

# **Rice Price Instability: Impact on Agrifood Chains with Indonesian Perspective**



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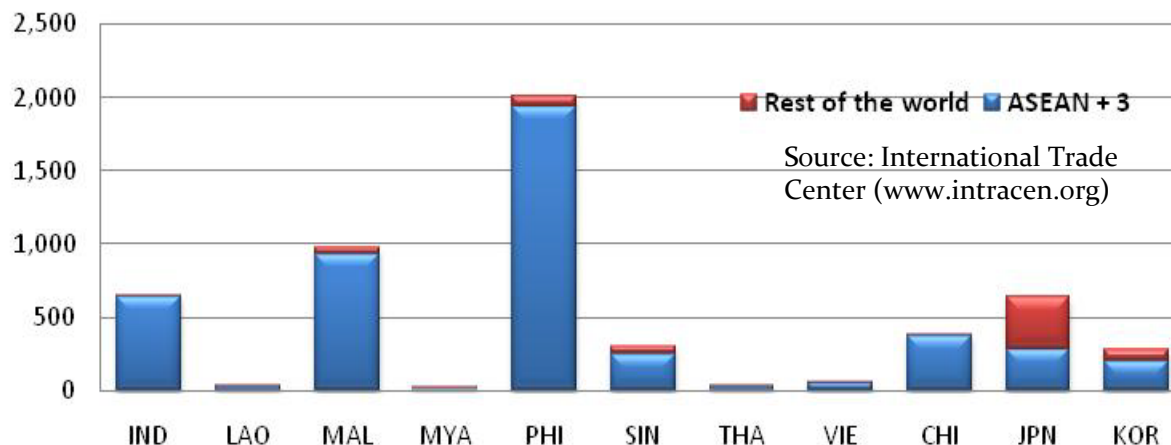




# Rice is Strategic Commodity

- **Staple food** (rural and urban poor) and **livelihood** of large number of small farmers
- **Political commodity** – price regulations, subsidies, rents and corruption
- **Thin trade**, dominated by G-G, parastatals
- **Volatile price**, triggers protective trade policies, further aggravate price shocks

Rice import ('000mt), 2005-09 annual average





# Rice and Food Security

- Food security in Asia has traditionally focused on rice—its production, marketing, and consumption.
- But rapid economic growth in the region and its accompanying structural transformation are redefining the needs of Asia. Statistics show that **the share of rice in Asian economies as well as household food consumption is declining very rapidly**
- The total size of rice demand nevertheless still remains important, because **rice remains the largest single source of calories** for a significant majority of consumers who are poor.
- **Rice production, however, faces serious challenges, and is likely to be more unstable in the future.**
- An international collaboration to build rice reserves would be very strategic means to stabilize rice prices on global rice markets.



# Changing Role of Rice in Asian Food Consumption

Year	Total Calories	Calories from Rice	Rice as % of Total
1961	1,805	656	36.3
1970	2,069	790	38.2
1980	2,200	797	36.2
1990	2,443	848	34.7
2000	2,606	803	30.8
2007	2,668	783	29.3
	Average Annual	% Increase/(Decrease)	
1961–1970	1.53	2.09	0.57
1961–1990	1.05	0.89	(0.25)
1970–2007	0.69	(0.03)	(0.71)
1990–2007	0.52	(0.47)	(1.00)

Declining Trend

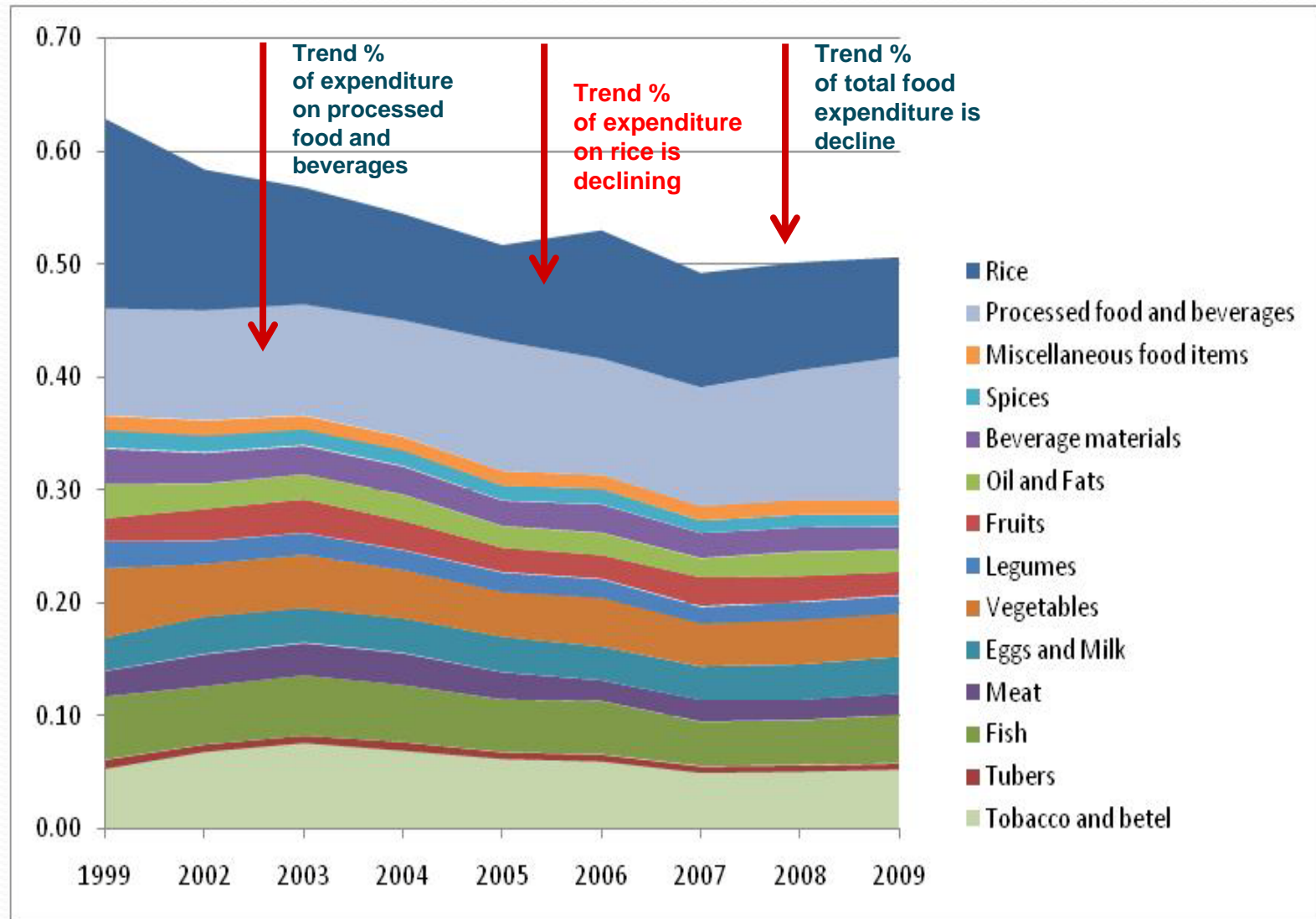
Higher than Asian Average

<i>Indonesia</i>	Total Calories	Calories from Rice	Rice as % of Total
1961	1,743	826	47.4
1970	1,882	1,032	54.8
1980	2,220	1,245	56.1
1990	2,356	1,301	55.2
2000	2,498	1,305	52.2
2007	2,538	1,238	48.8

Declining Trend



# Consumer Expenditure on Food in Indonesia 1999-2009





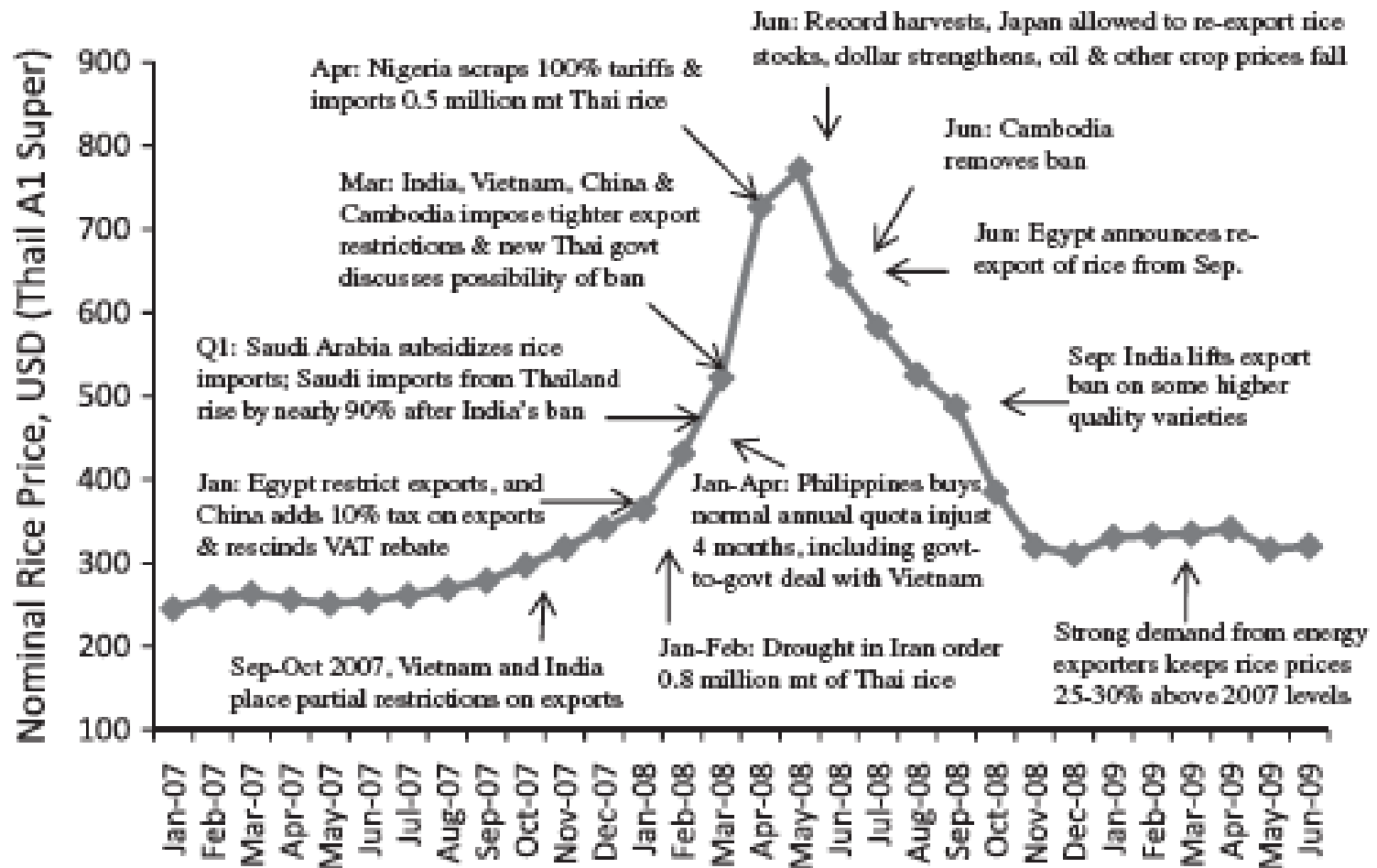


# Food Security and Food Crises 2007-2008

- Food security in Asia has traditionally been defined as having stable prices for rice in the major urban markets of a country
- The world market was used as an instrument to defend this goal, with imports and exports controlled by government authorities tasked to defend stable prices (Timmer, 1996)
- The food crisis of 2007–2008 caught most of the countries in Asia unprepared for a sudden spike in food prices, especially the price of rice
- The panicked response of both rice importing and exporting countries is testimony to the continued political importance of rice



# Trade Shocks and 2008 Rice Crisis





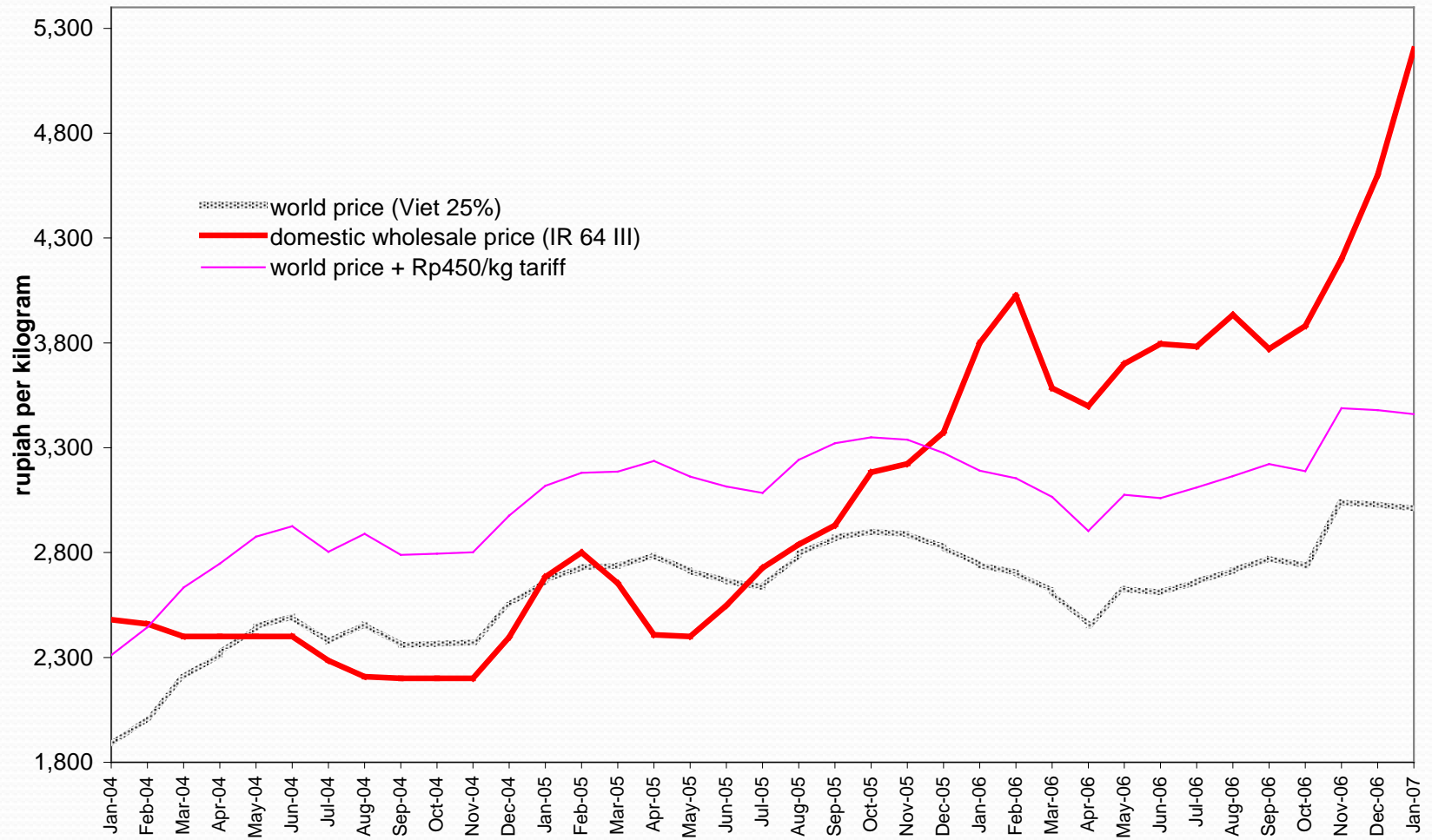
# Rice Trade Shocks

Country/region	Export/import volumes (millions mt):			Percentage change (%)
	2006/07	2007/08	Change	
Total rice trade	31.44	31.19		
<i>Major exporters</i>				
India	5.74	4.65	-1.09	-18.9
Vietnam <sup>a</sup>	4.07	3.11	-0.96	-23.6
China	1.34	0.96	-0.37	-27.7
Egypt	1.20	0.75	-0.45	-37.7
Sum: supply shocks	12.35	9.48	-2.87	-23.2
<i>Major importers</i>				
Energy exporters <sup>b</sup>	5.43	6.43	1.04	19.2
Philippines	1.82	2.57	0.77	42.8
Bangladesh	0.76	2.04	1.28	166.2
Sum: demand shocks	7.96	11.05	3.09	38.7
Sum: demand and supply side shocks				
Actual change in world rice prices: July 2007 to June 2008				





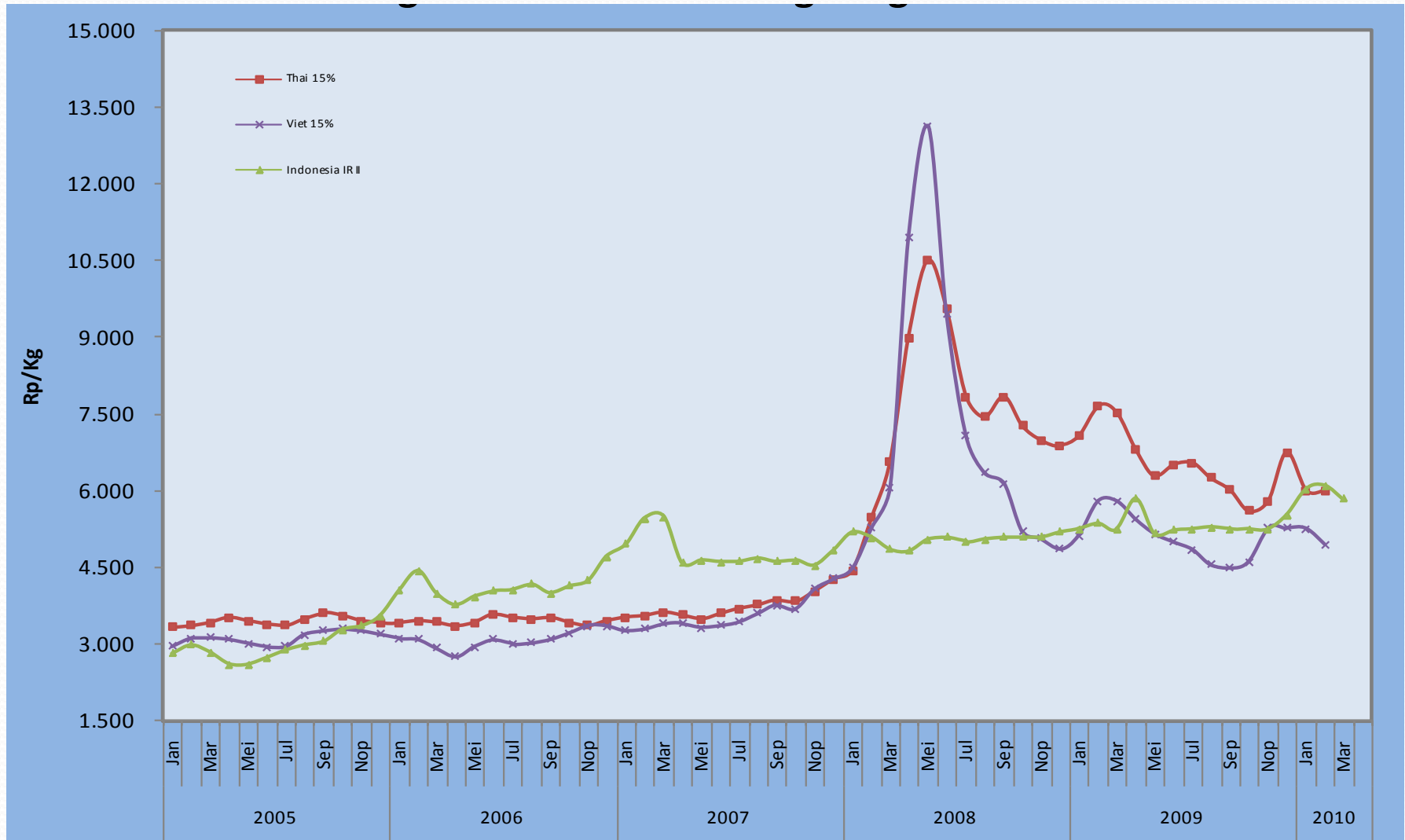
# Indonesian Domestic Price Compare to International Price 2004-2007



Source: World Bank, 2008



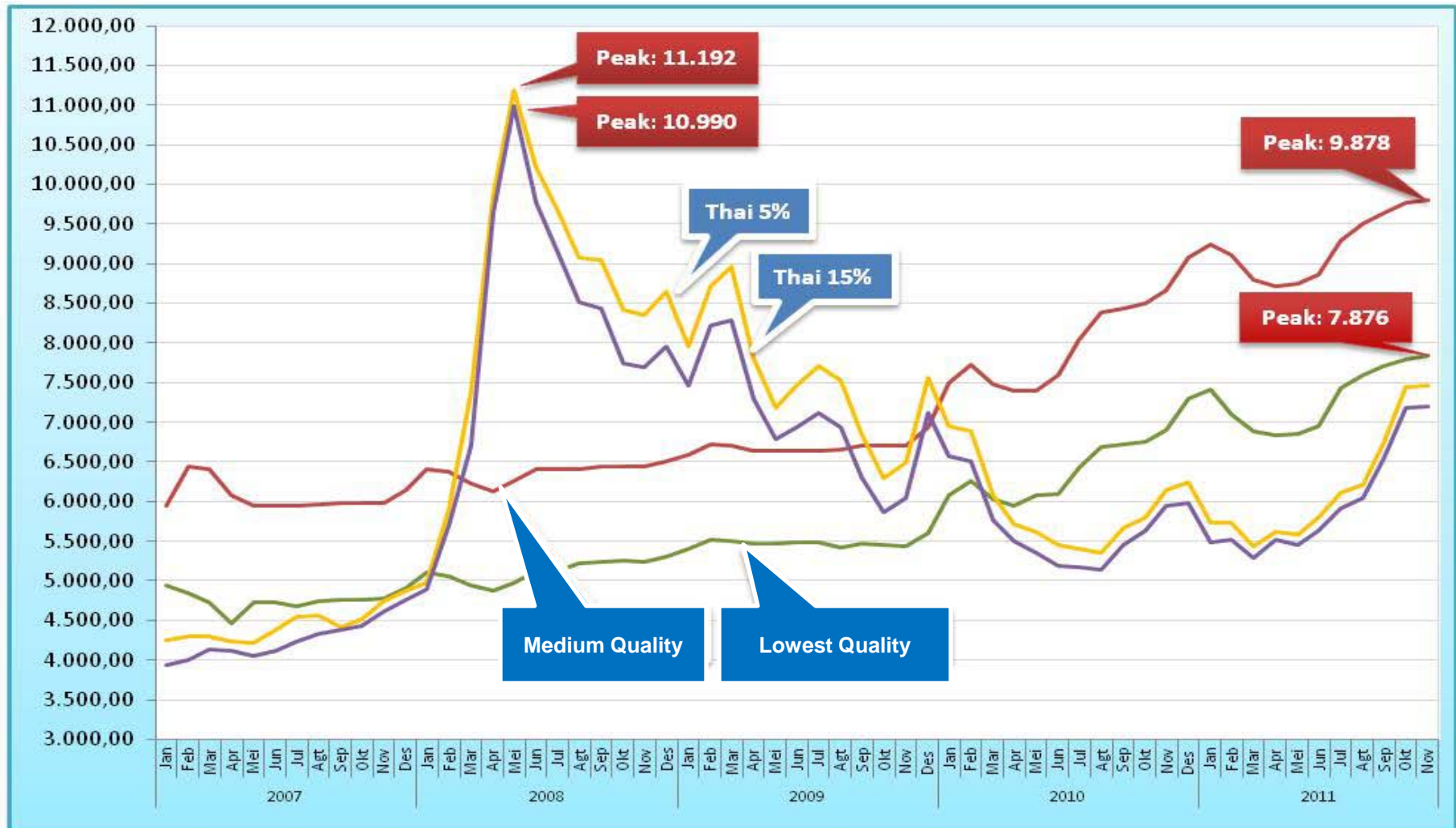
# Indonesian Domestic Price Compare to International Price 2005-2010



Source: Bulog, 2011



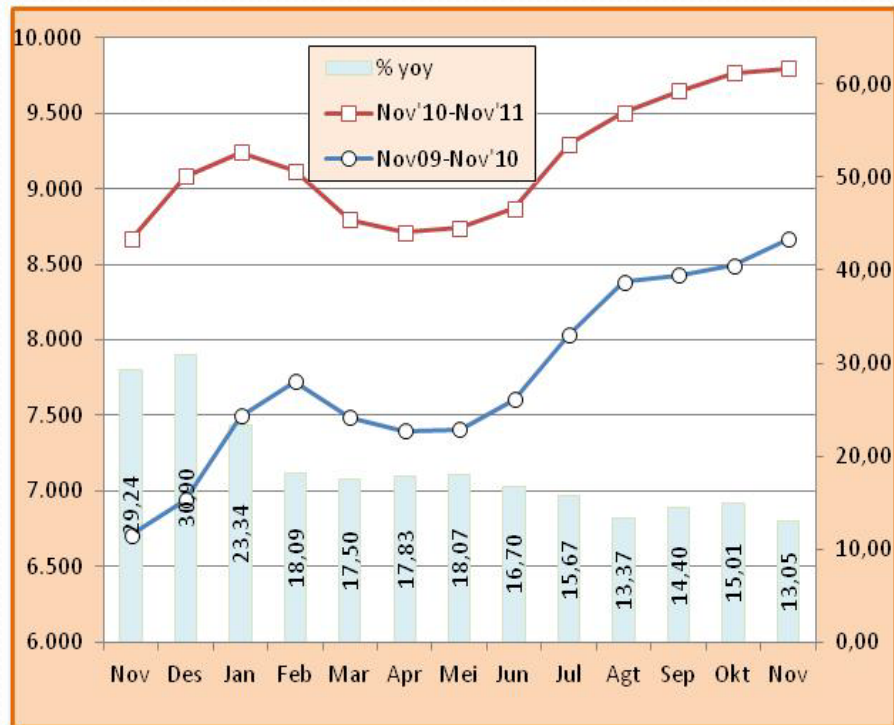
# Indonesian Domestic Price Compare to International Price 2007-2011



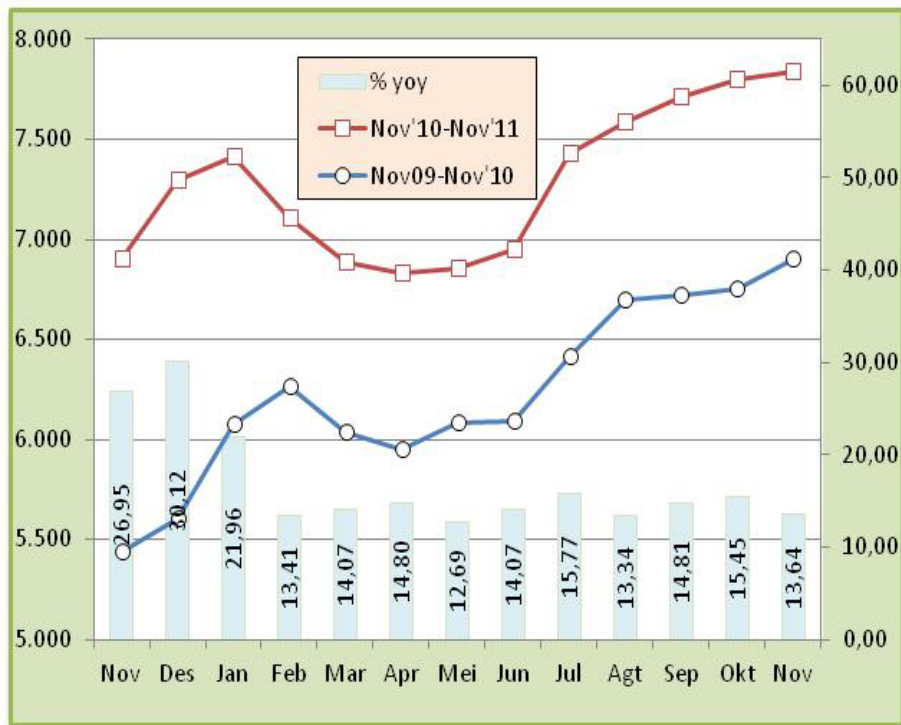


# Domestic Consumer Rice Price (Retail)

Medium Quality



Lowest Quality



- **Medium Quality:** Price of November 2011 vs November 2010 (y-o-y) increased by 13,05%. The increase was lower compare to the increase in November 2010 vs November 2009 as high as 29,24%.
- **Lowest Quality:** Price of November 2011 vs November 2010 increased by 13,64%, the increase was lower compare to the price increase in November 2010 vs November 2009 as high as 26,95% .

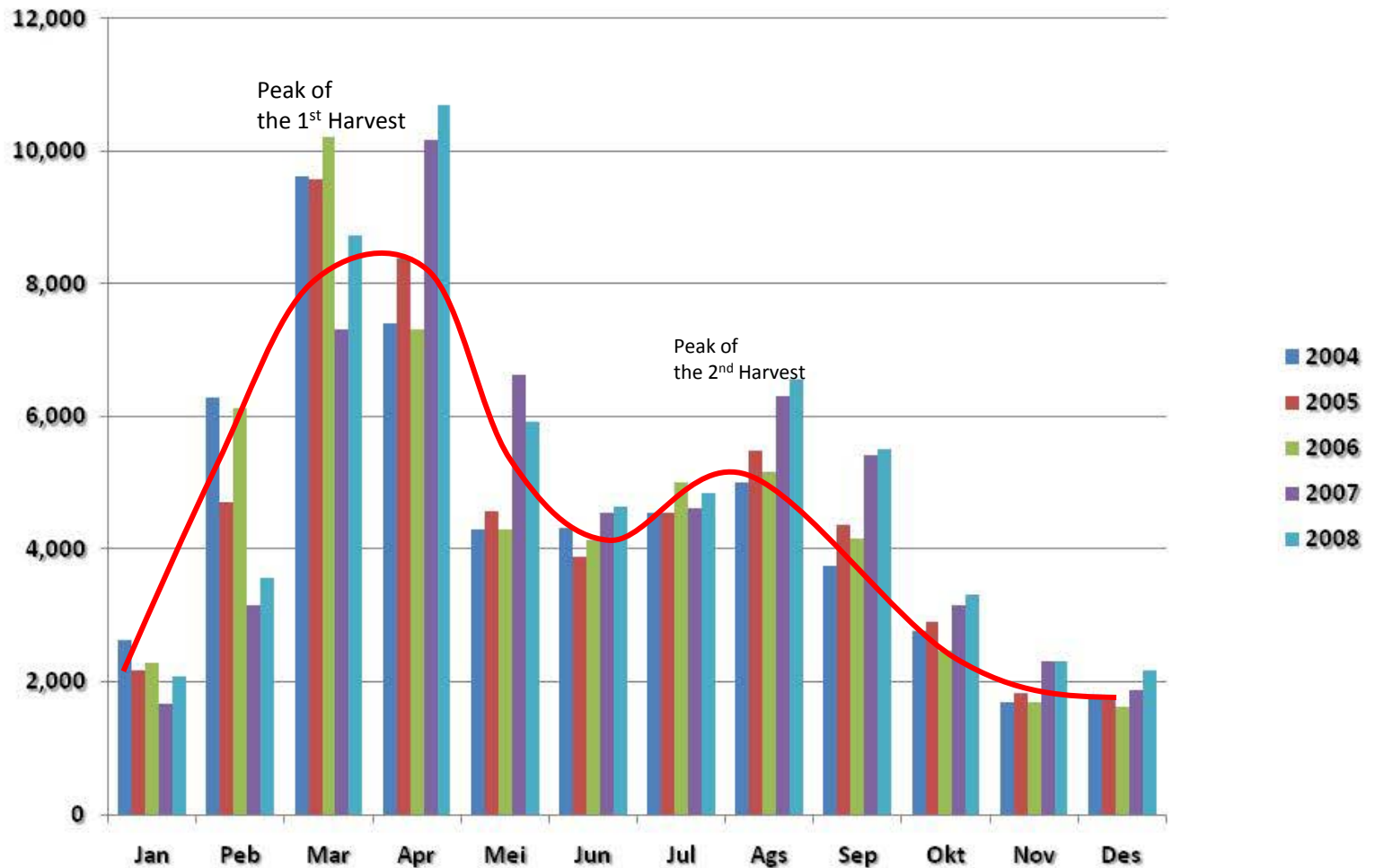


# Rice Production in Indonesia 2000-2009

Year	Area Harvested (000 Ha)			Yield (Ton/Ha)			Production (000 Ton)		
	Java	Outside Java	National	Java	Outside Java	National	Java	Outside Java	National
2000	5,754	6,040	11,794	4.09	2.95	3.52	29,120	22,779	51,899
2001	5,701	5,789	11,490	4.86	3.29	4.08	28,312	22,148	50,461
2002	5,608	5,913	11,521	4.92	3.32	4.12	28,608	22,882	51,490
2003	5,376	6,112	11,488	5.01	3.56	4.28	28,167	23,970	52,138
2004	5,714	6,209	11,923	5.08	3.60	4.34	29,636	24,453	54,088
2005	5,708	6,131	11,839	5.08	3.60	4.34	29,764	24,387	54,151
2006	5,704	6,083	11,786	5.25	3.86	4.56	29,961	24,494	54,455
2007	5,671	6,477	12,148	5.37	4.12	4.75	30,466	26,691	57,157
2008	5,742	6,585	12,327	5.63	4.25	4.94	32,347	27,979	60,326
2009	6,066	6,777	12,843	<b>5.68</b>	<b>4.33</b>	<b>5.01</b>	34,483	29,358	<b>63,840</b>



# Monthly Rice Production in Indonesia 2004-2008





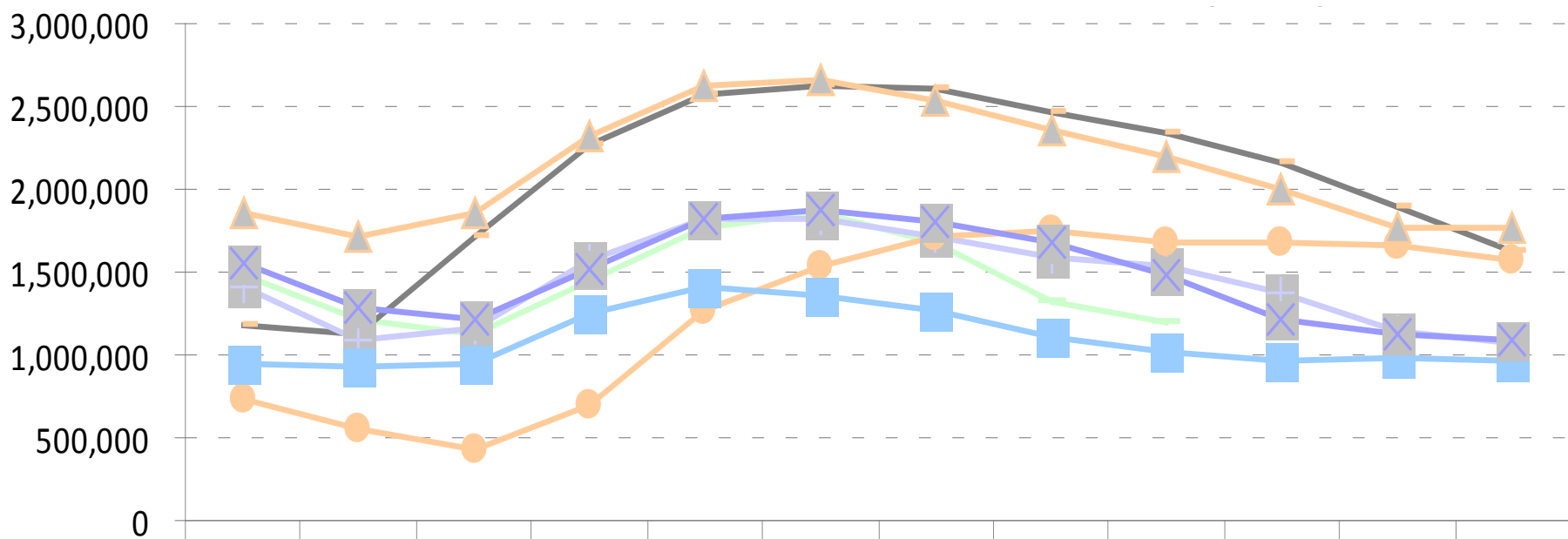


# Policy Support for Rice Farmer in Indonesia

- **Subsidy** on Fertilizer and Seed
- Subsidized **credit program** and other support to farmer group (capital, equipment, etc.)
- Government **procurement price** (HPP) as a standard price for BULOG to buy from farmer during the peak of harvest season. BULOG is given a budget to procure about **7% of the total production**
- Bulog milled and distribute the procured rice at **subsidized price to the poor family**
- Bulog is responsible to conduct **market intervention using available stock** whenever necessary.

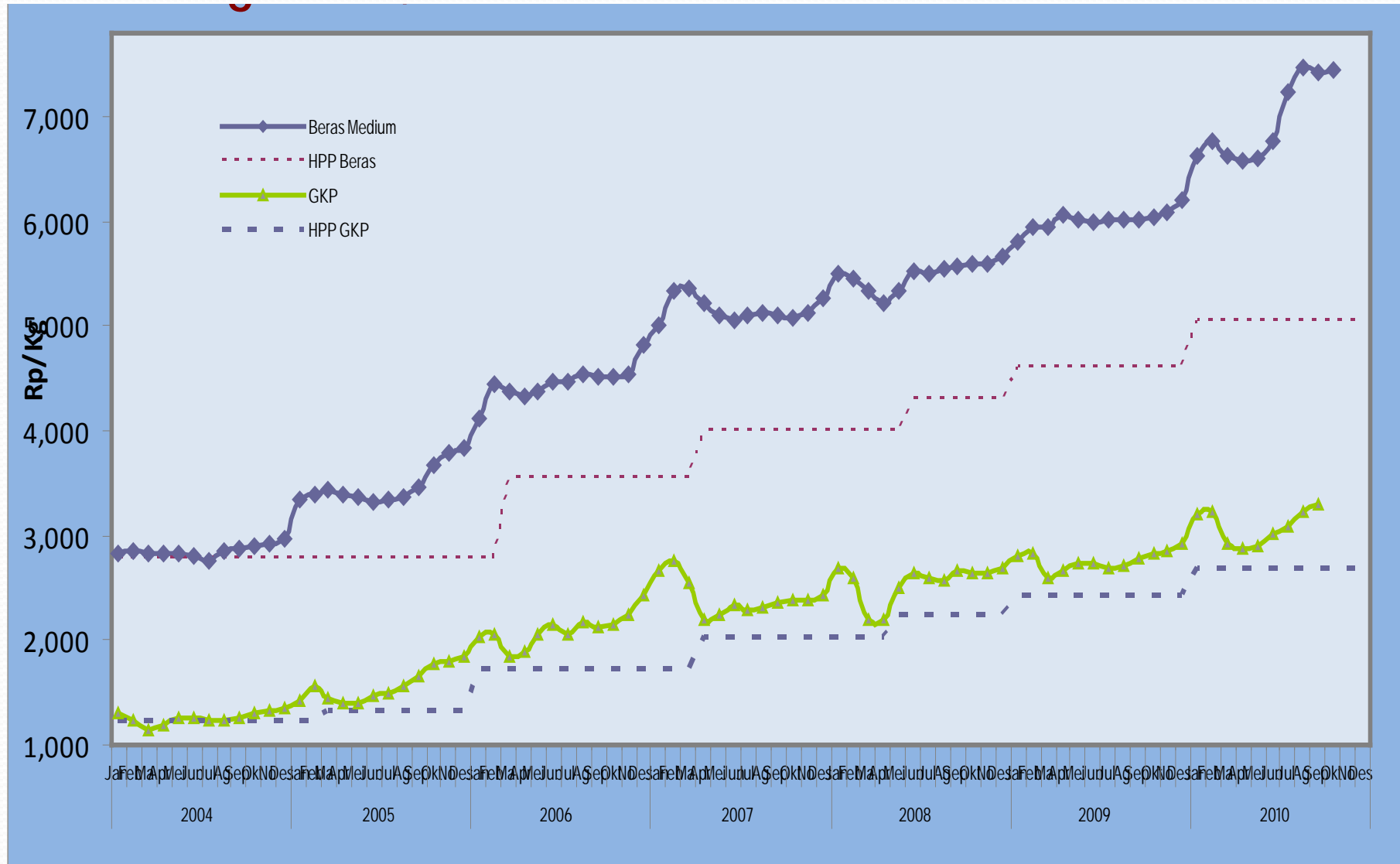


# BULOG Rice Stock 2005-2010 (Ton)



	Jan	Feb	Mar	Apr	Mei	Jun	Jul	Agust	Sep	Okt	Nop	Des
2010	1,485,1	1,214,4	1,131,0	1,451,2	1,768,5	1,853,7	1,680,4	1,320,1	1,195,7			
2009	1,172,4	1,126,3	1,714,3	2,262,3	2,564,9	2,633,8	2,604,4	2,463,2	2,346,8	2,165,1	1,895,0	1,620,8
2008	1,408,3	1,087,7	1,161,0	1,568,6	1,827,3	1,817,1	1,711,8	1,596,7	1,537,6	1,382,0	1,148,6	1,079,8
2007	738,353	554,321	433,952	693,545	1,271,6	1,532,9	1,714,3	1,747,0	1,682,6	1,685,0	1,661,6	1,572,9
2006	943,230	935,827	945,942	1,245,4	1,408,9	1,363,0	1,261,8	1,109,8	1,013,7	958,150	988,614	957,658
2005	1,547,2	1,291,2	1,206,8	1,514,0	1,827,3	1,867,0	1,804,7	1,686,2	1,478,4	1,211,7	1,118,3	1,092,5

# Rice Retail Price, Government Purchase Price, and Farm Gate Price



Source: Bulog, Oktober 2010

NASIONAL			Bengkulu - Bengkulu			LAPORAN HARIAN			Palangkaraya - Kalteng			Makassar - Sulsel		
Harga	Rp	7.713 /kg	Harga	Rp	7.300 /kg	PERKEMBANGAN HARGA <b>BERAS</b>			Harga	Rp	7.500 /kg	Harga	Rp	6.300 /kg
Δ Hari Lalu		0,24 %	Δ Hari Lalu		0,00 %				Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %
Δ MG H:MG H-1		0,24 %	Δ MG H:MG H-1		0,00 %	(MEDIUM KUALITAS II)			Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %
Δ Nov : Okt		1,26 %	Δ Nov : Okt		0,00 %				Δ Nov : Okt		0,00 %	Δ Nov : Okt		3,28 %
Stok 0 ton						PERIODE : TANGGAL 10 NOVEMBER 2011								
Ketersediaan 0 kg														

Banda Aceh - Aceh			Palembang - Sumsel			Semarang - Jateng			Denpasar - Bali			Banjarmasin - Kalsel			Palu - Sulteng		
Harga	Rp	7.600 /kg	Harga	Rp	7.100 /kg	Harga	Rp	7.880 /kg	Harga	Rp	7.750 /kg	Harga	Rp	7.097 /kg	Harga	Rp	7.000 /kg
Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,25 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %
Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,06 %	Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %
Δ Nov : Okt		0,76 %	Δ Nov : Okt		1,02 %	Δ Nov : Okt		0,07 %	Δ Nov : Okt		(0,03) %	Δ Nov : Okt		0,02 %	Δ Nov : Okt		(1,08) %

Medan - Sumut			Padang - Sumbar			Kendari - Sultra		
Harga	Rp	7.800 /kg	Harga	Rp	9.375 /kg	Harga	Rp	6.400 /kg
Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %
Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %
Δ Nov : Okt		0,00 %	Δ Nov : Okt		2,60 %	Δ Nov : Okt		1,62 %

Pekanbaru - Riau			Mamuju - Sulbar			Ambon - Maluku		
Harga	Rp	9.400 /kg	Harga	Rp	7.800 /kg	Harga	Rp	6.500 /kg
Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %
Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %
Δ Nov : Okt		9,79 %	Δ Nov : Okt		2,82 %	Δ Nov : Okt		0,00 %

Tanjung Pinang - Kepri			Bandar Lampung - Lampung			Yogyakarta - DIY			Mataram - NTB			Samarinda - Kaltim			Sofifi - Malut		
Harga	Rp	7.000 /kg	Harga	Rp	8.000 /kg	Harga	Rp	7.530 /kg	Harga	Rp	7.000 /kg	Harga	Rp	8.000 /kg	Harga	Rp	8.500 /kg
Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %
Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,50 %	Δ MG H:MG H-1		2,19 %	Δ MG H:MG H-1		1,27 %	Δ MG H:MG H-1		0,00 %
Δ Nov : Okt		0,00 %	Δ Nov : Okt		1,82 %	Δ Nov : Okt		(1,05) %	Δ Nov : Okt		2,77 %	Δ Nov : Okt		2,05 %	Δ Nov : Okt		0,00 %

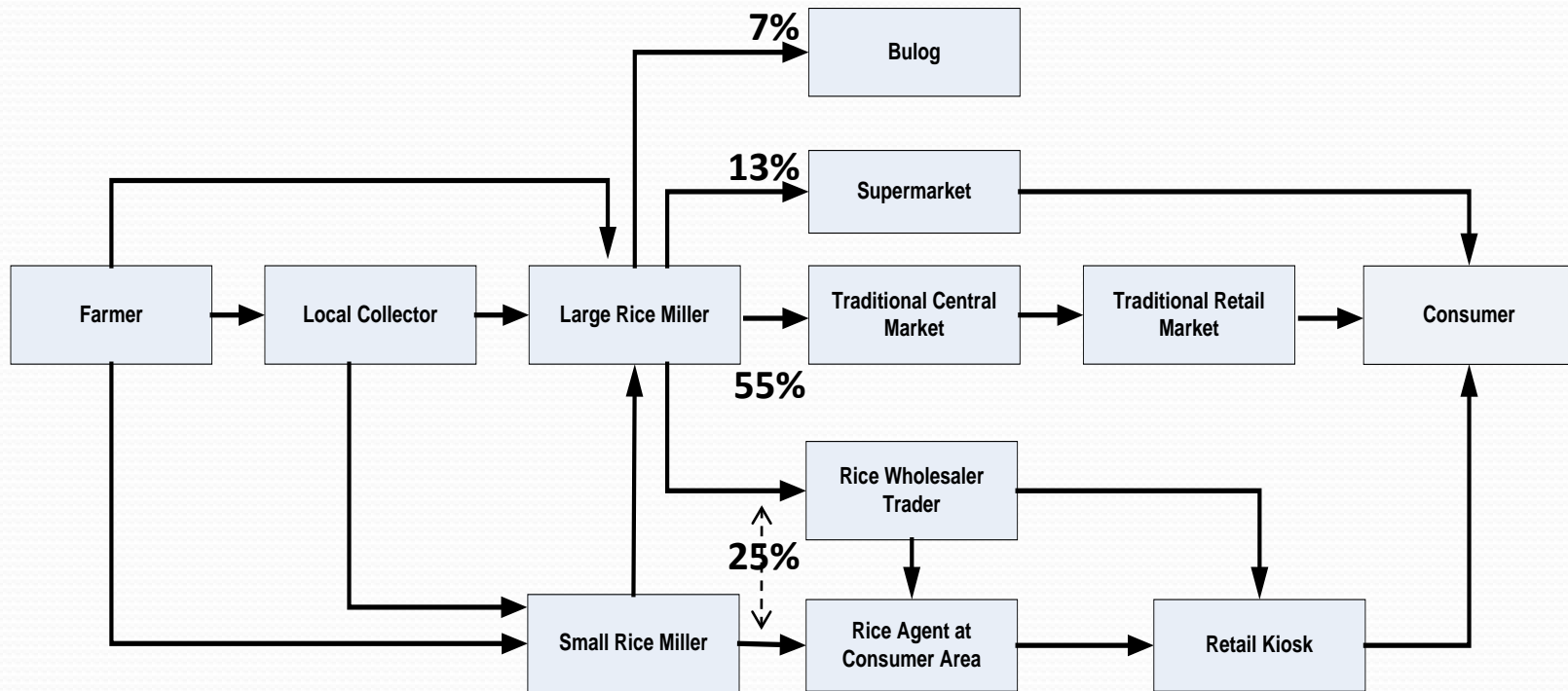
Jambi - Jambi			Jakarta - DKI Jakarta			Surabaya - Jatim			Kupang - NTT			Gorontalo - Gorontalo			Jayapura - Papua		
Harga	Rp	8.900 /kg	Harga	Rp	7.900 /kg	Harga	Rp	7.520 /kg	Harga	Rp	6.700 /kg	Harga	Rp	6.000 /kg	Harga	Rp	8.000 /kg
Δ Hari Lalu		0,00 %	Δ Hari Lalu		1,28 %	Δ Hari Lalu		(0,27) %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %
Δ MG H:MG H-1		0,57 %	Δ MG H:MG H-1		1,30 %	Δ MG H:MG H-1		0,54 %	Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %
Δ Nov : Okt		2,73 %	Δ Nov : Okt		3,46 %	Δ Nov : Okt		(2,55) %	Δ Nov : Okt		0,18 %	Δ Nov : Okt		3,70 %	Δ Nov : Okt		6,33 %

Pangkalpinang - Babel			Bandung - Jabar			Serang - Banten			Pontianak - Kalbar			Manado - Sulut			Manokwari - Papua Barat		
Harga	Rp	9.000 /kg	Harga	Rp	7.440 /kg	Harga	Rp	7.303 /kg	Harga	Rp	8.425 /kg	Harga	Rp	7.500 /kg	Harga	Rp	11.000 /kg
Δ Hari Lalu		5,88 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %	Δ Hari Lalu		0,00 %
Δ MG H:MG H-1		1,47 %	Δ MG H:MG H-1		0,20 %	Δ MG H:MG H-1		(0,34) %	Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %	Δ MG H:MG H-1		0,00 %
Δ Nov : Okt		0,74 %	Δ Nov : Okt		0,22 %	Δ Nov : Okt		0,48 %	Δ Nov : Okt		(0,21) %	Δ Nov : Okt		0,00 %	Δ Nov : Okt		0,00 %





# Rice Value Chain in Indonesia



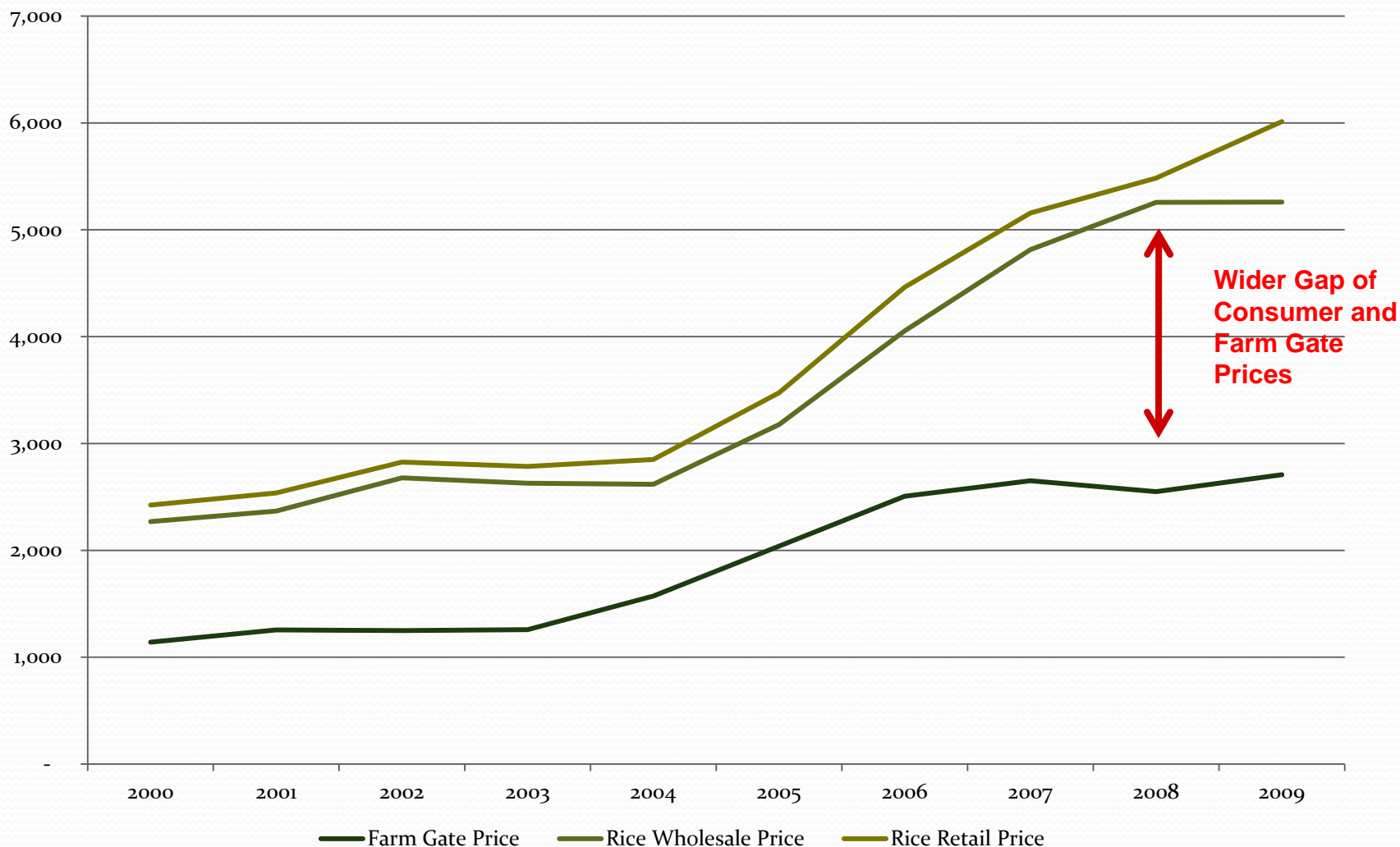


# Respond of the Chain Actors

- When price increase by 10%, traders/millers tend to increase their rice holding by 14%
- The speculation will increase when there is great uncertainty in the policy (whether to import or not)
- Price fluctuation is greater at the traditional market chain compare to the modern/premium chain
- Modern Retail developed “home brand” with a price 10%-20% lower then a major brand, including on staple food (rice, sugar, flour, etc)
- Home brand line developed by major Modern Retail with incentives faster payment and no rebate to the supplier.

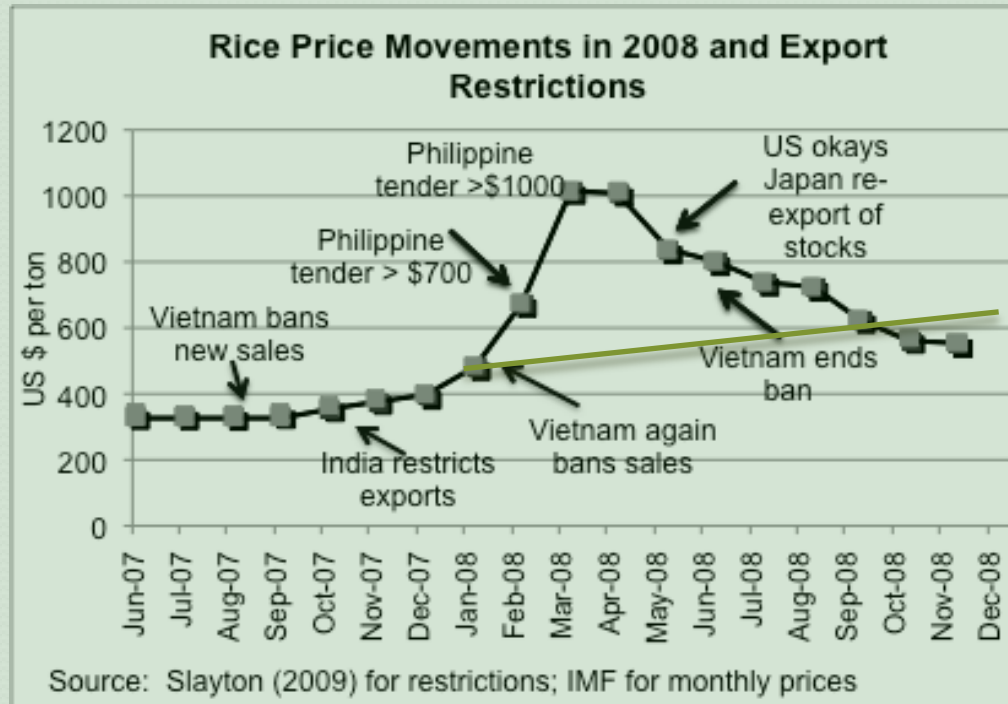


# Domestic Farm Gate, Wholesale, and Retail Price 2000-2009





# Possible Mitigating influence of Accurate Market Information



- If information was more accurate and widely disseminated, the crisis may have been mitigated.
- The rice market in 2008 could have settled at the \$600 per ton level.
- There would have been adjustments but the world could have saved more resources.





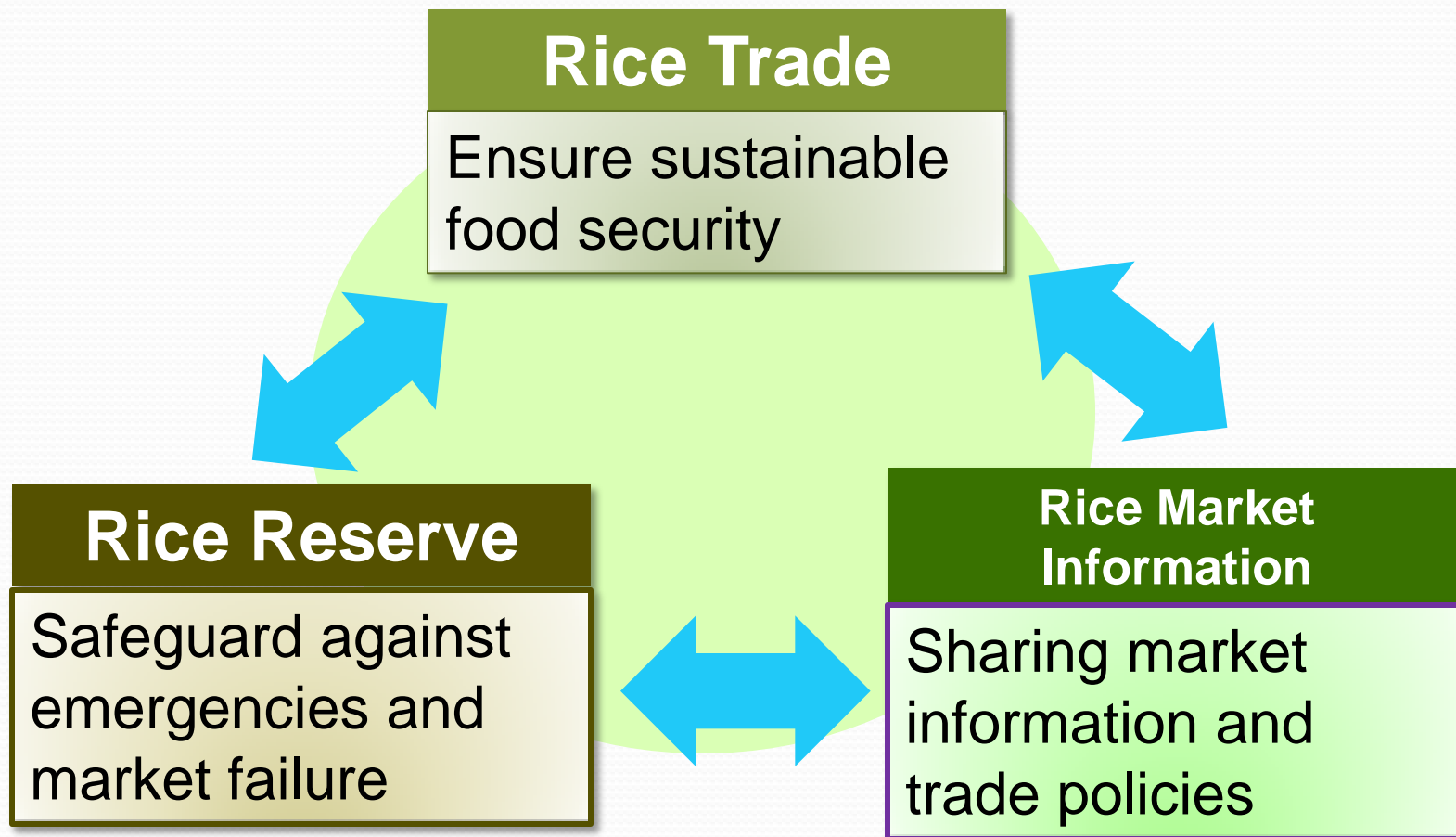
# Regional Respond: Key elements of ASEAN Integrated Food Security Framework (AIFS)

## Strategic Plan of Actions (agreed and approved)

- 1 **Reserve**: strengthen food security arrangement by establishing the ASEAN Plus Three Emergency Rice Reserve
- 2 **Trade**: promote conducive food market and trade by implementing the ASEAN Trade in Goods Agreement (ATIGA) in food products
- 3 **Information**: strengthen food security information by reinforcing ASEAN Food Security Information System
- 4 **Production enhancement**: knowledge and technology, climate change adaptation



# Three components of ASEAN Integrated Food Security Framework (AIFS)





# APTERR is the ASEAN Plus Three Emergency Rice Reserves

- It refers to stocks of rice that are set aside to meet food emergencies within the ASEAN Plus Three countries. Also known as *emergency rice stocks* or *emergency stocks*.
- APTERR is needed to address threats to food security in the ASEAN Plus Three.
  - Disasters can threaten food supplies at a local and even national level.
  - Aside from disasters, events of 2008 onwards show that extreme market volatility can cause a food crisis.



# APTERR is the ASEAN Plus Three Emergency Rice Reserves

- There are two types of reserves in the APTERR:
  - Earmarked emergency rice reserves (*earmarked rice reserves, or earmarked stocks*)
  - Stockpiled emergency rice reserves  
(Only rice fit for human consumption, based on international standards, can be included in the APTERR)
- ***Earmarked emergency rice reserves*** are specific quantities of milled rice owned or controlled by the member countries, but are pledged for the exclusive use of APTERR.
  - The pledge is a permanent commitment of the earmarking country. If released for emergency purpose, the earmarking country shall replenish the earmarked reserve to the original level (within a reasonable time frame).
- ***Stockpiled emergency rice reserves*** are stocks of rice or funds for the purchase of rice, that have been donated to the APTERR. Also called *stockpiled rice* (if in physical stocks) or *stockpiled cash* (if in cash).
  - Unlike earmarked emergency rice reserves, stockpiled emergency rice reserves are given as a voluntary one-time donation.
  - Ordinarily the donation is made by a member country. APTERR may also accept donations from other sources.



# ASEAN+3 Emergency Rice Reserve (APTERR)

## EAERR Delivery (2004-)

Cambodia	434 t
Indonesia	286 t
Lao PDR	20 t
Myanmar	320t
Philippines	1,445 t



## Commitment

ASEAN	87,000 t
Japan	250,000 t
Korea	150,000 t
PRC	300,000 t
Total	787,000 t



# What situations qualify for a release from APTERR?

- An emergency is: *the state or condition in which an APTERR member country, due to extreme and unexpected calamity, is unable to cope with the state or condition through its national reserve and is unable to procure the needed supply of rice through normal trade*
- APTERR can address rice shortfalls due to:
  - large-scale emergencies that threaten food availability at the national level.
  - localized emergencies that threaten accessibility of food for affected households.