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Comprehensive Agrarian Reform Program (CARP): Time to Let Go

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CARP Extension with Reform (CARPER or RA 9700) which extended the 1988 Comprehensive Agrarian Reform Law (RA 6657) will itself expire in June 2014. By the end of 2012, 4.49 million hectares shall have been acquired and distributed. That figure represents 84% of the 5.37 million hectares targeted for distribution. By 2014, the CARP shall have distributed 5.05 million hectares, leaving but 321 thousand hectares or an accomplishment rate of 99%. By then, 2.6 million farmers shall have gained some form of ownership to an average 1.2 hectares (see Dr. Fermin Adriano's "Sustaining the Momentum of Inclusive Growth in the Post-CARP Scenario"). CARP (and CARPER) represents the nation's one gargantuan sacrifice upon the altar of asset equity.

By June 2014, CARP shall have acquired and distributed 16% of the total Philippine land area of 30 million hectares. For a government program in a widely accepted weak democratic state, that is a singular feat. Japan's vaunted land reform distributed only 1.76 million hectares of its total 37 million or 4.7%. Taiwan distributed 0.5 million hectares of its total of 3.62 million or 14%. Note that the Japanese land reform was carried out by the Allied Occupation Forces, while Taiwan's was by the virtual military government of the Kuomintang Party under Generalissimo Chiang Kai Shek. While these were acclaimed successes and were peddled as template, those that followed had very spotty record. Where's the catch? Land reform to succeed requires some very stringent governance and design requirements which copycats conveniently forgot. First, those early post-war land reform episodes were over and done in no more than five years. They succeeded because they knew when and where to stop. Japan's, Taiwan's and South Korea's land reform largely stopped at ricelands! By contrast, CARP has lasted 25 years and took on all crops. Counting the years from the original rice and corn land reform in 1964, we already had half a century of land reform. As in most weak states, form and ambition were pushed to substitute for substance and, as with all government boondoggles, failure was trafficked as a sure sign of lack of funds.

The same can be said of RA 6657 or CARP and CARPER. Their clearly stated objective is the enhancement of the beneficiaries' dignity and quality of life through the pathway of farm productivity (Chapter 1, Section 2). But farm productivity and the enhancement of quality of life is where CARP messed up.

THE EVIDENCE on ECONOMIC WELFARE IMPACT

The argument behind the redistribution of land assets in favor of landless farmers goes beyond economic efficiency. It could, by improving equity, also improve the democratic politics as rural and national politics begin to be divorced from the grip of large feudal landownership. We leave the political economy dimension to more competent observers. There are no good metrics to guide enlightened discussions in this dimension.

It is admittedly difficult to estimate even just the net global economic welfare benefit of a government intervention, although some such have been attempted for land reform elsewhere (see e.g., Deininger, Hoogeven and Kinsey, 2004, for land reform in land-rich Zimbabwe in the 1980s where the conclusion was "it depends"). It is much simpler to concentrate on just the welfare improvement of the target population. We review extant evidence.

Post-2009

A 2011 ARC Level Development Assessment (ALDA) of agrarian reform beneficiaries (ARB) located in agrarian reform communities (ARC) showed that average (ton/hectare) yield among ARC beneficiaries in *Palay* was 10% *higher* than national average (consisting of non ARBs, non-ARC ARBs *Palay* farmers); in Corn it was 50% *higher*; in Coconut it was 40% *lower* and in Sugar it was 8% *lower* (see Adriano, 2013). So in the two crops that were largely covered by the 1964 land reform, farm productivity looked better. But note: only 54% of ARBs are in ARCs. ARC communities are where most of the government and non-government aid get poured. From 2010 to 2012, ARC-affiliated ARBs received, on average, ₱22, 446 in credit support and ₱23,246 in irrigation support (see Adriano, 2013). The figures could look worse if non-ARC ARBs (46% of total) are included. But even in ARCs, sugar and coconut productivity fell compared to average! For crops that came under land reform with CARP, the figures are chilling.

What is worse for CARP is its outcome on beneficiaries' quality of life. Quality of life is correlated with being above or below the poverty line. The same survey shows that among ARC-affiliated ARBs, 54% of households fell below the poverty line! Already for 2009, FIES data show that only 36% of farmers fell below the poverty line. And that's when the economy was weighed down by the world financial crisis. This seems to say that ARC-affiliated farmer beneficiaries of CARP had become poorer! Since the plight of non-ARC beneficiaries can only be worse, that number can only look even more indicting. CARP, it seems, has created a new class of farmers: the landed poor!

Pre-2009

In the run-up to the CARPER debate, there was an attempt to provide an objective basis for evaluating CARP. We summarize the evidence.

A. The APPC (Asia-Pacific Policy Center) Study

By far, the most painstaking and careful undertaking to evaluate the performance of CARP on beneficiary welfare is the 2007 APPC Impact Assessment Study funded by DAR (updated in November 2008 as "Land Reform, Rural Development and Poverty in the Philippines: Revisiting the Agenda"). The study contrasted the welfare outcomes for Agrarian Reform Beneficiaries (ARB) versus those of Non-Agrarian Reform Beneficiaries (NARB), both within and without Agrarian Reform Communities (ARC). The study used an estimated income generating function to indirectly measure the incomes of ARBs and NARBs and using the same to estimate "with and without" income differentials and the impact of CARP

on poverty reduction. The effort is remarkable for its attention to detail. We look at three aspects: (1) income comparison, (2) cost-benefit analysis of ARC, and the (3) non-monetary improvements.

1. Per Capita Income Comparison

The most salient observations of the income comparison analysis are:

(a) Income of ARC members with land was greater than income of ARC members without land; income of Non-ARC members with land is greater than income of Non-ARC members without land. These straightforward and uncontrolled comparison suggest the importance of ownership of land, as the authors observed.

(b) Income of ARB in ARC is greater than income of ARB in NARC; this suggests the importance of ARC approach.

(c) But when others factors are controlled for, neither being an ARB nor being an ARC member explains differences in income per capita even as they each figure positively in net farm income.

The last observation (c) is of interest since a separation is done for the effect of ARB and ARC, controlling for other influences. That neither separately affects per capita income is bad news for CARP-LAD and CARP-ARC. Since landownership raises per capita income and being an ARB implies being with land, it should follow that being an ARB should raise income per capita. But it does not! This implies that "landownership via CARP" is an "inferior type ownership." Our hypothesis is that this inferiority is associated with the Section 27 and other strictures (say, the land ownership ceiling of five hectares) of CARP-LAD that led to the drying up of credit access. Note that being an ARB correlates with poorer access to credit. This shows the property rights frailty of CARP.

2. Cost Benefit Analysis of ARC

The cost-benefit exercise by the APPC Study involves only CARP-ARC and not CARP-LAD. The reason is the assumption that LAD cost will be recouped through beneficiary repayments. This is a very strong assumption. The repayment rate is very poor and, in view of illegal transactions (mortgage/waivers) and the very high cost of conversion of CLOAS (Certificates of Land Ownership Awards) to titles (a common problem in Latin America land reform experience), the state liens on awarded lands will probably never become cash payments. Furthermore, because the demand side of the legal land market is moribund, land titles will never be properly valued, and so non-payment will be the best path (see Unequal Exchange section below). What is more disturbing is the following:

The incremental gain per capita for an ARC member is estimated to be ₱137 or for ten years ₱1,340 per capita. If the total spending on ARCs (₱12.9 billion in ten years is divided by the total number of people in all the ARCs (1,800 x 4,460), we get ₱1,619! It suggests that had the money been directly given as cash equivalent grant to members, they would have been better off!

3. Non-Monetary Improvements among ARC Members

The AAPC study shows that the improvements in social amenities (housing, education, durable capital accumulation, public goods, etc.) among ARCs were in excess of those occurring in non-ARC communities. But this is to be expected since ARC communities were, on average, privileged by a 38% higher total budget.

Observe the authors of the study:

> *"Twenty years later, the results of the Comprehensive Agrarian Reform Law (CARL) launched in 1988 were below expectations. Productivity growth in agriculture has been low by regional standards and poverty still plagues rural areas. Total agricultural factor productivity has grown only 0.13% per year during 1980-1998, compared to 0.87% per year in Thailand and 1.49% in Indonesia…"*

B. 2006 IARDS Data Set

The data collected by the Institute for Agrarian and Rurban Studies (IARDS) for 2006 is a good place to look for clues. The 2006 IARDS data set showed that the average net profit from the average two hectares of Agrarian Reform Beneficiaries (ARB) farms in ARC was ₱10,387, while that from 1.4 hectares non-ARB in ARC was, on average, ₱9,356 or 10% higher. This is hardly a difference of any significance, given that the ARBs have, on average, 30% larger plots. (see Ballesteros and Bresciani, 2007).

C. CARP-IA Micro-Meso Component

The study most favorable to the land reform advocacy was done by Reyes (2002) using the CARP-IA Micro-Meso Component collected in 1990 and 2000 for about 1,800 households. It showed, among others, that: (i) ARBs tend, on average, to have a higher per capita income than non-ARBs (₱98,653 vs ₱76,159); (ii) ARBs have, as a group, lower poverty incidence than non-ARBs (45% vs. 56%); (iii) controlling for other influences, being an ARB lowers—and statistically significantly so—the likelihood of the household being under the poverty line; (iv) controlling for other influences, being an ARB significantly raises the per capita income of the household; and (v) the poverty incidence declined among ARBs from 1990 to 2000, while it rose among non-ARBs in the same period. The paper concludes that land reform has produced significant improvements on the lives of the beneficiaries. However, there are grave reasons for doubt.

A casual examination of the data shows that:

(i) 49% of the ARBs are from the Central Luzon, Southern Tagalog and Cagayan Valley areas, while only 21% of the non-ARBs come from the same regions. By contrast, only 36% of the ARBs come from Visayas and Mindanao, while 56% of the non-ARBs come from there. Since the first three regions constitute the most affluent in the Philippines and poverty incidence is highest in the last two, the average income and poverty incidence comparison may be spurious, since the ARB status difference is most likely picking up the income and poverty incidence differences across these regions. The reduction

in poverty among ARBs being faster may likewise be reflecting the poverty reduction in the central Luzon region which was so much faster.

(ii) ARBs, on average, have larger farm sizes than non-ARBs (4.45 hectares vs. 2.86 hectares or 36% larger, on average). The differences in incomes and poverty incidence may be reflecting this asset differential rather land reform beneficiary status! Note that income sourced from farming was on average ₱67,761 for ARBs and ₱ 46,508 for non-ARBs, which is 31% larger.

The results of the latter study do not constitute convincing evidence that land reform unambiguously improved the welfare of land reform beneficiaries.

The cumulative weight of evidence suggests that the hypothesis that in economic terms CARP is a government failure has not been rejected. But why is the evidence so unconvincing about the economic welfare impact of land reform in the Philippines? We will argue that the important obstacles standing in the way of an economically successful CARP are related to, among others, CARL's eschewing the Coase theorem, the five-hectare land ownership ceiling, its taking on all crops, the size of the land awards of three hectares for all crops.

POSSIBLE REASONS for FAILURE

There are two general types of reasons why CARP fell short of its economic welfare mission. The first has to do with property rights regime that comes in the wake of CARL's outlawing of the Coase Theorem. This is resulted from the strictures in Section 27 of CARL and the land ownership ceiling. The second is related to program design which is, in turn, related to the failure of the Philippines' state to recognize its capability limits relative to its CARP commitments.

A. CARL and Property Rights

One can view CARL (and CARP/CARPER) as an effort to put property rights over agricultural land on a socially just and, thus, more stable footing. Greater stability of property rights conduces towards greater investment and productivity. But has CARP achieved greater stability of property rights? The strictures on ownership imposed by CARL engender the following problems relating to property rights:

1. Unequal Exchange and Viability

The value of privately owned farmland depends on many characteristics. Its being almost indestructible and locationally fixed make it perfect as collateral against loans to finance either future consumption (through crop cultivation) or current consumption. If that capacity to command credit is hampered, the value of the land itself falls. Since—by the "just compensation principle" professed by CARL—the landowner is entitled to full compensation for his loss, the acquisition value of the land (which factors in that command of credit), will exceed the value of the land (without such command) received by the farmer. The farmer is effectively amortizing a value much higher than the capacity of his holdings can afford. The strictures on ownership imposed by CARL mean that the land conveyed to the

beneficiaries is effectively inferior to that bought at market price from the landowner. To resort to an analogy, the buyer—after a test drive—pays the agreed price of 1,600 cc engine car but later unknowingly receives delivery of a car with 1,300 cc engine! If, in addition, the farmer-beneficiary is awarded a piece of land that is not "economic sized", it is a high-default risk to start with, a priori loses the capacity to command credit and is therefore worth less than as part of a larger credit-worthy parcel. Under these circumstances, the farmer beneficiary is being short-changed and condemned to fail! Economically unviable property rights are not stable. Their only shot at viability is in consolidation with other awarded lands which makes consolidation an almost inevitable outcome.

2. Consolidation Goes Underground

But CARL outlawed consolidation due to the five-hectare retention limit. So consolidation through conveyance of property rights has to be done in the illegal underground market where contracts are less stable. The Department of Agrarian Reform (1996) had reported what everyone already knows: "… rampant selling and mortgaging of lands awarded to farmer beneficiaries." The proportion of farmer beneficiaries in any village who have had a sale transaction on land despite it being illegal ranged from 7% to 100% (cited by Ballesteros and De la Cruz, 2006). Economic logic will not be denied! When the size of land ownership is unviable, consolidation will occur even when outlawed. It is happening but at a much higher transaction cost in underground markets.

If property rights are being conveyed in the illegal underground land market, property rights are unstable. They are not protected by the legal system. Furthermore, while sale, conveyance of land and land rental (in the form of "waiver") are legal after the proscription period and after full payment, the requirements are so voluminous and corruption-prone that the underground market—despite the high transactions cost—becomes the only way forward. Thus, CARL effectively de-modernized agriculture by pushing transactions to the underground market.

3. Forced Entrepreneurship

CARL mandates that all bona-fide tenants be awarded a parcel of land and where the land ceiling has not been breached after distribution to tenants, landless non-tenants are included among the beneficiaries. Because of Section 27, they must then become owner-cultivators in order to retain the land. Now as lowly as society views farming in this country, running a farm is, truth be told, a complex entrepreneurial and managerial undertaking. The farmer-owner has to arrange financing, do the land preparation, procure the seeds and fertilizer, do the weeding, decide on the timing of planting, seeding and harvest, contract a buyer and negotiate the price with the buyer and hope to God the weather cooperates. Since this climatic cooperation is a random event, the farmer has to secure an insurance of some form or other. In LDCs, size—whether of the firm or land ownership—affords a form of insurance. With average landholding of 1.2 hectares, the farmer must resort to the most primitive home-made insurance, namely, low yield-low-risk (largely fertilizer-starved) cultivation. Few people are equipped to deal successfully with this plethora of decisions. To think that the only barrier to farmer entrepreneurship is ownership of land is the height of naïveté! If the beneficiary does not have the

requisite entrepreneurship and managerial aptitude, he/she will surely drown in debt and may fare better as a wage employee. But with CARP, he/she cannot legally opt out if he/she wants to hold on to the land; he/she is forced to be an entrepreneur!. That "voting with your feet" is an efficiency mechanism illustrated by the Kibbutz-Kolkhoz Paradox (Guttman and Schnytzer, 1989) (**Box 1**).

Box 1
The Kibbutz-Kolkhoz Paradox

The Israeli Kibbutz was generally regarded as rather economically efficient (its oranges and fruits compete for markets in Europe) and successful while the Russian Kolkhoz was by general regard a disaster! Both were run as egalitarian collectives where participants get equal share. One big difference and apparent key to the puzzle is self-selection of members: the Kibbutz members, coming from far and wide, *choose* to be members of such egalitarian regimes; the members of the Kolkhoz are *forced* to be members by virtue of being in locality. This means that the heterogeneity of preference which causes problems in social choice is absent in the Kibbutz but present in the Kolkhoz. This is also true of the communistic Christian collectives (Amanah). This shows that people have different types and successful regimes allow self-selection by members.

There are many other reasons why the farmer-beneficiary may want to opt out. He/she may be physically incapacitated and the children have left the farm; he/she may feel that the best use of the land asset is to sell or mortgage it for a sum that will finance an OFW job for a child or the graduation thereof. In many rural areas, people no longer associate upward mobility with farm ownership but with OFW remittance. Indeed, the role of OFW remittance as the source of financing for purchases in the rural land market is very pronounced (Ballesteros and de la Cruz, 2006). That OFW remittance appears to be for now the only tangible source of upward mobility in the rural areas suggests a re-crafting of poverty reduction programs towards enabling the rural poor to access such a prosperity pipeline most notably through education. Farm ownership used to be the primary touchstone of rural affluence. That was long ago.

4. Size Economies

CARL mandates land awards to be at most three hectares for all crops. In practice, land awards are much smaller. Ideology—not evidence—made "small is beautiful" the rallying cry. The empirical evidence had, for two decades before 1988, been viewed as favoring land ceiling and distribution. Studies after studies (starting with Sen, 1962; Berry and Cline, 1979; see Chattopadyay and Sengupta, 1997, for a review) appeared to show that per hectare production of rice increased with a fall in farm size (the inverse farm size-productivity relation) thus suggesting dis-economies of size in rice cultivation. The two regularities that appeared to be by then empirically accepted in the rice cultivation were that (a) small farms tend to be more productive than larger ones and that (b) owner-cultivated plot tends to be more productive than tenancy-cultivated plots, correcting for size (Shaban, 1987). These provided the twin equity-and-efficiency impetus for land ownership ceiling and land redistribution. But it is another thing altogether to say that three hectares is viable. If a sample ranging from ten to 500

hectares shows that larger land size delivers smaller output per hectare, it does not say that you can keep body and soul together with three hectares. But for the framers and advocates of CARL, that was un-necessary detail.

The convenient land-size-productivity consensus, however, started to erode in late 1980s. In 1988, Bhalla and Roy (1988), in what is now considered a landmark study, showed that when previously omitted variable, land quality, was controlled for in the earlier studies, the inverse farm size-productivity relation reversed sign, and robustly so. The economic efficiency argument for land redistribution was, even in rice, put into serious question! Since then, the evidence has tended to conflict (Fan and Chan-Kang, 2005; Alvarez and Arias, 2003), reviewing the extant studies, found both size-economies and size-diseconomies. Size-economies appear to be mediated by some indivisible input and managerial ability was identified as the leading candidate indivisible input. Ballesteros, Edillon and Piza (2008: APPC Sub-Sub-Study 1) using a translog cost function regression found that for rice, the average cost is falling at a decreasing rate and the index of scale economies (SCE) is positive, suggesting a modest scale economies. The authors conjecture that the decrease may be zero (an inflection point will occur) for larger outputs (>20th kilograms output) but this is not necessarily the case. The average cost can continue falling at a decreasing rate indefinitely (may be asymptotic to the output line). This contrasts with their other result that diseconomies of size cannot be rejected in their land size-profitability regression using data that run across crops but predominantly rice and corn. Where size-economies exist but is suppressed, economic viability is tenuous. This is especially true in crops other than rice. The result is rampant illegal and underground consolidation.

One crop where a sufficient number of studies appear in agreement is sugar. Sugar farms in Trinidad and Tobago were studied for optimal size by Palmer and Pemberton (2007) who found that 13-hectare farms exhibited the minimum average cost output, and further estimated that 98% of the farms fell below this size. Briones (2008, APPC Sub-Study #3) found that increasing returns-to-scale in sugar farms occurs below 58 hectares, which is 53% higher than the hectarage of mean output. De los Santos and Mendoza (2002) surveyed 304 ARBs growing sugarcane during crop years 1994-1997. They found that the per-hectare yield was up to 31% lower than that of respective non-ARB planters in the district.

5. Suppression of the Coase Theorem

The size economies problem will diminish where the Coase theorem is allowed to operate. A beautiful result due to Ronald Coase, Nobel Memorial Prize winner in Economic Science, the Coase theorem says that initial distribution of an asset, such as land, will not deter efficiency if the asset is tradeable and transaction of asset trades is low. Such asset transfers can happen voluntarily if the transactions cost of exchange is low. It implies, in effect, that asset redistribution to favor equity need not sacrifice economic efficiency as long as assets can be subsequently traded in the market. **Box 2** illustrates the common sense nature of the Coase Theorem in the case of land transfer from rich landowner Pedro to poor landless tenant Juan. That landless Juan is more (or at worse no less) productive than landowner Pedro is the core assumption of most of land reform programs around the world, CARP included. If the assumption is correct for any reason, equity and efficiency (at first instance)

are both served and adding proscription of land market transactions risks only economic inefficiency of the second instance.

Box 2
A Welfare Improving Coasian Bargain

Pedro and Juan are farmers. Pedro (rich one) has the title to piece of land L; Juan is poor and landless. Suppose Pedro can produce 100 cavans of rice per hectare; Juan can produce 50 cavans per hectare (is less productive for whatever reason some of which will be treated below). Suppose, we transfer land L from Pedro to Juan, we serve equity by making Juan asset-wise richer. If, as part of the transfer program, we do not allow any market transactions on land (sale, lease or other tenancy arrangement), Juan has to till the land himself and will produce 50 cavans of rice per hectare instead of the hundred per hectare previously produced when Pedro owned the land. Society—which used to harvest 100 cavans/ha now—loses 50 cavans/ha. Society gets equity at the expense of 50 cavans/ha (economic inefficiency). If, however, no such strictures on land transactions are imposed so land can be traded or leased, Juan can, say, lease the land to Pedro who proceeds to produce 100 cavans/ha of rice. He pays Juan 60 cavans per hectare as rent and keeps 40 for himself. Juan is better off and society does not incur the loss of 50 cavans per hectare. Equity has been served without sacrificing efficiency. The culprit is not the transfer of property rights but the strictures prohibiting transactions on land! If landless Juan is the more productive (100 cavans/ha) than landowner Pedro (50 cavans/ha), then redistribution in favor of Juan serves both equity and efficiency as society moves from 50 to 100 cavans per hectare (economic efficiency at first instance). However, if for some reason Juan is incapacitated or decides to quit farming, and he is forbidden to sell or lease the land to another, the land will produce zero cavans (economic inefficiency at second instance). By contrast, no loss of efficiency is incurred when sale or lease is allowed. That is the Coase Theorem!

Unfortunately, this core assumption may be wrong. No matter, this assumption has prompted the illegalization of market transactions on land which effectively blocks the Coase theorem.

6. Capital Flight from the Agriculture

The strictures on ownership and the additional uncertainty of property rights lead to the exodus of private capital from the agriculture (Carter and Olinto, 2003; see also De Soto, 2000). Private capital allows the potential for economic surplus to be realized. If the economic potential does not exist or is inferior, private capital will go elsewhere. The legal bias of CARL for smallness in agriculture limits the scale-up potential of investment in agriculture. The San Miguel Food, Inc. investment in a pig farm (requiring a land area in excess of the retention limit) in Sumilao would have been mothballed had the strict interpretation of Section 23 of CARL prevailed. It took some fancy footwork and the direct involvement of many notables including Malacañang tenants to save the project. Even then, the message is: stay clear. Fixed capital investments, which require volume to make economic sense, are notoriously shy towards smallness and notoriously averse to legal uncertainty associated with land. This capital flight is helped along by the compensation program of CARP: the compensation for acquired lands by CARP itself is partly in the form of cash and partly in the form government financial instruments (in practice, Land Bank Bonds representing landowners' investment in state-owned corporations) and private capital is being transferred from agriculture to industry. Although we do not have a handy

measure of capital flight from agriculture, it is generally believed that this is the main cause of the perennial under-utilization of the agri-agra program (some % of bank loan portfolio must be to Agriculture) and rural stagnation in the Philippines.

7. Underground Coasian Bargains to the Rescue

Land rental (lease) is important because it is one of the ways (land sale is another) by which farmers adjust their farm sizes to optimal levels. It allows the separation of ownership from cultivation of land and allows ability and efficiency to be harnessed. It is thus one of the institutions of rural efficiency. Ballesteros and Bresciani (2008) using the IARDS data set cited above show that land ownership, ownership of land in excess of five hectares, and access to credit form the prime determinants of participation in the land rental market and especially in the demand for for-rent-land. Since formal sale or conveyance of awarded land is prohibited, the more buoyant rural rental market operates underground where the borrowing cost is so much higher and contract enforcement is by private muscle. These so-called illegal transactions are, however, serving rural efficiency. Stupid rules get their due, namely, non-compliance!

8. Credit Market and the Rural Land Market

The twinning of the rural credit and the land markets is a fact of life in the universe of asset-poor rural areas. The markets for land consist of land rental and land sale. The rural land markets allow Coasian bargains over the use of land and are thus very important efficiency mechanisms. The rural economy (as will any economy as shown by the present crisis) will die without credit flow. Formal rural credit market, like its counterpart in more developed financial markets, must solve the moral hazard and adverse selection problems (Stiglitz and Weiss, 1981) and cannot prosper without the rural land markets that facilitate the use of land as collateral. The legal creditor in case of foreclosure can neither own it (more than five hectares is illegal) nor sell it (no buyers) and so would rather not lend. Ballesteros, Edillon and Piza (2008, APPC Sub-Study #1) shows that access to formal credit rises with ownership of titled land, cooperative membership and affluence of household as expected in a credit-constrained setting. But neither being an ARB or an ARC member improves access. Worse, an ARB having a titled land reduces access to formal credit, which implies that this category automatically increases credit risk! If the beneficiary of land reform cannot access production credit, he is condemned to destitution even while in possession of a potentially valuable asset. The whole gamut of restrictions strips land assets of inherent value. Fortunately, the market is resilient.

The underground credit market has stepped into the vacuum left by the formal credit market. A farm sector without a functioning credit market is a dead sector so the underground credit market is a savior even when based on contracts that are illegal. It has two very pronounced tolls: first, it is a very high financing cost market. For example, 60% is the interest rate charged per crop season in Maragol and Gabaldon in Nueva Ecija in one survey in 1998 vs. 9.5% every 6 months from the local bank. Ballesteros, Edillon and Piza (2008 APPC Sub-Study #1) show that, on average, the cost of credit is

double that in the formal sector. Indeed, the interest rate is close to the imputed interest rate in the share-tenancy contracts (about 70%). That makes for poverty-stricken farmers ARB or non-ARB.

Second, it also erodes the sense of rule of law in the area. When law-breaking is the only way to survive, law-breaking becomes a way of life and the corruption of enforcers is inevitable. This spills over to other laws. Thirdly, it effectively enfranchises those lenders who have the clout to privately enforce abidance with contracts. In other words, Mafia-style enforcers thrive. Sections 23, 25 and 27 of CARL, in effect, imposed a permanent legal *credit crunch* in the rural sector by driving the credit market underground. Once more, stupid rules.

9. Land Conversion and Rent Seeking

One aspect of CARP where rent-seeking has been enabled by discretion is land conversion. Conversion of awarded agricultural lands to urban use is allowed by CARL Section 37 after five years elapsed time, provided the beneficiary has fully paid and with the permission of DAR. Section 37 is an upshot of Section 27. It is inevitable that some awarded lands will become encroached upon by urbanization and the opportunity cost associated with continued farming of such lands will rise. It is the imperative of economic efficiency that the country's assets be used to generate the highest possible return. Thus, allowing conversion makes economic sense. Since few beneficiaries ever get to fully pay after five years of farm cultivation, subverting this restriction has become very lucrative for rent-seeking brokers/politicians. The land reform beneficiary who is constrained by CARL from conversion will also hasten conversion by idling the land (a common ploy among landowners, in general), which is why "idle lands" abound. Furthermore, extant irrigation have been reported destroyed to avoid being subject to or avoid the legal restriction on irrigated land conversion. This is a very wasteful—nay indecent, but normal—outcome of dubious strictures. Thus, illegal land transactions and conversion will continue to happen but outside the law and brokered by powerful enforcers who are above the law. If Section 27 is not there, Section 37 would be unnecessary.

B. Design and Implementation Flaws

There are a number of factors contributing to the poor performance of CARP and related to the capacity of the state to deliver. One is the protracted implementation of CARP; the other is the incompleteness of the awards in the form of collective CLOAS.

1. Underprovision and Comprehensiveness

CARP has dragged on for over two decades now; this means that the Philippine agricultural economy has suffered two decades of ill-defined and contested property rights leading to highly uncertain investment climate in agriculture. Unsettled property rights has always in history been a predictor of economic stagnation (North, 1990; Acomoglu and Robinson, 2001) and the Philippine farm sector is just another instance of this.

CARP's meager harvest is rationalized as being due to "incompleteness", that is, the extension services required to make the farmers economically viable were "underprovided". Their common prescription is therefore to throw more money at the failure. Some will now advocate CARPERER.

We do not share this view. First, "underprovision" or "incompleteness"—a common excuse for failure of land reform all over the world (De Janvry and Sadoulet, 2002)—does not have a simple objective definition. "Under-provision" appears frequently to be defined by the failure itself: if a program fails, it is underprovided. More often, a program fails because of bad design and no amount of money can save it. More money is just a prescription for permanent failure. Why, indeed, succeed when failure brings the money. Second, there is better use for the money. Would not the ₱160 billion already spent for LAD by 2009 have been better spent to subsidize the education of the children of target landless tenant households? If converted into cash grants to two million households, this money would have afforded ₱80,000 per household or ₱4,000 per year per family for 20 years. Has CARP accorded its beneficiary households as much? According to the IARDS data, the difference between the net profit of ARBs-not-in-ARC and Non-ARBs-not-in-ARC in 2006 is ₱3,155, which falls below ₱4,000. Third, flawed design will make a program a resource black hole. CARP was—and CARPER is—fundamentally flawed in its design: it seeks to empower the beneficiary with land ownership and then undermines this ownership by (a) forcing a three-hectare limit on awarded farm sizes for all crops, thus, negating possible scale economies (rife in sugar, for example); and (b) outlawing the tradability of land and/or its use which would facilitate more optimal use and assignment. The demise of the formal land market effectively disemboweled the formal rural credit market, making credit accessible only from the underground- or trader-mediated credit markets. The exorbitant interest rates in the latter (up to 70%) mean that the farmer is no better than under a share-tenancy contract (50-70%). When the design is flawed to start with, more money will only fall on and wither in barren soil!

2. Collective CLOAS (Certificates of Land Ownership Awards)

Long after land has been acquired, property rights of beneficiaries remain unsettled, as about 70% of the CLOAS awarded to beneficiaries remain collective ("collective CLOAS"). Collective CLOAS involve one million farmers and two million hectares! These are property rights in legal limbo representing an even more complete denial of the Coase theorem. The Philippine experience of collective property rights mirrors that of Latin America (namely, Mexico, Chile, Peru, Honduras, Nicaragua, and El Salvador) where the most common arrangements in the first phase of land reform were "collectives" and "*ejidos*" (De Janvry and Sadoulet, 2002; De Janvry, Sadoulet and Wolford, 1998). Only in the second phase—starting around 1970s—was individual parcelization introduced. In Mexico, the *ejido* system started to be parcelized only in 1992 after decades of collective ownership and poverty. Even then, the parcelization has been slow and painstaking. A beneficiary cannot plan long term on a collective CLOA. No investment in long-gestating irrigation or fruit trees. It has no value as a credit come-on. Ballesteros, Edillon and Piza (2008, APPC Sub-Study #1) show that whereas being a land title holder significantly improves formal credit access, being an agrarian reform title holder, by contrast, significantly reduces access to formal credit! This is due partly to collective CLOAS and partly to ownership size restrictions. While there is a need to transform collective to individual CLOAS, it may be

only a partial solution. Even with parcelization, awarded lands remain saddled with restrictions (Section 27) that may render them economically unviable. Such a regime will only result in landed destitution.

WHERE FROM HERE?

There are many reasons why CARP has failed in its most crucial test. CARP has effectively chased away private capital from agriculture with the five-hectare ownership limit. While private capital is not interested in owning the land, they cannot be expected to deal with a thousand farmers to rent two thousand hectares to cultivate. Where private capital dared test the waters, it ended up in a circus: e.g., the San Miguel Food Corporation swine project at Sumilao. CARP has effectively sent the agricultural credit market underground. It has presumed that farmers automatically morph into entrepreneur-businessmen with access to land. CARP has suppressed the Coase Theorem by disallowing the selling or renting of land in the open market until paid up, and paid-up is elusive under the CARP restrictions. With 1.2 hectares average landholding and half a hectare under cultivation, on average, beneficiaries cannot be expected to breach the poverty ceiling. The land market has also gone underground. CARP has only created a new class of people, the landed poor.

For everything there is a season and now is the time to let go. We now have to redirect our agricultural focus from land equity to farm efficiency. More productive farmers should now be allowed to legally own and cultivate ten or more hectares as market efficiency dictates. Corporations registered with the Philippine Stock Exchange and owned by thousands should have no agricultural land ownership ceiling. The transition to individual from collective CLOAS must be concluded for efficiency. Poverty reduction and empowerment programs for farmers should now take more direct forms such as via CCT.

Private capital must be attracted back into agriculture. Banks operating in the rural areas and lending to farmers should be allowed considerable latitude in ownership of agricultural land. Development requires the shift of manpower and resources from the informal to the formal sector. CARP has instead effected a *massive de-formalization* of agriculture! Time to allow agriculture to march out of the informal into the formal sector.

It is time in other words to *stop redistributing poverty!*

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