

## Is the Agricultural Insurance Program of the Philippines serving the poor?

*Romulo A. Virola*

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he Philippines is the third most disaster-prone country in the world, with an average of 19 typhoons per year (Virola 2009). With this kind of scenario, the need for an effective insurance program for the agricultural sector cannot be overemphasized.

This *Policy Note* seeks to assess the coverage, product lines, and premium structure of the current Agricultural Insurance Program (AIP). The data presented are results of a Philippine Institute for Development Studies project that evaluated the impact of the AIP. This *Note* likewise aims to guide the formulation of policies that can improve government support to poor farmers and create an enabling environment for the AIP as a risk management tool.

### **The Philippine AIP**

Records from the Philippine Statistics Authority (2014) reveal that the farm sector

had one of the highest poverty incidences in 2012 at 38.3 percent. In relation to this, the Philippine Crop Insurance Corporation (PCIC) implements the AIP, which provides insurance protection to various agricultural stakeholders against production losses due to natural calamities and other perils, such as plant diseases and pest infestation.

The PCIC started providing rice and corn insurance in 1981 and later on offered other insurance products covering high-value commercial crops (HVCCs) and livestock. It further expanded the AIP to cover life and accident insurance and loan repayment of agricultural producers under its Non-Crop Agricultural Asset Insurance (NCI) and Term Insurance Program (TIP).

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The author is a consultant of PIDS. The views expressed are those of the author and do not necessarily reflect those of the PIDS or any of the study's sponsors.

The agency also introduced several mechanisms to enhance AIP's efficiency, such as conditions for compulsory coverage of farmers, insured farm size limit, maximum amount of insurance, age limit for insured farmers, and eligibility requirements for premium subsidy. Its premium rates for *palay* likewise vary across regions, depending on the risk level of areas and seasons.

In theory, the Philippine AIP is essentially comparable to other countries. But how does it fare in practice?

### On coverage

#### *Low penetration rate*

From 1987 to 2013, the penetration rate<sup>1</sup> of the AIP has not been impressive. It has only achieved 4.5 percent for *palay* and 0.9 percent for corn, compared to 72–90 percent in the United States, 53 percent in Japan, 14 percent in India, and 10 percent in China (Mahul and Stutley 2010).

The penetration rate for *palay* had actually been much higher from 1988 to 1993, averaging about 10 percent. It had gone below 2 percent from 2000 to 2008, but rose to 10.2 percent in 2013 after the agrarian reform beneficiaries (ARBs) received subsidized coverage.

<sup>1</sup> Ratio of area insured to area harvested as estimated by the Bureau of Agricultural Statistics. During the consultation with stakeholders, penetration rates were 8–10 percent for *palay*, 3 percent for corn, and 1 percent for other lines according to the PCIC.

In the case of corn, this rate had never been above 2 percent from 1987 to 2012. In 2013, it was only 2.3 percent.

#### *Government agencies as big claimants*

Government agencies have become big AIP beneficiaries. For instance, the Northern Mindanao region claimed PHP 1.62 million in 2014 for 18 heads of cattle at PHP 90,000 each. The Department of Agriculture likewise received PHP 5.4 million under NCI in 2014 due to the onslaught of Super Typhoon Yolanda. These instances raise question on the capacity of the AIP to prioritize the needs of the marginalized rice and corn farmers.

#### *Big farmers as beneficiaries*

In 1993, the AIP covered six HVCC farmers for an unusually large sum of insurance averaging PHP 20.9 million. The said insurance had an average premium of PHP 846,800 and a coverage of 209 hectares per farmer.

From 2013 to 2014, the AIP had also covered farmers managing farms as large as 10 hectares in Ilocos region and 30 hectares in Eastern Visayas for rice, 25 hectares in Zamboanga Peninsula for corn, and 55 hectares in Central Luzon and Davao regions for HVCC. That same period, farmers had been insured for HVCC for PHP 157 million in Zamboanga Peninsula and PHP 240 million in Davao region. While such coverages may be desirable, this still raises the question on whether or not the farm size should be a consideration in offering subsidies.

### *Low claim benefits for some farmers*

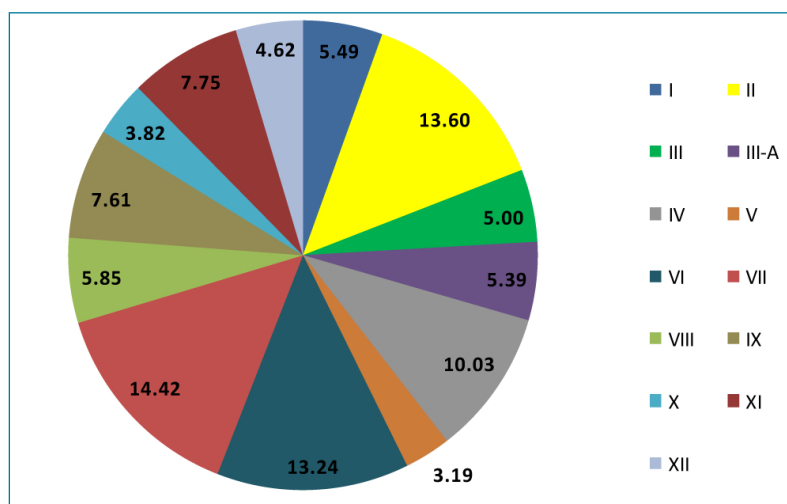
There were farmers who were paid low amount of claims. For instance, a rice farmer in Cagayan Valley region only received PHP 38.00. Likewise, 9 out of 13 regions had received rice claim payments less than PHP 200.00 from 2013 to 2014. Some corn farmers were also insured for low amounts. Is this an indication of some flaws in the design of the AIP claims processing protocols? A review of the claim adjudication policies is definitely called for.

### *Insufficient agricultural insurance for some regions*

In terms of the regional distribution of total insurance coverage for all lines of AIP business in 2013–2014, the biggest insured were Central Visayas with a share of 14.4 percent, Ilocos region with 13.6 percent, Western Visayas with 13.2 percent, and Southern Tagalog with 10.0 percent. Least insured were Bicol region (3.2%), Northern Mindanao region (3.8%), and Soccsksargen (4.6%) (Figure 1).

The four regions with the biggest shares of palay production in recent years, namely, Ilocos, Cagayan Valley, Central Luzon, and Western Visayas regions (PSA various years) also have the biggest shares of insured farmers. However, the Autonomous Region in Muslim Mindanao (ARMM) has practically no insured farmers, despite having a bigger share of palay production than Cordillera Administrative Region, Southern Tagalog, Central Visayas, Davao, and Caraga regions.

**Figure 1. Distribution of total amount of insurance by region, 2013–2014 (in percent)**



Source of basic data: Philippine Crop Insurance Corporation (PCIC)

In terms of corn, ARMM still has practically zero share of insured corn farmers although it is the fourth largest producer of the crop. Moreover, two other regions in Mindanao—Northern Mindanao and Soccsksargen—do not also have the proportionate shares of insured corn farmers.

### *Self-financed farmers as the bigger group of insured individuals*

For 2013–2014, self-financed farmers comprised more than 62 percent of the insured in all the regions except in Region IIIA<sup>2</sup> where 71 percent of the insured were borrowing farmers. In general, 74 percent of the insured palay farmers were self-financed and 26 percent were borrowing farmers. Worth noting is the fact that despite the devastation

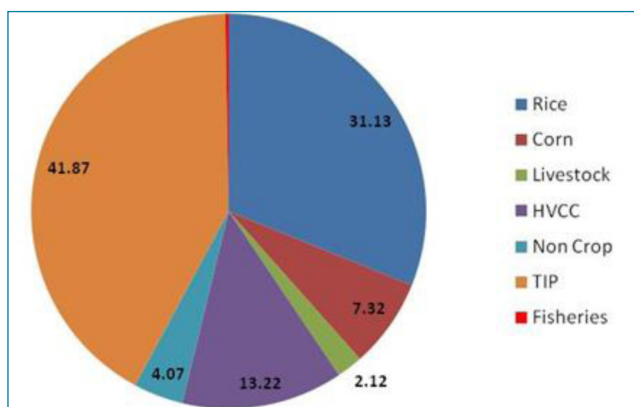
<sup>2</sup> In the PCIC database, Region IIIA covers the provinces of Aurora and Nueva Ecija.

caused by Typhoon Yolanda, only 5 percent of the rice farmers covered by the AIP in Eastern Visayas region were borrowing farmers. This can be an indication of various things. For one, it is possible that no provision for easy access to credit was extended to the victims of Yolanda. However, to be fair, it is also likely that the victims were too shocked to even think of borrowing or that they were given other forms of support that they did not need to borrow. Regardless, PCIC should assess whether the proportion of the self-financed and borrowing farmers is in line with the goals of the AIP.

### On product lines

In terms of the amount of AIP insurance in 2013–2014, TIPs had surprisingly the biggest share with 42 percent, followed by palay with 31 percent, HVCC with 13 percent, and corn with 7 percent. As a result, it became unclear whether palay/corn insurance is the core business of AIP (Figure 2).

Figure 2. Distribution of the AIP insurance per line of business, 2013–2014



Source of basic data: PCIC

Despite existing provisions of the PCIC charter allowing additional insurance coverage to farmers such as the TIP, it is unclear whether government should compete with the private sector in this kind of insurance. Nonetheless, the questionable practices of the private sector in the past have eroded public confidence in its integrity and may justify the PCIC's intervention.

This also raises the need for AIP to define its core business. Considering the program started with palay and corn farmers in mind, a reassessment of the AIP mandate must be done to address the less than 50 percent AIP insurance extended to them.

### *Farmers of other agricultural products as beneficiaries*

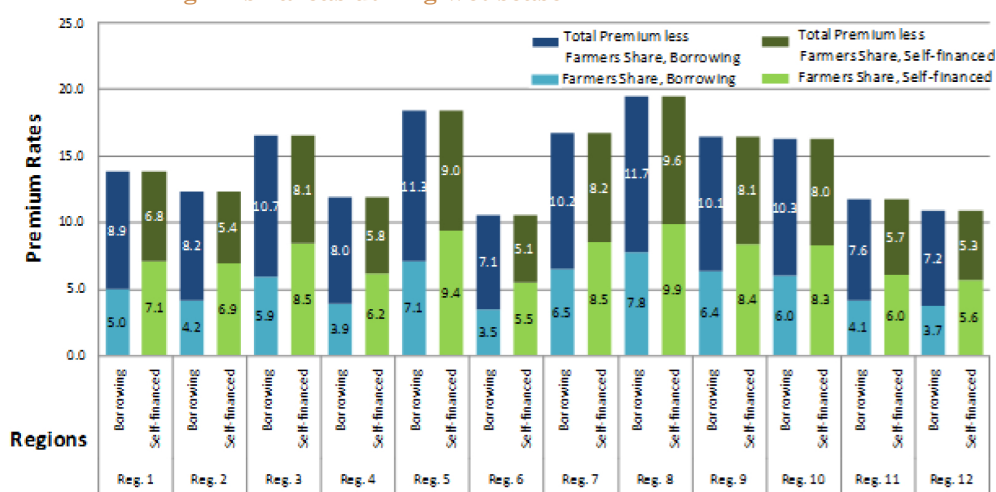
In 2014, there was a large claim of over PHP 1 million for one HVCC farmer in Davao region, who could not have been a subsistence farmer.

### On premiums and premium subsidies

#### *Reduction in gross premiums*

Big percentage increases in gross premiums of more than 50 percent were experienced in 1982, 1985, 1991, 2008, and 2009, and a 176-percent jump in 2013 due to the premiums from/for the rice and corn farmers who were covered under the ARBs program. This was sustained by an 88-percent increase in 2014, but followed by a 5-percent decline in 2015. The PCIC needs to analyze this reduction in gross premiums to understand

**Figure 3. Premium rates for borrowing and self-financed palay farmers in high-risk areas during wet season**



Source of basic data: PCIC

whether it indicates the saturation of the targeted beneficiaries (i.e., it has covered practically all the beneficiaries it has targeted to cover given its resources), the declining government support for the AIP, or the stretched capacity of the PCIC to sustain the program.

### *Regional disparities in gross premiums*

Gross insurance premiums also differ per region and season (Figure 3). For example, borrowing farmers pay premiums ranging from 1.17 percent of the sum insured to 2.60 percent during the wet season and from 0.56 percent to 2.33 percent during the dry season in low-risk areas. Meanwhile, borrowing farmers from high-risk areas pay from 3.50 percent to 7.79 percent during the wet season and from 1.69 percent to 6.99 percent during the dry season.

For self-financed farmers, premiums range from 3.12 percent to 4.72 percent during

the wet season and from 1.42 percent to 4.24 percent during the dry season in low-risk areas. Meanwhile, farmers from high-risk areas pay from 5.45 percent to 9.91 percent during the wet season and from 2.63 percent to 8.90 percent during the dry season.

Similar premium differentials exist for corn. However, notwithstanding the regional risk differentials, it is unclear whether regional disparities in gross premiums should be maintained by a welfare insurance program such as the AIP.

### *Affordability of premiums*

Most, if not all, countries provide AIP premium subsidy in recognition of the high risks associated with agricultural insurance. As a result, premium subsidies for borrowing farmers from the government and from lending institutions vary across regions and seasons and by program. Strangely, they remain the

*One recommendation is to charge the farmers only the net premiums based on the historical claims experience of the AIP and the rest to be charged to subsidies from the government and lending institutions. Another is to put a cap on the amount paid by the farmers, such as a certain percentage of the minimum wage.*

same even if the farm is in a low-, medium-, or high-risk area.

Moreover, at present, farmers listed in the 2014 Registry System for the Basic Sectors in Agriculture, even HVCC farmers and livestock raisers, are provided with the full premium subsidy, with all product lines covered except TIPs.

Premium subsidy for palay and corn averaged 61 percent of the gross premiums from 1981 to 2014. This had been at least 50 percent for most years except during the Ramos administration. In particular, the average annual subsidy was 63 percent under the Marcos administration, 61 percent under Aquino, 39 percent under Ramos, 58 percent under Arroyo, and 71 percent under Aquino III administration. When full subsidy was extended to ARBs, the rate of subsidy went up to 83 percent in 2013, 90 percent in 2014, and 89 percent in 2015. While the actual rate of subsidy is not expected to be uniform over time, the disparity raises questions on the integrity of the implementation of the subsidies.

Considering that farmers are one of the poorest sectors in the country, it may really

be valuable to subsidize the AIP, even to its current levels. However, three points should still be considered: (1) Will the current administration be able to sustain its policy on heavy subsidy?, (2) Will the government have the capability to provide the required budget for heavy subsidy?, and (3) Will possible leakages in the existing program be remedied to ensure that the benefits will go to the targeted beneficiaries?

In terms of premium affordability, farmers would still be paying 2.7 percent of the poverty threshold assuming they are only required to pay 39 percent of the premiums (average premium subsidy for palay and corn is 61%). This is more than the share on total expenditures of the bottom 30 percent in the income distribution that actually goes for education (1.8–2.1%) or for health care (1–1.3%). As a result, the present cost of agricultural insurance may just be too high to encourage them to enroll in the AIP.

One recommendation is to charge the farmers only the net premiums based on the historical claims experience of the AIP and the rest to be charged to subsidies from the government and lending institutions. Another is to put a cap on the amount paid by the farmers, such as a certain percentage of the minimum wage.

For all lines of business except the Accident and Dismemberment Security Scheme, existing gross premiums are 200–300 percent of the net premiums indicating a 70–75 percent loading for administrative and

operating expenses<sup>3</sup> and for premium subsidy. Rough calculations show that if operating expenses could be lowered, and they went down significantly during the last five years leading up to 2013–2014, premiums paid by farmers could be lowered to 123 percent of net premiums, making them more affordable and comparable to other countries.<sup>4</sup> The cost of agricultural insurance provision<sup>5</sup> is about 20–30 percent of gross premium in China from 2003 to 2007 and 26 percent in the United States from 1999 to 2006.<sup>6</sup>

### On operating expenses

For all product lines combined, the ratio of operating expenses to premiums ranged from 0.10 in 2014 to 2.07 in 1999, with a weighted average of 0.50 from 1981 to 2014. This ratio had been lowest under the Aquino III administration (0.23) followed by Aquino (0.45), Marcos (0.69), Ramos (0.70), Arroyo (0.82), while highest during the Estrada administration (1.77) when the last tranche of the salary standardization law took effect. It had been more than 1.0 in 13 years and more than 0.5 in 23 years from 1981 to 2014 but has dropped to below 0.5 with a weighted average of only 0.25 since 2009.

However, the reduction in the ratio of operating expenses to gross premiums from 2013 to 2015 had been the result of the huge increases in premiums and not because operating expenses have gone down. It is also noted that the share of manpower expenses to total operating expenses rose in 2014 and 2015. From historical averages of 61.1 percent

for 1981–2014 and 54.3 percent for 2010–2014, the share went up to 66.2 percent in 2014 and 67.3 percent in 2015. Although this is expected given the wider program coverage since 2013, the question is whether shares nearing the 70-percent level are too high especially when compared to the 41.3 percent experience of a leading private insurance company during the last five years.

### On government support to the AIP<sup>7</sup>

Under Presidential Decree (PD) 1467 as amended by PD 1733 and Republic Act 8175, sources of AIP funds other than the premiums and subsidies have been identified, including the capital stock subscription, the creation of the State Reserve Fund, access by the PCIC to the calamity funds, and net lotto earnings of the Philippine Charity Sweepstakes Office. However, these have not been strictly followed. The reduction in interest and other income experienced by the PCIC highlights the need for the government to comply with these commitments.

<sup>3</sup> A strategy that has been implemented in other countries is the introduction of innovative weather index-based insurance products to cut down on operating expenses.

<sup>4</sup> These estimates are shown in the report titled “Evaluation of the financial sustainability of the Agricultural Insurance Program of the Philippine Crop Insurance Corporation” written by the author.

<sup>5</sup> Defined by Mahul and Stutley (2010) as the ratio of the total expenses for marketing and acquisition, administration, and loss adjustment to gross premiums.

<sup>6</sup> Lowered to 18 percent when the Farm Bill was passed in 2008.

<sup>7</sup> Unfortunately, the AIP-related government institutions were not able to provide information on the extent of support these agencies extend to the agricultural sector, including the AIP.



Meanwhile, under a proposed PCIC bill, the corporation is asking for a PHP 10 billion capitalization. If passed, the increased capitalization is intended to increase penetration rates. Rough computations indicate this should translate to improved penetration rate for palay from 10.2 percent in 2014 to at least 51 percent and from 2.3 percent to at least 11 percent for corn.

In addition, legal provisions should be issued on the PCIC investment operations, similar to those stipulated in the insurance codes of private insurance companies, to protect the agency's funds.

#### **On actuarial solvency of the AIP**

Basically, the approximate reserve requirement for a program like the AIP is 40 percent of the gross premiums.

Up until 2007, less than 20 percent of gross premiums had been set up as reserves. From 2009 to 2012, the average reserve ratio had been 19 percent. This ratio went up to 23 percent in 2013 and became more than sufficient in 2014 at 42 percent. However, the reserves went back to insufficient levels in 2015, although the ratio remained relatively high at 37 percent.

Obviously, PCIC is trying to improve the actuarial solvency of the AIP. This needs to be sustained in the future to enhance the

<sup>7</sup> This means there is no prefunding of the benefits to be paid out in the future.

credibility of the AIP as a healthy insurance program for farmers.

While the AIP can operate on a pay-as-you-go basis,<sup>7</sup> the setting up of actuarial reserves will promote the actuarial soundness of the AIP and enhance the financial capability and credibility of the program to pay claims when due. Therefore, a periodic actuarial evaluation of the AIP, such as every five years, should be conducted to monitor its financial viability. Much greater attention should be given to setting aside actuarial reserves. The guidelines and the reserving standards should likewise be more transparent. There is also a need to actuarially determine gross premiums by region, even if farmers will pay uniform premium rates.

#### **Policy recommendations**

Based on the earlier discussions, it is found that AIP should be rationalized toward the attainment of the following objectives to be an effective tool for poverty alleviation:

1. Covered population should be the marginalized subsistence farmers.
2. Product lines that offer insurance protection benefiting the marginalized subsistence farmers the most should be prioritized.
3. Premiums and premium subsidies should be redesigned to provide the largest support possible for the marginalized subsistence farmers by setting the premiums they need to pay as low as possible, regardless of farm location.
4. AIP processes should be streamlined to enhance efficiency and to minimize program leakages.



5. Greater investments should be made on a well-designed management information system.<sup>8</sup>

Toward the attainment of the above objectives, policy decisions are needed in the following areas.

#### *Targeted population for coverage*

Assuming the AIP will continue to be operated more as a social insurance scheme rather than as a private insurance scheme, clear policies should be formulated and support mechanisms should be put in place to target the coverage of the marginalized subsistence farmers, the underserved regions like Bicol region and ARMM, the borrowing farmers who should be provided with easy access to credit, and other groups like the *Pantawid Pamilyang Pilipino* Program beneficiaries. Relatedly, policies on whether universal coverage of subsistence farmers is the ultimate objective, similar to the goal of the health-care program, should be spelled out.

#### *Focus of product line*

The AIP started covering only palay and corn farmers. While the expansion of the AIP to cover other farmers and other product lines is to be expected, clear policies should be formulated to better guide the PCIC in targeting improvements in the AIP. If most of the subsistence farmers are planting palay or corn, the target should focus on improving programs concentrating on these crops. Moreover, TIP has substantially grown in share of the AIP coverage in recent years. This can

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be perceived as possibly competing unfairly with the private sector.

#### *Differentials of premium/premium subsidy*

It should also be clarified whether there is a need for premium/premium subsidy differentials across regions and between low-risk areas and high-risk areas. The existence of such differentials may disadvantage poor farmers located in typhoon-prone regions.

#### *Allowable operating expenses*

Except during the Aquino III administration, the ratio of operating expenses to premiums under the AIP had been high relative to other countries. To ensure the financial sustainability of the AIP, it should be analyzed whether a ceiling like the 18 percent under the Farm Bill of the United States or the 12 percent for the Government Service Insurance System social security scheme for government employees should be implemented. It is likewise important to address if the government should provide subsidies for operating expenses like in other countries.

<sup>8</sup> The financial statements for 2014 and 2015 showed much-improved elaboration of the accounting entries. The improved financial statements will allow for richer long-term analyses of the AIP in the future.

*The increase in capitalization requested under the PCIC bill should be accompanied by clear investment policies to safeguard the AIP funds and by committed goals on the penetration rate.*

#### *Actuarial inputs to the PCIC*

While the AIP has benefited from professional actuarial advice in the past, clear policies on the periodicity of the conduct of an actuarial valuation of the AIP funds should be formulated. The availment of actuarial services in the design of the premium benefit and of the actuarial reserving structure will enhance the financial sustainability of the program.

#### *PCIC operations*

The increase in capitalization requested under the PCIC bill should be accompanied by clear investment policies to safeguard the AIP funds and by committed goals on the penetration rate. In addition, an expansion in the operations of the AIP should be supported by a corresponding increase in resources, particularly manpower that include staff with adequate actuarial expertise.

For further information, please contact

The Research Information Staff  
Philippine Institute for Development Studies  
18th Floor, Three Cyberpod Centris – North Tower  
EDSA corner Quezon Avenue, Quezon City  
Telephone Nos: (63-2) 372-1291 to 92  
E-mail: ravirola@yahoo.com; publications@mail.pids.gov.ph

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## **Conclusion**

The favorable experience of the AIP in recent years, particularly from 2013 to 2015, should be a source of inspiration to the program stakeholders and a source of pride to the program duty bearers. However, while the current efforts of the PCIC to improve the AIP are noticeable and have achieved concrete success in some areas, they are still lacking in other areas. There are also fears the gains may be short-lived. Thus, the challenge to the PCIC and other duty bearers is to ensure that the recent improvements are sustained in the long run, toward a better quality of life for the targeted farmers, and ultimately, toward the attainment of the first Sustainable Development Goal, which is to end poverty in all its forms everywhere. 📄

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