rice self-sufficiency let us say, when ratio of rice production to consumption is unity i.e. imports are close to zero. Here is a sort of a wording of Peter War. Of course, we knew all of this way back in 1986 but I thought Peter War's paper in Indonesia on food security versus self-sufficiency is quite well-written. So the objective of achieving rice self-sufficiency to attain food security is not necessarily "bad". The issue is the appropriate choice of policy instrument.

## Slide 6

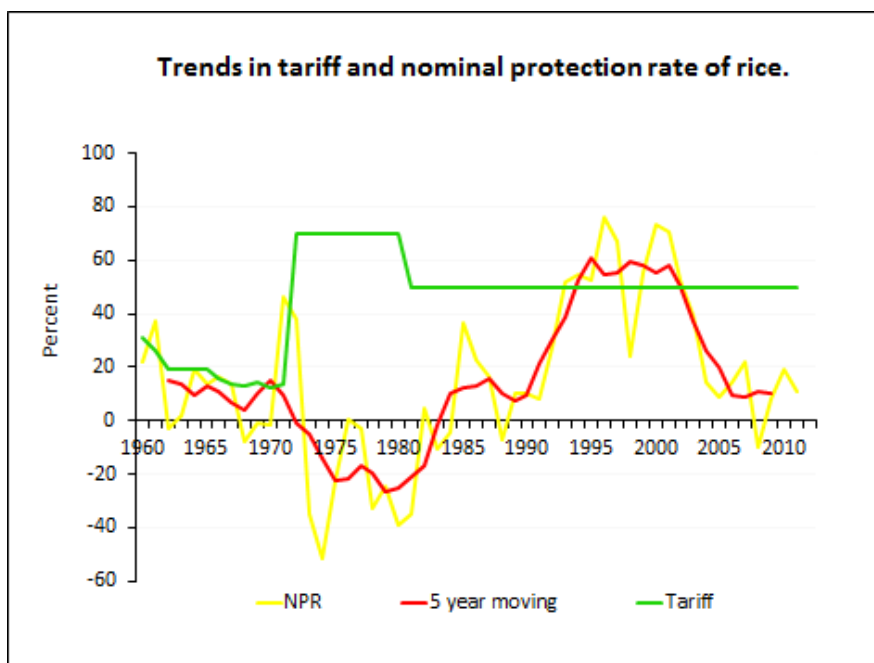
- Use of trade policy, i.e., import restrictions, to raise self-sufficiency rates lead to higher rice price and thus food insecurity of the poor consumers in both the urban and rural areas.
- High rice price would benefit large rice farmers, absentee landowners, rice millers and traders, and import quota recipients. Estimated price transmission elasticity is only 0.47 (Anderson et al 2012).
- Food security and self-sufficiency objectives do not conflict when productivity-enhancing public expenditures are used to achieve both objectives. Unfortunately, more of public expenditures for agriculture are redistributive in nature, rather than productivity enhancing. And those that are productivity enhancing are often characterized by inefficiencies.

## Transcription

And we argue on the use of trade policy quantitative trade restrictions, very high tariffs. You know to use that on self-sufficiency will lead to higher rice price and that food security of poor consumers involves the urban and rural areas. So rice self-sufficiency now becomes a conflict with the food security objective. Having high rice price will benefit basically the large rice farmers who sell higher proportion of their output

than the smaller farmers who are more subsistent or sell small proportion of output. Example the absentee landowners, because high rice price is going to capitalize land values, rice millers and traders and import quota recipients. In that Anderson et al (2012) paper, the estimated price transmission elasticity for the Philippines of only 0.47 meaning that for every one unit of increase in price in the world market, only half of that is transmitted to farm price. So the other recipients of the increase of price are really the traders and rice millers and everyone else along that supply chain. Food security and self-sufficiency objectives do not conflict when productivity-enhancing public expenditures are used to achieve both objectives. Unfortunately, more of public expenditures for agriculture are redistributive in nature, rather than productivity enhancing. And those that are productivity enhancing are often characterized by inefficiencies.

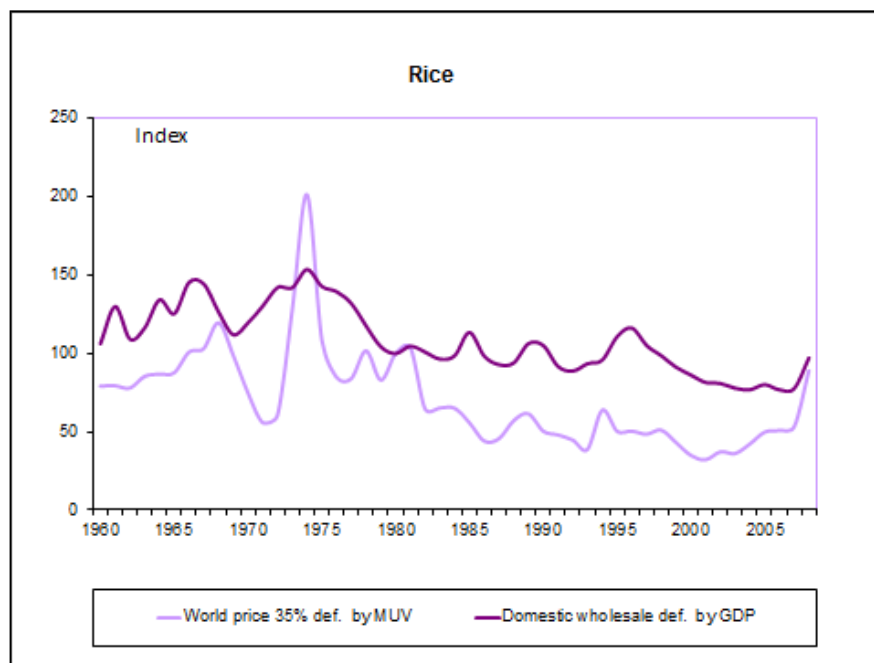
## Slide 7



## Transcription

I'd like to show this graph, just again to bring out the point of what these quantitative restrictions really do or really have done. So we have these numbers from 1960, the green line is the tariff, it's 50% from 1980s onwards. While this yellow is the nominal protection rates (NPR) and the red is the 5-year moving average. Nominal protection rate is the percentage ratio of domestic whole-sale price to the world price upper border. I used 20% Thai broken added 20% to make it comparable to our wholesale price; so that is what these numbers show.

## Slide 8



## Transcription

Historically, there really hasn't been any price support to farmers. The average from 1960-1990, is basically zero. It became high in 1990s downwards because world prices dropped, and now it's very low because world prices rose. But the point is that, as Dr. Clarete has said, those things are redundant and all these tariffs.

## Slide 9

**Average Nominal Rates of Protection of Major Agricultural Commodities (%)**

Commodities	1960-79	1980-89	1990-94	1995-99	2000-04	2005-08
Rice	-6	-1	21	53	51	5
Corn	24	40	63	79	55	32
Sugar	32	37	49	97	79	49
Coconut	-6	-12	-3	6	-1	-7
Bananas	-2	-3	0	0	0	0
Beef	13	11	28	28	10	10
Pork	-5	43	25	21	-8	-10
Chicken	40	41	57	42	52	46

## Slide 10

**Tariffs on Tradable Inputs of Agriculture (%)**

	1960-79	1980-89	1990-94	1995-99	2000-04	2005-08
<b>Fertilizers</b>						
•Urea	30	16	5	3	3	3
•Ammophos	24	17	12	3	3	3
<b>Pesticides</b>	28	28	16	7	3	3
<b>Tractors</b>	28	38	28	10	3	3
<b>Threshers</b>	24	27	22	10	3	3
<b>Water pumps</b>	46	38	24	10	3	3

## Transcription

It's true that trade liberalization in agriculture did not lead to reduction in nominal protection rates in major importable commodities. What it did clearly, it reduced the domestic prices of inputs. This whole trade liberalization was really more successful in manufacturing center. That is why as you see, tariffs of tradable inputs is really going down to about 3% in recent years.

## Slide 11

Trends in the Government Cost of NFA's Operations (P mn at current price)									
	Obligation	Tax subsidy	Net obligation	Increase in liabilities	Increase in assets	Foregone tariffs		NFA A	NFA B
						Rice	Corn		
2000	1,729	-	1,729	1,389	-2,756	3,770	2,018	8,908	11,682
2001	2,628	1,848	780	2,970	777	4,540	681	8,971	8,194
2002	961	-	961	7,612	3,593	6,619	789	15,961	12,367
2003	10,742	9,732	1,010	8,022	-748	2,994	170	12,197	12,945
2004	4,937	3,931	1,005	3,722	-3,342	1,800	128	6,655	9,997
2005	12,941	12,021	920	13,593	8,344	1,895	1	16,408	8,065
2006	4,829	3,911	918	13,843	-446	2,928	194	17,882	18,328
2007	16,635	13,926	2,709	-2,007	-1,522	5,941	550	7,193	8,715
2008	41,101	37,172	3,929	64,650	31,775	-9,987	-	58,593	26,818
2009	24,522	18,373	5,332	22,306	-4,807	-3,372	-	24,266	29,073

## Transcription

This table shows my estimate this is how I think is the financial cost of NFA. What Dr. Clarete showed you is the economic cost and welfare cost. Analyzing public expenditure it is a very complex process and one really has to learn almost each of the policy instrument. So usually, you say you get the public expenditure from the reported obligations in the DBM. So we have obligation and that obligation is really consist of what the

government gives to NFA either as an equity contribution or as GA-8 allocation plus the tax expenditure subsidy, which is just on paper. It's not really to give any tariff, it's just turn around and says you have paid the taxes. So what I did here is to remove the tax subsidy in the numbers. I looked for data from DOF and say let's remove that, let's just say it's just a paper subsidy. I have net obligation, I added an increase in the liabilities, increase in assets and foregone tariffs. Assuming that you really wanted domestic prices to be that way, what cost or what you have foregone by using QRs. That is what I said as the government cost of NFA operations. Net obligations and increase in liabilities which are NFA A plus the forgone tariffs which is NFA A, because it did not fit in the increase in assets, it is quite believable because large parts of those assets are stocks. So I made an estimate, with and without assets which is B. You can see here that these are financial costs, these are not economic costs. These are the numbers, 2008 is very high even just in financial cost P58 or P59 billion or P26 or P27 billion somewhere in between. I went down to 2000; I really did not have time to really update this.

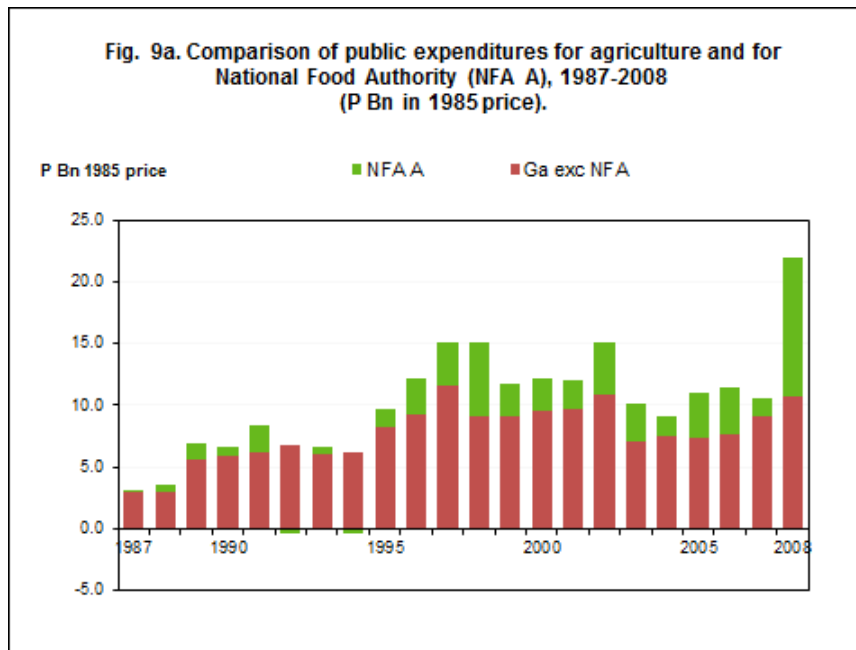
## Slide 12

Balance sheet of the National Food Authority, 1986-2011 (P Bn at current price)							
	Total	Cash & securities	Assets			Liabilities	Net worth
			Other current assets	Fixed assets	Other assets		
2000	19.8	2.2	12.4	1.5	3.6	20.9	-1.1
2001	20.5	1.9	13.5	1.7	3.5	23.8	-3.3
2002	24.1	2.1	16.8	1.5	3.6	31.5	-7.3
2003	23.4	2.4	12.2	1.4	7.4	39.5	-16.1
2004	20	2.2	7.4	1.4	9.1	43.2	-23.2
2005	28.4	1.5	11.6	1.5	13.8	56.8	-28.4
2006	27.9	1.6	13	1.5	11.9	70.6	-42.7
2007	26.4	1.2	10.6	1.7	12.9	68.6	-42.2
2008	58.2	2	40.4	1.7	14.1	133.3	-75.1
2009	53.4	2.4	38.3	1.9	10.8	155.6	-102.2
2010	62.1	2.5	55.9	2.4	1.3	168.5	-116.3
2011	36.9	2.4	32.8	2.5	1.7	171.5	-132.1

## Transcription

Here I was able to update, the second graph, this is the balance sheet of NFA which shows you the assets and liabilities. I put it in current price so that the numbers have something to ask. In 2011, NFA owes P171 billion. Look how much debt NFA has accumulated.

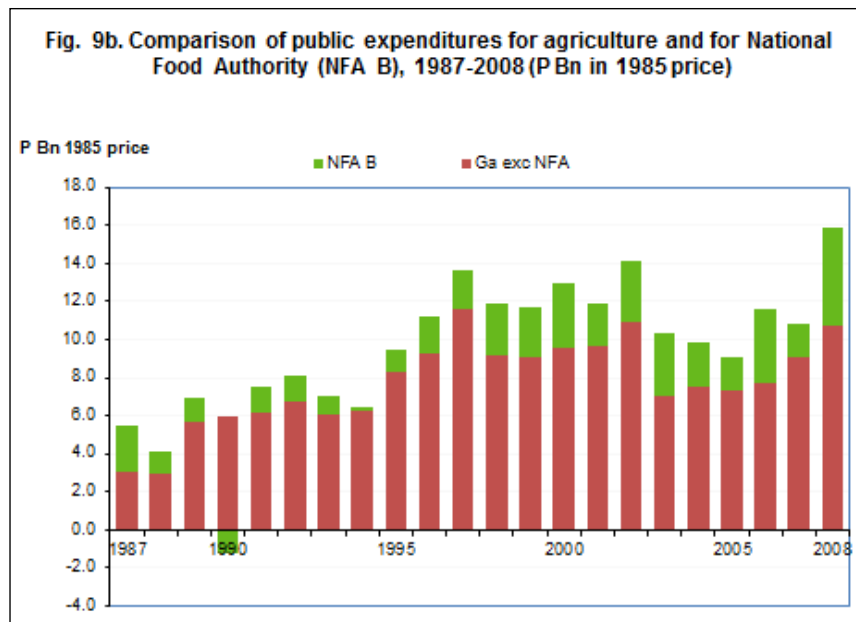
### Slide 13



### Transcription

Then the next graph, what I tried to do is add the cost of NFA A which is the green part. On top of the public expenditures in 1985 prices for crops and livestock, my agriculture is defined as crops and livestock. If you take the ratio of NFA financial cost, that's about 20% of all the public expenditures for agriculture (crops and livestock).

### Slide 14



### Slide 15

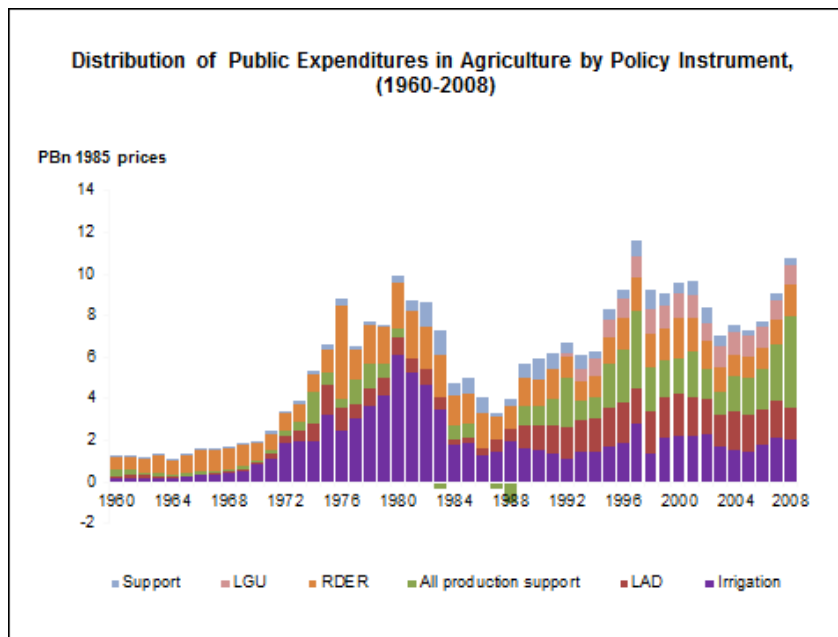
- Cost of transferring P 1 worth of rice subsidy for consumers in general is P 2-3.
- Since only the poor deserve the rice price subsidy, it actually costs P 4-6 to transfer P 1 worth of rice subsidy to the poor households.
- Surely, the CCT will be a more cost-effective mechanism for assisting the poor than the distribution of NFA rice. Moreover, farm-households and rural landless households will likely be more able to share in this income subsidy, than from the rice price subsidy.

### Transcription

So many people tried to make some estimates: the cost of transferring P1 worth of rice subsidy for consumers in general is P2-3. I think this is P4-6 to transfer for P1 worth of rice subsidy for poor household. Surely, this conditional cash transfer (CCT) probably has much less

transaction cost than transferring the P1 worth of subsidy. And now because we have CCT, we have now a mechanism by which you can really provide rice price subsidy to the poor whenever rice price really should off.

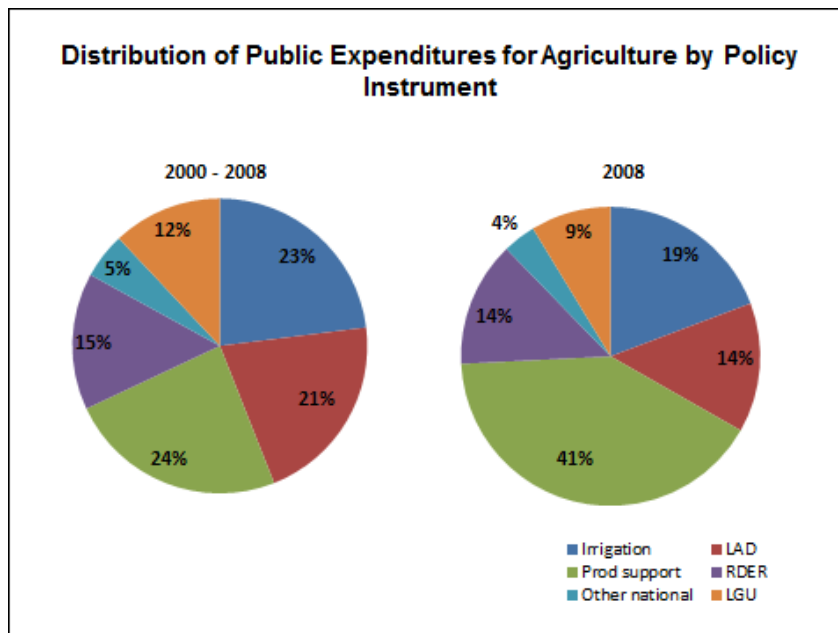
## Slide 16



## Transcription

I want to show you a graph on public expenditure in real terms excluding NFA from 1960. We tried to divide that according to policy instruments. So we have the irrigation, land redistribution, the all production support, the RDER, the LGU etc.

## Slide 17



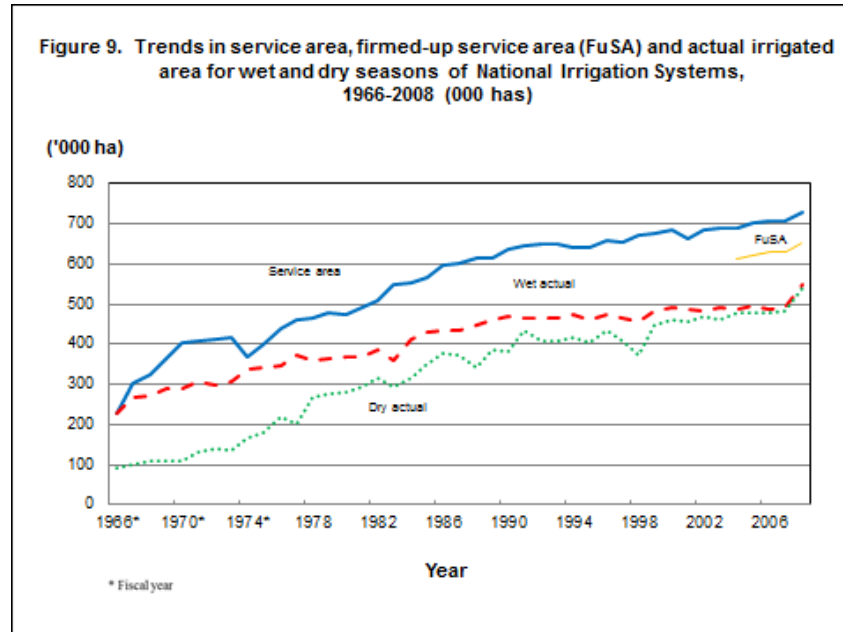
## Transcription

The next one I hope it becomes clearer here. I have here 2008 and the average from 2000-2008. My point here is that, large proportion are really allocated for rice; clearly at least 70%. But major part of that is really redistributive in nature, even just the percentage from 2000-2008, 24% is so called production support, which is post-harvest, farm-to-market-roads, hybrid seeds etc. which is a large part during this period. 21% is

tenants to landowners, large part of that is for rice farmers. Then, 23% is irrigation again for rice only. Then, the RDER there is 15% which includes extension and LGU. So you can see here which is the productivity enhancing; irrigation and the research development extension. You can see here that it is relatively small. How about production support? I'm sorry I want to react to the lady who talked about post-harvest facilities. Post-harvest equipment, these are private goods. The government's role here is research on post-harvest facilities etc. but not to provide the post-harvest facilities. And if you look around, you don't need to have the Ph.D. in economics to see on how much waste there has been on these post-harvest facilities. Way back to flash dryers to flat-bed dryers, to grain storage whatever. I mean just go around seeing

that this is a waste. A few months ago we went to La Paz. We are looking for pumps for irrigation. In the middle of the field, we saw a flatbed dryer which is not operating when all the wet rice is spread all-over the road. And what did they do? They use the machine to pump water. I'm sorry I just hope the cooperative will ask the right kind of support and not waste of funds. I mean it's very important to do and document that.

## Slide 18



## Transcription

Now, let's look. I'm saying that there are inefficiencies. We are doing work on irrigation. We are spending 23% or more than 23% on the average from 2000-2001 on irrigation. This is the actual irrigated area from 1990. You can see here that's very little increase in the actual irrigated area at the time that we were spending a lot of money. There was an increase in the "dry actual" still have to explain that our guess is that because farmers are using pumps to supplement and it comes out "dry actual" here.

## Slide 19

**Service Area and Selected Measures of Performance of NIS by Vintage, 2008 (%)**

	Before NIA	1965-1980	1981-1995	1996-2008
Service area (000 ha)	128	380	172	83
Service area /design area	81	88	82	73
Firmed up service area/design area	70	79	72	66
Wet actual irrigated area/service area (Ratio to design area)	79 (83)	83 (71)	65 (53)	44 (32)
Ferguson	(94)	(70)	(56)	
Dry actual irrigated area/service area (Ratio to design area)	63 (51)	82 (71)	70 (57)	49 (36)
Cropping intensity				
(Wact+Dact)/service area	142	165	135	93
(Wact+Dact)/Wact	181	199	208	212

Ferguson (1987). Figure under 1965-1980 pertain to 1965-1972, and that under 1981-1995 to 1973-1983. These estimates based on sample of 41 NIS and refer to average of maximum

## Transcription

My other table service area and selected measures of performance of National Irrigation System (NIS) by vintage. You can see here that overtime the performance of National Irrigation System built overtime has worsened. This is the table where we were estimating ourselves following Fergusons thesis which only comes up to 1983.



## Slide 20

Agricultural Research Intensity Ratios, 2000	
	<u>Percent</u>
Philippines	0.43
(Rice) 2008-2011	0.21
Malaysia	1.92
Thailand	
Indonesia	0.22
India	0.37
China	0.43
Asia	0.41
Developing world	0.43
Developed world	2.36

Source: ASTI, IFPRI.

## Transcription

This is the most important one for PhilRice ? the agricultural research intensity ratios. This is the numbers that have been produced several places. I think the ASTI, IFPRI, you have Philippines for agriculture which is only 0.43% of gross value added agriculture compared to Malaysia which is close to 2% and also Thailand is close to 2%. And for developed world, it is over 2%. Then I made a close estimate for rice, if you just count PhilRice as the

budget this is like P400-P500 million more or less. That's only 0.2% which was also consistent on ASTI, on what we really spent on the minor crops and less on the major crops.

## Slide 21

Analysis of rates of returns (ROR) studies of public expenditures on agricultural research worldwide, 1958-1998				
Studies	90% of studies		<500% ROR>	
	Number	Mean ROR	Number	Mean ROR
Research only	1,027	72	1,084	71
Research and extension	567	43	628	48
Extension	73	76	78	78
All studies	1,667	62	1,790	63

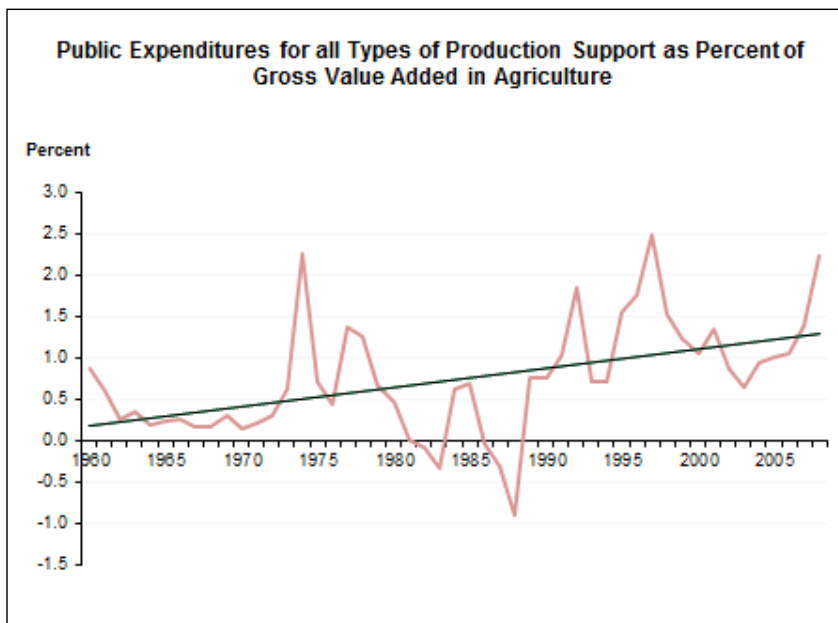
Source: Alston et al (2000)

## Transcription

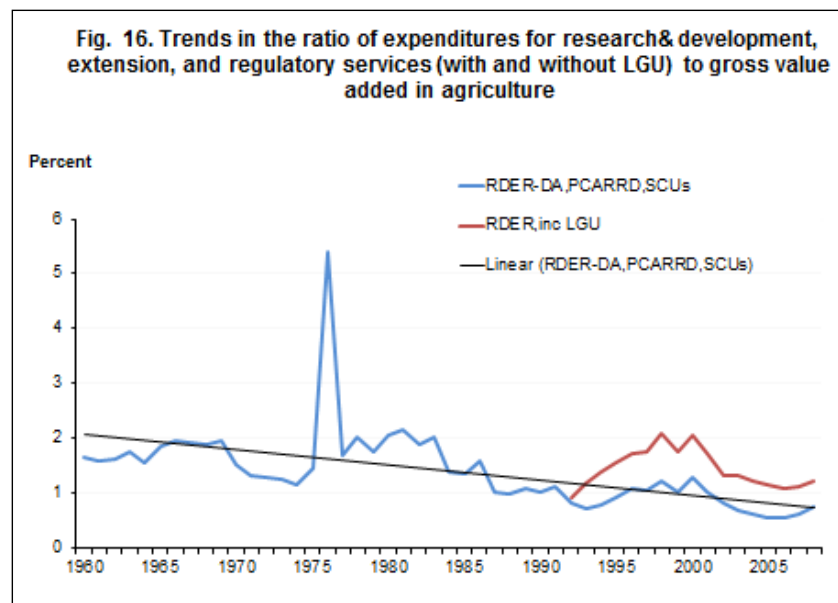
It is very clear existing studies on rates of returns for research have been quite high; talking about 60% on the average; 72% on research only 71%; about in that range. But when you look at the returns for irrigation investment, they're quite low, especially when you estimate it on export. Clearly, there is misallocation of resources or public expenditures across policy instruments. There is really a need to improve our efficiency in managing or governing public goods in irrigation system.



Slide 22



Slide 23



Slide 24

- The agriculture budget has become a vehicle for increasing pork barrel type of public expenditures. Although politicians' pork barrel are supposed to be obtained from current programs of the agricultural agency, program design had been influenced by the need to accommodate the demand for pork barrel funds in order to obtain higher budgets for the agency.
- The share of public expenditures for provision of "production support" or private goods has significantly increased, crowding out the more productive expenditures for public goods in agriculture. These goods can be more easily distributed among politicians for their constituents. And opportunities for capturing private rents can also be maximized.

## Slide 25

- The budgetary issue is not under-spending for agriculture, but inefficiencies in the composition of the budget within the sector, budgetary process, and execution of the functions due to institutional weaknesses and political factors.
- Too little is spent on provision of public goods such as R&D, extension, and regulatory functions; and too much on providing private goods—hybrid seeds, fertilizers, post harvest equipment and facilities, etc.
- Too much is spent for presumably redistributive purposes, which may be achieved more cost-effectively by spending in the social sectors; and too little for growth enhancing opportunities in the agricultural sector.

## Slide 26

- Opportunity cost of government funds is high. Market infrastructure, education, and health, which are clearly underfunded, also significantly increase the profitability and productivity of agriculture and welfare of farmers. Moreover, they ease the burden of adjustment of farm households in the process of structural change as their children will have to seek employment in the non-agriculture sector.
- Economic and social returns to budgetary allocations for agriculture will have to be evaluated vis-à-vis those for other economic and social sectors. A reallocation to the latter could be more beneficial to farm households than agriculture-specific expenditures.

## Slide 27

### Direct for Reforms

- Substitute variable import tariffs (or variants) for NFA import monopoly and domestic market operations; replace consumer rice price subsidy with CCT under DSWD.
- Remove other QRs and review high tariffs; replace with variable import tariffs if world prices are highly unstable (sugar?); tariff revenues to National Treasury, not earmarked
- Improve efficiency in irrigation planning, construction, water management; minimize political interference in contracting and operations; do more ex post evaluations of irrigation investments.
- Focus land redistribution on compulsory acquisition; conversion of group to individual CLOAs; and completing payments to landowners.

## Slide 28

- Reduce budgetary allocations for private goods—agricultural inputs, postharvest equipment and facilities, credit, etc. Limit these for introducing new technologies and farmer assistance during calamities.
- Shift budget for farm to market roads to DPWH or poor LGUs directly.
- Increase budget allocations for public goods, specifically R&D, regulatory functions for food safety, controlling pests and diseases, and extension, market promotions.
- Reorganize DA primarily by function, less by commodity. Address other institutional weaknesses.
- Strengthen monitoring and evaluation of agricultural policies and programs at the agency and congressional levels, in part by increasing budget of COA and institutionalizing an independent monitoring and evaluation activity.

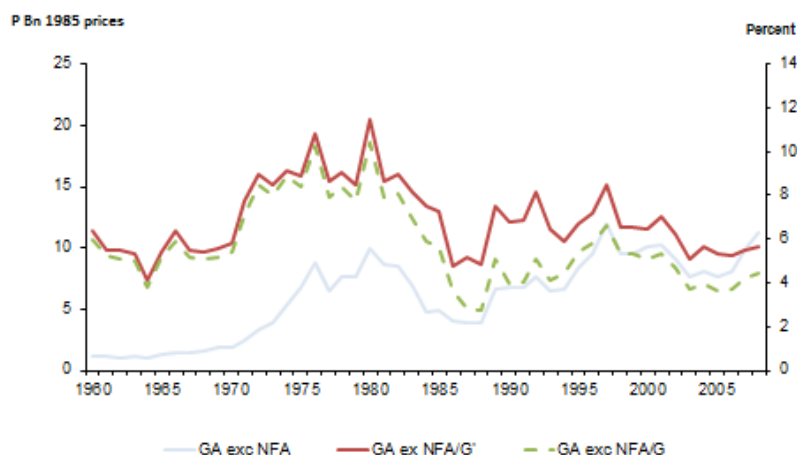
## Slide 29

**Distribution of 31 selected national irrigation systems (1970-2005) by degree of time and cost overruns**

Time overrun		Cost overrun	
Values (%)	No. of projects	Values (%)	No. of projects
0	1	-36 to -14	3
33 - 40	9	-6 to 3	6
50 - 80	10	12 to 45	11
100 - 138	6	50 to 94	8
150 - 179	5	121 to 130	2
		209	1

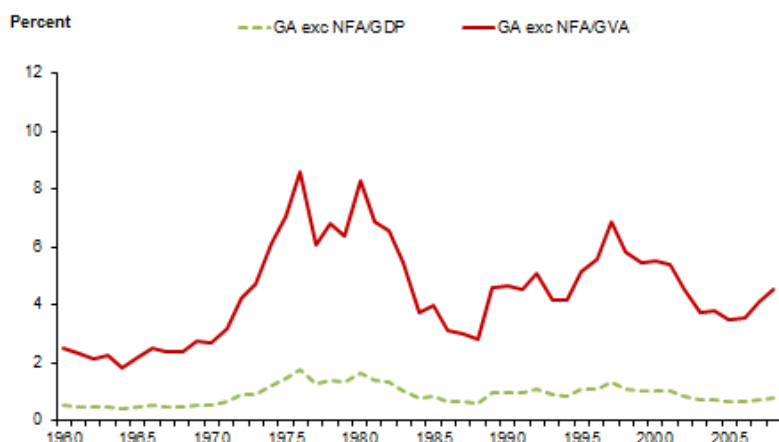
## Slide 30

**Government expenditure on agriculture (GA), and as percent of total government expenditures (G) and total government expenditures less debt service (G').**



# Slide 31

Government expenditure on agriculture (GA) as percent of gross value added in Agriculture (GVA) and gross domestic product (GDP), 1960-2008.



# Slide 32

Target area accomplishments in selected foreign-assisted projects (%)

World Bank, others			Asian Development Bank		
Project	Accomplishment		Project	Accomplishment	
	New	Rehab		New	Rehab
Aurora-Penaranda	-17	9	Agusan del Sur	-16	-
Chico River I	-2	7	Angat Magat IADP	-58	11
Communal Irrig'n Dev't I	-	173	Davao del Norte	-6	-
Communal Irrig'n Dev't II	11	-	Highland ADP	-11	-10
Jalaur Irrigation I	7	-7	Irrig'n Sys's Impr't I	-8	-7
Magat Multipurpose	-8	-1	Irrigation Sector Project	-43	14
Nat'l Irrig'n Sys's Impr't I	-27	3	Kabulnan & ADP	-22	-
Nat'l Irrig'n Sys's Impr't II	-54	19	Palawan IADP II	-26	-12
Phil. Rural Dev't Proj-IC	-32	0	Pulangui River	-21	-
Tarlac Irrig'n Sys's Impr't	-63	-2	Sorsogon IADP	-	-25
Visayas Communal Irrig'n	-20	1			
Libmanan/Cabusao IADP	-12	-			

# Slide 33

Estimated rates of returns of selected foreign-assisted projects irrigation projects(%)

Name of Project	Appraisal	Evaluation
Agusan del Sur	18	7
Angat Magat IADP	24	17
Bicol River Basin	22	2
Davao del Norte		18
Irrig'n Sys's Impr't I	27	-
Irrig'n Sector Project	31	-
Kabulnan Irrigation ADP	16	-
Laguna de Bay Dev't Proj	14	2
Laguna de Bay Irrig'n Proj II	17	6
Pulangui River Irrigation Proj	19	11
Sorsogon IADP	18	-
Upper Pampanga River	14	-
Aurora-Penaranda	17	-
Communal Irrig'n DP I	19	-
Communal Irrig'n DP II	19	-
Irrig'n Operations Support	34	-
Magat River Multipurpose	13	-
Phil. Rural Dev't Proj-IC	-	-
Tarlac Irrig'n Sys's Improv't	15	-
Watershed Mgt. & Erosion Control	18	-
Libmanan/Cabusao IADP	28	-

### Slide 34

#### Selected measures of performance of national irrigation systems (NIS), 2008

	<u>Percent</u>
Service /design area	83
Firmed up service/design area	74
Wet actual/service area (Ratio to design area)	75 (62)
Dry actual/service area (Ratio to design area)	73 (61)
Cropping intensity	
(Wact+Dact)/service area	148
(Wact+Dact)/Wact	198

### Slide 35

#### **Production Support ( public vs private goods)**

- Seeds/planting materials – inbreds vs hybrids
- Fertilizers
- Agro-chemicals
- Post-harvest equipment and facilities
- Farm to market roads (to involve only in planning)
- Credit

### Slide 36

#### **Role of Government in Agriculture**

- Provision of public goods (not private goods)
  - non-excludability, non-rival
  - irrigation, R&D, extension ( though not all)
- Addressing externalities
  - control of plant and animal diseases
  - protecting food, product, input safety & standards
- Addressing other market failures
  - imperfect credit markets
  - instabilities in prices/production
- Alleviating poverty (consider better social subsidies)????

Note: Interventions may cause government failure

## Slide 37

### Indicators of Price Distortions

$$\text{NPR} = [(P_d - P_b) / P_b] \times 100$$

- Before 1990s, trade and price policies (inc NFA) penalized agriculture (low output and high input prices) and protected manufacturing.
- Past two decades, these have favored agriculture (high output and lower input prices), more than manufacturing due to trade liberalization.
- Increasing NPR in major importable commodities (rice, corn, sugar), distorting price incentives against exportables (coconut, bananas, others)
- Philippines now has the highest agricultural price protection (inc. that of rice) among developing Asian countries.

## Slide 38

### Indicators of Public Expenditures

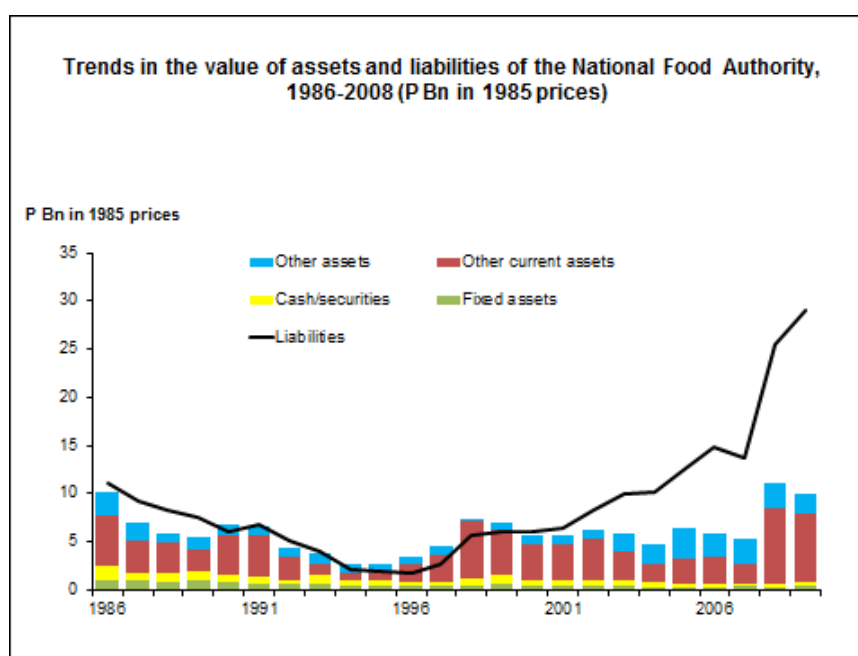
- Documenting and analyzing public expenditures for agriculture is highly complicated process
- Coverage: DA (inc. attached agencies and GOCCs), DAR, LBP, SCUs, PCARRD, LGU
- Data sources: GAA, BESF, NEP, DAR/PARC, DA, NIA, and other agriculture-related agencies, COA. Public discussions focus only on NEP/GAA, but not on other significant sources of fund/expenditures
- Separate analysis of public expenditures for NFA and agriculture in general

## Slide 39

### Measurement Issues

- Understatement of public expenditures (obligated funds)
  - \*\* Excluded foregone tariffs from NFA operations; use of the reported tax subsidy as foregone tariff is misleading
  - \*\* Excluded increases in liabilities of GOCCs, mostly and eventually to be shouldered by the national government (substantial in NFA, NIA, QUEDANCOR).
- Difficulties in disaggregating expenditures by policy instrument or by function.
  - \*\* Large portions are appropriated in lump-sums
  - \*\* Many projects are multi-purpose
  - \*\* Commodity agencies/RFUs not structured by functions
- Frequent organizational changes

## Slide 40



## Slide 41

### NFA Market Interventions

- Domestic market interventions (levels of procurement, changes in its stocks, or change in procurement or selling price) were largely ineffective in influencing farm prices at the national and regional levels
- Inefficient management of rice importing and buffer stock operations sometimes led to abnormal seasonal price fluctuations.
- Since the country is now the biggest rice importer, panic buying (and overbuying of rice imports in 2008 and 2009 contributed to the sharp increases in world prices.
- Traders capture a significant share of any benefit from NFA operations, perhaps more than any benefit to farmers.
- It is the NFAs decisions on imports that stabilizes domestic rice prices, and affects farm prices. But these objectives can be achieved by variable import tariffs without having to incur the huge government cost of NFA operations.

## Slide 42

### Some Allocation (not too much) for Private Goods may be Justified

- Share cost of learning and risk of adopting new technologies
- Production support during calamities (consider cash instead of goods)
- Not to be distributed equally, nor biased towards favorable areas, nor by political constituencies.



### **QR extension and the self-sufficiency program**

The Philippine government applied for another QR extension in support to its rice self-sufficiency program. Rice farming has to appear attractive to producers to attain this goal. QR, however, results in high economic cost because the Philippines does not have comparative advantage in producing rice. It also stagnates farmers' level of competitiveness.

The thinning world rice supply is said to be among the reasons that push rice importing countries to pursue the self-sufficiency goal. This, however, sends a signal of low world demand to countries like Cambodia and Myanmar, and, hence, discourages them to exhaust their export potential. This further depresses the world rice supply.

### **Moving towards a freer trade**

Reducing trade protection on rice benefits the society as it promotes the best use of its resources, thus, avoiding huge economic cost. However, the industry has to bear some adjustments as this policy can displace uncompetitive farmers. Provision of alternative employment opportunities becomes a challenge for the government. Handling the adjustment cost is critical in this trade reform.

There has been a call to choose the right instruments to support the Filipino farmers. The real issues are the choice of policy instruments and budget distribution. Some policy instruments benefit only a few resource-rich farmers who are getting the majority of import quotas. One way is to transfer some financial investments from NFA and other private goods (like subsidies on hybrid rice, fertilizers, and postharvest facilities) to real productivity-enhancing public investments such as research and development and irrigation.

### **Preparedness of farmers**

Farmers' preparedness to a freer trade has always been in question. Further postponement in delivering the international trade commitments is counterproductive for farmers, as whenever protection is granted, they tend to forget about the issue and are never able to adjust. This has been the trend for the past 17 years of implementing QR on rice.



# PAPER 3

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## COMPETITIVENESS OF THE PHILIPPINE RICE INDUSTRY VIS-A-VIS SOUTHEAST ASIAN NATIONS

David C. Dawe, Ph.D

Paper

Discussion

Open Forum

**Introduction** Before discussing the competitiveness of the Philippine rice industry, the first task is to define "competitiveness." One website defines it as the "ability of a nation to offer products that meet the quality standards of the local and world markets at prices that are competitive and provide adequate returns on the resources employed or consumed in producing them."<sup>11</sup>

Certainly, the Philippines' rice sector lives up to this standard - there are many Filipino farmers that can produce rice competitively at world prices. The Philippines has been producing large quantities of rice for centuries, and it will continue to do so, even if the government allows free trade.

But simply being able to produce "some" rice competitively is not what most people would mean by competitiveness, especially when the discussion is focused at the national level. Most people want to know how much (what percentage) of domestic demand can be produced competitively. It is not clear what exact percentage is necessary in order to declare that a certain sector (as opposed to a specific farmer) has achieved competitiveness - is it 50 percent, 90 percent, 100 percent? Any dividing line will be arbitrary to some extent.

Despite the inevitable arbitrariness, a natural dividing line for deciding whether a country is competitive or not is probably self-sufficiency, for at least two reasons. First, parity prices change fundamentally when transitioning from an importer to an exporter: transport costs give farmers in an importing country some degree of natural protection from the world market, while the competitiveness of farmers in an exporting country is reduced because they have to bear transport costs in order to compete with farmers in importing countries. Second, importing countries; especially those that import a large share of domestic consumption are particularly exposed to world price spikes because they rely on that market for supplies. Exporting countries, however, can always restrict exports if need be in order to ensure adequate domestic supplies. (Exporters are more exposed to downward price fluctuations, however - an importer can restrict imports in such a situation, but an exporter can't restrict exports without suffering an even greater fall in domestic prices).

Using self-sufficiency as the dividing line, we can say that if a country is competitive, then it will be self-sufficient. But competitiveness is nevertheless

<sup>9</sup>A paper (draft only) presented in the policy seminar "Philippine Rice Trade Policies and Rice Security: Future Directions" on 26 September 2012 at AIM Conference Center, Makati City.

<sup>10</sup>Food and Agriculture Research Organization

<sup>11</sup><http://www.businessdictionary.com/definition/competitiveness.html>

different than self-sufficiency. Self-sufficiency means that there are no imports, while competitiveness implies that there are no imports under a free trade policy. In other words, if imports are reduced to zero because of trade barriers, this is not true competitiveness. Thus, while competitiveness implies self-sufficiency, the converse statement is not true - self-sufficiency does not imply competitiveness.

Although we do not have data on rice imports and exports under a free trade scenario, it is still true that actual real-world trade data (i.e., given existing policies) serve as an approximate guide to competitiveness, because countries that import rice have trade barriers that restrict rice imports. Thus, we can be sure that if these countries moved to free trade, rice imports would increase, not decrease.

An examination of long-term trade data shows that the Philippines has been a more or less consistent importer of rice for more than a century (Figure 1; an exceptional period of a few years will be discussed later). Indeed, this is true for other Asian rice importers as well - Indonesia and Malaysia within ASEAN, but also Korea, Japan, and Sri Lanka. Rice exporters also tend to be consistent over long periods of time, although this consistency can be interrupted by wars or major shifts in economic policy.

The spatial distribution of rice importers and exporters is quite striking, and highlights the major role geography plays in determining agricultural comparative advantage. It can be seen that members of the exporters club are on the mainland, while those in the importers club are on islands or narrow peninsulas. Why do different locations make a difference to competitiveness? The answer is that the countries on the mainland have dominant river deltas that provide ample water and flat land suitable for growing rice. The importance of geography can also be seen at sub-national levels: southern Thailand, a narrow peninsula, produces insufficient rice to feed its population and must "import" from the rest of Thailand, while Central Luzon, fed by the Pampanga River, produces more than enough rice for its own needs and "exports" rice to Manila.

**Source of Competitiveness** Competitiveness is usually thought of in terms of supply. One way to measure competitiveness is to examine data on costs of production. Such comparisons can be helpful (and indeed will be used to a limited extent later in the paper), but they also have important limitations. First, such data are difficult to find, although FAO is currently making efforts to improve the availability of such data for a number of different crops. Second, even when they are available, it is important to realize that these data are average costs of production over a group of farmers and that they are typically not nationally representative - usually, they

apply only to specific ecosystems or parts of the country. BAS is fully aware of this, and has the most comprehensive data that I have seen - they are disaggregated by ecosystem and region. But other countries do not have such comprehensive data for comparison, at least not that I am aware of, so it is difficult to make cross-country comparisons in this manner.

Given the availability problems with cost of production data, I adopt a different approach, also focused on the supply side. I start with the observation that greater production of rice, on a per person basis, is likely to indicate greater competitiveness (more exports or fewer imports). Among the eight major ASEAN rice producers (all ASEAN members excluding Singapore and Brunei), the Philippines is next to last in terms of rice production per person (Figure 2), behind Indonesia and ahead only of Malaysia (note that these three countries are all rice importers). But the most interesting feature of the graph is not so much the Philippines' rank, but rather how far behind the five exporters it is in a quantitative sense. Even Vietnam, which has the lowest production per person of those five countries, has more than double the quantity of rice production per person in the Philippines.

**What lies behind the low level of production per person in the Philippines?**

This can usefully be explored through the following identity: production per person is determined by rice area harvested per person and yield per hectare, according to the following:

$$\text{Prod/POP} = \text{RA/POP} * \text{Prod/RA}$$

Where:

Prod = rice production (measured here in paddy terms)

POP = total population

RA = Rice area harvested

How does the Philippines compare to its ASEAN neighbors on these factors? Other than Malaysia (another rice importer), the Philippines has the lowest rice area harvested per person of any country in the ASEAN (see Figure 3, Singapore and Brunei will be excluded from the remainder of this paper since they do not have important agricultural sectors). Again, of more interest than its rank is the magnitude of the difference between the Philippines and other countries - Thailand, Myanmar and Cambodia have more than triple the area per person, Lao PDR has more than double, and Vietnam has nearly double the rice area per person.

In terms of yield, the Philippines came out looking better, at least at the national level (Figure 4). While the Philippines placed 6th among eight major rice-growing

countries, it is much closer to the leader in yield than it is in area harvested per person. Vietnam has the highest rice yields, but is only 43% than in the Philippines. In terms of area harvested per person, Cambodia is the leader which is 296% higher than that in the Philippines (nearly four times as much).

Figure 5 shows the relative contributions of the two factors (yield and area harvested per person) in explaining the difference between each country and the Philippines in production per person. The chart shows that, except in comparison with Indonesia, the reason that the Philippines has a different level of production per person is overwhelmingly due to the difference in area harvested per person - the relative contribution of area is 96% or more in Cambodia, Lao PDR, Malaysia, Myanmar and Thailand, and it is 64% in Vietnam.

Thus, rice self-sufficiency is largely determined by rice production per person (the top five countries according to this metric are all exporters, while the bottom three are all importers), which in turn is determined by rice area harvested per person. But why is rice area harvested per person different in different countries? In order to explore that relationship further, the following identity is helpful:

$$RA/POP = RA/TCA * TCA/AA * AA/LA * LA/POP$$

Where:

RA = Rice Area harvested

TCA = Total Crop Area (sum of area harvested for all crops)

AA = Agricultural Area (land under annual agricultural crops, perennial agricultural crops, or permanent meadows and pastures; this measure counts multiple cropped areas only once) <sup>12</sup>

LA = Land Area (total area of the country excluding area under inland water bodies)

POP = Population

The ratio of rice area harvested to the area harvested of all crops is a measure of the suitability of crop land to growing rice (thus, it is labeled "suitability" in Table 1). Countries on the mainland of Southeast Asia have high percentages of crop area devoted to rice (ranging from 44 to 76 percent), while island and peninsular countries (Malaysia, Indonesia, and the Philippines) have more diversified cropping patterns, with rice area being 33% at most. These figures are consistent with the presence of dominant river deltas (many of them originating in the Himalayas) on the mainland, and the absence of such in archipelagic and peninsular countries.

<sup>12</sup> For more details on the definitions of AA and LA, see [http://faostat3.fao.org/home/index.html#METADATA\\_GLOSSARY](http://faostat3.fao.org/home/index.html#METADATA_GLOSSARY)

The ratio of total area harvested for all crops to agricultural area gives a measure of cropping intensity. Because the numerator counts multiple cropped areas multiple times, while the denominator is a measure of physical area and counts multiple cropped areas only once, the ratio can be greater than one, and in fact it is in Myanmar, the Philippines and Viet Nam. The pattern across countries on this measure is less obvious, although there is a slight ( $p = 0.19$ ; not statistically significant at conventional levels) negative correlation with the measure in the final column of Table 1 (discussed below).

The ratio of agricultural area to country land area compares two measures of physical area, so this ratio must be less than one. On this count, the Philippines has the highest ratio of any of the eight countries. This ratio is more difficult to label in terms of giving it an appropriate name. In one sense, it is a measure of the suitability of a country's land for agriculture in general, but it is also a measure of intensity, as population pressure could force agriculture into marginal areas. Indeed, the correlation of this measure with population density (the fourth column of numbers in Table 1) is strongly negative at  $-0.87$  ( $p < 0.01$ ). Some of this correlation is due to the fact that country land area is in the numerator of one value and in the denominator of the other value, but this does not in and of itself guarantee a high negative correlation (the correlation coefficient between the numbers in columns (2) and (3), with agricultural area in the numerator of one and in the denominator of the other, is actually  $+0.25$ ).

The ratio of land area to population is the inverse of population density - higher values indicate lower population density and lower population pressure. For this measure, the Philippines has the lowest value of any country, i.e. in the highest population density. To some extent, this is due to rapid population growth: other than Malaysia, the Philippines has had the most rapid population growth of these eight countries since 1950. But even in 1950, the Philippines had the second highest population density of these countries. Thus, historically, the Philippines has had a high population density, but it is also true that this high density has been exacerbated over the past 60 years due to rapid population growth.

To summarize the Philippine's position on the four measures, it is quite high on TCA/AA and AA/LA. Indeed, it has the highest product of these two factors of any of the eight countries. Thus, the reasons for the low rice area harvested per person in the Philippines are the suitability of its land for growing rice and population pressure. The product of these two factors is lower for the Philippines than for any of the other countries in the table.

For ASEAN as a group, how do these four factors explain rice area harvested per person? Of the four multiplicative components, the share of rice area harvested in total crop area harvested has by far the most explanatory power. The  $R^2$  of a regression of RA/POP on RA/TCA is 0.70, while the  $R^2$  of a regression of RA/POP on each of the other three variables individually never reaches more than 0.10. Even regressing RA/POP on the other three variables jointly only gives an adjusted  $R^2$  of 0.38 (compared to an adjusted  $R^2$  of 0.66 for RA/TCA).

To summarize, rice production per person is primarily determined by rice area harvested per person (not yield), and rice area harvested per person is in turn determined primarily by the share of rice area harvested in total crop area harvested. Indeed, a scatter plot of rice production per person versus RA/TCA shows a very high  $R^2$  of 0.60 (Figure 6). The correlation would be even higher except for Myanmar - if this "outlier" is removed, the  $R^2$  increases to 0.95, a nearly perfect fit.

Given these natural disadvantages, how did the Philippines become self-sufficient in rice for a short period of time in the early 1980s? Basically, it was the early adoption of a game-changing technology - the Green Revolution. During the Green Revolution, the earliest adopters of the modern varieties were traditional importing countries such as the Philippines and Indonesia, while traditional exporters such as Thailand and Vietnam adopted the modern varieties much later (see Figure 7).

Perhaps in the future, something similar may occur. However, given the more connected world that we live in today, it seems less likely that a breakthrough technology would be confined to a small group of countries. It is possible that new technologies will favor certain types of rice ecosystems/environments more than others - but this could also work against traditional importing countries. For example, the new submergence-tolerant varieties with the *sub1* gene are more likely to benefit exporters than importers, as deep-water rice environments have historically been more common in mainland countries than in archipelagic or peninsular nations (Huke and Huke, 1997).

Competitiveness is determined not only by supply, but also by demand. Changes in rice demand can be thought of as due to two factors: changes in population and changes in per capita demand. Trends in population growth do not look promising in terms of the future competitiveness of the Philippines in rice production. Among all ASEAN countries, the Philippines has the highest projected rate of population growth from 2012 to 2025, a cumulative 22% (Figure 8;

population is projected to reach 118 million people). In terms of changes in per capita rice demand, the picture is no different. While in most Asian countries, rice demand per capita seems to be declining (Timmer et al, 2010), the Philippines may (or may not) be an exception. To the extent that it is an exception, and stays an exception, competitiveness will be further reduced in the future.

Competitiveness is also inherently a relative concept that is determined by the world price of rice, which in turn is determined by supply and demand in other countries. For example, if African economic growth continues to accelerate, leading to an increase in rice demand (especially in urban areas), this could raise the world price sufficiently so that the Philippines becomes competitive, even if it does nothing on its own. Or, if the exchange rate of the peso to the dollar depreciated substantially relative to other Southeast Asian currencies, the competitiveness of Philippine rice production would also improve.

**What can be done to improve competitiveness?** Competitiveness is not only a zero-one outcome. Even if a country is not self-sufficient at world prices, it is still possible to increase its level of competitiveness so that imports are reduced. There are several ways in which the Philippines might increase its competitiveness at various points along the value chain, and I discuss a few of them here.

#### *Mechanization and labor use*

A promising area for improving the competitiveness of the Philippine rice industry can be ascertained by examining data on production costs. BAS data for 2010 show that labor costs comprise about 41% of total production costs (Figure 9).<sup>13</sup> Given the dominance of labor costs, it is hard to see how substantial progress in lowering production costs can be made without lowering labor costs. In support of this assertion, Moya and Dawe (2006) show that the major difference in production costs per ton among the Philippines, Thailand, and Viet Nam is due to labor and machinery costs. In the Central Plain of Thailand, production costs per ton of paddy were \$59 per ton in 1999, while they were \$96 in Central Luzon, a difference of \$37 per ton. Of this difference, higher labor, and machinery costs in the Philippines accounted for \$33 per ton, or 89%. When compared with the Mekong Delta in Viet Nam, extra labor and machinery costs in Central Luzon accounted for 65% of the difference in total costs of production.

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<sup>13</sup> BAS does not break out all labor costs per se. In addition to the line items explicitly labeled as labor, my estimate also includes all harvesting costs (due to low adoption of mechanical harvesters) and half of threshing costs (the other half accruing to machinery costs).



The high level of labor costs in Philippine rice production is somewhat surprising given its level of per capita GDP, as total labor costs (the product of wages and labor use) in agriculture generally decline with economic development. In a comparison of rice production costs in seven key rice bowls of Asia, Moya et al (2004) found that total labor costs per hectare in Central Luzon were the highest (other than in the Red River Delta of Viet Nam), despite the fact that per capita GDP in the Philippines was higher (at that time, 1999) than in all of the comparator countries except one.

More worrying is the apparent lack of decline in labor costs over time, despite growth in per capita GDP. In Central Luzon, IRRI data from the Loop survey show relative stagnation in labor use. For example, labor use per hectare (in the wet season) was 69 person - days per hectare in 1986, and in 2011, it was 67 person - days per hectare, despite an increase in per capita GDP of 56% during that time. By contrast, in the Central Plain of Thailand, labor use in irrigated rice production fell from 58 person - days per hectare in 1987 to eight person - days per hectare in 1998 (Isvilanonda et al, 2000), during which time GDP per capita roughly doubled before declining in 1997 and 1998 due to the Asian financial crisis.

National data from BAS show similar trends to the Loop survey data. Between 2002 and 2010, real labor costs increased by 9%, even though real wages for palay workers increased only by 3% during the same time. These observations suggest that labor use in Philippine rice production is not declining.

The best way to reduce labor use in rice production is to have a strong, dynamic, non-farm economy in both rural and urban areas that pulls labor out of rice farming. If mechanization proceeds in an economic environment where rural wages are largely stagnant and there are insufficient job opportunities outside of agriculture, then there will be large social costs as many laborers suffer loss of employment. In this sense, making rice production competitive will require not only advances in rice research, but also policies that create rapid growth throughout the economy.

### *Improving yields*

Figure 4 above showed that the Philippines ranked 6th out of eight ASEAN countries in terms of paddy yield, so perhaps this is one area where the Philippines can gain ground on its competitors. It is important to note, however, that national average yields can be very misleading, as they do not control for the relative amounts of different land qualities and varieties planted. Thus, the Philippines has

higher yields than does Thailand at the national level (by about 25% in recent years), but much of this advantage is due to the fact that more than 40% of Thai rice production is comprised of specialty varieties that have lower yields (jasmine and glutinous). A comparison of Thai rice yields in the Central Plain with Philippine rice yields in Central Luzon is not perfect, but is closer to a fair comparison, because there is little jasmine or glutinous rice grown in the Central Plain (although there are some Pathum Thani varieties, which are not jasmine but aromatic). This comparison suggests a positive, but smaller yield advantage for the Philippines. In the wet season, which is the main season, the advantage is very small.

The main take home message from this comparison is that national average yields are very misleading as a basis for policy comparisons and typically overstate the potential gains that can be made by any particular country. When comparisons are made between similar production systems with similar climate and similar soil quality, the differences across countries tend to be smaller. Nevertheless, there may be some scope for improving yields in the Philippines faster than in other countries, and investments in rice research and extension towards this end are worthwhile.

#### *Reducing post-harvest losses*

It is also possible that post-harvest losses could be reduced, but it is important to remember that, when discussing competitiveness, we are not talking about the absolute magnitude of post-harvest losses but rather how losses compare to those in other countries. Unfortunately, there are no available data that allow comparison of post-harvest losses across countries. In fact, I am not even aware of one ASEAN country that has nationally representative data (i.e., that takes into account the relative importance of different types of value chains in moving the crop from farm to consumer) on the quantity of post-harvest losses that can be economically recovered (many post-harvest losses will never be recovered for human consumption due to the expense involved).

While we definitely need better data on post-harvest losses, it is not at all clear to me that the situation is substantially worse in the Philippines than in other ASEAN countries. For example, most people would agree that there is much more scope for improving the milling sector in Myanmar, Cambodia and Lao PDR than there is in the Philippines, suggesting that there is more scope for reducing post-harvest losses in those countries than in the Philippines. Furthermore, it is remarkable how closely the data on rice consumption from household surveys in

the Philippines correspond to food balance sheet estimates of consumption based on rice production, trade and changes in stocks, suggesting that perhaps post-harvest losses are not the major factor driving the lack of competitiveness in the Philippines. This is not to say that more technical work on post-harvest technologies is a bad idea - most likely, it is a good idea. Rather, the point is that the Philippines' lack of competitiveness is probably not due to substantially greater post-harvest losses than in other ASEAN countries.

### *Reducing marketing margins*

Aside from post-harvest losses, reducing the magnitude of the marketing margin between farm and wholesale/retail markets is another potential way to improve competitiveness. Dawe, Moya, Casiwan, and Cabling (2008) found that rice marketing costs in the Philippines were higher than in Thailand mainly due to higher interest rates in the financial system. Other fundamental factors that also resulted in higher costs include endowments of water and land, rice price and trade policy, road quality and lack of nonfarm job growth. Finally, there also appeared to be excess profits accruing to millers, possibly because of inefficient financial markets. If Philippine marketing margins were the same as those in Thailand, wholesale rice prices in the Philippines would be lower by 22 percent, a substantial gain in competitiveness.

### *Increased consumption of wheat products*

Although competitiveness is typically thought of in terms of supply, demand side factors also matter. For example, if dietary preferences switched towards wheat at the margin (with rice still remaining the staple food); this would reduce demand for rice.

In fact, some of these adjustments have already taken place over the years. Figure 10 shows per capita consumption of wheat in the eight main rice-producing ASEAN countries. It can be seen that the biggest consumers of wheat are in fact the rice importers. Some of this is due to higher per capita incomes in the importers than in the exporters, but note that Thailand, with a higher per capita income than either Indonesia or the Philippines, eats less wheat. There is further scope for adjustment in the future. For example, in Japan, the share of wheat in the sum of wheat and rice consumption (measured in kilocalories) increased from 17 percent in 1961 to 40 percent in 2009. In the Philippines, the share was just 13 percent in 2009.

- References** BAS. 2012. Countrystat online. <http://countrystat.bas.gov.ph/> Dawe D, Moya P, Casiwan C, Cabling J. 2008. "Are large numbers of competitive traders sufficient for a well-performing marketing system? Rice marketing margins in the Philippines and Thailand," *Food Policy*, 33(5): 455-463.
- FAO. 2012. FAOStat online. <http://faostat3.fao.org/home/index.html#DOWNLOAD>
- Huke, R.E., and Huke, E.H. 1997. Rice area by type of culture: South, Southeast, and East Asia, Database, International Rice Research Institute, Manila.
- Isvilanonda S, Ahmad A, Hossain M. 2000. "Recent changes in Thailand's rural economy: evidence from six villages," *Economic and Political Weekly*, Vol. XXXV (52/53): 4644-4649.
- IRRI. 2012. World Rice Statistics online.  
[http://irri.org/index.php?option=com\\_k2&view=itemlist&task=category&id=744&Itemid=100346&lang=en](http://irri.org/index.php?option=com_k2&view=itemlist&task=category&id=744&Itemid=100346&lang=en)
- Moya PF, Dawe D, Pabale D, Tiongco M, Chien NV, Devarajan S, Djatiharti A, Lai NX, Niyomvit L, Ping HX, Redondo G, Wardana P (2004). "The Economics of Intensively Irrigated Rice in Asia," in *Increasing the productivity of intensive rice systems through site-specific nutrient management*. Dobermann A, Witt C, Dawe D (editors). Enfield, N.H. (USA) and Los Baños (Philippines): Science Publishers, Inc. and International Rice Research Institute (IRRI), pp. 29-58.
- Moya PF, Dawe D. 2006. "Mechanization and saving labor are the keys to making rice more competitive," in *Why does the Philippines import rice? Meeting the challenge of trade liberalization*. Dawe D, Moya P, Casiwan C (editors). Los Baños (Philippines): International Rice Research Institute (IRRI) and Philippine Rice Research Institute (PhilRice). pp. 69-72.
- Rose, B. 1985. "Appendix to The Rice Economy of Asia," *Resources for the Future*, Washington DC, 404 pp.
- Timmer P, Block S, Dawe D. 2010. "Long-run dynamics of rice consumption, 1960-2050," Chapter 1.6 in *Rice in the Global Economy: Strategic Research and Policy Issues for Food Security*. Pandey S et al, eds., International Rice Research Institute.

## TABLES AND FIGURES

Table 1. Various components of rice area harvested per person.

	<b>RA/TCA Suitability</b>	<b>TCA/AA Intensity</b>	<b>AA/LA ???</b>	<b>LA/POP Pop pressure</b>
Cambodia	76%	0.64	0.31	1.26
Indonesia	33%	0.72	0.30	0.76
Lao PDR	60%	0.58	0.10	3.78
Malaysia	10%	0.82	0.24	1.18
Myanmar	44%	1.46	0.19	1.37
Philippines	32%	1.15	0.40	0.33
Thailand	56%	0.98	0.39	0.74
Viet Nam	56%	1.31	0.33	0.36

Table 2. Paddy (palay) yield in tons per hectare.

<b>Location</b>	<b>Wet season</b>	<b>Dry season</b>
Central Luzon, Philippines	3.85	5.10
Central Region, Thailand	3.68	4.26
Percentage advantage	+4.7%	+19.8%

Note: Wet season in the Philippines is July to December; in Thailand, it is "major rice."  
 Dry season in the Philippines is January to June; in Thailand, it is "second rice."  
 Calculations were done using 2008-2010 for both countries during the wet season, and  
 2009-2011 for the dry season (based on most recent data for Thailand).

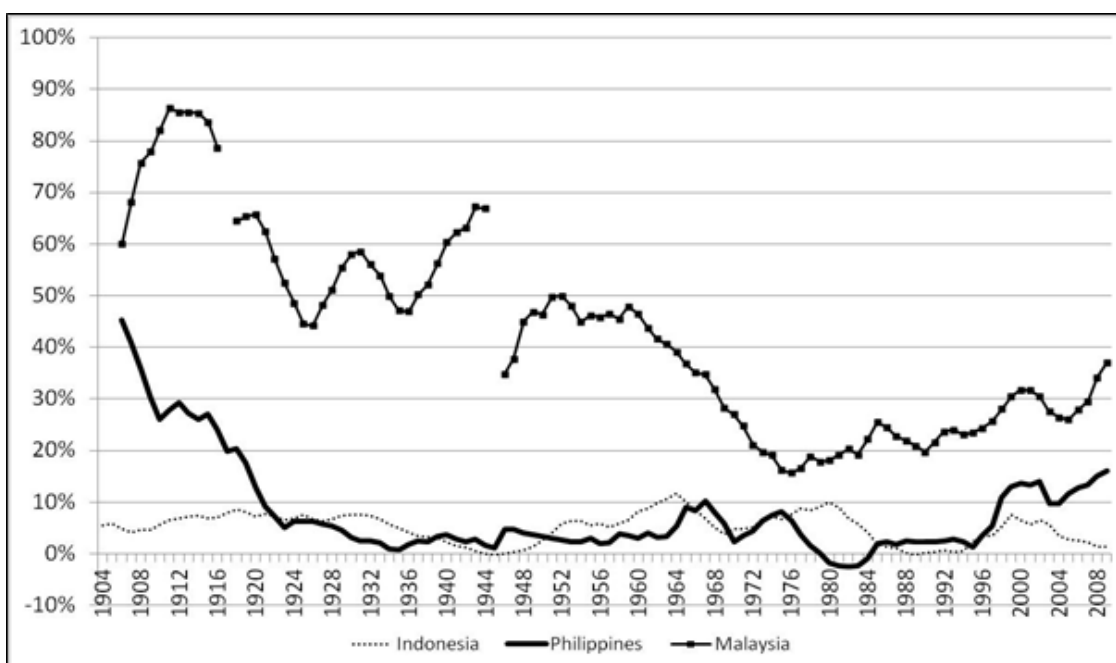


Figure 1a. Percentage of imports in consumption, 1904-2009.

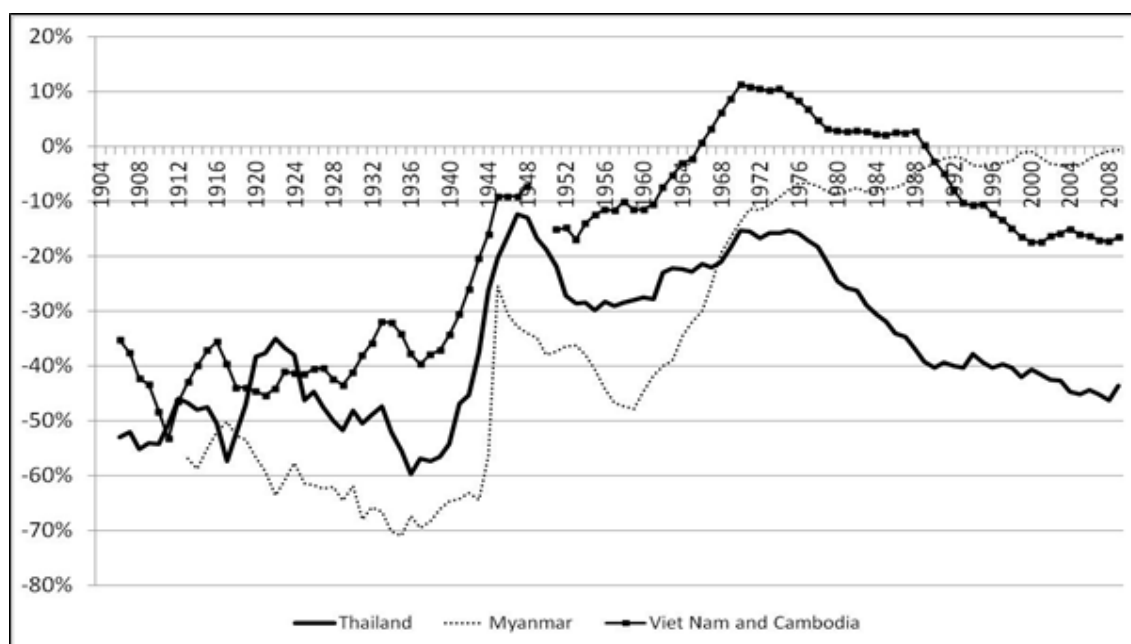


Figure 1b. Percentage of exports in production, 1904-2009.  
Sources of raw data: Rose (1985), FAO (2012). Data are lagged five-year moving averages.

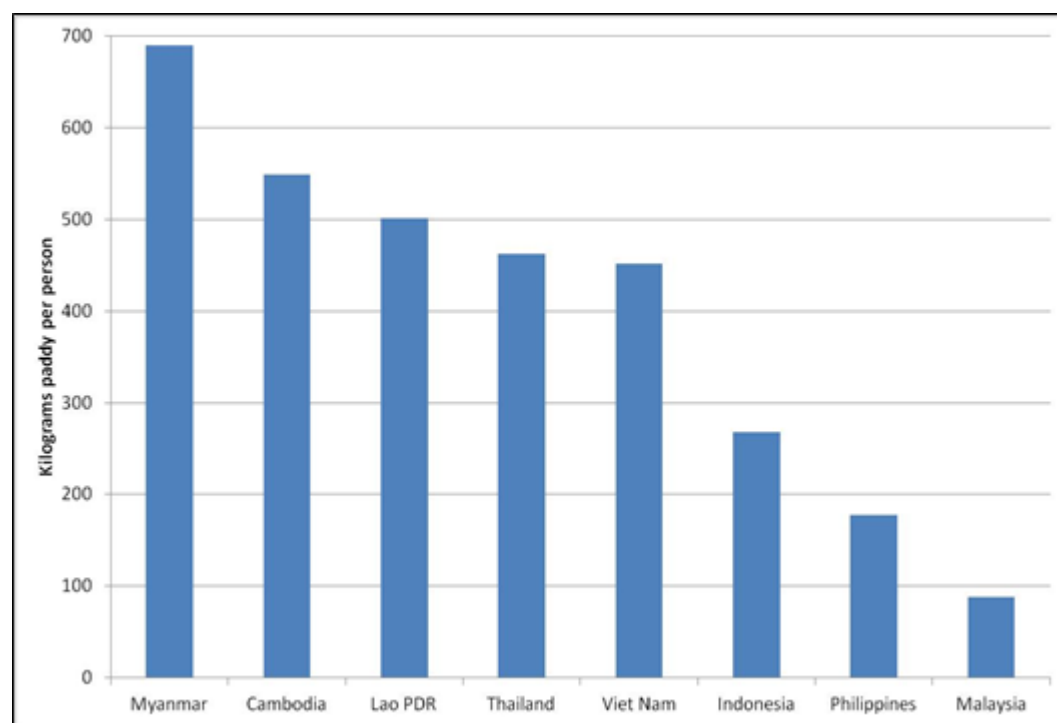


Figure 2. Rice production (paddy terms) per person, ASEAN countries.

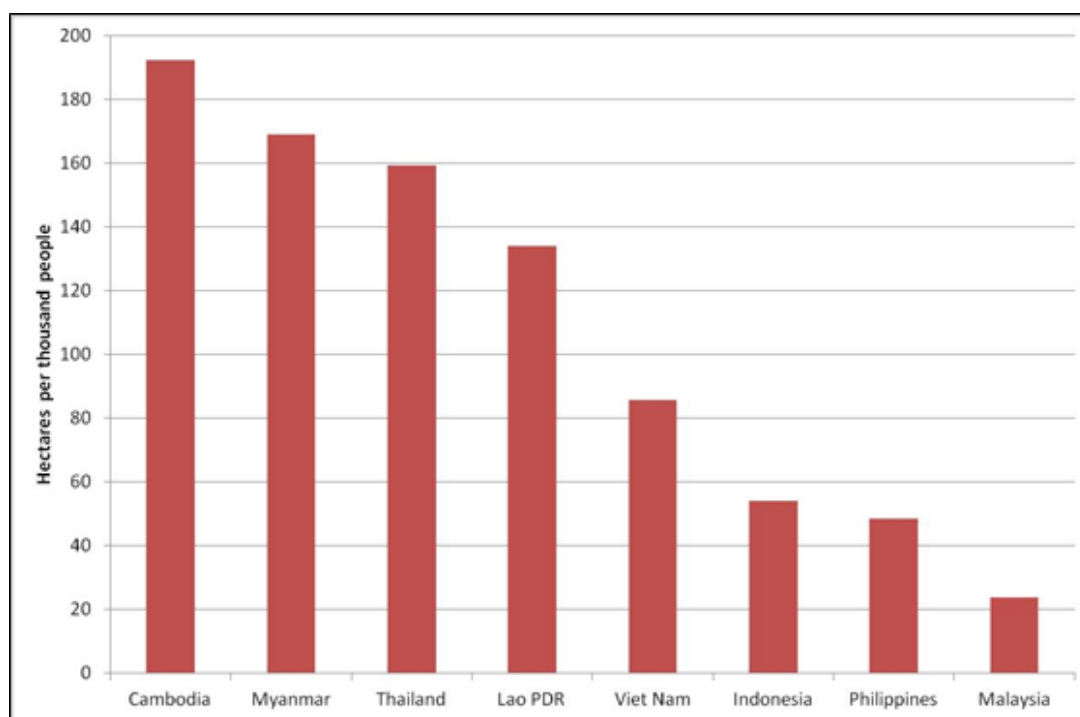


Figure 3. Rice area harvested per person, ASEAN countries.

Notes: Data are averages for 2008-2010. Raw data from FAO, 2012.

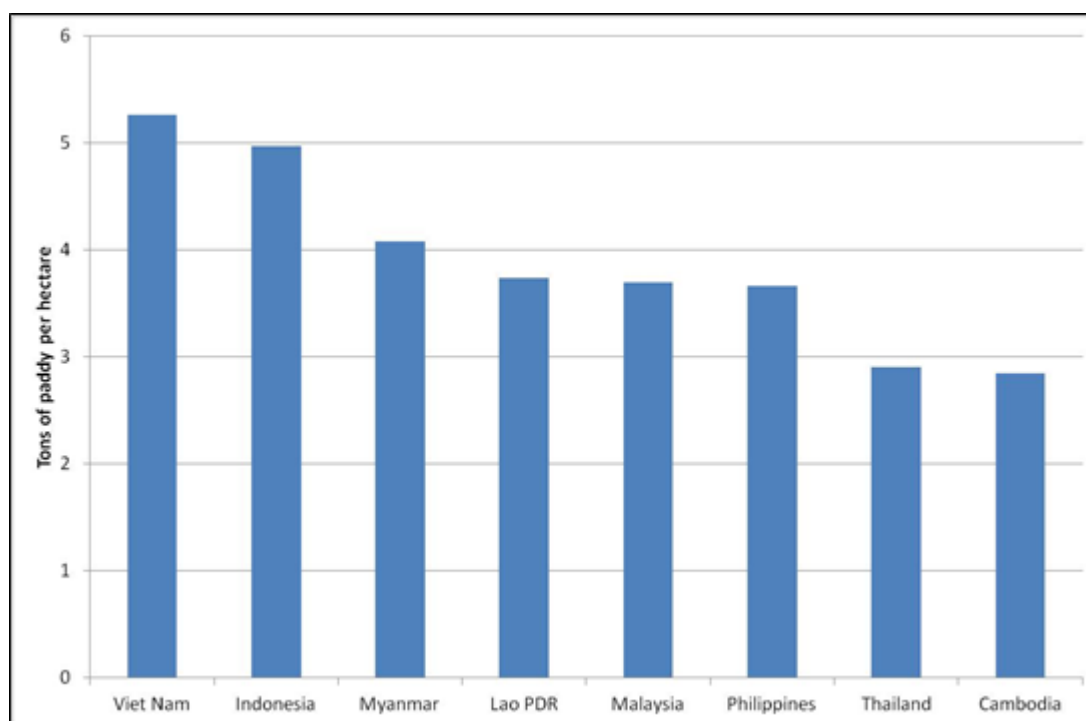


Figure 4. Rice yield, ASEAN countries.

Notes: Data are average for 2008-2010.

Raw data from FAO, 2012.

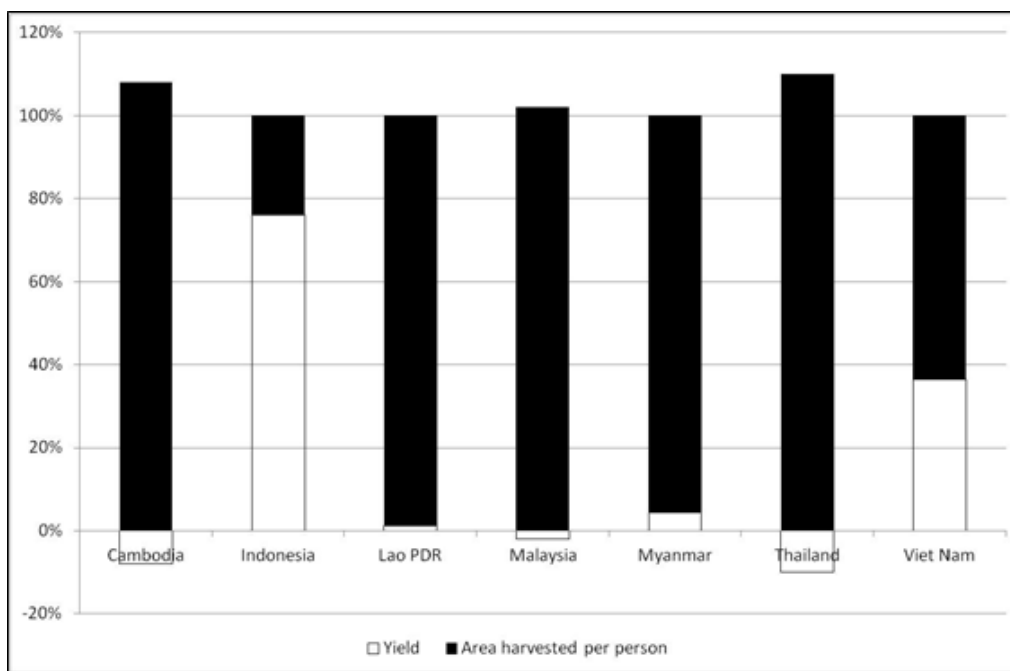


Figure 5. Relative contributions of area and yield to difference in rice production.  
Notes: Total sum to 100, Philippines is the comparator country

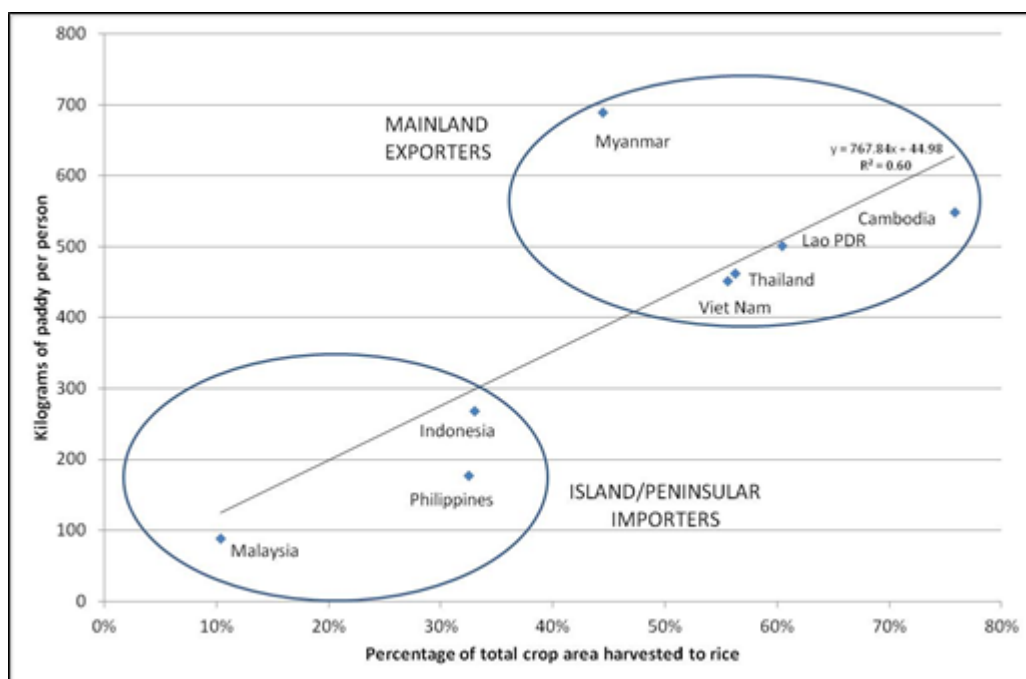


Figure 6. Rice production per person versus share of crop area devoted to rice, ASEAN countries.



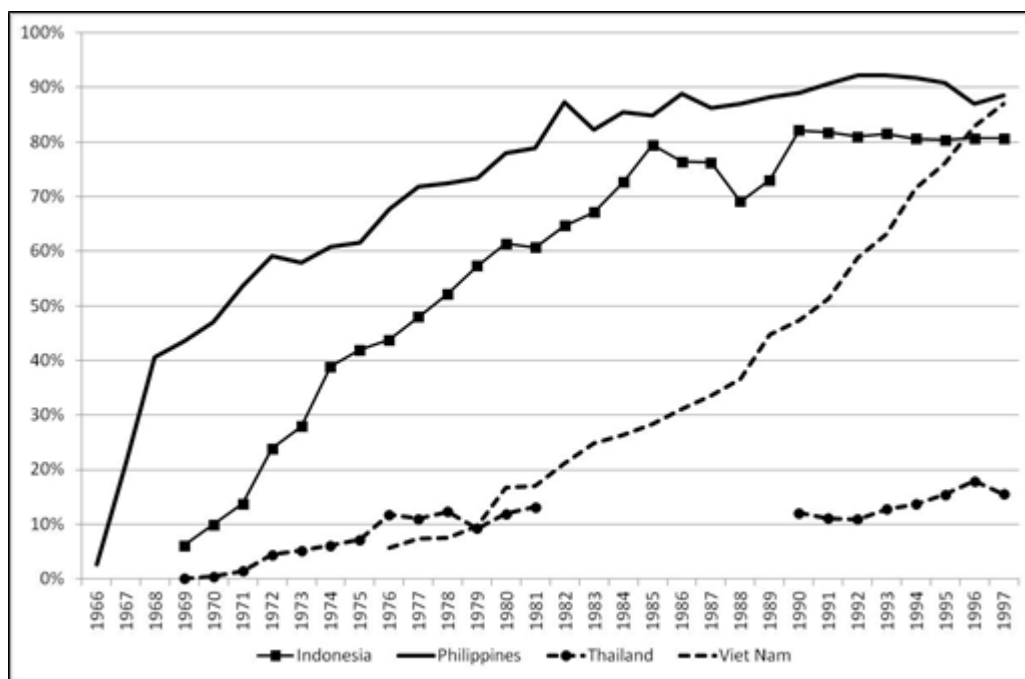


Figure 7. Adoption rates of modern varieties in selected countries, 1966-1997.  
Source of raw data: IRRI, 2012.

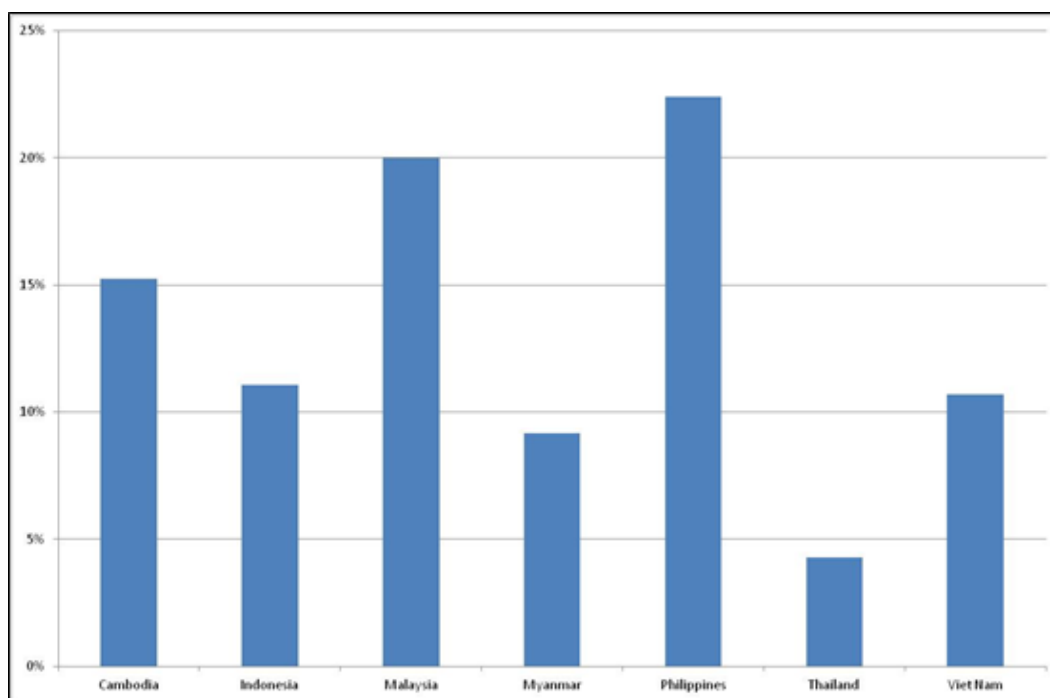


Figure 8. Projected population growth in ASEAN countries to 2025.  
Source of projection: FAO, 2012.

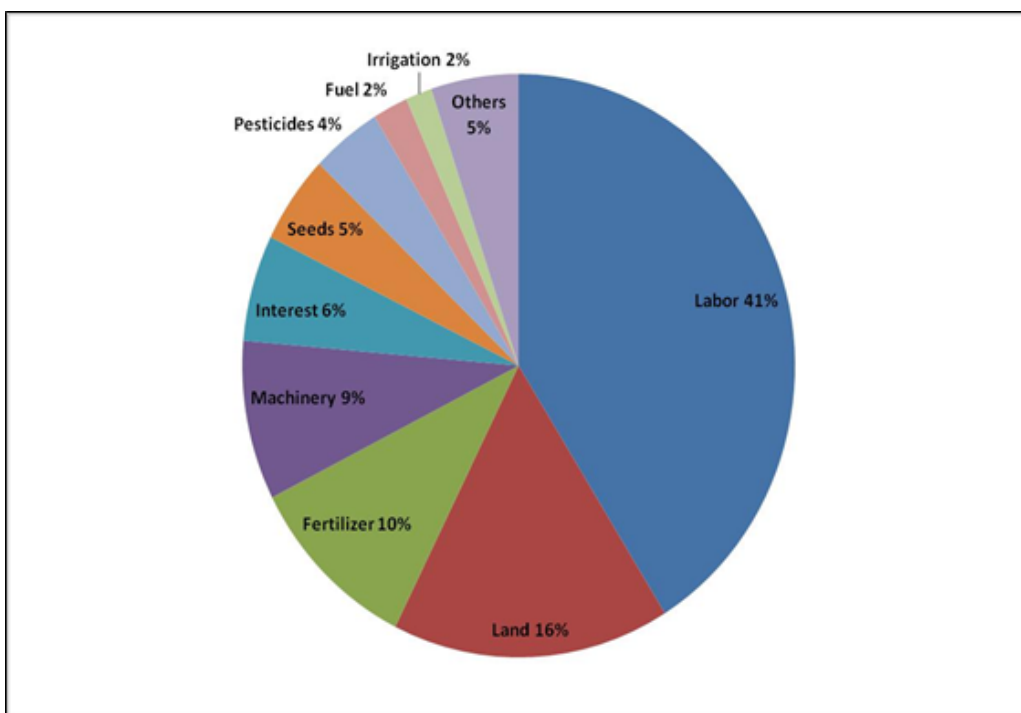


Figure 9. Structure of production costs for Philippine rice sector, 2010.  
Source or raw data: BAS, 2012. Notes: Data cover all palay, both seasons

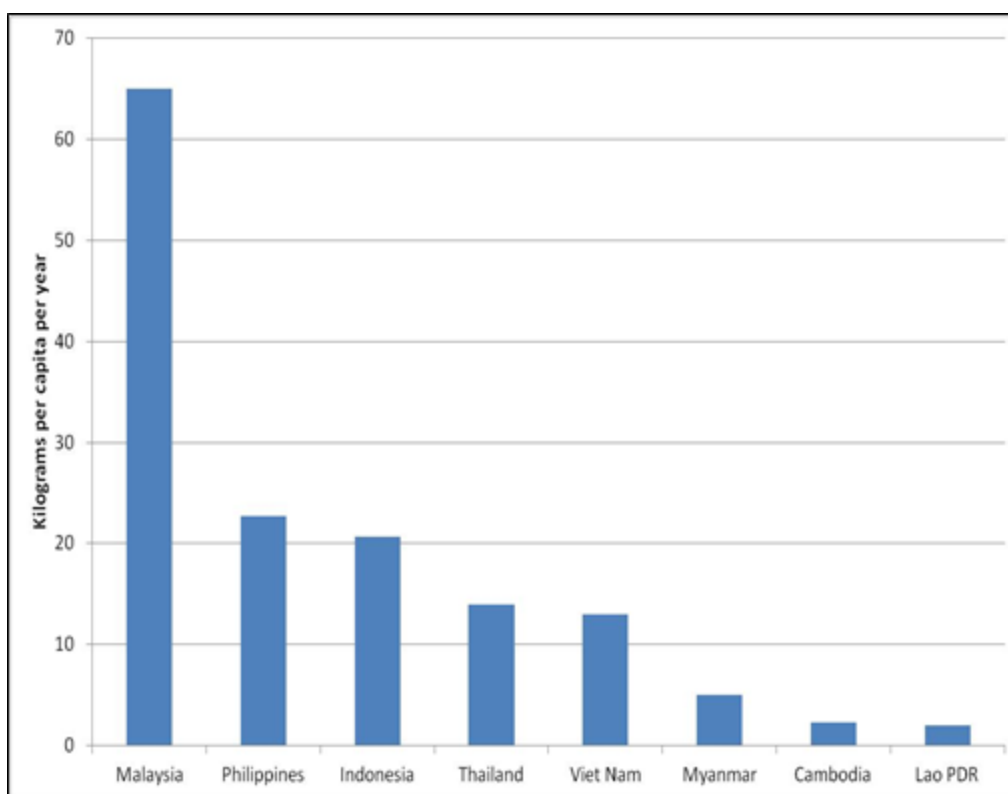


Figure 10. Per capita wheat consumption, ASEAN countries.

Competitiveness is a broad concept and even people who have been undertaking studies in this area are still not in agreement in its definition and measurement. More often than not, the definition of competitiveness and its measurement have depended on what study proponents wish to achieve. The one used in this study is an example of such a variation. The measurement of competitiveness, as presented here, is to me unconventional. Studies I have browsed through on this concept have measured competitiveness using the real exchange rate, comparative advantage indices, and export or import indices (neoclassical economics) or based on cost advantages as well as productivity and efficiency. It nonetheless achieved its purpose of comparing the self-sufficiency potentials of ASEAN countries or benchmarking the potential of the Philippines in achieving rice self-sufficiency with other ASEAN countries based on the extent and intensity of land use.

In this context, I would like to raise the following comments/questions to probe more on the merits of the measurement used vis-à-vis other measures of competitiveness. Considering that most of the variables used in the formulation are more or less what they are, except possibly the Total Cropped Area or Population, improving further the competitiveness of the industry as compared with the other ASEAN countries would be difficult.

#### *Definition*

The study as presented defines competitiveness as the "ability of a nation to offer products that meet the quality standards of the local and world markets at prices that are competitive and provide adequate returns on the resources employed or consumed in producing them." I would like to include in this definition the word "sustained" since agricultural competitiveness, in particular, is largely determined by factor endowments (i.e. resources in labor, land and capital) which are in finite supply, and by demand conditions (i.e. the population's tastes and preferences for products).

#### *Data used*

As expressed by the study, competitiveness measurement based on cost data was not employed not only because of the readily available data but also because of their comparability across country. But I would like to question, too, on the availability and comparability of some of the variables used in the equation for competitiveness measurement in the study. For example, I would like to know how the total cropped area variable is defined. If computed, how it is computed. If total cropped area includes crops in arable area, how would arable area be defined in terms of slope, to distinguish this from those considered as forest area? Would such definition be comparable across countries?

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## *Quality and Efficiency*

Since competitiveness is measured in terms of land use, how would quality dimension be incorporated into the equation? For example, soil quality, labor quality, water sufficiency, etc. Note that "quality product" is part of the definition of competitiveness. How would improve efficiency in input use incorporated? How would the estimated indices embody technology improvement that enhances productivity? For example, how would the use of a new rice variety-higher yielding, better tasting-affect competitiveness. There is mention in the concluding section with regards some scope for improving yields in the Philippines faster than in other countries through investments in rice research and extension-how can this be factored into the equation to capture this potential?

## *Demand side*

In the light of the comments above and on the demand side, how would the structure of population affect the self-sufficiency indices?

## *Policy issue*

How would distortions due to government intervention be considered in the competitiveness measurement? For example, government policy that may promote the cultivation of crops other than rice because of their being more profitable.

## *Household level dimension*

Finally, some authors claim that measuring a nation's or a sector's competitiveness is meaningless and what matters is individual (firms or farms) competitiveness (e.g. Brinkman, 1987; Krugman, 1994; Harrison and Kennedy, 1997). This may not be applicable in the study since the basis for competitiveness here is the ability to be self-sufficient in rice. But at the end of the day, it is really the farmer and his household that we should care about. Self-sufficiency on the country may not fully translate to self-sufficiency on the household level.

Even if the formulation is enhanced with suggested changes, the Philippine's competitiveness stance vis-à-vis other ASEAN countries may still be just the same-and that is on the low side.

In the "to do list" to help advance the country to achieve rice self-sufficiency, I would add the following:

- 1) Develop adaptation technology/intervention measures that help reduce the impact of climate change;

- 2) Strengthen institutions that would empower farmers: security of tenure on land/land ownership, strengthening farmer's organizations/coops, enhancing capacities and skills;
- 3) Enhance investments on support services, extension service, information dissemination, and insurance, credit, and infrastructure facilities.
- 4) The recommendation should not solely promote eating of more wheat. We all know that wheat is costlier than rice. This would have a big impact on the food expenditure of the poor household. Recommendation should include staples other than rice and wheat-perhaps, improving their tastes and presentation to make them more attractive to consumers.

### **Response of Dr. Dawe on Dr. Sombilla's comments**

Thank you very much for those comments, you have some good suggestions. One is on the structure of the population, on how that might affect the consumption and that is particularly interesting, and I don't know how that would affect things but it's something that is oftentimes overlooked. And you are right, it is important, in terms of the total crop area, all that I did there was add up the area harvested for all the crops one by one. FAO does not do the aggregation for you and if you do it, if you download data from the website, it's actually confusing because you might get involved in double counting so it is not easy to calculate. It is just area of rice plus the area of corn plus the area of on and on.

Government policy distortion, I think one thing I would like to say on that is that, as I was arguing that the share of crop area devoted to rice actually drives a lot of the production per person, if you look at the share of crop area devoted for rice, you may see that exporters have very high numbers and importers have very low numbers. But the numbers would be even wider apart if there were no government policies because it is precisely the importers who typically have very high prices, relatively high prices, for their farmers compared with those from other countries. Thailand, over the last couple of years, is an exception.

Historically, the exporters typically use export taxes that would lower the domestic price to their farmers and so they were discouraging farmers from growing rice actually because they already have so much of it. Whereas the importers would encourage, as we saw earlier in some of the work from Ramon and Tina showing the nominal production coefficients is higher than 1; whereas the exporters have the reverse. So if it wasn't for the policy distortions, you won't see even starker distinctions between those two groups of countries.

### Self-sufficiency is attainable

In the late 70s and 80s, the Philippines achieved rice self-sufficiency. The feat was not sustained due to issues relating to competing land use. Some rice lands were devoted to high-value export crops like sugar while some were converted to non-agricultural uses.

The government needs to weigh the pros and cons of rice self-sufficiency as a policy option. There are several things that can be done to close the yield gap, and, hence, realize self-sufficiency. Among them are banking on yield-enhancing technologies and expanding cultivation. These measures, however, are not without any disadvantages. Expanding cultivation, for instance, can mean cultivating forest areas, which may have adverse environmental effects. No silver bullet, no easy answer. The key message is for the government to scrutinize well any policy options before pushing for them.

### Additional factors explaining the export potential of countries

Labor and water resources, aside from land, are also indicators of comparative advantage of a country to grow rice. This is exemplified by the case of Malaysia. The country has high rice-land per capita. It, however, does not grow rice for export because production is labor-intensive and wage rate is high. Alternatively, Malaysia grows less labor-intensive crops like rubber and palm oil and just imports rice.

Rice exporting countries like Myanmar, Thailand, and Cambodia are able to export rice because they have vast flooded area, which is best used for rice cultivation. Other crops may not be suitable to this land condition. Recently, Viet Nam is emerging as the world's largest rice exporter because it is endowed with water resource on top of favorable policies in place. Factors such as these are worth looking at.

# PAPER 4

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## SHOULD THE PHILIPPINES TARRIFY ITS QUANTITATIVE RESTRICTIONS ON RICE

Roehlano M. Briones, Ph.D

Paper

Discussion

Open Forum

**Overview** In June 2012, the special treatment accorded to the Philippines for rice by the World Trade Organization (WTO) expires. This compels the Philippines to place rice under the normal WTO regime, i.e. convert all tariff and non-tariff barriers to customs duties - a move known as "tariffication". There is also a need to negotiate tariff ceilings, together with a schedule of reduction in these maximum or "bound" rates so as to open up market access.

Instead, the Philippines has opted to request for yet another extension of special treatment for another five years (to 2017). It is now timely to revisit the issue of tariffication, in terms of its pros and cons, and offer some policy recommendations.

**What is tariffication?** For "sensitive" agricultural products, governments may erect various trade barriers in addition to import duties or tariffs. A common practice (at least before the establishment of the World Trade Organization or WTO) was to impose a quantitative restriction (QR). This is a ceiling on the amount of allowable imports over a given period.

In the Philippines the agricultural product most politically sensitive is rice. The government-owned National Food Authority (NFA) is given an import monopoly by law. Every year the NFA Council (headed by the Secretary of Agriculture) identifies rice importation targets upon the recommendation of an inter-agency committee. These targets effectively impose a QR.

Tariffication involves conversion of non-tariff trade barriers into an equivalent tariff, i.e. one that confers the same level of protection as the original trade barrier. Conceptually this may be depicted in Figures 1a and 1b. For a country importing rice, let the domestic demand curve be  $D$  as in Figure 1a; let the domestic supply curve be  $S$ , and the world price be given at  $OP_w$ . The QR is represented by the segment  $QOQ_1$ ; domestic production is given by  $OQ_0$ , and domestic consumption by  $OQ_1$ . The QR allows the domestic price to rise to  $OP_d$ , which is higher than  $OP_w$ ; otherwise the domestic price would have to fall to the level of the world price.

The tariff equivalent is shown in Figure 1b. An ad valorem tariff of  $t$ , is levied on each unit of rice imports. The rate  $t$  is calibrated such that equals  $P_d$ , making

<sup>15</sup>Paper presented at the Seminar on Philippine Trade Policies and Rice Security: Future Directions, on 26 September 2012, AIM Conference Center, organized by Philippine Rice Research Institute

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the effective price of imports identical to the domestic price of rice. The same levels of domestic production, consumption, and imports prevail as under the QR. Imports are limited to Q0Q1; under the QR the reason is border control; under tariffication, importers inhibit themselves from importing more as additional stocks cannot be sold at the going price.

**Box 1: The Philippines, Rice, and trade agreements**

The Philippines acceded to the WTO in late 1994. In doing so, it submitted all agricultural products to tariffication, with the exception of rice, for which it was conferred a temporary exception until 2004. In the meantime rice was subject to a minimum market access (currently at 350,000 t), for which the tariff for imports from MFN countries is set at 40%; beyond this, imports are slapped a 50% tariff. Under a separate agreement, rice imported from ASEAN countries enters the country at only 40%

The Philippines obtained an extension of special treatment for rice until 2012. Currently it is awaiting a decision on its extension request to 2017. In the meantime it maintains a QR under the NFA import monopoly. Since 2010 it has allocated the bulk of rice importation to the private sector through a bidding procedure. Effectively the tariff on imports has been waived since 2006 through a simultaneously tax subsidy given to the NFA.

**Disadvantages of tariffication** Tariffication abolishes the status quo of the NFA import monopoly, with some possible negative repercussions. First, government relinquishes control of imports to the private sector. What is the guarantee that the private sector would bring in the right amount of imports at the right time? Would they be able to balance household food security, with domestic industry, and farmer interests? The state may feel that these goals are too important to leave to the market. This boils down to an issue of trust in the private sector.

Second, world and domestic prices are unpredictable. In Figures 1a and 1b, these prices are implicitly predictable. In reality these prices fluctuate unpredictably. If say domestic (world) price is lower (higher) than expected; then a proposed equivalent tariff may be too high. Conversely suppose the domestic (world) price is higher (lower) than expected; then a proposed tariff equivalent may be too low. Hence, calculation of an equivalent tariff is not straightforward.

**Advantages of tariffication** Next we look at the advantages of tariffication. The first obvious advantage, at least from the government's viewpoint, is that government earns revenue under tariffication. Under the QR, the difference between the domestic price and world price amounts to a quota rent; in Figure 1a this is given by the area abcd. This entire amount goes to the traders given the import privilege. Under tariffication the same amount goes to government as tariff revenue.

In practice (Box 1), government can win back the quota rent (at least in part) by implementing a bidding procedure for allocating the quota.

The second advantage is that government no longer assumes planning function of computing the annual quota. This is the obverse side of not trusting the private sector; as imports are needed anyway, then it falls to government to meet the need. This renders importation - ordinarily a commercial activity - to a government function. Rice importation becomes an enclave for a command-and-control regime, within a market economy.

The government would need to compile information and forecasts (mainly from the Bureau of Agricultural Statistics) to arrive at estimates of domestic supply, domestic demand, and the deficit to be filled up by imports. The forecast needs to be updated often, under evolving conditions of demand and supply. However, it may not be able to avoid under-importing, causing domestic price spikes, or over-importing, depressing the domestic price and/or draining the national treasury (Box 2).

**Box 2: The NFA's spotty record at importation**

It is possible for NFA to under-import; this seems to have happened in 1995, when the optimistic forecast for rice harvest did not materialize, hence the estimated import requirement was too low. By the time government approved additional imports and underwent procurement process, prices had already spiked. Afterwards, government adopted a highly precautionary stance. This served well in avoiding price spikes during the severe drought of 1997-98, but it eventually led to the country having the dubious position of being the largest rice importer in the world. The opposite problem of over-importation became obvious in 2008 when, despite prices rising to 30 peaks, the government opted to hike imports to its highest level at over 2 million t.

See: Intal, P., and M. Garcia, 2005. Rice and Philippine Politics. PIDS DP No. 2005 – 13.

Third, tariffication avoids the added uncertainty from discretionary import targeting. This is a major deterrent to private investment. Ideally, government intervention should stabilize the domestic price and reduce volatility. In practice, the private sector is wary of public sector intervention, as such interventions can be politically driven; such vagaries are additional to inherent market uncertainty. For instance, a mill owner may have a difficult time investing millions of dollars in modernization if he or she is unsure that the political winds may eventually swing back in favor of cheap NFA rice and over-importation.

Fourth, in case the NFA assigns import privileges to the private sector, tariffication avoids the perennial problem of allocating the import quota to private traders in a fair and transparent manner. The allocation problem poses a severe test to good governance, inasmuch as traders have the incentive of spending up to the amount of quota rent, in rent seeking activity. Under tariffication, entry into the import business is liberalized, subject only to ordinary licensing, permits, and payment of custom duties.

**What are the implications of tariff education?**

Understandably, farmers and rice millers are concerned about any commitments on reducing tariff ceilings, which would be integral to tariffication. To examine the implications of tariff reduction, I apply a scenario analysis using the Agricultural Multi-Market Model for Policy Evaluation (AMPLE) over the period 2010 - 2020. At the model baseline, the tariff rate is set at the book MFN rate of 50%. I posit two scenarios: i) Reference scenario pertaining to the status quo (no tariff reduction); ii) Tariff reduction scenario: the rate declines from its baseline level to 35%, by 3 percentage points per year from 2012 to 2017. In both scenarios we impose the same assumptions about future trends for population, GDP growth, agricultural productivity, world prices, and other factors affecting demand and supply. In particular I incorporate the productivity and area harvested targets of the Food Self-Sufficiency Program of the Department of Agriculture.

Demand projections are shown in Figure 2 for the Reference scenario. Consumption is expected to rise from 11 to 15 million t per year. Imports hold steady at around 2.2 million per year. This implies that the import-to-consumption ratio declines, from 0.2 to 0.145. However, it does not drop to zero, contrary to the government target of 100% self-sufficiency as early as 2013.

With tariff reduction, imports are expected to rise. This is confirmed by the results of the tariff reduction scenario (Figure 3). Rather than stabilizing at about 2.2 million t, the reduction in tariffs raises imports to 3.5 million t. Consumption gets a boost from a cheaper alternative source of rice, rising to 15.9 million t (compared to 15 million t under the Reference scenario). The import-to-consumption ratio rises to 0.22 (compared to 0.145).

We likewise would expect cheaper foreign rice to be reflected in the retail price (Figure 4). From a baseline of P35.7 per kg, the retail price declines to P33.0 per kg (in fixed base year prices) under the Reference scenario. The decline compared with the baseline is due to the aggressive expansion of rice supply due to the FSSP. Compare this with the Tariff reduction scenario,

in which the decrease in the price of rice is faster, hitting P32.6 per kg, which is 1.2% below the terminal price under the Reference scenario.

On the other hand, reduction in the tariff rate leads to a fall in the producer price, owing to availability of cheaper imported rice. The magnitudes involved are shown in Figure 5. The producer price is already falling under the Reference scenario, owing to the productivity enhancing instruments under the FSSP. From P14.4 per kg, the producer price falls to P13.5 per kg (again in fixed baseline prices). Under Tariff reduction scenario, the fall in the producer price is somewhat faster, falling to P13.25 per kg. This is 1.9% below the producer price under the Reference scenario. This accounts for political resistance to tariffication.

Note however that losses to producers, together with gains from consumers, are relatively small. A strong warrant for tariffication, other than fulfilling treaty obligations, should be sought elsewhere. Obviously, there seems to be no strong indication that tariffication would inflict serious losses on farmers. Similarly there is no warrant for extending special treatment, simply on that basis.

**Should the Philippines tariffify?** Considering both pros and cons, the Philippines should tariffify its QR on rice. It should no longer seek an extension of special treatment. Rather the country should negotiate a tariff that offers equivalent protection to its producers, as well as a schedule of reduction that would eventually improve rice affordability to consumers.

Our scenario analysis suggests that the gains in terms of affordability to consumers, or losses in terms of reduced prices for producers, are relatively small, for plausible adjustments of the tariff rate (e.g. a 15 percentage point reduction). Hence, the best reason to tariffify is improve governance and the investment climate for the rice supply chain. Tariffication eliminates a system that is inherently prone to rent-seeking and co-option of public institutions. In short, the main benefit is derived from enhanced predictability, orientation of private rice trade towards commercial interests, and promotion of rational calculation over political influence.

FIGURES

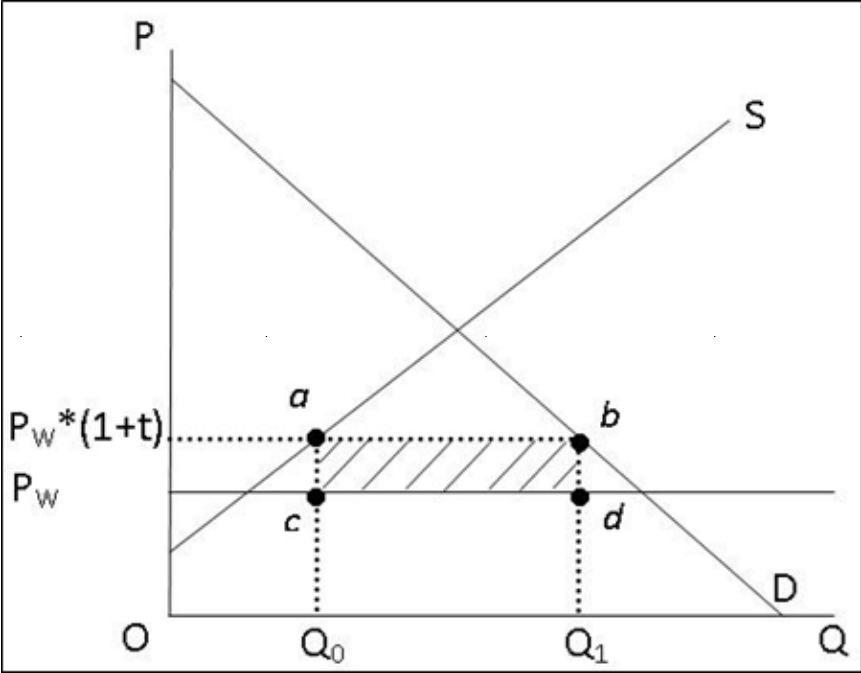


Figure 1a. Schematic for QR.

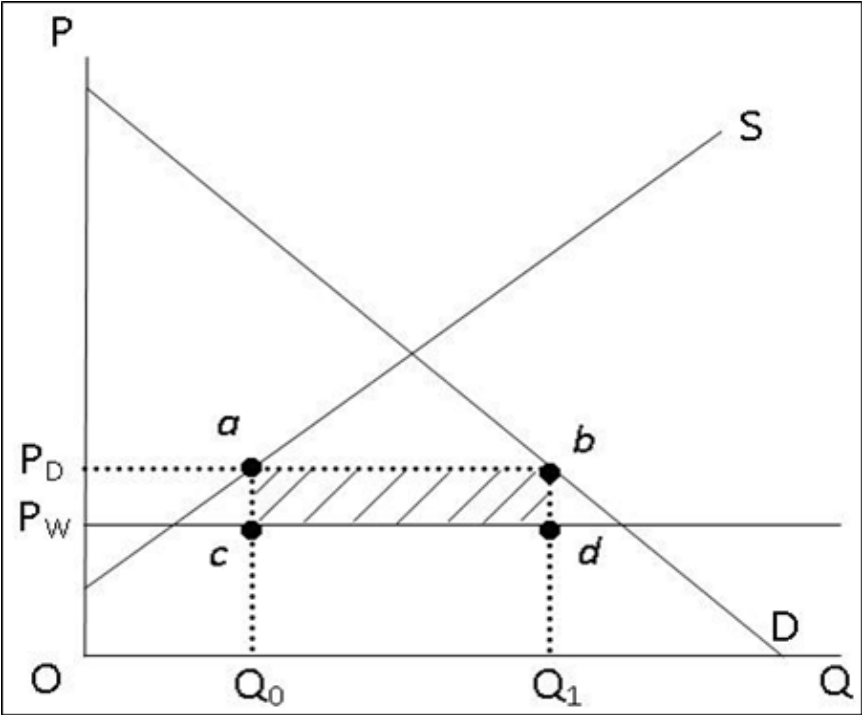


Figure 1b. Schematic for tariff equivalent.

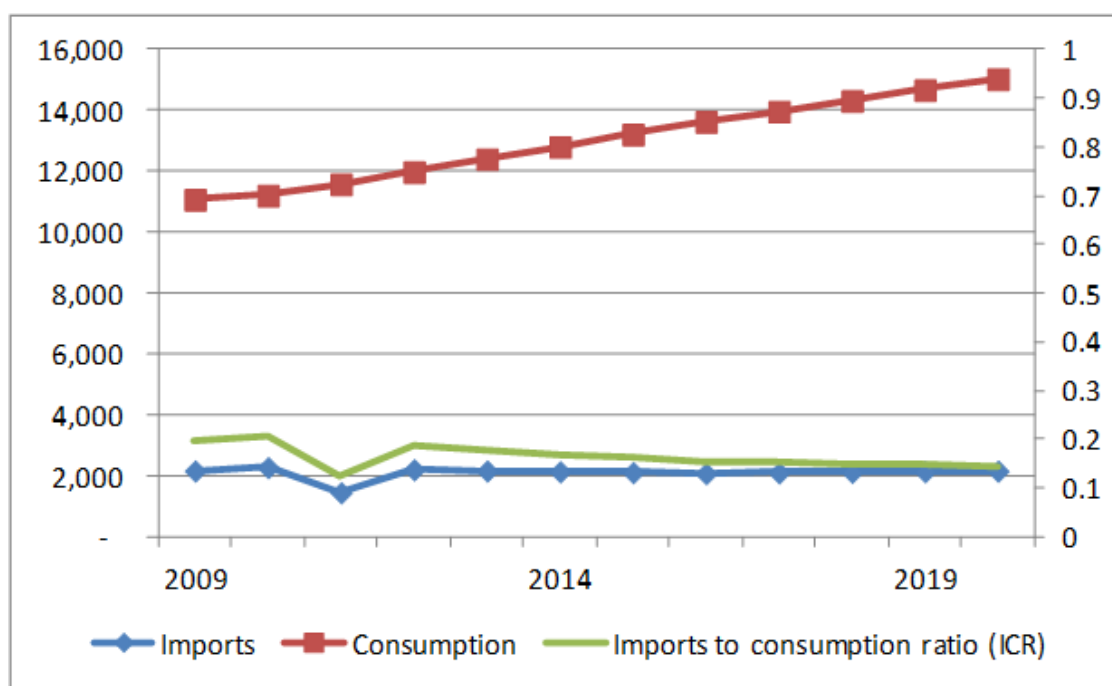


Figure 2. Imports and consumption (in million t), and import-to-consumption ratio, 2009 - 2020, Reference scenario.

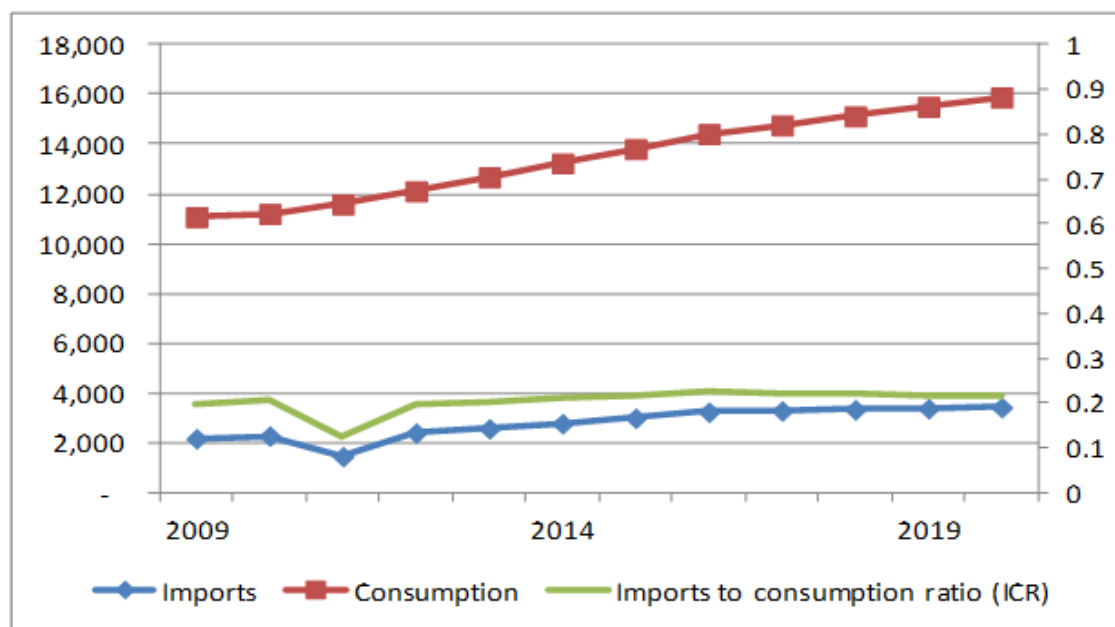


Figure 3. Imports and consumption (in million t), and import-to-consumption ratio, Tariff reduction scenario. Schematic for tariff equivalent.

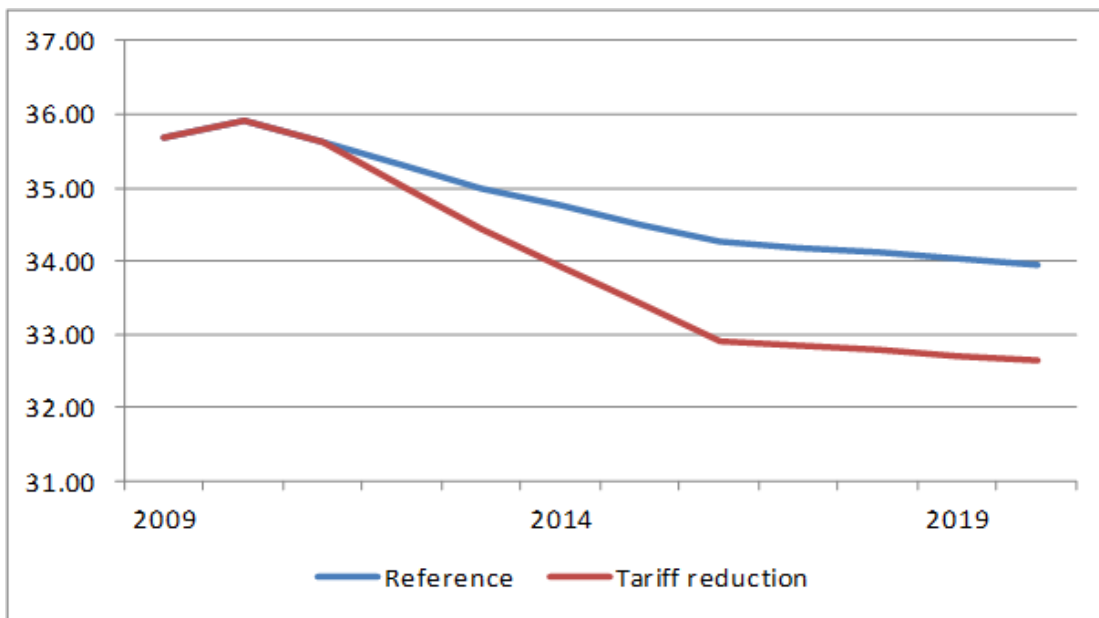


Figure 4. Retail price of rice in pesos/kg, Reference and Tariff reduction scenarios, 2009 - 2020.

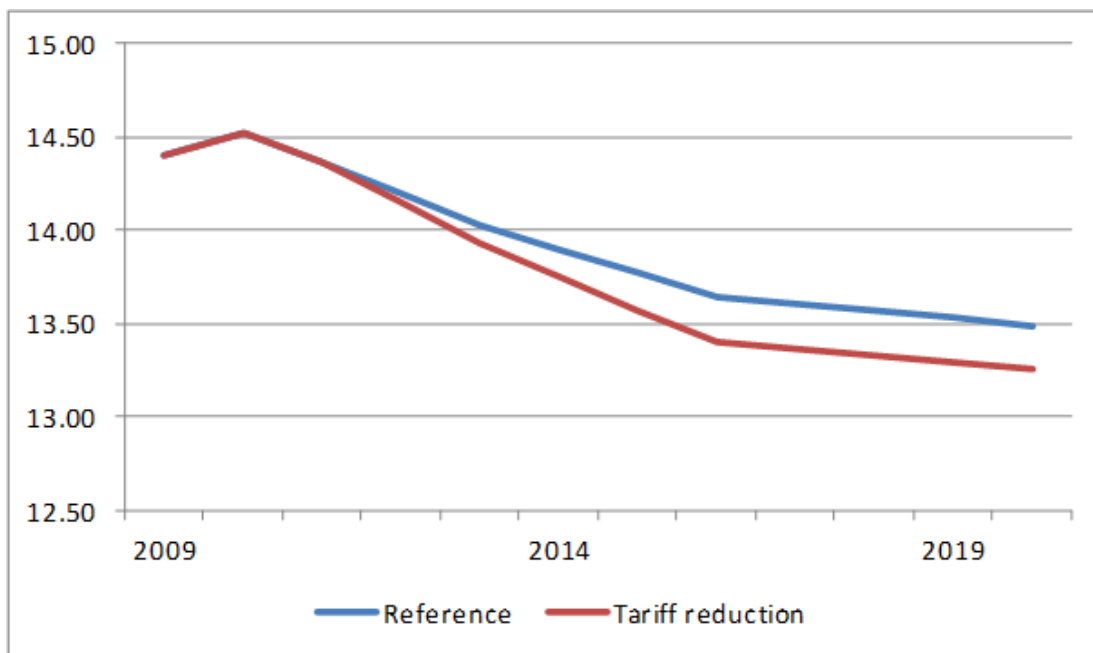
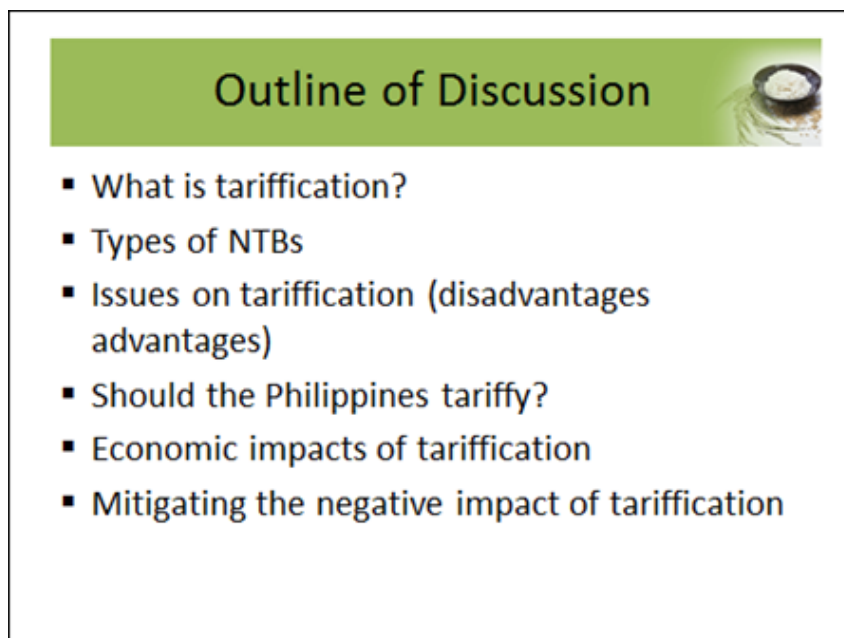


Figure 5. Producer price of rice in pesos/kg, Reference and Tariff reduction scenarios, 2009 - 2020.

**Slide 1**



**Slide 2**



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## What is tariffication?

Tariffication in its broad sense (as defined by WTO and other International experts) is the effort to convert non-tariff barriers (NTBs) to trade into bound tariffs and reduce over time that includes sanitary, phyto-sanitary, import bounds and others into tariff. NTBs are trade barriers that restrict imports but are not in the usual form of tariff. There is a provision that when you convert or acceded to WTO when you tariffy your non-tariff barriers, you should allow it to be reduced over time until it becomes zero or free trade.

### Slide 3

### Categories of NTBs



*import restrictions for protection of certain sectors of national industries:* licensing and allocation of import quotas, antidumping and countervailing duties, import deposits, so-called voluntary export restraints, countervailing duties, the system of minimum import prices, etc

*administrative bureaucracy, whose actions restrict trade,* e.g., : customs procedures, technical standards and norms, sanitary and veterinary standards, requirements for labeling and packaging, bottling, etc.

*methods that are not directly aimed at restricting the import or promoting the export, but the effects of which often lead to this result, e.g. domestic subsidies .*

### Transcription


Methods like subsidies that encourage production and in effect making the farmer locally competitive and some sort of ending up a non-tariff barrier or have the effect on non-tariff barrier.

## The different types of Tariff

- Non-tariff barrier that restrict imports
- Administrative bureaucracy related tariffs

### Slide 4

### Examples of NTBs



*import quotas,* special licenses, unreasonable standards for the quality of goods, bureaucratic delays at customs, export restrictions, limiting the activities of state trading, export subsidies, countervailing duties, technical barriers to trade, sanitary and phyto-sanitary measures, rules of origin

For rice...import quota in terms of tariff rate quota (TRQ) ...MAV (40%) and excess import tariff (50%) applies

### Transcription

In the case of rice, we have the we have the non-tariff barrier, on the Tariff Rate Quota (TRQ) where you have the minimum access volume (MAV) which is charge levee the tax of 40%, and the excess import out of the MAV or in addition to the MAV is charged 50%, that is the present status quo.

## Slide 5

### Advantages of Tariffication

- increase the competitiveness of domestic producers both domestically and on foreign markets
- raise revenue for the government which can be used for government spending
- improve the balance of payments position by decreasing imports as they become more expensive and less attractive to purchase
- Transparency which facilitate trade negotiation

## Transcription

The non-tariff barriers artificially increase the competitiveness of the domestic producer. It raises the revenue for the government when you convert it into tariff because the tariff is a fix tax being collected by the government, hence, going directly to the government (in theory). But in the case of NFA, it is just a transfer from the DFA, noted to be an income for the

government but in fact it is not being paid by the NFA before. And improve the balance of payments used to restrict imports so we have less money spent for importation. And also making transactions more transparent to which facilitate trade negotiation.

## Slide 6

### Disadvantages of Tariffication

- could result in retaliation from other foreign economies... import control on goods that we import...leading to higher prices and potentially inflationary... (negative multiplier effect)
- Economy wide: increase in prices of other goods and services considering the weight of rice in the food basket
- Non tariff equivalence issue

## Transcription

For its disadvantages: it could result in retaliation. When you have a high tariff it could result in retaliation that may result in imports and the exporting countries in terms of gaining access to their product. Additionally, it also increases the prices of other goods and services considering that rice also a major component of the consumer food

basket. The major problem of non-tariff equivalent of tariff and quota in many instances, say in perfect competition, is that the tariff and the quota are in many cases not equivalent.

## Slide 7

### Should the Philippines tariffy?

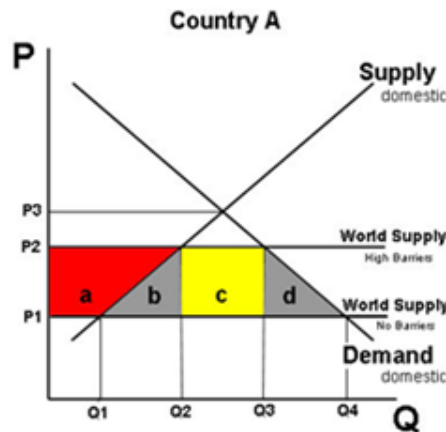
Yes we must...as member of the WTO but instead of variable levies a uniform one should be applied...this in effect minimize the administrative difficulty of TRQ and transparency in transactions

## Transcription

I agree with Roehl that we should tariffy for transparency purposes. Tariffication is just a process of converting quota into tariffs in a manner that it is not attractive or tempting for other people to explore quota. When you have tariff, you are setting a fix tax for a given imported volume and at the same time minimize the problem of quota allocation that serves as an avenue for many dubious practices in government resulting in poor governance.

## Slide 8

### Impacts of Tariff and Quota



## Transcription

The figure shows a partial equilibrium situation of the case of tariffs and quota. Initially, when you have trade without tariff, the world price and the world supply and the amount locally produced demanded by the consumer. When you put a tariff that drives the wedge to consumption and production, if you

increase the price from P1 to P2, the difference between the two is the world price plus the amount of the tariff. This now becomes the local supply because the farmers are encouraged to produce owing to higher price and the reduction in the demand due to the higher price in the market. There is a loss in the consumer surplus and the amount of a, b, c, and d. There is part of loss of the consumer that goes to the producers in

terms of the increase in producer's surplus, and the  $c$  is the amount of revenue that goes to the government in terms of taxes. But  $b$  and  $d$  are called death rate loss that results in the inefficiency in consumption and production. There is inefficiency in the production because the farmers are being protected by the tariff, but inefficiency in consumption is because of the higher price of rice that resulted in lesser consumption of rice.

In the case of quota, they have the same effect except that this portion ( $c$ ) may go either to the government and the private sector or even abroad. When the license to import is given to other person outside of the country, it means a loss to the government. Additionally, even if the government granted the other sectors, like the private sector, to import it is possible that the amount of taxes or amount of the license fee that they can get out of the license to import by the private sector might not be equivalent to or may be lower than what's being collected when you have tariffs. In many cases, the license or the willingness to pay or the maximum willingness to pay of those inter-private sector in terms of license should amount to the additional volume.

#### Slide 9

### Meeting the challenge



- Tariffication has negative impact to the society, and gradual phase out of tariffs is the order of the negotiations under the WTO
  - Under free trade, the producers will be hurt
- ...the country's only option to meet the challenge of globalization is improved producers' competitiveness...

#### Transcription

Tariffication has negative impact to the society and the gradual phasing out of tariffs is the order of the negotiations under WTO. Under free trade, the producers will also be hurt and the country's only option to meet the challenge of globalization is to improve producer's competitiveness.

## Meeting the challenge



- promotion of appropriate yield-enhancing and cost-reducing technologies;
- sustained investment in rice R&D, irrigation systems, road infrastructure, post production handling, credit;
- during the adjustment period, competitive enhancement of the farmers needs to be done;
- crop diversification in presently less productive ecosystems and small scale farming
- pursue regional rice buffer stocking

## Transcription

These recommendations are necessary to meet the challenge of globalization. Among these are the promotion of appropriate yield-enhancing technologies; sustained investment in rice R&D irrigation systems, road infrastructure (farm-to-market road for much faster transport); post-

production handling, credit as well as extension; during the adjustment period, competitiveness capacity-building or farmers must be propelled; crop diversification in less productive ecosystems and small-scale farming must be pursued; and so-called regional rice buffer stocking, which is being promoted by the ASEAN-member countries to address extremely high transportation costs.

**Conclusion** The accession and the membership to WTO means that we follow the order of the WTO that we tariffy, and we are focused to tariff because as mentioned by other speakers, we cannot perpetually ask for the extension of our QRs. In fact, at some point we have to tariffy and convert our QRs into tariff. At the transition stage towards free trade, tariffication makes the society as a whole worst off as it hurts the consumer, although some redistribution of benefits to producers is possible. Generally, however, free trade is beneficial even as less competitive producers are at the losing end as a result of lower price. Despite all this, tariffication remains the best tool for effective international trade negotiations.

### Disadvantages of QR

QR is prone to malpractices. Jollibee Foods Corporation (JFC), for example, imports massive volume of rice through the MAV. It needs voluminous amount of rice for its daily operations. Instead of buying rice from Filipino farmers, JFC imports rice due to quality and supply issues. Imported rice has better quality. Additionally, it needs to have a steady supply of high-quality rice, which cannot be guaranteed by NFA. This whole scenario means that if QR is removed, JFC would have to compete with other importers. Hence, favoured big importers like JFC sit well with the QR as they are already enjoying the privileges of the quota.

### Computation of equivalent tariff level

The domestic and world prices must be considered when computing for the appropriate tariff level as a replacement for the QR. The decision, however, on the degree of protection to be given to an industry depends on the government's value and political judgment. Giving a greater protection to one industry entails giving some concessions elsewhere.

# PAPER 5

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## **FUTURE DIRECTIONS OF THE RICE TRADE IN THE PHILIPPINES**

Flordeliza H. Bordey, PhD, Jesusa C. Beltran, PhD,  
Cheryll C. Launio, PhD

Paper

Discussion

Open Forum



**Introduction** Rice is the only remaining agricultural commodity in the Philippines that has quantitative restrictions (QR). Under the World Trade Organization (WTO) Agreement on Agriculture in 1995, and the Republic Act No. 8178, tariffs replaced QRs in all agricultural commodities except rice. This special treatment on rice expired on June 30, 2005. The Philippines, however, filed for QR extension until June 30, 2012 making the Philippines and South Korea as the only countries in the world with QR on rice. To compensate, the Philippines reduced its tariff rates on certain agricultural products (i.e. mechanically deboned meat) and increased its minimum access volume (MAV) for rice.

Since 2005, the Philippine MAV was raised to 350,000 mt at 40% tariff rate (Tobias, et al. 2012). The country can opt to import more than the MAV at a higher tariff rate of 50%. In the last decade, the country's rice import volume has always been more than double of the MAV reaching peak in 2008 at 2.4 million metric tons. As of 2011, the National Food Authority (NFA) imports 35% of the set quota and allocates the remaining 65% to the private sector. Aside from the in- or out-quota tariff, the private sector is also levied with an importation fee of PhP2/kg as a service charge. Currently, the Philippines is in the middle of WTO negotiations and the extension of QR on rice for another 5 years until 2017.

There are advantages and disadvantages in adopting tariff instead of QR in protecting the domestic rice industry. Discussions continue on whether the benefits of applying tariff on rice trade can outweigh the costs. But whether we like it or not, tariffication of rice trade in the Philippines is inevitable. The country might succeed in extending the imposition of QR in the current negotiations. However, it will be costly for us to negotiate for further extensions after 2017. Trading partners of the Philippines will certainly ask for increasing concessions in other commodities in exchange for QR extension in the future. In short, rice QR cannot exist perpetually. Rethinking of our food security strategies under this trade regime is in the right direction.

Under the assumption of rice tariffication, this paper presents two rice trade scenarios involving: (1) removal of QR on rice and imposition of 50% tariff;

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and (2) complete elimination of tariff (0%) on rice. The implications of these two trade scenarios on domestic wholesale and farmgate prices, quantities of production and food demand, and changes in producer and consumer welfare were examined. Possible implications on various rice stakeholders as well as in food security and price stabilization policies were also discussed.

**Framework for the analysis** Tariff is typically a tax imposed on imported good that makes its price higher in the local market. In contrast, QRs or quota are explicit limits on the physical amounts of particular commodities that can be imported during a specified period, usually measured by volume. Both tariff and QR limits the inflow of cheap imported goods in a country. The difference is the government can potentially raise revenues from imposing tariff but not in QR.

Generally, if the world price with the imposed tariff is greater than the domestic wholesale price, the latter will increase, which in turn leads to upsurge in farmgate price. This will encourage farmers to plant rice in larger areas or plant in the same area more frequently if water availability allows. Higher prices also give producers incentives to invest in yield-increasing inputs and/or technologies, which can raise production. The rise in production results in higher producer welfare (Figure 1).

On the other hand, the increase in domestic wholesale price will reduce the quantity of food demand, which in turn diminishes consumer welfare. Depending upon the magnitude of increase and decrease in producer and consumer welfare, respectively, the net economic welfare can either rise or fall.

If the world price of rice plus the imposed tariff is lower than the domestic wholesale price, the reverse can happen. That is, producers lose and consumers gain.

Figure 2 exhibits the behavior of the peso-converted world price and the domestic price of rice since 1980. The percent difference between domestic and world prices can be used as an indicator of protection level in the rice sector. In 1980s up to early 1990s, the domestic wholesale price closely followed the world price. There are even some years with negative protection though high protection levels are noted in years 1985-1986. From mid-1990s up to early 2000s, the gap between domestic and world prices widened as the level of protection rises. Since 2001, a

decline in the level of protection was observed with almost equalization of domestic and world price during the world food crisis in 2008. Since then, the level of protection has been on the rise again but the levels are similar to that in the late 1980s. As of 2010, the domestic price diverged from the world price by 31%.

**Methodology** Following the procedure of Mangabat (1999), parametric analysis of time series data covering 1980-2009 period was used to estimate supply, demand, and price linkages. We estimated five behavioral equations namely: (1) linkages between domestic wholesale price, and import price and peso-dollar exchange rate; (2) linkage between domestic wholesale and farmgate prices; (3) relation of harvest area to one-year lag of farmgate price; (4) relation of quantity supplied to one-year lag of farmgate price and harvest area; and (5) the link of quantity food demand (milled rice) to domestic wholesale price and gross domestic product (GDP). Mathematically, these behavioral equations are written as:

$$(1) \ln WSP_t = \alpha_0 + \alpha_1 \ln WP_t + \alpha_2 \ln XR_t + \alpha_3 T + \varepsilon_t ;$$

$$(2) \ln FP_t = \beta_0 + \beta_1 \ln WSP_t + v_t ;$$

$$(3) \ln AREA_t = \delta_0 + \delta_1 \ln FP_{t-1} + \mu_t ;$$

$$(4) \ln QS_t = \gamma_0 + \gamma_1 \ln FP_{t-1} + \gamma_2 \ln AREA_t + \omega_t ; \text{ and}$$

$$(5) \ln QD_t = \lambda_0 + \lambda_1 \ln WSP_t + \lambda_2 \ln GDP_t + \sigma_t$$

where WSP is the domestic wholesale price of regularly milled rice; WP is the world price of Thai rice with 5% broken; XR is the peso-dollar exchange rate; T is time trend; FP is the farmgate price, AREA is the harvest area; QS is the quantity of paddy rice produced; QD is the quantity of rice demand for food; and GDP is the gross domestic product. The parameters to be estimated are  $\alpha$ ,  $\beta$ ,  $\delta$ ,  $\gamma$ , and  $\lambda$  while  $\varepsilon$ ,  $\mu$ ,  $\omega$ , and  $\sigma$  represent error terms in different equations. These equations are estimated using Ordinary Least Squares.

Using the estimated elasticities ( $\alpha_1$ ,  $\beta_1$ ,  $\delta_1$ ,  $\gamma_1$ , and  $\lambda_1$ ), we calculated the changes resulting from imposing 50% and 0% tariff on wholesale price, farmgate price, hectarage, and quantities of paddy production and food demand. The following formulae are used in the calculation:

$$(1) \Delta WSP = \alpha_1 \left( \frac{\Delta WP}{WP_{base}} \right) (WSP_{base});$$

$$(2) \Delta FP = \beta_1 \left( \frac{\Delta WSP}{WSP_{base}} \right) (FP_{base});$$

$$(3) \Delta AREA = \delta_1 \left( \frac{\Delta FP}{FP_{base}} \right) (AREA_{base});$$

$$(4) \Delta QS = (\gamma_1 + \gamma_2 \delta_1) \left( \frac{\Delta FP}{FP_{base}} \right) (QS_{base}); \text{ and}$$

$$(5) \Delta QD = \lambda_1 \left( \frac{\Delta WSP}{WSP_{base}} \right) (QD_{base}).$$

The resulting new prices and quantities are then used in economic surplus analysis. The formulae are used in computing changes in producer ( $\Delta PS$ ), consumer ( $\Delta CS$ ), and economic surplus ( $\Delta ES$ ):

$$(1) \Delta PS = (FP_{old} - FP_{new}) \left[ QS_{new} + 0.5 (QS_{old} - QS_{new}) \right] ;$$

$$(2) \Delta CS = (WSP_{old} - WSP_{new}) \left[ QD_{old} + 0.5 (QD_{new} - QD_{old}) \right] ; \text{ and}$$

$$(3) \Delta ES = \Delta PS + \Delta CS.$$

## Results and Discussion

Table 1 shows the results of the regression analysis. We found that domestic wholesale price rises by 0.38% for every 1% increase in the import price, which is defined as the world price plus the imposed tariff. Similarly, a percentage increase in the wholesale price results in 0.96% increase in farmgate price. This shows that farmgate price mirrors closely the movement in wholesale price.

Meanwhile, harvest area only increases by 0.11% for every percentage increase in one-year lag of farmgate price. Although the regression of the area equation is significant, the variation in one-year lag of farmgate price can only explain 59% of the variation in harvest area. This implies that there are other factors explaining the variability in harvest area such as rainfall and presence of irrigation.

An increase in one-year lag of farmgate price can boost the quantity supplied in two ways. The first effect is attributed to the decision of producers to increase area while the second effect is attributed to the farmers' decision to use yield-enhancing inputs such as fertilizer and other technology (i.e. high quality seeds, better crop management, etc.). Based on the estimation, quantity supplied rises by 0.28% for every percentage increase in one-year lag of farmgate price. This estimate is not far from supply elasticity estimated by Evenson (1991) which is 0.33% (as cited in Estrada and Bantilan 1991).

As predicted by economic theory, we found that quantity demanded negatively responds to an increase in the wholesale price. Specifically, a 1% increase in the wholesale price leads to a 0.36% decline in quantity demanded. This magnitude of demand elasticity is similar to estimates projected by the Department of Agriculture Integrated Agricultural Production and Marketing Project (1980) which is -0.37%, and Evenson (1991) which is -0.285% (as cited in Estrada and Bantilan 1991).

The estimated elasticities from the regression analysis are used in an economic surplus model to determine the impact of imposing 50% tariff on

domestic prices, and quantities of supply and demand. We chose 50% as the starting value of tariff because this is currently the out-quota tariff prevailing in the Philippines. Using the 2010 data as base values, we found that the imposition of 50% tariff makes the import price relatively higher than the domestic wholesale price. As a result, wholesale price will increase by nearly 19% or PhP6/kg; farmgate price will rise by 15% of PhP2.7/kg; harvest area will increase by almost 2% or 75,000 hectares; quantity supplied will expand by about 4% or 682,000 mt; and quantity food demand will decline by about 7% or 713,000 mt (Table 2). Contrary to the fears that tariffication will lead to our domestic rice market flooded with imported rice, the analysis show that imposing 50% tariff is actually beneficial to farmers but can hurt particularly the poor consumers. However, this rests on the assumption that our institutions are strong enough to prevent the smuggling-in of duty-free rice.

Using the change in prices and quantities, we calculated the resulting changes in producer, consumer, and economic surplus. Analysis shows that producers will gain about PhP 43.52 billion on the aggregate. Noting that there are about two million households involved in rice farming with an average household size of five and assuming that they are all net producers for simplicity, the per capita change in producer surplus is about PhP4,352 (Table 3).

On the contrary, consumers will lose a total of PhP 60.91 billion. Since there are more net consumers than net producers, the decline in consumer surplus per capita is lower at PhP 718. This leads to a net decline in total economic surplus of about PhP 17.39 billion with a per capita loss of PhP 183. However, this is an overestimate of economic surplus loss since government revenues from tariff is not yet considered.

While these estimates should be validated further, our policymakers can use this to make informed decisions. If they decide to adopt this tariff rate, they can design mechanisms to compensate for the losses that will be incurred by consumers.

Eventually, tariff rates will be negotiated downward. WTO rules that tariff should be reduced by a minimum of 10% according to a predefined schedule. In the extreme case that tariff is completely eliminated, the question that comes to mind is whether imported rice will flood the domestic market. This depends on our ability to produce rice at a cost that is competitive with the rest of the world.

Zero tariffication implies that domestic wholesale price will follow the world price of rice. Using the 2010 data as base values, we found that the imposition

of 0% tariff makes the wholesale price decrease by nearly 27% or PhP8.6/kg; farmgate price will fall down by 36% or almost PhP4/kg; harvest area will decline by almost 4% or 173,000 hectares; quantity supplied will contract by about 10% or 1.58 million mt; and quantity food demand will rise by about 10% or 1.03 million mt (Table 4). The analysis show that at the extreme case of free trade on rice, domestic rice production will still supply majority of our food demand.

Results also show that producers will lose about PhP 58.43 billion on the aggregate. On average, each producer is about to lose by PhP 5,843. In contrast, consumers will gain a total of PhP 95.42 billion with a per capita gain of PhP1, 044. This leads to a net gain in total economic surplus of about PhP 36.99 billion at a per capita gain of PhP 365 (Table 5). There will be no government revenue under the zero tariff regimes.

### Indonesia's experience

Similar to the Philippines, Indonesia is also a rice net-importing country and there are years in the recent past when it became the world's largest importer. Indonesia has also a state trading agency called Badan Urusan Logistik (BULOG) similar to our NFA, which purchases grain for price stabilization, delivers rice to the poor, and manages food stocks. Self-sufficiency in rice is also one of the major food security policies in Indonesia.

After the Asian Financial Crisis of 1997, Indonesia sought the assistance of the International Monetary Fund - World Bank and had to follow its Structural Adjustment Program. This includes free trade and privatization of state-trading enterprise. As a result, Indonesia adopted a 0% tariff on rice starting 1998, way beyond Indonesia's commitment to WTO and AFTA. In addition, the privilege of BULOG as the sole rice importer in Indonesia was abolished and private traders were involved in the importing business. This resulted in doubling of rice imports from an average of 1.5 million mt yearly in 1995-1997 to 3 million mt per annum in 1998-2001. In the same period, Indonesia's import dependency grew from 4.3% to 9%. Paddy production in 2002 was 4.5% below the production in 1996. Recognizing that free trade had depressed domestic rice price, which discouraged rice farmers from producing, Indonesia imposed 30% tariff in 2000. However, the tariff was observed to have minimal effect on increasing domestic price because of weak institutions and inability of the Indonesian government to arrest rice smuggling (Haryati and Aji 2005). While we are not saying that the same will happen in the Philippines if it adopts rice tariff, smuggling-in of duty-free rice is certainly one of the issues that must be addressed by the Philippine government to enforce tariffication.

**Indonesia's experience** Rice industry stakeholders, particularly the producers are heterogeneous and the impacts of free trade on each sector vary.

#### *Small producers in rainfed lowlands and uplands*

Small producers or those with areas less than one hectare in rainfed lowlands and uplands are likely to be either displaced from rice production or go back to subsistence farming. Based on the 2006-2007 round of Rice-based Farm Household Survey in 33 major rice producing provinces, about 48% of farmers in the rainfed ecosystem cultivate an area less than one hectare. To help them, employment opportunities from non-agricultural must be increased especially in the industrial sector. However, this is easier said than done for the share of industry sector in the total employment remained 15% in the last three decades. Better investment climate could help, but this is an issue that is beyond the scope of the rice sector. In the meantime, other support mechanisms should be extended to this stakeholder as they are the poor ones in the rice sector. One form of support could be provision of crop-diversification training and seed kits so that they can engage in small-scale crop diversification for household food security. Mechanisms for providing cash transfer during a specific transition period in the event of tariff elimination can be also studied. This could be tied-up with the conditional cash transfer program of the Department of Social Welfare and Development.

#### *Bigger producers in rainfed lowlands*

For producers who cultivate relatively bigger areas (one hectare and above) in rainfed lowlands, their likely adaptation strategy is to diversify crop production or shift to more profitable crops than rice. Currently, they are forced to diversify specifically during the dry season because of insufficient water to grow rice. In order to help them adjust in the event of rice trade liberalization, transactions cost of shifting to other crops should be minimized. This includes minimizing the costs of accessing output market, capital, and storage facilities.

Oftentimes, producers of non-rice crops face greater price fluctuation compared to rice producers. These can be partly solved through greater access to storage or food processing facilities so that producers need not sell during times of very low prices. Because of storage, these producers nevertheless need higher working capital. Thus, a stable macroeconomy is needed to have a generally lower interest rate which is again beyond the scope of the rice sector.

Increasing access of these big rainfed lowland producers to small-scale irrigation systems through favorable terms (i.e. soft loans) will also enhance their ability to shift to other crops. This form of production support can enhance the overall productivity of agriculture and is allowed under WTO since it is not price-distortive.

#### *Uncompetitive producers in irrigated areas*

The uncompetitive producers in irrigated areas are likely to give-up dry season rice in favor of other crops but maintain rice in the wet season. This is because given the structure of our large-scale irrigation systems in the lowlands (mostly with clay soil and are difficult to drain), no other crops can grow better than rice during the wet season. To ease the adjustment, the transaction costs of diversification particularly the costs of accessing market, capital, and postharvest facilities must be minimized.

We also need to develop low-cost irrigation technology that will effectively deliver water from large-scale irrigation systems to farms and allow farmers to crop-diversify during the dry season but revert back to rice production during the wet season without large investment cost.

The design and development of large-scale irrigation facilities in the future must also consider the possibility of diversified cropping systems.

#### *Competitive producers in irrigated lowlands*

Certainly, competitive rice producers will remain especially in irrigated lowlands. They are the ones who are likely to maintain rice production in both dry and wet seasons. To support them, we need to continue research and development (R&D) of new production technology and increase their access to it. To do this, R&D must be continuously funded and extension system in the country must be strengthened. Information dissemination on available technology must be intensified. Another way of helping this stakeholder is to totally eliminate tariff on imported inputs such as fertilizers and machinery, which could help lower the cost of production. Organizing farmers into groups using successful models of cooperative will help them increase bargaining power and could give them leverage against the imminent oligopsonistic behavior of rice processors.

#### *Millers and processors*

Given free trade in rice, inefficient millers or processors will be competed-out of business. As such there will remain a few efficient processors with



large capitalization. These large processors have no choice but to make their business competitive with the rest of the world. We can help this sector by minimizing the transaction costs of doing business which is currently the high interest of credit. According to Dawe, et al. (2008) interview of millers and traders in Thailand mentioned interest rates for borrowing at around 4% per annum, which was confirmed in interviews with banks. In the Philippines, interest rates from banks were about 15% annum. This is one of the reasons why rice marketing margins in the Philippines is high. Of course, we cannot lower rates artificially but a stable macro-economy can help in lowering the interest rates in general.

With free international trade of rice and as the millers get fewer, we must be also concerned about the threat of oligopsony or the market power to dictate price of few buyers over great number of sellers. With few buyers and competing sellers, chances are producers will get even lower prices for their paddy rice, putting them at greater difficulty. This is one of the apprehensions of our civil society against trade liberalization and should be addressed through better regulations and enforcement. This is where the recommendation for strengthening the farmers' organization matters.

#### *Wholesalers and producers*

With free trade, wholesalers will be likely involved in importation and will play a greater role in international trade. There will be new entrants in the business if rice importation is deemed profitable. Thus, to enhance competition and encourage new entrants, the transaction costs of entering the rice trade business must be lessened. This includes giving well-defined procedure for licensing and obtaining business permits. There must be a leveled-playing field for all who wants to be in the rice import business and no concessions must be given especially to those who are with political powers.

#### *Net consumers*

As economic theory predicts, net consumers will be better-off under the free-trade regime. As prices of rice go down, consumption increases especially among the poor. However, they will be at a disadvantage in the short-run while the country imposes tariff. In the meantime, cash transfer program of the government can help particularly the poor sector. The government can study to expand this in exchange of selling subsidized rice, which has many leakages. Similar to cash transfer for small producers in rainfed areas, cash transfer for poor consumers can also be tied-up with the conditional cash transfer program of the Department of Social Welfare and Development.



Free trade will also result in less involvement of the NFA in domestic and international trade. NFA's role in trade will be increasingly subsumed by the private sector. But then, NFA may not completely cease its functions in importation, and domestic procurement and selling to maintain the country's buffer stock. NFA can either source its stock from local procurement at market price or through import, whichever is more cost effective. To rollover the stocks, it can be sold at the market prevailing price and not at subsidized price. NFA must also strengthen its regulatory functions especially if it will be the point agency of the government to issue rice import licenses. It must work closely with the Bureau of Customs in monitoring the volume of rice imports that are coming-in and in preventing the smuggling of rice.

**Implications of  
free trade in  
food security  
policy**

Technically, rice tariffication and the eventual free trade will usher our food security policy from pure self-sufficiency to self-reliance. This implies that while the country allows rice imports to come-in, majority of our rice demand will still be produced locally. Based on our elasticity estimates, even at 0% tariff, domestic production will contract by only 10%. Indonesia's experience even showed smaller contraction by 4.5%. Since we still need to provide for the needs of majority of our population, we must continue to enhance our competitiveness. Because of this we cannot underestimate our need for investments in R&D, extension, and irrigation. The WTO allows provision of support up to 10% of value of production but we are not able to maximize that in the past. The country need to use this option to the full extent now.

**Implications of  
free trade in  
the price  
stabilization  
policy**

What if the world panic similar to 2008 happens again and export bans are imposed by exporting countries? In this case, world price will increase and will be higher than the domestic price. The tendency of the domestic wholesale price is to follow the trend in the world price and increase. To insulate the country from potentially harmful effects, we can use our buffer stock to manage the extremely high price. As previously mentioned, the NFA can unload its rice stocks at the prevailing domestic price to prevent the latter from increasing further. However, to effectively do this, we must study carefully or revisit again the optimal volume of stocks that should be held by the government. In addition, we must continue forming international alliances and actively participate in the world discussions about creating a world rice reserve that can be used to calm the anxiety in the international rice market when it arises.

**Summary** We have shown that tariffication will still accord trade protection that is beneficial to our producers but is detrimental to net rice consumers. In the short run, we need to design a mechanism that is less market distortive but can compensate consumers especially the poor ones.

We must also take advantage of the period when we can impose the tariff to prepare our rice industry to become more competitive. Reduction of tariff will hurt producers and will even displace some of them. We need to maximize the use of WTO-allowed production support that we can give to rice producers through R&D, extension and irrigation. We also need to establish safety nets to ease the adjustment costs of those who will be negatively affected by free trade. We should also negotiate for a tariff reduction schedule that corresponds to the ability of our government to establish safety nets and provide support to producers.

As a caveat, embracing rice free trade will not automatically bring net benefits to our country. The country needs to reform our institutions and policies for us to be able to take full advantage out of it. After all, the world rice market is not perfectly competitive. There is no leveled-playing field and each rice-producing country provides support to their own rice stakeholders in one form or another. Every rice-producing country in the world puts premium on its own interest. We should continue guarding our own.

- References** Dawe, D. C., P. F. Moya, et al., 2008. "Rice marketing systems in the Philippines and Thailand: do large numbers of competitive traders ensure good performance?" *Food Policy* 33: 455-463.
- Estrada, J., and Bantilan, C. 1991. Supply and demand estimates for major agricultural commodities in the Philippines : National and regional estimates. Philippine Country Study. ACIAR-ISNAR Project Papers No. 36. March. Canberra, Australia.
- Haryati, Y., and Aji, M.M. 2005. Indonesian rice supply performance in the trade liberalization era. Paper presented at the Indonesia Rice Conference, Tabanan Bali, Indonesia.
- Mangabat, M.C. 1999. Effects of trade liberalization on agriculture in the Philippines: Commodity Aspects. Working Paper Series No. 51. December 1999. CGPRT Center.
- Tobias, A., Molina, I., Valera, H.G., Mottaleb, K.A., Mohanty, S. 2012. Handbook on Rice Policy for Asia. International Rice Research Institute. Manila.

## TABLES AND FIGURES

Table 1. Results of regression analysis.

Explanatory Variables	Wholesale Price Equation (1)	Farmgate Price Equation (2)	Area Equation (3)	Quantity Supply Equation (4)	Quantity Demand Equation (3)
Constant	3.598*** [0.000]	-0.337*** [0.008]	7.259*** [0.000]	-4.008*** [0.001]	4.297*** [0.000]
Trend	0.025** [0.031]				
Ln World Price	0.378*** [0.000]				
Ln Exchange Rate	0.946*** [0.000]				
Ln Wholesale Price		0.961*** [0.000]			-0.356*** [0.001]
Ln Farmgate Price (t-1)			0.112*** [0.000]	0.113*** [0.000]	
Ln Area				1.503*** [0.000]	
Ln GDP					0.543*** [0.000]
Observation	30	30	30	30	30
R-Squares	0.95	0.995	0.592	0.95	0.941

Robust p-values in brackets

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2. Changes in prices, quantity supply, and quantity demand under 50% tariff.

Variables	2010 Value	50% Tariff	
		Increase or (Decrease)	% Change
Wholesale Price (PhP/mt)	31460	5,946	18.90
Farmgate Price (PhP/mt)	14871	2,701	15.37
Harvest Area (1000 ha)	4355	75	1.72
Quantity Supplied (1000 mt paddy)	15773	682	4.32
Quantity Demand (1000 mt milled rice)	10602	(713)	(6.73)

Table 3. Changes in producer, consumer and economic surplus under 50% tariff.

Variables	50% Tariff Increase or (Decrease)
Change in Producer Surplus (billion PhP)	43.52
Per Capita Change Producer Surplus (PhP/person)	4,352
Change in Consumer Surplus (billion PhP)	(60.91)
Per Capita Change in Consumer Surplus (PhP/person)	(718)
Net Change in Economic Surplus (billion PhP)	(17.39)
Per Capita Net Change in Economic Surplus (PhP/person)	(183)

Table 4. Changes in prices, quantity supply, and quantity demand under 0% tariff.

Variables	2010 Value	0% Tariff Increase or (Decrease)	% Change
Wholesale Price (PhP/mt)	31460	(8,584)	(27.29)
Farmgate Price (PhP/mt)	14871	(3,899)	(35.54)
Harvest Area (1000 ha)	4355	(173)	(3.98)
Quantity Supplied (1000 mt paddy)	15773	(1,577)	(10.00)
Quantity Demand (1000 mt milled rice)	10602	1,030	9.71

Table 5. Changes in producer, consumer and economic surplus under 0% tariff.

Variables	0% Tariff Increase or (Decrease)
Change in Producer Surplus (billion PhP)	(58.43)
Per Capita Change Producer Surplus (PhP/person)	(5,843)
Change in Consumer Surplus (billion PhP)	95.42
Per Capita Change in Consumer Surplus (PhP/person)	1,044
Net Change in Economic Surplus (billion PhP)	36.99
Per Capita Net Change in Economic Surplus (PhP/person)	365

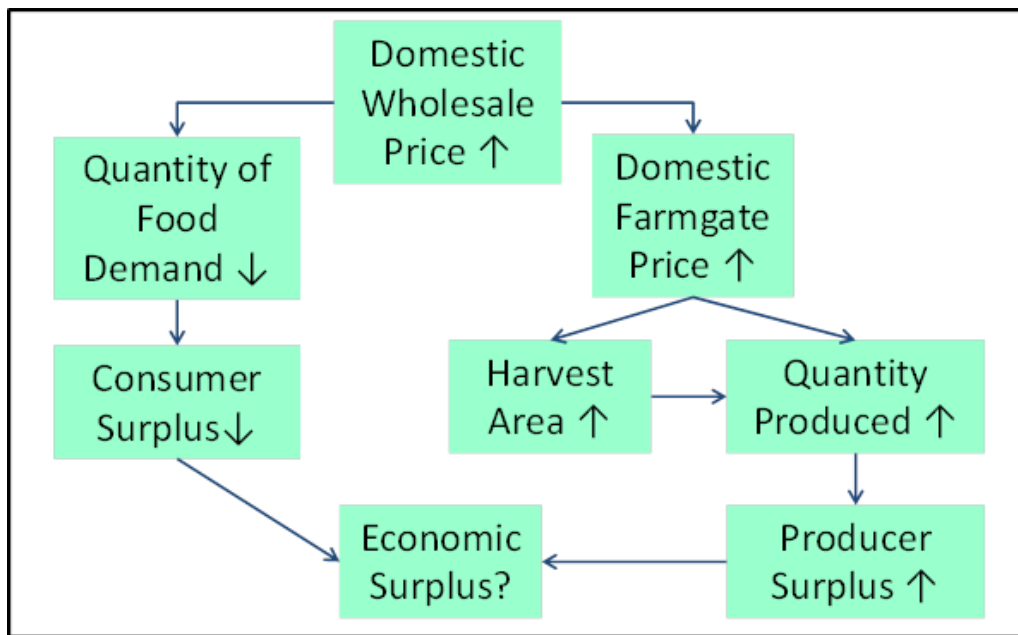


Figure 1. Variable relationships of rice trade in the Philippines.

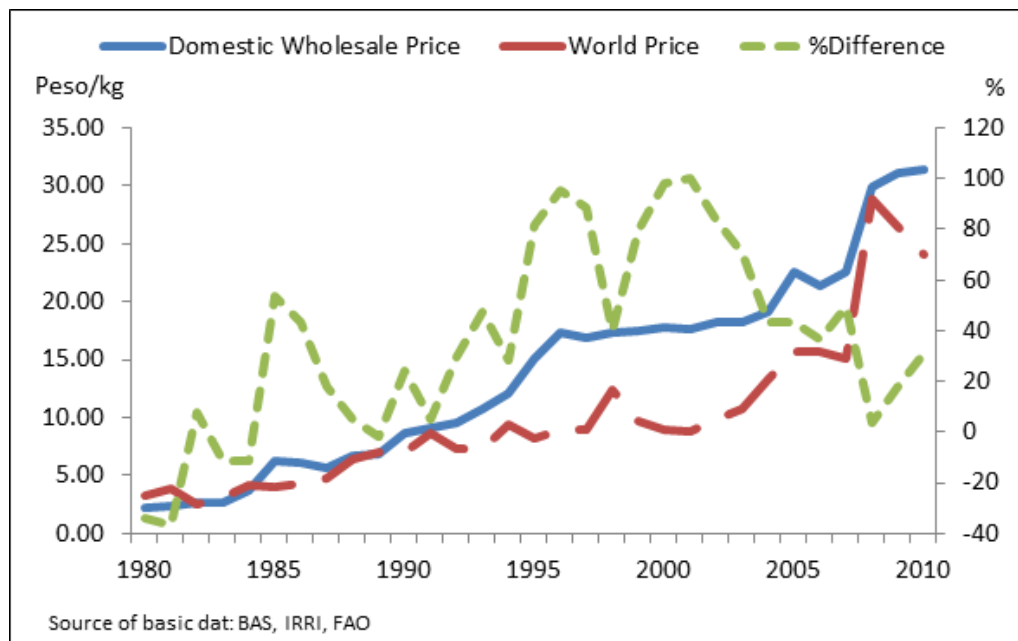


Figure 2. World and Philippine price of rice, 1980-2010.

## Mapping Our Future: "Sa Matuwid na Daan" (Straight Path)

### Slide 1

#### Future Directions of Philippine Rice Trade by F.H. Bordey, J.C. Beltran, and C.C. Launio

- ▶ is an excellent piece of econometric work produced in record minimum time;
- ▶ It is a well-thought through, well-estimated, and well-projected analysis;
- ▶ It identifies who will be hurt, who will benefit and what we need to do in general terms, to take advantage of free trade.

### Transcription

The paper "Future Directions of the Philippine Rice Trade" is an excellent piece of econometric work produced in record minimum time. Although certainly does not look like a hurried shot, it is a well-thought through, well-estimated, and well-projected analysis. Not just a price of trend but a price development in the Philippines future. It identifies who will be hurt, who will benefit, and what we need to do in general terms, to take advantage of free trade. In sum, we need a better governed country to embrace free trade.

### Slide 2

Rice is our life but it is also our Achilles heel.

To be the biggest rice importer in the world is not a great honor to be known for.

What should we be doing about rice so the future would look better than the past?

<sup>20</sup> Consultant, International Rice Research Institute, Los Banos, Laguna.

### Slide 3

The Philippine Daily Inquirer of September 12, 2012 carried a new item which read:

Government Urged: Stop begging for rice import quota:

An official of party-list ABONO called on the government to stop negotiating for another extension of the Quantitative Restrictions on rice with the WTO, saying it was "USELESS"

### Slide 4

- ▶ The Chair of ABONO has already granted the gov't a QR on rice extension from 2006 to 2012 but this was never used until it expired on June 30, 2012.
- ▶ Minimum Access Volume (MAV) for rice since 2006 was never used by the government.
- ▶ The Chair of ABONO said that: "If rice importation from 2006 to 2011 utilized the MAV, the Agriculture Competitiveness Fund (ACEF) could have accumulated fund from the tariff to help local farmers"

### Transcription

The chair of ABONO has already granted the government a QR on rice extension from 2006 to 2012 but this was never used until it expired on June 30, 2012. In the House hearing recently, the Chair of the House Committee on Food Security found that the Minimum Access Volume (MAV) for rice in 2006 was never used by the government because rice

importation was coursed through special rice importation allocation of NFA with the Department of Finance shouldering the tariff. The Chair of ABONO said that: "If rice importation from 2006 to 2011 used the MAV, the Agricultural Competitiveness Enhancement Fund (ACEF) could have accumulated funds from the tariff to help local farmers". It was, I must be half out of my mind when I accepted this invitation. All the speakers are econometrician and I, until now, I don't understand the difference between tariffication and quantitative restriction. Now, he said that with the country's success in its rice self-sufficiency program, the 350,000 MT of MAV is now irrelevant.



## Slide 5

- ▶ Agriculture Assistant Secretary Dante de Lima said the country will only be importing 100,000 MT of rice next year because the country is already on track with its rice self-sufficiency program.

## Slide 6

- ▶ Special Assistant to NFA Administrator said the gov't should not pursue the QR extension
- Thailand wanted the Philippines to import 650,000 MT of Thai rice before its gov't could agree to a QR extension.  
“But why we should import from Thailand when the price of rice there is \$540 per MT, compared to the price in Vietnam which is only \$420 per MT.

This has led to NFA being one of the top recipients of government subsidy, the impact of which has yet to be analyzed and made known.

## Transcription

The Special Assistant to NFA Administrator said the government should not pursue the QR extension. He also said during the hearing that Thailand wanted the Philippines to import 650,000 MT of Thai rice before its government could agree to a QR extension. But why should we import from Thailand when the price of rice there is \$540 per mt compared to the price in Vietnam which is only \$420 per mt? This has

led to NFA being one of the top recipients of government subsidy, the impact of which has yet to be analyzed and made known. I'm thankful for Tina David's paper which provides data on amounts which accrued to NFA. I was surprised you keep talking about tariff and QR with what is yet happening. So, between the policy and the reality is a word it is and this is what we should study. Not keep on studying the theory but study the practice.



## Slide 7

Philippines is in the middle of WTO negotiation for the extension of QR on the rice for another 5 years until 2017 plus negotiations with 12 other countries which are at various stages

## Slide 8

- ▶ The focus is the pros and cons of rice trade tariffication and argues that it is inevitable.
- ▶ Does the paper assume that the Philippines will continue to be a rice importer?
  - it is different from the dream and promise of the present administration.

### Transcription

The focus of the paper on the future direction of the Philippine rice trade is the pros and cons of rice trade tariffication and argues that it is inevitable. We cannot ask for extension perpetually. In this sophisticated analysis that follows, the question I asked is "Does the paper assume that the Philippines will continue to be a rice importer?" Apparently, that is the assumption. If this is the assumption, it is the different from the dream and promise of the present administration.

## Slide 9

### Analysis of the future rice scenario

- ▶ Who benefits when we become rice self-sufficient and beyond? Or
- ▶ What price do we have to pay and who pays for this rice self-sufficiency?
- ▶ More urgent question could be:
  - What would it take to achieve rice self-sufficiency and beyond or even food staple sufficiency?

## Transcription

The analysis of the future rice trade scenario might have been who benefits when we become self-sufficient and beyond. Or what price do we have to pay and who pays for this rice self-sufficiency? That being not an econometrician, these questions are not simple one for me. Or a more urgent question could be: What would it take to achieve rice self-sufficiency and beyond or even food staple sufficiency?

## Slide 10

### Securing Rice, Reducing Poverty: Challenges and Policy Directions

- ▶ Dealt with the issue of "Unlocking the poverty and rice insecurity puzzle in the Philippines
- ▶ "Government to take a more aggressive stance toward encouraging strong investment and institutional and policy reforms in the agriculture sector"

## Transcription

Six years ago, a book titled: "Securing Rice, Reducing Poverty" edited by Balisacan and Sebastian. A section of the publication dealt with the issue of "Unlocking the poverty and rice insecurity puzzle in the Philippines".

## Slide 11

### Securing Rice, Reducing Poverty: Challenges and Policy Directions

► The estimated contribution of different factors to growth in rice production is as follows:

1. R & D (25%)
2. Infrastructure irrigation, farm to market roads, post harvest (40%)
3. Extension (15%)
4. Environmental factors (20%)

## Slide 12

“In the Philippine context the rice problem is a domestically generated one; its solution requires nothing less than a concerted domestic effort to unshackle the policy and institutional bottlenecks preventing the rice sector from realizing its potentials. Fortunately, that effort is within our reach – even now.”

### Transcription

The author said, "In the Philippine context the rice problem is domestically generated one". Its solution requires nothing less than a concerted domestic effort to unshackle the policy and institutional bottlenecks preventing the rice sector from realizing its potentials. Fortunately, that effort is within our reach ? even now. How well are we doing after they have enumerated these factors?

## Slide 13

### Collaborative Research, Development and Extension Services for Food Security in Regions 4A, 4B and 5 in the Philippines (CRDES) Program

#### Mixed results in three key result areas:

1. Improved seed system;
2. Strengthened extension system; and
3. Improved agricultural governance at the provincial level.

Much more effort needs to be exerted to close the rice yield gap between the achievable and the actual yield of rice.

## Transcription

Field level studies such as Collaborative Research, Development and Extension Services for Food Security in Regions 4A, 4B, and 5 in the Philippines (CRDES) Program show mixed results (but more pluses than minuses) in three result areas: (1) Improved seed system; (2) Strengthened extension system; and (3) Improved

agricultural governance at the provincial level. Improvement has been also achieved in these key result areas. But the link between researcher and extension worker is still weak. Much more effort needs to be exerted to close the rice yield gap between the achievable and actual yield of rice. Our local chief executives were involved. Policy result in developing and implementing the provincial rice action plan were accomplished.

## Slide 14

New about smuggling on Sept 21, 2012, the report read:

“6 charged in rice smuggle try”

This is “good news” after the “bad news”

## Transcription

News on rice smuggling, they are counting, there are seven news items just in September. But on September 21, 2012, the report read, “6 charged in rice smuggle try”. This is “good news” although “bad news”.

## Slide 15

**“Tariff was observed to have minimal effect on increasing domestic price because of weak institutions and inability of the Indonesian government to arrest rice smuggling”**

## Transcription

In the Indonesian case cited in the paper under discussion for a free trade and privatization of a state enterprise, tariff has observed to have minimal effect on increasing domestic price because of weak institution and inability of the Indonesian government to arrest rice smuggling. In the Indonesian case cited in the paper under

discussion for a free trade and privatization of a state enterprise, tariff has observed to have minimal effect on increasing domestic price because of weak institution and inability of the Indonesian government to arrest rice smuggling. In many cross countries comparison of national performance, the Philippines usually suffer. But with this one, we may be on par except that Indonesia has the biggest rice importer in the latest rice crises.

## Slide 16

**Expert says: “Policies and panic caused individual producers, traders, and consumers to engage in hoarding. The cumulative effect when millions of households behave in this fashion can be quite substantial”**

**Add to this: “the price surge brought tremendous media attention to the world food crisis”**

## Transcription

Incidentally, experts like David Dawe said: “Policies and panic cause individual producers, traders, and consumers to engage in hoarding. I was one of those hoarders. But I don't have a lot of rice right away. The cumulative effects with millions of households behave in this fashion can be quite substantial”. And it was substantial. Add to this:

“the price surge brought tremendous media attention to the world food crisis”. The media coverage we've got was a lot. So this added more to the panic. I'll never think I'll be able to say this but I am bravely assuming and no importation and beyond self-sufficiency still for the Philippines.

Slide 17

Alternative rice future of self-reliance for the country, with the following scenarios

1. A closing gap between what is achievable and what is the actual yield of rice;

2. A growing market for farming and financing services such as tractors, dyers, harvesters, land levelers, credit etc. to assist ageing rice farmers;

3. An effective seed system to reach more farmers;

Transcription

Allow me to introduce alternative rice future of self-reliance for the country with the following scenarios. I barrowed with the CNN quote which says "One is never too small to dream big." This is my dream.

1. A closing gaps what is achievable and what is the actual yield of rice;
2. The growing market for farming and financing services such as tractors,

dryers, harvesters, land levelers, credit, etc. to assist ageing rice farmers. We are not asking rice farmers to individually buy this thing. We could have service providers. I know a gentleman who makes a lot of money being a service provider; 3. An effective seed system to reach more farmers;

Slide 18

Alternative rice future of self-reliance for the country, with the following scenarios

4. A vigorous interprovincial trade made possible by a new role for NFA because we have 5 categories of provinces according to per capita rice availability taking population into account

- Surplus provinces	36% of the population
- Marginal provinces	27%
- Minimal availability provinces	17%
- Non rice-producing NCR	13%
- Non rice-producing Provincial cities	7%
	100%

Transcription

4. A vigorous interprovincial rice trade made possible by a new role for NFA because we have five categories of provinces according to per capita rice availability taking population into account. I like David Dawe's analysis of the role of population. We have surplus provinces wherein 36% of the population; Marginal provinces 27%; Minimal

availability provinces 17%; Non rice-producing NCR 13%; and Non rice-producing provincial cities 7%. We are expecting the surplus provinces to provide rice to the less of the provinces;



## Slide 19

### Alternative rice future of self-reliance for the country, with the following scenarios

5. Legislation willing, a break in population additions;
6. A heroic effort in program implementation on the ground led by Rice Champions at the provincial and municipal levels;
7. Cash income and nutrition-oriented crop diversification in places accessible to the market made possible by farm-to-market roads;

## Transcription

5. Legislation willing (i.e. RH bill) a break in population additions;
6. A heroic effort in program implementation on the ground led by Rice Champions in the provincial and municipal levels;
7. Cash income and nutrition-oriented crop diversification in places accessible to the market make possible by farm-to-market roads;

## Slide 20

### Alternative rice future of self-reliance for the country, with the following scenarios

8. An honest-to goodness collective action for irrigation water management, rice production and marketing;
9. An emerging domestic and international market for valued indigenous rice varieties supported by Community-based seed banks;
10. Domestic rice price competitive with the world price to remove the incentive for smuggling;

## Transcription

8. An honest-to-goodness collective action for irrigation water management, rice production and marketing. This is not easy to do but this is something we've got to do;
9. An emerging domestic and international market for valued indigenous rice varieties supported by community-based seed banks;
10. Domestic rice price

competitive with the world price to remove the incentive for smuggling. As one very big rice trader told me, money in rice is in "bigas" not in "palay". So it is a rice trade not a rice production;

## Slide 21

Alternative rice future of self-reliance for the country, with the following scenarios

11. Non-farm jobs created by a productive agriculture;
12. A systematic and “truthful” monitoring and evaluation scheme to tell us what happens to the household rice security when the Philippines achieves beyond rice self-sufficiency. Rice statistics need to be credible, transparent, timely, accurate and “grounded”.

## Transcription

11. Non-farm jobs created by a productive agriculture;  
12. A systematic and “truthful” monitoring and evaluation scheme to tell us what happens to household rice security? Will the Philippines achieve beyond rice self-sufficiency? Rice statistics need to be credible, transparent, timely, accurate, and “grounded”.

## Slide 22

Alternative rice future of self-reliance for the country, with the following scenarios

All of these ingredients in our rice future are in different stages of happening; awaiting a full realization when finally, nobody goes to bed hungry!

Free trade or no free trade, we “need to do our homework” but we should actively “participate in the world discussions about creating a world rice reserve”

## Transcription

All of these ingredients in our rice future are in different stages of happening awaiting a full realization when finally nobody goes to bed hungry. If the vision of the Philippine rice future is one of no more importation, is tariffication still relevant? At any rate, free trade or no free trade, we need to do our homework. And PhilRice needs to do, even if, a bigger homework. But we should actively participate in the world discussion about creating world rice reserve.



It is possible to attain self-sufficiency if the industry is already competitive. To do this, tariff has to be imposed first to remove the market distortions resulting from QR.

Moreover, it is important to focus not only on the production but also on the marketing side of the industry. The country cannot be competitive domestically or internationally unless the industry has balanced improvements in both production and marketing systems.

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# APPENDICES

## Appendix A. Program of Activities

### Seminar Proper

#### MORNING

8:30-9:00 Registration

9:01-9:30 Opening Program

Invocation

Ms. Aileen C. Litonjua

National Anthem

Video Presentation

Welcome Remarks

Eduardo Jimmy P. Quilang, Ph.D.

Acting Deputy Executive Director for  
Development, PhilRice

9:31-10:15 Background on the Philippine Rice Trade Policies  
Speaker: Ma. Eden S. Padiozo, Ph.D., UP Los Banos  
Discussant: Minda C. Mangabat, Ph.D., BAS

10:16-10:30 Open Forum

10:31-10:35 Awarding of tokens and certificates for presenters and discussants

10:36-10:45 Coffee Break

10:46- 11:30 Implications of 2005 Extension of the Quantitative Restrictions on  
the Rice Industry  
Speaker: Ramon L. Clarete, Ph.D., UP Diliman  
Discussant: Cristina C. David, Ph. D. IRRI

11:31-11:45 Open Forum

11:46-11:50 Awarding of tokens and certificates for presenters and discussants

11:51-1:00 LUNCH

#### AFTERNOON

1:01-1:30 Launching of the National Year of Rice (NYR)  
Eduardo Jimmy P. Quilang, Ph.D.  
Acting Deputy Executive Director for Development, PhilRice

1:31-2:15 Competitiveness of Philippine Rice Industry vis-à-vis SEA Nations  
Speaker: David C. Dawe, Ph.D., FAO  
Discussant: Mercedita A. Sombilla, Ph.D, NEDA

2:16-2:30	Open Forum	
2:31-2:35	Awarding of tokens and certificates for presenters and discussants	
2:36-3:15	Advantages and Disadvantages of Tariffication Speaker: Roehlano M. Briones, Ph.D., PIDS Discussant: Sergio R. Francisco, Ph.D., PhilRice	
3:16-3:30	Open Forum	
3:31-3:35	Awarding of tokens and certificates for presenters and discussants	
3:36-3:45	Coffee Break	
3:46-4:30	Future Directions of Philippine Rice Trade Speaker: Flordeliza H. Bordey, Ph.D., PhilRice Discussant: Gelia T. Castillo, Ph.D., IRRI	
4:31-4:45	Open Forum	
4:46-4:50	Awarding of tokens and certificates for presenters and discussants	
4:51-5:00	Closing Program Closing Remarks	Manuel Jose C. Regalado, Ph.D. Acting Deputy Executive Director for Research, PhilRice

Masters of Ceremonies

Ms. Rhemilyn Z. Relado and Dr. Irene R. Tanzo

Moderators of Open Forums

Dr. Cheryll C. Launio and Dr. Jesusa C. Beltran

## Appendix B. List of Participants

### Government

Mangabat, Minda	BAS
Erfe, Guadalupe	BAS
Castro, Carolyn	DA-ASEC for Policy Planning
Manipon, Leonisa	DA-ASEC for Policy Planning
Dawe, David	FAO
David, Cristina	IRRI
Moya, Piedad	IRRI
Tolentino, V. Bruce	IRRI
Barker, Randy	IRRI
Calivoso, Ethel	NAFC
Namia, Elgie	NAFC
Olgado, Sesonando	NAFC
Royandoyan, Romeo	NAFC
Sombilla, Mercedita	NEDA
Delos Reyes, Eloisa	NFA
Fernandez, Ma. Dolores	NFA
Briones, Roehlano	PIDS
Navata, Paolo	Senate Economic Planning Office
Turingan, Peter	Senate Economic Planning Office

### State Colleges and Universities

Calrete, Ramon	UP Diliman
Olivares, Resi	UP Diliman
Piadozo, Ma. Eden	UPLB

### PhilRice

Borja, Sophia	Admin
Malabanan, Necitas	Admin
Abrogena, Nida	Batac
Bongat, Fe	Batac
Catudan, Bethzaida	Batac
Martin, Edwin	CPD
Santiago, Gilely	CPD
Layaoen, Myriam	DevComm
Razon, Shereen	DevComm
Saclangan, Dan	GRD
Perez, Loida	GRD
De Dios, Jovino	ISD
Aguilar, Ferdinand	Los Baños
Ocampo, Jacqueline Lee	Los Baños

Escabarte Jr., Rodolfo	Midsayap
Javier, Leo	Negros
Libetario, Edgar	Negros
Quilang, Eduardo Jimmy	OEDD
Regalado, Manuel Jose	OEDR
Castillo, Gelia	PhilRice-BOT
Co, Herculano	PhilRice-BOT
Mendoza, Teodoro	PhilRice-BOT
Soliven, Ma. Luisa	PhilRice-BOT
Bacani, Senen	PhilRice-BOT
Dela Cruz, Ronaldo	PPFOD
Quimsa, Alejandro	PPFOD
Santos, Gil John	PPFOD
Ladringan, Simeon	PPFOD
Austria, Chona	SED
Beltran, Jesusa	SED
Bordey, Flordeliza	SED
Francisco, Sergie	SED
Gullen, Reinalyn	SED
Labay, Anna Liza	SED
Lamson, Florencio	SED
Launio, Cheryll	SED
Litonjua, Aileen	SED
Lopez, Myra Rebelyn	SED
Malasa, Ronell	SED
Manalili, Rowena	SED
Mataia, Alice	SED
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DEPARTMENT OF AGRICULTURE



Philippine Rice Research Institute (PhilRice) is a government corporate entity attached to the Department of Agriculture created through Executive Order 1061 on 5 November 1985 (as amended) to help develop high-yielding and cost-reducing technologies so farmers can produce enough rice for all Filipinos.

The Institute accomplishes this mission through research and development work in our central and six branch stations, coordinating within a network that comprises 57 agencies and 70 seed centers strategically located nationwide.

As proof of the Institute's quality of service, PhilRice received the following certifications: ISO 9001:2008 (Quality Management), ISO 14001:2004 (Environmental Management), and OHSAS 18001:2007 (Occupational Health and Safety Assessment Series).

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