

## Measuring the Impact of Rising RP Food Prices on the Poor

*Rising food prices in the Philippines are driving more Filipinos into poverty. These are also leading to the further decline in the standard of living of poor Filipinos. Such were the key points of economist Hyun H. Son of the Asian Development Bank in her paper measuring the impact of rising food prices on poverty. To mitigate these adverse effects, she suggested that government policies should be directed toward stabilizing food prices. Meanwhile, she cautioned policymakers of opting to use monetary policy as this may not be an effective tool to combat rising inflation. Such policies may push the economy into recession, which will hurt the poor even more.*

Estimating the effects of food price changes on the country's poverty situation is of paramount importance. This key issue which has drawn much of government's attention, was discussed last May 29, 2008 at the House of Representatives by Ms. Hyun H. Son of the Asian Development Bank.

In her paper entitled *Has Inflation Hurt the Poor? Regional Analysis in the Philippines*, Son analyzed the impact of higher food prices on the average standard of living and on poverty. She showed the dominating effect of rising food prices on poverty over the period 2003-2006. During the period, the severity of poverty rose by 16.8% while the standard of living declined by about 1%. The decline in the standard of living due to food price increases was particularly greater for the poorest of the poor. Households struggling to meet the minimum standards of living might have no choice but to cut expenses on health and children's education.

Son's study concluded the following: a) a 10% increase in food prices will lead to an additional 2.3 million poor people in the Philippines, b) a 10% increase in non-food prices will result in an additional 1.7 million poor people, c) a 10% increase in rice prices will lead to an additional 0.66 million poor people, and d) a 10% increase in fuel prices will result in an additional 0.16 million poor people.

### ***Rising Food Prices***

In 2000-01, the increase in food prices contributed to the inflation rate by 25.3%. In later periods, the contribution of food to total inflation has been increasing rapidly. In 2007-2008, the food prices increase accounted for almost 62% of the total inflation.

This observation has important effects to the welfare of the poor. Based on the Family and Income Expenditure Survey (2003), the poor allocate almost 60% of their expenditures on food while the same proportion of total expenditure is spent on nonfood among the nonpoor. While the poor allocate more than 18% of their total expenditure solely on purchasing rice, almost 14% of the total expenditure of the nonpoor is spent on rentals. Generally, poor households spend a greater proportion of their expenditure on food commodities than the nonpoor. This reflects different consumption patterns between the poor and non poor.

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In the case of rice, domestic prices began to increase at an annual rate of more than 2% since 2003-04. The rice inflation rate escalated to 22.9% between 2007 and March 2008. The hike in the price of rice has overtaken those of the basic commodities except fuel. In addition, the price increase in rice has been sharper for some regions in the first quarter of 2008. For instance, the Bicol region and the National Capital Region have experienced an average increase in the price of rice by 38.6% and 36.8%, respectively.

### **An Inflation Rate For the Poor**

The official inflation rate is usually estimated based on the Laspeyres price index, which uses the average budget shares of goods in the consumer's basket as weights. However, this index is completely insensitive to the distributional impact of price

***“The contribution of food price increase(s) to total inflation has been increasing rapidly, accounting for almost 62% from 2007 to 2008.”***

changes as it uses weights that commonly reflect the consumption patterns of the average population.

Hence, an alternative price index using weights that reflect the consumption patterns of the poor is needed. The new price index for the poor (PIP) is made based on weights relevant to any poverty measure. This will provide a direct relationship between the PIP and the changes in poverty: the higher the index is, the greater the increase in poverty. The PIP will be useful in assessing whether price changes hurt the poor relatively more (or less) than the nonpoor when measured against the commonly used Laspeyres price index.

**Table 1. Annual Inflation Rates for the Philippines**

Period	Inflation Rate (based on Laspeyres Index)	Inflation Rate faced by the Poor		
		PIP Headcount	PIP Poverty Gap	PIP Severity
2000-01	7.8	6.5	6.3	6.2
2001-02	2.7	2.6	2.7	2.7
2002-03	3.3	3.0	2.9	2.9
2003-04	5.6	5.6	5.7	5.8
2004-05	7.2	7.1	7.1	7.1
2005-06	5.9	5.9	6.1	6.2
2006-07	2.6	3.0	3.2	3.3
2007-08	15.6	20.0	20.7	21.1

Source: Son, 2008

**Table 2. Percentage Contribution of Food to Total Inflation Rate for the Philippines.**

Period	Laspeyres Index	Price Index for the Poor		
		Headcount	Poverty Gap	Severity
2000-01	25.3	37.6	38.9	39.4
2001-02	33.3	55.6	59.7	61.4
2002-03	28.7	42.0	45.2	47.0
2003-04	48.1	63.2	66.2	67.7
2004-05	38.9	58.6	62.5	64.1
2005-06	40.9	56.9	60.3	61.9
2006-07	51.9	67.0	70.6	72.1
2007-08	51.9	71.4	73.6	74.5

Source: Son, 2008

The inflation rate resulting from the PIP is referred to by Son as the inflation rate faced by the poor. *Table 1* shows that the inflation rate faced by the poor— particularly the ultra poor — has been higher than the official rate since 2005. In earlier periods, the official inflation rate had been higher than the inflation rate faced by the poor.

According to Son, if the inflation rate measured by the Laspeyres index is higher than that obtained by the PIP, the prices of luxury goods consumed mainly by the nonpoor have risen at a rate faster than those consumed mainly by the poor. From 2000 to 2005, the changes in relative prices of commodities have affected the rich relatively more than the poor. However, in 2007 to 2008, prices have hurt the poor greater than the nonpoor. In 2007-08, the contribution of food to the PIP using the severity of poverty measure accounts for 75% of the total inflation (*Table 2*).

### ***Impact of Price Increases on Average Standard of Living and Poverty***

The impact of the increases in various commodity prices is obtained by determining the price elasticity of the average standard of living and of poverty with respect to the prices of different

commodities. Based upon Son's calculations, the price elasticity of the average standard of living suggests that a 10% increase in food prices will result in a decrease in average standard of living by 4.2%. Moreover, a 10% increase in nonfood prices will result to a 5.8% decline in the average standard of living in the Philippines.

The impact of an increase in food prices on poverty is much larger. A 10% increase in food prices contributes to more than 11% increase in the headcount ratio. The impact on severity of poverty is over 20% given that the severity of poverty gives more weight to the poor who live far below the poverty line.

From 2007 to March 2008, the increase in rice prices by 22.9% would lead to a decline in average standard of living by only 1.8%. However, the impact of the increase in rice prices on poverty is much greater. The price elasticity of the severity of poverty is 0.62, which means that the 22.9% increase in rice price translates to an increase of the severity of poverty by 14.2%. According to Son, this indicates that the ultra poor are hit the hardest by the rising rice prices.

Using the price elasticity for the headcount ratio to predict the additional number of people who would be forced into poverty, Son's results suggest that a 10% increase in food prices and nonfood prices will lead to an additional 2.3 million and 1.7 million poor people, respectively.

Son calculated that from 2007 to the present year, the increase in food prices contributed to a reduction in the average standard of living by 9.45%. There was a higher impact on poverty with the severity of poverty rising by more than 50% during the same period. Son's estimates have suggested that food price increases have a tremendous effect on poverty. The poor, especially the ultra poor, have suffered a large decline in their real incomes, resulting in a higher incidence of poverty.

Food price increases are largely behind the impact of price on the average standard of living and on poverty during recent years. The 9.45% decline in the average standard of living during the first

quarter of 2008 was due entirely to food price increases. Likewise, the 50.2% increase in the severity of poverty for the same period was due to the same.

**Table 3. Price Elasticity of Poverty by Commodity in the Philippines**

Price Elasticity with Respect to					
Expenditure Item	Average Standard of Living	Headcount	Poverty Gap Ratio	Severity of Poverty	Additional Number of Poor Due to 10% Increase in Price (in millions)
Rice	-0.08	0.32	0.51	0.62	0.66
Corn	-0.01	0.06	0.15	0.24	0.11
Rentals	-0.13	0.16	0.21	0.24	0.34
Fuel	-0.02	0.08	0.13	0.16	0.16
Food	-0.42	1.10	1.66	2.04	2.30
Nonfood	-0.58	0.82	1.08	1.25	1.70

Source: Son, 2008

Overall, the price increases have resulted to a lower standard of living and higher poverty in the country. Immediate and appropriate government policy actions are required to address this situation.

### Conclusion

Son has clearly emphasized that the rising food price has affected the poorest of the poor and even increased their numbers.

She suggested safety measures to help cushion the negative impact of higher food prices. Key to this effort is to direct government policies toward stabilizing food prices through improved productivity. This means more public investment should go to agricultural infrastructure such as farm-to-market roads, irrigation and post-harvest facilities to increase productivity and reduce wastage in the transport of agricultural produce.

Rising prices have been due to supply, thus she cautioned policymakers on resorting to monetary policies to address rising inflation. This may not be an effective policy tool as this may push the economy into recession which will hurt the poor even more.

– **Ma. Leni P. Lebrilla & Lorna D. Velasco**

## Rising food prices: Responding to the crisis

Large increases in international food prices in 2007 and early 2008 have become a key concern for policy makers. The Midterm Progress Report on Millennium Development Goals (MDG) in 2007 indicated significant progress in poverty-reduction efforts, cutting poverty incidence in the country from 39.9% in 1990 to 24.2% in 2005-06. However, high food prices are undermining these gains in the past decade. If prices persist at these levels, the MDG target of halving poverty by 2015 would be jeopardized.

By May 2008, the dollar-denominated world rice price surged more than three times the average price in 2004-2005 (Figure 1). Only 6% of this increase occurred by the start of 2007, and about 85% since the beginning of 2008. The price effects have been most pronounced in import-dependent countries particularly the Philippines—the world’s largest rice importer. Domestic rice prices in the country have increased by as much as 40% from the previous year. Strong political and economic factors are at play in the food policy of most developing Asian countries, so that the effect of sharply higher international prices

has not been fully transmitted to domestic prices (ADB, 2008). Despite this, food price inflation has ratcheted up the consumer price index in 2008. In fact, it has pushed May inflation in the Philippines to a nine-year high of 9.6% from 8.3% in the previous month.

The poor’s expenditures on food and energy comprise about two-thirds of total consumption expenditures. Millions of poor Filipinos—perhaps as many as 28 million—are now vulnerable to soaring rice prices.

### Underlying causes of high food price

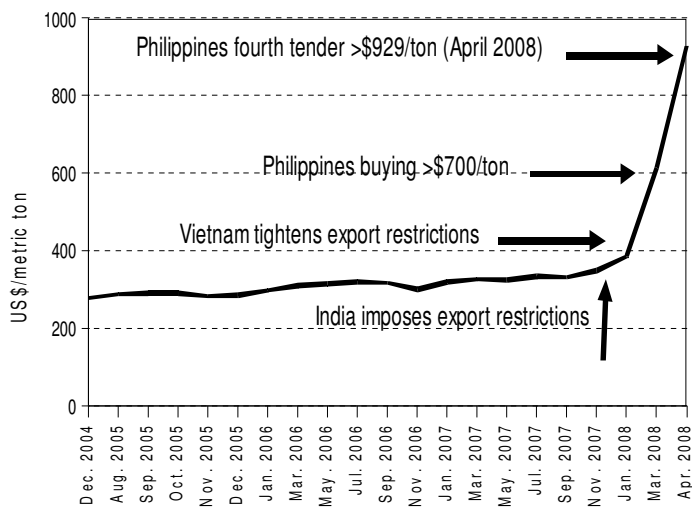
The rise in world food price since 2004 is partly the result of global factors—e.g. rising energy cost, the falling dollar and increased biofuel demand—that have led to large increases in wheat and other grain prices, and partly due to export restrictions by food exporting countries concerned about food security.

Recent World Bank studies suggest that rising energy and fertilizer prices and the falling dollar have contributed about 35% of the rise of food prices (World Bank, May 2008). This has been translated to higher fuel costs in agricultural production and more expensive farm inputs such as fertilizer—the production of which is basically fuel-based. Rice production, in particular, is fertilizer intensive.

Concerns over energy security have led to increased demand for biofuel crops. Consequently, the shift of crop planting from wheat to maize and oilseeds for biofuel production has led to depletion of world wheat stocks to record lows, and surge in grain prices.

Trade policy measures of major rice consuming countries in East and South Asia to secure access to food supplies have fueled increases in food prices (Figure 1). For instance, the Philippines issued large purchase tenders at increasingly high bid prices, reaching over US\$1,000 a ton in April. On the other hand, rice exporting countries such as India, Vietnam and China have banned or restricted rice exports to increase supply and lower prices in the domestic market.

**Figure 1. Rice Prices and Recent Policy Responses  
\$/Ton December 2004-April 2008**



Source: USDA, FAO

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### **Government response to food inflation**

In the Philippines, rising food prices have elicited a range of policy responses. These responses include, among others: (1) interventions to ensure food access by the vulnerable sector through targeted safety nets; and (2) interventions to enhance the medium-term food supply.

Targeted conditional cash transfers such as the *Pantawid Pamilyang Pilipino Program* support the poor's purchasing power without distorting domestic incentives to produce more food, and without reducing the incomes of the poor food sellers. These transfers are conditional upon meeting a requirement (such as low income) or engaging in a mandated behavior (such as sending children to school).

The Government is now working to develop and pilot this program targeted at 300,000 poor

households. The pilot program aims to provide safety net for poor against food price shocks, while also helping families ensure access to basic health and education.

To ensure medium and long-term food security, the Government has put in place a P43.7 billion FIELDS (means Fertilizers, Irrigation and other rural Infrastructure, Education and training of farmers, Loans, Dryers and other post-harvest facilities, and Seeds of high-yielding varieties) thrust. Rural investments have been sorely neglected in recent years. This rice program focuses on how interventions such as infrastructure development, research and development and extension, could be used to serve as powerhouses for attaining self-sufficiency. Simply, focusing public investments on these productivity-enhancing expenditure items would assure at most 60% of the expected increase in rice production. ●  
– *Novel V. Bangsal*

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## **Conditional Cash Transfers: A Development Strategy for Poor Households**

The continued rise of rice prices in the Philippines is of utmost concern because the hardest hit are usually the poor.

### ***The Concept of Cash Transfers***

The use of conditional cash transfers in the country is a strategy geared to promote the welfare of poor households. Conditional cash transfers (CCT) are safety nets similar to the ongoing food-for-school program wherein food is given to poor families to make sure their children are not absent from school due to hunger.

These cash transfers are given to poor families based upon their compliance with certain conditions. According to an article by the Philippine Institute for Development Studies: “The conditions are verifiable actions such as school attendance or use of basic preventive health care and nutrition services.” As such, recipient families of the cash transfers are

induced to send their children to school or bring them to health centers.

The approach, according to the same article, has achieved success in Latin America, particularly in Mexico, where positive outcomes were recorded. These outcomes have included improved school attendance of both boys and girls in primary and secondary schools, and reduced incidence of ill health among children (aged 0-5 years old). As such, conditional cash transfers serve a double purpose – help reduce poverty and help build human capital.

The strategy behind the use of CCT is that by promoting the health and education of children of poor families, the inter-generational nature of poverty is being addressed. Children of poor families do not need to grow up poor like their parents. CCT addresses not only short-term consumption needs but also long-term poverty.

### ***Actual Use of Cash Transfers***

Conditional cash transfers are already being used in the Philippines. Under the *Pantawid Pamilyang Pilipino Program*, cash transfers are being given to poor families.

Conditions for receiving the cash transfers include pregnant women getting pre-natal care; parents attending family planning sessions; and children 6 to 14 years old attending school and attending at least 85% of the time.

*Targeting Steps.* The Program is targeted at the poorest of the poor families. Targeting is done in three steps. The first involves the selection of the poorest provinces based on the 2006 Family Income and Expenditure Survey (FIES) and the selection of the poorest municipalities from the poorest provinces based on Small Area Estimates (SAE). SAE combines information from surveys and censuses that can generate reliable estimates at a lower level of disaggregation (i.e. provincial, city, and municipal).

The second step in targeting is administration of the total enumeration of households in identified municipalities. The third step is selection of the poorest households based on statistical applications developed for the program.

*Implementation Stages.* The pilot phase of implementation of the CCT was from June to December 2007. It targeted 6,000 poor households from Agusan Sur, Misamis Occidental, Pasay and Caloocan. From January 2008 onwards, the CCT Program targets 300,000 poor households nationwide.

The proposed incentive package entails health subsidy at P6,000 per year or P500 monthly per

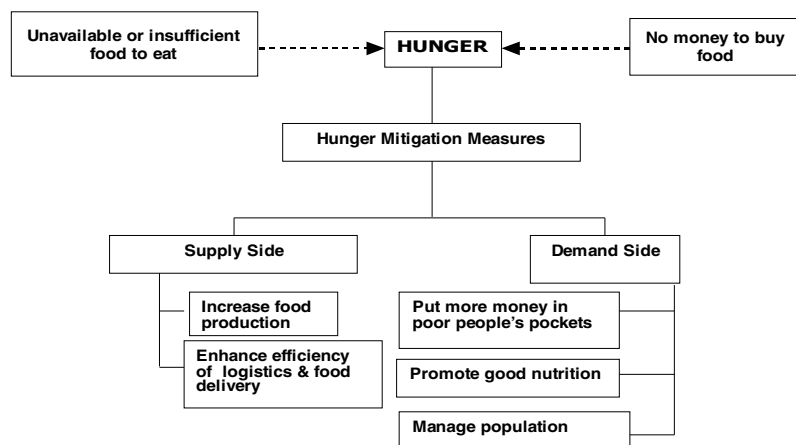
household in 12 months, and an education subsidy at P3,000 per year or P300 monthly per child for 10 months (up to a maximum of three children).

*Key Challenges.* Major issues in CCT implementation which need to be addressed include the possible occurrence of leakage and high administrative costs. Making adjustments in the targeting system may be necessary to help avoid leakage. The adoption of internal control systems should be considered to reduce administrative costs.

*Reducing Hunger.* The use of conditional cash transfers fits well as part of national efforts to reduce hunger. Under the Accelerated Hunger Mitigation Program (AHMP) Framework, measures to reduce hunger are classified under the supply side and the demand side. On the supply side, identified measures are increasing food production and increasing efficiency of logistics and food delivery. On the demand side, measures are promoting good nutrition, managing the population, and putting more money in people's pockets.

The use of CCT could be part of demand side measures under the AHMP Framework. In the end, conditional cash transfers can prove to be a highly innovative way of meeting anti-poverty objectives and promoting improved social outcomes for the country's children. ● – *Byron M. Bicenio*

**Figure 1. Accelerated Hunger-Mitigation Program Framework**



Source: AHMP, 2008

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## Scaling Up Investments Toward Rice Sufficiency

Rice continues to play a vital role in the Philippine political economy, accounting for about 17.4% of gross value added in agriculture, and 3.5% of Gross Domestic Product. It is a major source of livelihood of many small farmers and agricultural landless households. Moreover, rice remains to be the main food staple, contributing 35% of the population's total calorie intake on average, and as much as 60-65% of the households in the lowest income quartile. Rice constitutes about 11% of total household expenditure, and double that ratio among the poor households.

However, production of palay/rice has had modest growth in recent years. Current productivity levels are not enough to meet rice sufficiency targets. Sufficiency levels were only at 94%-97% in 2006-2007, prompting government to import rice to fill in the gap. Data from the National Food Authority showed that from the period 1984-1994, the country imported an annual average of 151,588 metric tons (MT) of rice. But from 1995 to 2006, rice importation rose to over 1 million MT—a significant 587% increase.

Most importantly, the recent increase in rice prices in the world market has served as a wake up call for government to put more attention in increasing production of rice to ensure food security even for the poorest of the country's poor.

### ***Putting FIELDS to work***

At the recently held Food Summit, President Gloria Arroyo announced the P43.7-billion FIELDS program, a support package for the agriculture sector aimed at food security.

Making the appropriate packages of yield-enhancing technologies available and supporting irrigation development technology and knowledge management substantially improves rice productivity by closing the yield gap between the actual farm yields and best practice yields.

Thus, the Department of Agriculture (DA) has put in place a rice program masterplan for the

medium-term that envisions palay production of 19 million MT by the end of 2010. This amount covers more than 100% of the projected consumption for that year. Estimated contributions of different factors that affect growth in rice production are as follows: infrastructure, 40%; R & D, 25%; extension, 15%; and environment, 20%. (*Balisacan, et al., 2006*)

### ***Focusing on provinces***

Each rice-growing province has different productivity levels as a result of different agro-climatic conditions which bring about local constraints to bumper rice production.

Under these circumstances, the focus of the rice masterplan was at the provincial level and/or at a smaller scale level like in clustered areas covered by irrigators' association and farmers' groups. With this framework, rice self-sufficiency must emanate from the provinces. The local government units (LGUs) must form clusters that will serve as convergence points of program interventions.

A total of 49 focus provinces is covered by the rice masterplan; 25 have both irrigated and rainfed conditions, 19 irrigated areas and 5 under rainfed conditions. In addition, the 44 irrigated rice-growing focus provinces are grouped into two areas—Group 1 and 2—based on the average yield growth rate (AGR) from 2000-2007 and total harvested area in 2007. Group 1 covers 32 provinces with a 3.68% AGR or less and irrigated harvested area of more than 20,000 hectares, while Group 2 covers 12 provinces with more than 3.68% AGR. The 3.68% AGR is the national average of irrigated areas from 2000-2007.

### ***Location-specific interventions***

Location specific-interventions will be delivered to farmers to help them achieve higher yields. These interventions could be employed to address location-specific concerns of irrigated and rainfed target areas in the 49 focus provinces.

Among the interventions in production, the use of high quality rice seeds (certified in-bred and hybrid seeds) is the most fundamental cultural practice in which other technologies are based. Shifting from certified to hybrid seeds results in 1 ton/ha yield

increase while shift from farmers seeds to certified seeds results in about 0.50 ton/ha yield increase.

The World Bank (2007) noted that the hybrid rice commercialization program benefited only the richest 40% farmers who already have access to irrigation and modern farming techniques. These represent only about 12% of all agricultural households in the country but they corner 2/3 of the benefits.

Infrastructure provision is another key intervention in the rice masterplan. To achieve high irrigation efficiency (at least 90%), existing irrigations will be rehabilitated every year from 2009-2010 which can contribute to 25% growth in production. Farm-to-market roads will be constructed or rehabilitated through the help of the LGUs, DA, and Department of Public Works and Highways.

While these interventions are steps in the right direction, government should also invest in essential public goods such as market infrastructure, research and development, that would reduce marketing and production costs. This will allow farmers to generate higher incomes even at lower palay prices.

### **Production Targets**

With the implementation of the plan, the rice industry is expected to achieve a 100% self-sufficiency. This is equivalent to a total production of about 19 million MT which is 6.5% higher than the projected production in 2009 (18.5 million MT).

The bulk of rice production will come from focus irrigated provinces, 49% from Group 1 and 21% from Group 2. On the other hand, non-focus areas will only have 7% contribution to total production. These projected increases in production will result in a 6.8% average growth rate, where majority of the increases in growth will come from the focus areas.

The sources of production growth in irrigated ecosystems are increases in area harvested and yield in 2009 and 2010. Physical area is expected to expand by 30,000 hectares annually. Moreover, the expected improvements in yield will also contribute to production growth.

### **Budget**

The rice plan has been estimated to cost the government a total of P30 billion to support the interventions for 2009 to 2010. Specifically, the program will spend P14.89 billion in 2009 and P14.97 billion in 2010.

**Table 1. Proposed Budget for Rice Sufficiency Program 2009-2010**

Budget	2009 (in '000)	2010 (in '000)
Production Support Services	5,088,168	5,311,594
Irrigation Support Services	6,000,038	6,000,038
Extension, Capacity Enhancement and Farmer Education	1,528,465	1,381,715
Research and Development	580,440	580,440
Marketing Support Services	100,345	100,345
Regulatory Services	60,000	60,000
Planning Policy, Program Coordination, Monitoring and Evaluation	533,000	533,000
Postharvest and Other Infrastructure	1,000,000	1,000,000

Source: DA, 2008

Highest allocation will be given to irrigation support services at P12 billion in 2009 and 2010. In the production support services, seed subsidies occupy the largest portion of the budget at P9.1 billion which will cover for both focus and non-focus provinces.

The national government will provide support for the implementation of provincial rice programs developed by the focus provinces. However, this will be matched with counterpart resources and responsibilities to enhance sense of ownership in achieving rice self-sufficiency in their areas and the country. ● - **Rommel V. Asuncion**

### **CPBD Notes**

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