ASSISTING THE PHILIPPINE GOVERNMENT TO COMPLETE AGRARIAN REFORM: A CASE STUDY IN THE SUPPORT FOR INSTITUTIONAL CHANGE THROUGH CAPACITY DEVELOPMENT*

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Abstract: This paper reports on the ongoing technical assistance project by the World Bank providing inputs to the Philippine government on its agrarian reform implementation. The budgetary provision for the Comprehensive Agrarian Reform Program (CARP), enacted in 1988, expires in 2008, and the Philippine congress is currently debating its extension. Possible modifications of its implementation modalities and of the priorities among its program components are critical policy decisions that the government needs to make in the coming months. Seizing this opportune timing, the project intends to produce a technical report containing an assessment of the impact of CARP implementation in the past two decades as well as a set of policy recommendations based on the lessons learned. The paper summarizes the main findings of the report with a main focus on the CARP impact on rural poverty. The paper also discusses some of the author's very preliminary observations on the potential needs for capacity development in terms of allowing government agencies to move toward policy making based upon solid scientific evidence.

1. Introduction

The main intention of this paper, in the context of the CD-IC Conference, is to provide a specific case study that can potentially be interpreted in the context of 'Capacity Development and Institutional Change (CD-IC)" in international development cooperation. I report on a technical assistance project organized by the World Bank providing policy inputs/advice to the Philippine government on its policies on land/agrarian reform.

This project is not an explicitly CD project where, for example, training components play a prominent role. Nevertheless, the project can be seen to include a capacity development objective in the sense that one of the goals of the present exercise is to assist the Philippine government to formulate/modify policies supported by timely but rigorous analytical evidence. .

The project has potential implications for institutional change (IC) in a few distinct

* This paper draws on an ongoing World Bank project in which the author is a team member. The author would like to thank Fabrizio Bresciani, the Task Team Leader at the Bank, and Arsenio M. Balisacan, the lead consultant for the project, for their initiative and for numerous discussions, Sharon Faye Piza for superb research assistance, Asia Pacific Policy Center for data support and the DAR-UPLB Comprehensive Agrarian Reform Program Impact Assessment Project for the dataset used in this study. The views expressed in this paper are those of the author alone and do not represent the views of the World Bank.
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ways. First, the agrarian (land) reform policies/laws involve the idea of changing one of the most deeply rooted socio-economic institutions, i.e., the rules governing the ownership and the operation of agricultural lands. At the core of re-distributive land reform programs, of which the Comprehensive Agrarian Reform Program (CARP) in the Philippine is an example, lies the intention to change, by law (through the state authority), the patterns of land ownership, as historically formed, for the purposes of greater social equity and production efficiency.

Secondly, the project is still ongoing as the Philippine Congress continues to debate its extension before CARL expires in December 2008. The debates involve not only those of whether or not, as well as how long, CARP should be extended but also how CARP should be amended, if necessary. Given its timing, the present project would provide inputs to law makers in their efforts to extend and amend the law so that the policy making would reflect sound analytical evidence. Thus, the project, due to its timing, interacts with one of the most fundamental aspects of institutions in any country, viz. legislative processes. Finally, the project intends to provide inputs to the institutional setting of the *implementation* of (possibly amended) CARP in the near future. Such aspects of 'institution' include, among others: the organization of the main executing agency, the Department of Agrarian Reform (DAR), its relationships with other line agencies (e.g., DENR, DA, DHPW, etc.), budgetary allocations among such agencies as well as within agencies among different levels, its relationship with local government units (LGUs), and priority setting among different components of CARP.

I have to emphasize that the project is still ongoing, and that neither the final shape of the project, nor the outcomes of Congressional processes, have yet emerged as of this writing. In this paper, I report on the main components of the project report that have emerged so far, and the main gaps that have been identified in terms of analytical capacity to support evidence-based policy making in the Philippines.

The rest of the paper is organized as follows. The next section provides a brief background of the project, including the policy context of land reform in the Philippines. Section 3 describes the main objectives of the project as well as the major policy issues being addressed. Section 4 reports on some of the initial findings to be included in the project report. Section 5 discusses preliminary findings regarding major areas for capacity development needs/gaps in pushing the government toward more 'evidence-based' policy formulation. The final section concludes the paper.

2. Background and context of carp extension

Historical background

Both theoretical and empirical developments in the development economics literature in the past few decades have demonstrated many aspects of the negative socio-economic consequences of high inequality in the distribution of wealth (e.g., Dasgupta and Ray 1986, Bardhan and Udry 2000). High inequality has been found to hinder subsequent economic growth (e.g., Pearson and Tabellini 1994), inhibit the poor from realizing their full potentials in economic activities (e.g., Deininger and Squire 1998), encourage rent-seeking activities (e. g,. Rodrik 1996), and reduce the poverty reduction impact of economic growth (Ravallion and Datt). The Philippines is arguably a classic

example of an economy suffering from all of these consequences (Balisacan, Fuwa and Debuque 2003).

The Philippines has long been known for its relatively high inequality in distribution of income and wealth (e.g., Balisacan 2003), with a long history of intermittent incidence of peasant unrest and rural insurgencies. As a result, the issue of land reform has continuously been on political agenda at least since the early part of the 20th century. Furthermore, after the 'EDSA revolution' which toppled the presidency of Ferdinand Marcos in 1986, land reform was on the top priority policy agenda for the newly-born presidency of Corazon Aquino. Although the basic thrust of land reform in the Philippines was mostly in place, at least on paper, by the 1960s, the Comprehensive Agrarian Reform Law (CARL, or Republic Act 6657) enacted during the Aquino administration in 1988 expanded its scope significantly. [1]

Accomplishments:

Twenty years after the enactment of CARL, however, the performance of the agricultural sector in the Philippines, as well as the implementation record of the Comprehensive Agrarian Reform Program (CARP), has been well below its initial expectation. The growth in agricultural productivity, for example, has remained relatively low; total factor productivity in agriculture grew only by 9% during the period between 1980 and 1998, compared to 27% in Thailand and 49% in Indonesia (World Bank). The relative performance of the Philippines in rural poverty reduction has been similarly dismal compared to the impressive record of its Asian neighbors (Balisacan and Fuwa 2004, 2007).

Furthermore, the implementation of CARP (i.e., actual re-distribution of lands according to the land reform law) has proceeded in a much slower pace than the provision of the law. The Philippine legislature allocated 53 billion pesos for the implementation of the land re-distribution and other supporting programs during the ten year period between 1988 and 1998, and then additional 50 billion pesos were allocated for the following ten years (1998-2008). With the investment of those public funds over the two decades, however, the implementation of the land re-distribution program remains grossly inadequate. While, at the aggregate level, 89% of the potential 'scope' (i.e., potential land areas for land-redistribution) was already covered by CARP by the end of 2007(?), much of this 'accomplishment' is concentrated on the non-contentious land types, such as publicly owned lands. On the other hand, in the category of 'compulsory acquisition (CA)' (i.e., the tract of privately owned lands of the size beyond the legal retention limits, which is to be purchased by the government for re-distribution to the land reform beneficiaries), which constitutes the core of the CARP, only 18% of the total 'scope' has been covered. The 'CA' category constitutes one third of the total 'scope' (the estimated total area of lands to be redistributed among farmer beneficiaries as of 1988), by far the largest category. In other words, over 80 percent of this core category of land distribution program is still unfinished 20 years after the CARP legislation (APPC 2008).

In addition, even for those land areas that have been already 'covered' (lands that have been declared by the government to be re-distributed) by the program, a large proportion of those lands have been covered with 'Collective' Certificates of Land Ownership Award (CLOA). 'Collective' CLOAs identify a set of parcels of lands owned by a landowner involving a collection of (potential) farmer beneficiaries and declare those

lands be re-distributed among those beneficiaries, but stop short of assigning parcels to each beneficiary. Without establishing clear boundaries for each farmer beneficiaries, there is little tenure security, and thus there can be little change in farming operations compared to the pre-reform period. While the issuance of such 'Collective' CLOAs is meant as a starting point of the actual land redistribution, it has been found that in a majority of areas the process of land redistribution stopped after the issuance of the collective CLOAs. Thus, the actual 'accomplishments' (i.e, the lands actually re-distributed to individual farmer beneficiaries with clearly defined land parcels with secure titles) are likely to be even lower than the dismal record of official 'accomplishments' as described above (e.g., only 18% of the CA program accomplished). (See APPC 2007 for more details)

Current timing:

Despite the slow pace of CARP implementation over the past two decades, under the current law, CARP was initially to expire in June 2008. During the State of the Nation address in early 2008, President Gloria Macapagal-Arroyo expressed her intention to pursue the extension of CARP with some reform in its implementation schemes. She expressed her interest in reforming CARP in the direction of "making it more supportive of the national agribusiness development strategy while ensuring the original equity and social stability goals" (World Bank). The Congress has been debating whether CARP should be extended and, if so, how the modalities and the length of such an extension should be set. Earlier, a widely-shared expectation appeared to be that the Congress would act upon the CARP extension issue by the originally-set expiration date in June (World Bank). It came as a surprise, then, in early June, the Congress decided to extend/postpone the expiration date of *current* CARP until December 2008, and to continue the debate on its extension (beyond 2008) in the meantime. As of this writing, the Congress is to resume its debate in July 2008 and to determine its fate beyond 2008 by its (extended) expiry in December.

Changing political landscape:

As anther aspect of the political and economic backdrop of the current debate on CARP extension, observers have noted the sharp contrast in the political landscape between the late 1980s, when CARP was initially enacted, and today. When CARP was first enacted in 1988, two years after the start of Aquino presidency, agrarian reform was among the top policy agenda. At the background were the perceived imminent threats of rural insurgency led by New Peoples Army (the military arm of the Communist Party of the Philippines) which had gained significant acceptance in various parts of the country in response to the political and economic crises under the Marcos dictatorship (e.g., Wurfel 1988, Reidinger 1995). In addition, the issue of 'genuine agrarian reform' had become one of the main campaign promise that would unite a broad anti-Marcos coalition ranging from the right wing of Catholic Church, the business community to militant grassroots movements during the final period of the Marcos presidency (e.g., Fuwa 2000, Putzel 1992). Although fierce political battles over the content of the agrarian reform law (e.g., the extent of re-distributive nature of the reform, the maximum retention limit on the size of landholdings, etc.) were waged, inevitably, during the initial two years of Aquino presidency, a broad political support for agrarian reform legislation apparently existed. [2]

In contrast, in 2008, the political climate appears to be markedly different. The kind

of the broad political coalition behind the initial CARP legislation in 1988 does not exist for an extension of CARP. In fact, some of the mainstream peasant organizations (which had been among the main political force for redistributive land reform) have decided to oppose a CARP extension, on the ground that the CARP, in its current form, is ineffective and unacceptable. When the Congress failed to reach an agreement in the CARP extension debate in early June, there was a mobilized protest by some peasant organizations, but the size and intensity of the protest was surprisingly modest. This appeared to be in a sharp and symbolic contrast with the infamous "Mendiola Bridge massacre" in January 1987, where thirteen members and supporters of Kilusang Magbubukid ng Pilipinas (Peasant Movement of the Philippines) holding a massive rally demanding 'a genuine land reform' were killed near Malacañan Palace.

Such a sharp contrast, however, is not surprising. As we will see in section four below, the economic activities in rural areas diversified considerably over the past few decades. As a result, gaining access to agricultural land is only one of several possible 'pathways' out of rural poverty in many areas. At the same time, landowners, on their part, also diversified into various non-agricultural sectors with higher returns than in agriculture, and thus agricultural landholdings are not as crucial as they used to be. In general, there has been a shift, across wide range of social strata, from agricultural land toward human capital as a main source of income-generating wealth. As a result, the stake of redistributive land reform, both for the landless and for landowners, has become somewhat muted compared to the time of CARP legislation in the late 1980s.

3. The project description

In the following, I report on a World Bank technical assistance project aimed at providing inputs to policy makers within the Philippine government in the current debate on the extension of CARP. As stated in its funding proposal (World Bank 2007), the World Bank project:

> "intends to provide analytical support to the Government of the Philippines in its thrust for improving the welfare of the rural poor through the extension of the CARP. To that end it will examine the current articulation and structure of the agrarian reform program in the Philippines and its consistency with respect to the broader rural development agenda currently pursued by the government and the challenges and constraints presently faced by the Philippine society more in general. The ultimate goal is to derive a set of policy implications and elaborate possible solutions aimed at making the agrarian reform program's implementation swifter, improving its sustainability, strengthening its consistency with respect to the broader goals of rural development and poverty reduction, and enhancing its feasibility given the estimated available resources."

With the goal as stated, the project would produce a 'Technical Report drafted in a non-technical language accessible by non-economists that will highlight the main policy options to reform CARP and land policies in order to foster pro-poor rural and agricultural growth" (World Bank 2007).

A team of consultants, composed of academics, has been assembled to co-author the report with a few World Bank staff members. In addition, a technical background paper was commissioned to conduct some original data analysis to feed into the report. In view of other existing studies on policy issues closely related to agrarian reform (including R & D reforms and extension services, rural financial markets, natural resource management, public expenditure reviews, etc.), the report will be relatively narrowly focused on the following broad research topics (World Bank, 2007):

- The degree to which the strategy followed by DAR in delivering support services to agrarian reform communities is consistent with a pro-poor rural development strategy,
- The extent to which the current CARL framework affects land markets, farm productivity, the investment climate in rural areas and the viability of the small farm sector,
- Under which conditions the extension of the CARP will be able to meet the challenges it will face in the area of land distribution.

A major emphasis appears to be that the policy implications of the report be "analytically grounded": policy discussions be based on solid empirical evidence that meets the criteria of reasonable academic rigor and those of international best practices. While the study intends to maintain a high scientific standard, it does not intend to undertake full cost-benefit analyses.

Role of Agriculture in rural poverty reduction

Given the importance of the agricultural sector in rural areas in providing livelihood, there is no question that the growth in the agricultural sector should play a critical role in any attempt in poverty reduction in rural areas. In fact, a recent analysis based on the provincial panel data during 1988-1997, the reduction in poverty in response to the income growth in the agricultural sector is nearly 50% and 70% higher, if 'poverty' is measured by the poverty gap and the squared poverty gap indices, respectively, than that of the income growth in the non-agricultural sector.[3, 4] Furthermore, the same regression analysis suggests that the *increase* in poverty during a period of economic contraction (declining income) may be larger in response to non-agricultural income change than the change in poverty in response to the agricultural income change. This appears to imply potentially higher risks involved in relying on nonagricultural sector growth as an engine for (rural) poverty reduction with possibly larger setbacks in poverty incidence when the economy faces relatively large and negative income shocks (e.g., the Asian financial crisis, El Niño, etc.).

At the same time, however, the same provincial panel data covering the period between 1988-1997 also show that in the majority of the provinces poverty reduction was driven by the faster growth of the nonagricultural sector (e.g., in 46 out of the 50 provinces where poverty fell during 1988-1997—there were 70 provinces in all—, nonagricultural incomes grew faster than did agricultural incomes). This is not inconsistent with the notion that agricultural income growth tends to be more pro-poor than non-agricultural income growth. Though the 'growth elasticity of poverty reduction' *after controlling for the differential income shares* of the agricultural sector is higher than that of the nonagricultural

sector as we saw earlier, the effects of large shares or faster growth of non-agricultural income seem to dominate in a majority of provinces.

While in the majority of the provinces the growth of the nonagricultural income was higher than that of the agricultural income *and* poverty incidence fell, however, there are a sizble number of provinces where different patterns are observed. Unfortunately, studies documenting such diversity in alternative pathways out of rural poverty are rare due to the paucity of household-level panel data covering sufficiently long periods of time appropriate for such purposes. Nevertheless, the recent such studies tend to point to the crucial role played by the non-agricultural income growth in poverty reduction and the increase in the relative returns to education vis-à-vis agricultural land. (e.g., Hayami and Kikuchi 2000, Fuwa 1999, 2007, Hossain et al., Estudillo, Sawada and Otsuka, 2006). [5]

The relative importance among the specific sources of non-agricultural /non-farm economic activities that drive poverty reduction, however, appears to differ from one location to another. Such differences are likely to depend on geographical location (e.g., proximity to Manila and to local town centers) as well as other socio-economic characteristics and the ecosystems constraining/ defining agricultural production. In fact, the geographical coverage of those micro-level studies is extremely limited so far; they are based on longitudinal data drawn from a small number of rice-growing villages in Luzon and Panay islands. Therefore, those results need to be interpreted with ample care, taking into consideration the relative characteristics of the sampled communities.

Changes in Poverty Incidence and growth of ag. versus non-ag income among 70 province, 1988-1997

		Ag. vs. non-ag income growth rate during 1988-1997	
		∆ag.income > ∆non-ag income	∆ag.income < ∆non-ag income
∆poverty incidence during 1988-1997	increase	*poverty increase, via non-ag. income contraction* E. Samar, Lanao S., Masbate, Occ. Mindoro, Surigao N [5]	*poverty increase, via ag. Income contraction* Agusan N., Aklan, Bulacan, Cavite, Isabela, Laguna, Maguindanao, N. Ecija, Pampanga, W.Samar, S.Leyte, Sultan Kudarat, Surigao S., Zambales, Aurora [15]
	decrease	*poverty reduction, via ag. income growth* Agusan S, Benguet, Cagayan, Pangasinan [4]	*Poverty reduction, via non-ag. income growth* Abra, Albay, Antique, Bataan, Batanes, Batangas, Bohol, Bukidnon, Camarines N, Camarines S, Camiguin, Capiz, Catanduanes, Cebu, Davao N., Daavao S., Davao Or, Ifugao, Ilocos Norte, Ilocos Sur, Iloilo, Kalinga-Apayao, Lanao N, Leyte, Marinduque, Misamis Occ, Misamis Or, Mt. Province, Negros Occ, Negros Or, N Cotabato, N Samar, N. Viscaya, Or. Mindoro, Palawan, La Union, Quezon, Quirino, Romblon, Siquijor, Sorsogon, S Cotabato, Tarlac, Tawi-Tawi, Zamboanga N., Zamboanga S. [46]

The empirical evidence available thus far suggests, therefore, that there are multiple pathways out of rural poverty (including those through non-agricultural wage employment, non-farm enterprise, and international migration, to name only a few), of which the traditional pathway of climbing the "agricultural ladder" is only one. The agricultural pathway would be more likely to be suitable in certain geographical areas than in others, and for certain types of households than for others within the same community. Those observations, in turn, raise the question: given the variety of potential pathways out of poverty in a given area, has CARP been the best strategy for poverty reduction for different areas? To what extent has CARP been targeted to the areas (or the types of households) where land reform and agricultural growth provide the optimal poverty reduction strategy? What should be the appropriate criteria for identifying and targeting such areas or households?

Work is currently underway with some original data analysis to address these issues, and the findings will be incorporated in the final project report.

How much did the welfare level of CARP beneficiaries improve?

There are two distinct aspects of CARP components, i.e., land tenure improvement (LTI: such as land acquisition and distribution and conversion of share tenancy into leasehold), and program beneficiaries development (PBD: including the Agrarian Reform Community (ARC) strategy, consisting of support services such as irrigation, infrastructure, training, extension services, etc.) (APPC 2007). LTI mostly involves farm level interventions, while PBD mainly comprises community-level interventions. Accordingly, the examination of the impact of CARP implementation on poverty also needs to take note of those different levels of interventions.

Amid the general paucity of empirical studies documenting the causal impact of CARP implementation, there are a small number of studies constituting, collectively, some suggestive evidence. Reyes (2003) uses the household survey data including a sample of roughly 1000 farm households collected nationwide in 1990 and 2000, and finds that CARP beneficiary households (agrarian reform beneficiaries; ARBs) tended to have higher household income on average (P49, 594 in 1990; P98,653 in 2000) than did non-ARB households (P39,142 in 1990 and P76,156 in 2000) in both 1990 and in 2000. Positive correlations are also confirmed in the contexts of regression analyses with household characteristics controlled (using the cross-section data in 2000); the number of years being an ARB is positively correlated with percapita income (and also with the probability of being non-poor), after controlling for household size, schooling of the household head, access to irrigated land, 'access to credit' and whether or not residing in an Agrarian Reform Community (ARC), based on the 2000 cross-section regression analysis. [6]

In addition, Reyes (2003) reports that the headcount poverty ratio declined from 47.6% to 45.2% during 1990-2000 among ARBs while poverty incidence increased from 55.1% to 56.4% among non-ARBs. Furthermore, among the ARB households living under the poverty line as of 1990, 38% of them became non-poor by 2000 while somewhat lower 30% of the non-ARBs living below the poverty line in 1990 became *non*-poor during the same period; similarly, 30 % of the non-poor ARBs as of 1990 fell into poverty by 2000 and substantially higher 39% of the non-poor non-ARBs as of 1990 became poor by 2000. [7]

Taking an alternative approach and using a cross-section household survey with a much larger sample size and with richer community-level information in 2004 (Annual Poverty Indicators Survey merged with the Census of Population and Housing), APPC (2007) finds that, after controlling for a number of household and community characteristics (which do *not* include the size of landholdings), the percapita household consumption expenditure (as well as percapita income, net farm income and the probability of being non-poor) is significantly and positively correlated with both ARB and ARC status of the households. The regression results imply that gaining additional land access through LTI components of CARP (i.e., becoming an ARB) for initially landless households is associated with about 15% increase in percapita consumption expenditures, and, furthermore, residing in an ARC is associated with additional 7 to 8% higher consumption expenditures; combining the provision of land distribution and ARC projects thus is associated with 23% higher percapita consumption expenditures on average. If we were to take the quantitative magnitudes of the regression coefficients literally, the results imply that the LTI component of CARP appears to have roughly twice the impact of PBD components (support services and infrastructure development) on percapita consumption.

Finally there is no evidence, based on this model, that landless households benefit from the spillover of PBD interventions. There are reasons to be very cautious in taking those numbers at the face value, however, due to the potential endogeneity issues which are unavoidable in interpreting the kind of cross-section regression results being reported here (see endnote 6 above on Reyes 2003).

In addition to the analyses of CARP impact based on household-level observations, APPC (2007) also reports on a *barangay* (village)-level analysis focusing on the impact of ARC interventions (PBD components) on the (barangay-level) average level of household welfare. Unlike the cross-section regression results at the household-level that we have examined so far, this barangay-level analysis attempts to control for the potential endogeneity problem using the propensity score matching technique.[8] Based on the 'matched' comparison of 2,934 barangays with 1,467 ARCs (Agrarian Reform Communities: those villages receiving PBD interventions) and non-ARCs (those villages not receiving PBD interventions) each, APPC (2007) finds that the average percapita consumption expenditures in ARCs increased by 19.5%, from P12,157 in 1990 to P14,525 in 2000, while the average percapita consumption expenditures in the matched non-ARCs increased by slightly lower 18.3% from P12,189 in 1990 to P14,422 in 2000.[9] Similarly, the headcount poverty ratio in ARCs declined from 39.8% in 1990 to 24.2% while the poverty ratio in matched non-ARCs fell from 39% in 1990 to 24.6% in 2000. Estimated standard errors of percapita consumption are not reported, and thus the test of statistical significance in the observed differences between ARCs and non-ARCs cannot be carried out, but the point estimates suggest that the village-level average percapita consumption expenditures grew faster in ARC than in non-ARCs even after the effects of ARC targeting are (at least partially) controlled for. The quantitative magnitudes of the differences are quite modest, however.[10]

Apart from such micro-level evidence, Balisacan and Fuwa (2003, 2004) conducted provincial-level analysis, investigating the correlation between the provincial-level poverty outcomes and the regional-level accomplishments in CARP implementation. They find that during the period 1988-1997, CARP implementation is positively and significantly associated with both provincial mean income growth and poverty reduction, implying the possibility that CARP may have effects of both improving production efficiency (thus raising income growth) and equity (thus reducing poverty, even after controlling for the average income growth). A later replication of the same analysis based on the data period 1988-2000 finds, however, that CARP may have growth effects but not any significant distributive effect (Balisacan 2007). The evidence is somewhat mixed, therefore, but again, there exists additional suggestive evidence that CARP had significant effects on raising living standards among rural population.

In conclusion, while there have been few rigorous empirical analyses of the causal impact of CARP on the welfare-level (living standards) of its beneficiaries which meet the international standard of today's academic rigor (mostly due to the absence of relevant data for such analyses), a few pieces of empirical evidence do exist that is consistent with the positive effects of CARP. They tend to indicate that the recipients of LTI interventions are better off than their counterparts without LTI interventions, and a similar conclusion applies to PBD interventions (i.e., ARC projects). Although the evidence is even thinner, what little evidence that exists suggests the possibility that the quantitative impact of LTI on

household welfare may be about twice as large as that of PBD interventions, while the effects of PBD interventions on landless households living in the same community may be negligible. While there has been a notion (fear) that land-redistribution (i.e, LTI interventions) *alone* would not make much difference unless additional support services are provided, empirical results show that such a fear may not be well-founded. So, land re-distribution through CARP implementation (dismal though its implementation records have been) has actually benefited its beneficiaries, with or without additional support services provided through ARC interventions, and land tenure improvements should continue to be the core of CARP implementation.

Other Issues to be Addressed in the Project Report

While the findings are still yet to be available, the final project report intends to address following policy issues as well:

- Re-examination of the various alternative legal arrangements in lieu of/in addition to land redistribution allowed under CARP, including: Stock Distribution Options, Joint Venture Arrangements, Lease-back Arrangements, Contract-growing arrangements, and Management contracts.
- Implication of legal restrictions on land rental transactions and their effects on the viability of small farms.
- Prospects for land reform on Sugar lands where significant scale economies are believed to exist.
- Sustainability of land reform beneficiaries after the initial redistribution
- Challenges facing CARP implementation beyond 2008: the level and composition of fiscal support by the government; implications of the Biofuels Act; the growth in the demand for land for non-agricultural uses; incentive issues in the key implementing agencies; the political fallouts of 2010 election; global market shift—such as, the rise of integrated food supply chains, agribusiness corporations and supermarket 'revolution', and new markets for animal feed and biofuels.

4. Preliminary assessment of Capacity Development needs: Toward evidence-based policy making

In this section we focus on some of the identified needs in capacity development in terms of promoting analytically-grounded policy formulation. While there would be a number of potential areas where CD needs exist, our discussion in this section focuses on the knowledge gaps in terms of the policy issues discussed in the previous section, as identified so far. Since the project is still ongoing, this is quite preliminary. Furthermore, a more systematic examination of the CD needs in the *implementation* of land reform policies would be beyond the scope of this paper, at this point.

As we started reviewing the existing empirical literature on the impact of CARP as a basis for policy implications, what stood out was the conspicuous absence of solid empirical work documenting CARP impacts. While it is well known that causal inferences in social sciences (including economics), unlike in natural sciences, are plagued with serious difficulties due to the *non-experimental* nature of the data we typically analyze,

there has been a massive advance in the availability of relatively high quality data and in the analytical methodologies within the economics profession in the past two decades (e.g., Fuwa 2008a). The rapid increase in the availability of rigorous impact evaluation studies of various policy interventions (both by the government and by NGOs) in many developing countries is one consequence of such developments, which, in turn, has led to the general rise in the scientific threshold in establishing causal inferences in the academic world.[11] Accordingly, international best practices in micro-level (i.e., household level) data collection and in data analysis have also made major advances. In the area of impact assessments of CARP in the past two decades, however, there appears to be a gap between those studies found in the country and the international best practices.

Perhaps the most serious is the availability of relevant data. While attempts have been made to collect panel data at the household level for the purpose of evaluating the impacts of CARP, the data collection scheme, including questionnaire design, was not fully amenable to the originally stipulated purposes. For example, a set of panel data at the household level covering the period between 1990 and 2001 was collected as a part of a research project (funded by a number of donors including European Union and the World Bank) for CARP Impact assessment. While some useful descriptions were produced as outcomes of the project, the basic information suitable for the assessment of welfare levels and poverty outcomes (such as household consumption expenditures) were not collected according to the acceptable international standard, many variables collected with household questionnaires (including inputs for agricultural production, household enterprise activities, and household incomes) are not directly comparable between the 1990 and 2000 rounds, and detailed information for the identification and construction of household-panel (which has implications for attrition biases in any inference based on the panel data) is not readily available (Fuwa 2008). Due to such data limitations, commissioned studies trying to evaluate the impact of CARP were generally not able to utilize fully the potentially powerful nature of the household-level panel data.[12] Furthermore, a similar attempt to assess the impact of CARP was repeated in 2006. While the data collection scheme was somewhat improved in the 2006 data round, unfortunately, the most important shortcoming of the 2000 round of CARP Impact study still appears to persist: i.e., the non-comparability of the data rounds (i.e., 2000 versus 2006) and the absence of a dependable (by the international standard) indicator of household welfare.

This does not necessarily mean, however, that the analytical capacity does not exist in the country. In fact, for example, in part due to the relative paucity of the analytical evidence on the causal impact of CARP on rural poverty (and other outcomes) another study was commissioned in 2007 which looked at such issues. In part due to the potential data issues, some of which are raised in the previous paragraph, the study team utilized the data sources other than the household-level panel data mentioned above, including the national censuses (Censuses of Population and Housing and Agricultural Censuses, both conducted every decade) as well as the Family Income and Expenditure Surveys, which is a major nationally representative data source for living standards and poverty in the country (APPC 2007). Given the data limitations (most importantly the absence of household-level panel data), the study recently utilized analytical methodologies that have become standard within our profession in the last decade (such as the propensity score matching technique for the purpose of constructing 'control' group samples).

Another aspect the obstacles to evidence-based policy making that has transpired during the current policy debate is that the little empirical evidence that does exist has not been effectively disseminated beyond the narrow circle of professionals and/or researchers. Evidence has been produced, for example, showing positive correlations between CARP implementation and the level of household incomes, but such information does not seem to have been widely and effectively shared among legislators or NGOs.[13] There appear to be additional rooms, therefore, for whatever empirical evidence that do exist to be more widely transmitted in a timelier manner for policy debates.

5. Conclusions

Twenty years after the initial enactment of the Comprehensive Agrarian Reform Law (CARL) in 1988, the record of its actual implementation of land redistribution remains gross inadequate. In particular, over 80% of the privately owned lands, initially intended for the program coverage, remain uncovered by CARP. Meanwhile, the economic activities in rural areas diversified substantially over the past two decades, and, accordingly, pathways out of rural poverty have also become increasingly diverse, ranging from the traditional 'agricultural ladder' to various rural non-farm activities and to international migration. It has become increasingly an open question as to whether the agricultural growth and land reform are the optimal poverty reduction strategy in every region of the country.

Against such backgrounds, an extension of CARL is being debated in the Congress and this paper has reported on the progress of a World Bank project intending to provide inputs to the policy formulation of the CARP extension. Since the project itself, as well as the current policy debates, is still ongoing, it is difficult to draw any definitive conclusion at this point. However, some tentative and preliminary findings coming out of the project so far include the following:

- There is indeed some suggestive but nationwide evidence showing that CARP implementation has positive impact on the living standards of its beneficiaries, and that poverty reduction among CARP beneficiaries was faster than that among non-beneficiaries.
- The core of such impact of CARP arises from the land tenure improvement (LTI) such as land distribution. While additional support services, provided through the Agrarian Reform Community projects, provide additional benefits to agrarian reform beneficiaries (ARBs), the impact of LTI interventions may be as high as about twice that of the ARC impact.
- Those evidence, however, is suggestive but not definitive due to potential difficulty in making causal inferences due to the nature of the data being used in those studies. In fact there has been a serious shortage in the availability of high-quality data which can permit more definitive inferences regarding the impact of CARP. Despite the attempts to collect data for such analyses, the data that do exist tend not to meet the standards of international best practices.
- There appears to be a serious need for upgrading the data collection capacity, particularly in the area of household-level panel data sets, as well as its timely analyses.

- In addition, there appear to have been a relative lack of dissemination of the analytical evidence that does exist that informs policy discussions.

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NOTES

[1] For detailed documentation of the long and checkered history of agrarian reform in the Philippines, see, for example, Takigawa (1976), Balisacan (1990), Hayami, et al (1990), Putzel (1992), Reidinger (1995), and Fuwa (2000).

[2] See Fuwa (2000) for a more detailed synthesis of the literature on the political landscape leading to CARP legislation.

[3] This inference is based on an estimation of the following regression equation:

$$\Delta \ln P_i = \pi_1 s_{ag,i} \Delta \ln Y_{ag,i} + \pi_2 s_{non\text{-}ag,i} \Delta \ln Y_{non\text{-}ag,i} + \pi_3 s_{ag,i} \Delta \ln Y_{ag,i} * d(\Delta Y_i < 0) + \pi_4 s_{non\text{-}ag,i} \Delta \ln Y_{non\text{-}ag,i} * d(\Delta Y_i < 0) + \varepsilon_i$$

where P_i is a poverty measure in province i, $Y_{ag,i}$ and $Y_{non\text{-}ag,i}$ are per-capita income from the agricultural and non-agricultural sectors, respectively, in province i, s_{ag} and s_{ag} are the shares in the total percapita income of agricultural and non-agricultural incomes, respectively, in province i, $d(\Delta Y_i<0)$ is a dummy variable taking value one if the provincial economy contracted, rather than grew, during 1988-1997, the operator 'Δ' means taking the difference between 1997 and 1988, and π_1 are π_2 are the growth elasticity of agricultural income growth and of nonagricultural income growth, respectively. See Fuwa (2008b) for more details.

[4] If poverty is measured by the headcount poverty ratio, however, the difference in the 'growth elasticity of poverty reduction' between the agricultural and non-agricultural sectors is not significantly different from zero.

[5] Despite the importance of the growth in the non-agricultural sector, however, it is also important to emphasize that most of those studies also point to the crucial role played by the dramatic increase in the agricultural productivity due to the Green Revolution in the 1970s, which preceded the expansion in non-agricultural income opportunities. The increased income resulting from the agricultural productivity growth allowed farm households to invest in their children's education, which, in turn, allowed those children to benefit from the expansion of the employment opportunities in the non-agricultural sector.

[6] The positive correlations as observed here could *potentially* be a result of positive *causal* effect of CARP implementation. However, it is also possible that the income of ARBs tend to be higher because, due to various factors which are not (or cannot be) controlled in the regression analysis, ARBs tend to have higher income on average than those non-ARBs *even without* becoming CARP beneficiaries. For example, if some 'unobserved' factors (e.g., being endowed with lands with better

soil quality; having higher farm management skills, etc.) are directly related to both CARP implementation and household welfare outcomes, positive statistical correlations could emerge even if there is no direct causal relationship between the ARB status and higher income. The kind of difficulties in interpreting observed statistical correlations as causal relationships in the context of econometric analyses is broadly referred to as 'endogeneity problems' in the econometrics literature. See, for example, Wooldridge (2002), esp. Chapter 4.

[7] While such divergence between ARBs and non-ARBs may seem to suggest the positive impact of CARP implementation, there is also some suggestive evidence that the data may be seriously flawed. Gordoncillo et al (2003; 18) find in the same dataset that the median(mean) household size among ARBs declined form 6(6.3) to 5(5.3) during 1990-2000 while the mean household size declined much slowly from 5.7 to 5.3 (and there was no change in median household size at 5) among non-ARBs. Therefore, it appears that the diverging patterns in the change in percapita income and poverty incidence is mainly driven by the difference in the rate of decline in the household size, but it is not immediately clear why the household size had to decline much faster among ARBs than among non-ARBs. Unless a reasonable explanation is found for this observation, in my view, it is difficult to interpret the divergent patterns in the percapita income changes (as well as the changes in poverty incidence) between ARBs and non-ARBs, let alone the causal effect of CARP. If the real percapita income data between 1990 and 2000 were truly comparable, then causal impact of CARP implementation on the level of real percapita incomes could be inferred by regressing the change in the real percapita income during 1990-2000 on the change in the ARB status during the same period as well as the changes in the household and other regional characteristics, a procedure that could have controlled for the unobserved but time invariant factors affecting the level of welfare, such as land quality of the farm, the managerial and other ability of the farmer and the preferences of the household members (e.g., the spurious statistical correlation due to the possibility that farmers with better physical and/or managerial ability are more likely to become ARBs and also to have higher incomes can be avoided).

[8] In this approach, for each 'ARC barangay', a "control barangay" is selected among non-ARC barangays (villages without PBD interventions) by searching for a barangay that is the most similar to the ARC barangay in terms of the likelihood of ARC coverage, which, in turn, is inferred using the data on observable village-level characteristics. The causal impact of ARC interventions can be inferred as the average differences in the village-level welfare measures between the paired ARC and non-ARC barangays.

[9] In fact, the percapita consumption expenditures used here are not the actual figures which do not exist in the Census of Population and Housing, but rather predicted ones; they are obtained by first estimating the parameters of an income generating function using FIES (where consumption expenditures are observed) and then predicting percapita consumption using the Census data by plugging the right hand side variables (i.e., household and barangay characteristics) into the estimated income generating function.

[10] The relatively small difference found in the average percapita consumption expenditures between ARCs and non-ARCs (less than 1% in 2000) at the barangay-aggregate level here is not directly comparable with our earlier observation about the 7% higher percapita consumption of *landowning* households (ARB or otherwise) within ARCs compared to those within non-ARCs, after controlling for other household and community characteristics; this is in part because the former is the average across all households in the barangay including those households without land (and other non-ARBs) who tend to gain relatively little from ARC interventions. Having said that, both approaches (i. e., the regression and the matched comparison) of comparing cross-section differences in the level of percapita consumption expenditures in one point in time rely on the same basic assumption that there exist no additional (and unobserved) factors affecting the ARC (as well as the ARB, for that matter, in the case of the regression analysis) status once the effects of observed factors are accounted for (by including those variables as regressors in the regression, or by including those variables as the right-hand-side variables in the model estimating the propensity scores in the process of forming the 'matching' sample) and both approaches are vulnerable to the presence of any unobserved factors affecting both the ARC (or ARB) status and the outcome variables (percapita consumption, income, etc.), but it has also been a claim in the literature that "with good data propensity score matching can greatly reduce the overall bias and outperforms regression-based methods (Ravallion, 2001, 126)."

[11] For competing assessments of such developments within the development economics profession, see a illuminating collection of essays published in *Economic and Political Weekly*: Bardhan (2005), Basu (2005), Banerjee (2005), Mukejee (2005). See also Duflo (2006).

[12] A series of commissioned reports were published as DAR (2003).

[13] A personal conversation with Dr. Arsenio Balisacan.