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Dynamics of Rural Development: Integrative Report

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Dynamics of Rural Development Integrative Report

Mario B. Lamberte et al.

DISCUSSION PAPER SERIES NO. 94-19

The *PIDS Discussion Paper Series* constitutes studies that are preliminary and subject to further revisions. They are being circulated in a limited number of copies only for purposes of soliciting comments and suggestions for further refinements. The studies under the *Series* are unedited and unreviewed.

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October 1994

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DYNAMICS OF RURAL DEVELOPMENT

INTEGRATIVE REPORT

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10 OCTOBER 1994

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Table of Contents

Chapter 1	INTRODUCTION		1
Chapter 2	ANALYTICAL FRAMEWORK, GOVERNMENT POLICIES FOR RNEs AND DELINEATION OF RURAL AREAS		4
	A.	ANALYTICAL FRAMEWORK	4
	B.	GOVERNMENT POLICIES FOR RNEs	7
	C.	DELINEATION OF RURAL AREAS	11
Chapter 3	RURAL NONFARM ENTERPRISES		15
	A.	PROFILE OF RURAL NONFARM ENTERPRISES	15
	B.	RNEs AND CREDIT MARKETS	26
	C.	IMPACT OF MACROECONOMIC POLICIES ON RNEs	31
Chapter 4	RURAL LABOR AND RURAL NONFARM ENTERPRISES		36
	A.	DESCRIPTION OF RURAL EMPLOYMENT	36
	B.	WAGE LABOR IN SURVEY PROVINCES	41
	C.	ENTREPRENEURIAL ACTIVITIES OF SURVEY HOUSEHOLDS	47
	D.	DETERMINANTS OF RURAL LABOR FORCE PARTICIPATION IN RNEs AND WAGE RATES	51
	E.	CONCLUSIONS AND POLICY IMPLICATIONS	52

Chapter 5 INTERACTION OF RURAL CREDIT MARKETS WITH AGRARIAN REFORM 54

A. FRAMEWORK OF ANALYSIS 54

B. RURAL FINANCIAL MARKETS IN DEVELOPING COUNTRIES 55

C. THE POLICY AND INSTITUTIONAL ENVIRONMENT IN CREDIT MARKETS 59

D. THE RISE OF NEW SMALL LANDOWNERS, THE RESPONSE OF LENDERS AND PUBLIC POLICY ISSUES 60

E. BANK BEHAVIOR IN AGRARIAN REFORM AREAS 70

F. ALTERNATIVE CREDIT DELIVERY MECHANISMS 72

G. CONCLUSIONS 81

Chapter 6 CONCLUSIONS, POLICY IMPLICATIONS, AND REMAINING RESEARCH ISSUES 83

A. BACKGROUND 83

B. RURAL NONFARM ENTERPRISES PROFILE AND CREDIT IMPACT RESULTS 84

C. RURAL CREDIT MARKETS AND AGRARIAN REFORM 85

D. RECOMMENDATIONS FOR FUTURE RESEARCH 87

ANNEXES

Chapter 1

INTRODUCTION

Rural development has been the concern of the government ever since the Philippines gained its independence in 1946. This conclusion can be gathered from reviewing several development plans and major projects initiated by the government for the rural sector. No one can argue against this development thrust for obvious reasons. A great majority of the population resides in rural areas, where the incidence of poverty is much worse than that of urban areas. Therefore, as broadly based rural development takes place, the majority of the population benefits and the overall incidence of poverty in the country declines substantially.

In the past, rural development was regarded as synonymous with agricultural development. This is because activities in the rural areas were mainly agricultural in nature. Moreover, as shown by the experience of several countries, agricultural development can spur development in other sectors within and outside the confines of rural areas because of production and consumption linkages between the agricultural and nonagricultural sectors. Thus, increases in agricultural output can stimulate growth in the nonagricultural sector within and outside rural areas. Needless to say, the benefits from agricultural development extend far beyond the rural economy.

Indeed, the Philippine agricultural sector experienced a rapid growth rate during the period 1965-1980 that was comparable with our Asian neighbors. But unlike our neighbors, agriculture provided a very weak stimulus to other sectors of the economy including rural nonfarm enterprises (RNEs). This was due to both demand and supply factors in the rural Philippine economy. On the demand side, agricultural income growth was not widely shared. Landholdings were concentrated so that any gains realized from productivity-increasing technology went to a few large landowners. The agrarian reform program initiated in the early 1970s hardly made any improvement in the distribution of lands because of its limited coverage (i.e., only lands planted to rice and corn were subjected to land reform) and its poor implementation. Also, there were other policies that aggravated this situation. For example, the subsidized credit programs in these and related programs benefitted larger farmers more than small farmers. The mechanization of some farm operations encouraged by a cheap credit policy displaced many farm laborers and depressed agricultural wages. "Because the consumption pattern of large farmers is most likely geared to those goods and services with high import (or urban) content, the linkages of agricultural income growth were weak in setting in motion a

sequence of employment and income multiplier effects on the rural (as well as urban) economy" (Balisacan 1994, p. 16). On the supply side, inadequate rural infrastructure weakened the capability of rural nonfarm enterprises to respond to the stimulus provided by rapid agricultural growth. Also, exchange rate, fiscal and trade policies were biased towards import-substituting industries at the expense of agricultural and rural activities. This contributed to an urban bias in which larger scale industrial enterprises located in Metro Manila prospered relative to RNEs.

Since the mid-1980s, the economy has been undergoing a structural change brought about by important changes in economic policies. A comprehensive agrarian reform program with an accompanying support program, including credit and technology development, has replaced the earlier limited agrarian reform effort. Credit programs have been rationalized and subsidies substantially reduced to make them more effective. Many sectors of the economy, e.g., transport, communication, banking, etc., have been liberalized to a certain extent.

Apart from the comprehensive land redistribution to diffuse more widely the gains from agricultural income growth, there has been a growing emphasis on promoting rural industrialization as exemplified by recently passed laws such as the "Magna Carta for Small Enterprises," Kalakalan 20" and RA No. 7368 creating a Countrywide Industrialization Fund. These initiatives are over and above existing fiscal and credit policies that promote rural industrialization. All these efforts are intended to broaden employment opportunities and increase incomes in rural areas, which the agricultural sector failed to do in the past. The experience of Taiwan with this strategy provides an inspiring example. "Rural industries participated significantly in Taiwan's 'export-led growth,'initially exporting in the early 1960s manufactured products with a high unskilled-labor content. Over time, with the accumulation of human and physical capital, the composition of their exports shifted toward more skill- and capital-intensive products" (Bautista 1991, p. 16).

The development of rural nonfarm enterprises can provide a growth stimulus to the agricultural sector in the same manner that agricultural growth can give impetus to the growth of RNEs, thereby reinforcing each other. Rising agricultural productivity can facilitate rural transformation, i.e., the movement of factors of production from agriculture to RNEs, eventually resulting in increasing the output share of the latter. Thus, unlike the past rural development strategy that focused mainly on developing the agricultural sector in a less broad-based manner, the present rural development strategy also gives RNE development the same importance as agricultural development. It is against this backdrop that the Dynamics of Rural Development (DRD) Project was undertaken.

The DRD Project attempts to examine the extent of the dynamism of the agricultural sector, which recently has been subjected to a comprehensive agrarian reform and rural nonfarm enterprises and the factors that affect or hinder such dynamism. The results of the empirical analysis will be useful in designing policies to develop or enhance the dynamism of both the agricultural sector and RNEs. As already alluded above and will be clarified further below, the recently implemented comprehensive agrarian reform program (CARP) has an important bearing on the RNEs. It therefore deserves an important place in this project.

This project began more than 3 years ago. The first set of activities included the development of a perspective paper and a review of literature on selected issues identified by the Project Steering Committee (see **Annex A** for the list of members) as relevant and important to the objective of the DRD Project (see **Annex B** for the list of papers). The second set of activities emphasized the actual conduct of studies requiring the collection and analysis of primary and secondary data (see **Annex C** for the list of studies).

This paper attempts to integrate the major findings and conclusions arrived at by the various studies included under the second set of activities. It consists of six chapters including this introduction. The second chapter discusses the analytical framework utilized by the project, the government's policies for RNEs and issues pertaining to the delineation of rural areas. The third chapter gives a brief description of the salient characteristics of RNEs using sample survey data; analyzes the impact of credit on RNE performance; and examines the impact of macroeconomic policies on RNEs using a macroeconometric model. The fourth chapter discusses the role that rural labor markets play in the development process as the RNEs grow. The fifth chapter discusses extensively the impact of the comprehensive agrarian reform program on the credit markets. The last chapter offers conclusions, discusses some policy implications of the major findings of the DRD Project and identifies issues for future research.

Chapter 2

ANALYTICAL FRAMEWORK, GOVERNMENT POLICIES FOR RNEs AND DELINEATION OF RURAL AREAS

This chapter is divided into three sections. The first discusses the analytical framework for the DRD Project that was prepared by Bautista (1991). Slight modifications have been introduced to the original framework to accommodate results obtained by some studies in this project. The second section briefly describes government policies and programs for the RNEs. The third section discusses some issues pertaining to the delineation of rural areas.

A. ANALYTICAL FRAMEWORK

Figure 1 shows the diagrammatic representation of the analytical framework for the study. At the top are five groups of policies that affect the demand for and supply of RNE products and services through some intervening factors.

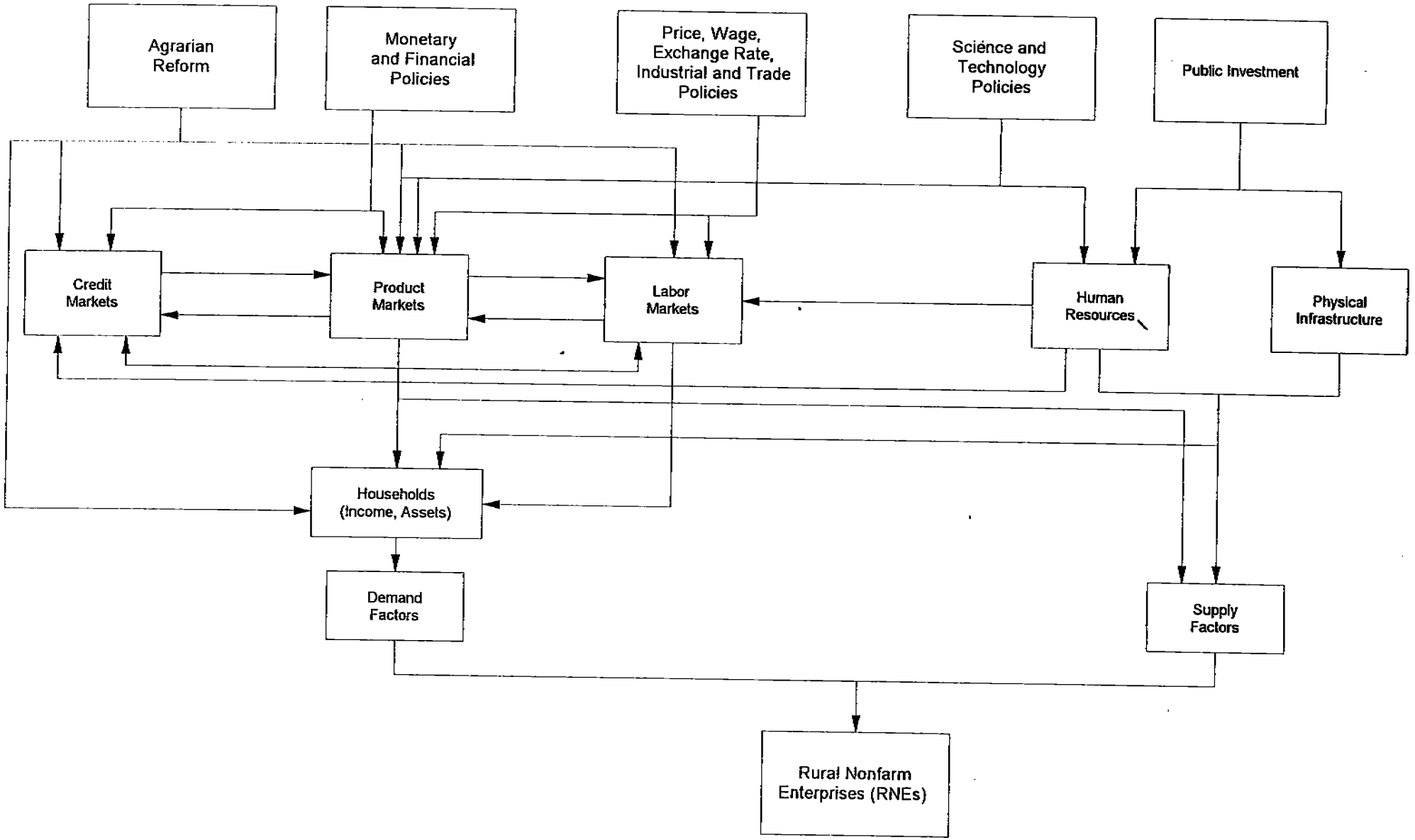
The stimulus for the development of RNEs comes from both the demand and supply sides. The demand for RNE products and services is basically a household decision, influenced by household income and assets. A household income is determined by its participation in credit, product and labor markets as well as its human resources. Household assets and the return on such assets can be affected by government policies such as agrarian reform.

Product markets interact with both credit and labor markets. Credit is a facilitative factor in product markets. The new literature on linked credit points out the close interaction between credit and product markets. Three sets of policies can affect directly product markets. One is agrarian reform that can affect farm productivity. Another is science and technology policies that affect productivity of both agricultural and nonagricultural activities. Still another set are the price, wage exchange rate and trade policies that affect both the prices of inputs and outputs of RNEs.

Credit markets interact with human resources. Those households that have a greater investment in human resources are likely to be more productive, hence more likely to be creditworthy. Usually, credit markets are affected directly by monetary and financial policies.

Figure 1

A FRAMEWORK FOR POLICY ANALYSIS OF RNEs



Source: Romeo M. Bautista (1991)

However, in an agrarian economy in which informal credit markets dominate, such as the historical landowner-tenant relationship whereby a landowner provides all kinds of credit to his tenants, the implementation of an agrarian reform program can affect credit markets. Given that banks give emphasis on collateral when lending, an agrarian reform program that can change the collateral value of land can have substantial impact on the credit markets. Furthermore, the implementation of agrarian reform creates new entrepreneurs to be serviced by formal financial markets.

Aside from interacting with product markets, labor markets also interact with credit markets as borne out by recent studies on linked credit. Agrarian reform can have a direct impact on labor markets if underutilized labor become recipients of underutilized farms. Monetary and financial policies can change the relative price of labor and capital, and hence affect labor markets. For instance, repressed financial policies in the past tended to yield negative real interest rates, which artificially cheapened capital. Industrial and trade policies can have substantial impact on the labor market. Import-substitution trade and industrial policies, for instance, promoted capital-intensive industries.

On the supply side, RNEs respond to demand by organizing their factors of production. The availability of credit relaxes liquidity constraints facing RNEs. Thus, improved access to loans that can be responsibly and effectively repaid enable RNEs to better produce the desired amount of products and services that maximize their profits.

The competitiveness of the RNEs is to a large extent anchored on their use of labor-intensive technology and the productivity of this labor, which, in turn, depends to a large extent on the quality of human resources. The latter can be affected by public investment on education, health and nutrition.

Finally, the RNE response to the demand stimulus can be facilitated by the availability of physical infrastructure, which, in turn, depends on public investment policies. Lack of physical infrastructure in the rural areas can raise RNE transaction costs and weaken their viability relative to larger, urban based firms.

Indeed, the analytical framework suggests a very broad perspective for conducting RNE analysis of the linkages. Of course, not all aspects suggested in the framework could be covered in a single project with a limited budget and time. Thus, the DRD Project selected some key aspects of the framework that were deemed very important to the objective of the project. These are: analysis of the behavior of RNEs and credit markets; the impacts of selected

macroeconomic policies on NREs' performance; the impact of the agrarian reform program on credit markets; and labor markets and RNE development.

B. GOVERNMENT POLICIES FOR RNEs[1]

In the Philippines, government efforts to promote and develop the rural nonfarm enterprise sector are directly linked with government policies and programs for the small and medium enterprise sector (SMEs). The Philippine government's commitment to develop small-scale industries was explicitly stated in the 'Magna Carta for Social Justice and Economic Democracy' formulated in 1969; however, very little visible assistance has been provided since then (Itao 1985). In the '70s, financing schemes were initiated to cater to the financing needs of the sector. Both the University of the Philippines-Institute for Small-Scale Industries (UP-ISSI) and the Social Security System (SSS) started providing long-term financing for small industries through the Supervised Credit Programme. Similar financing schemes by both the private sector and the government followed. The Development Bank of the Philippines (DBP) became the primary agency in financing small- and medium-scale industries in rural areas, with terms and conditions for loans being among the most liberal and attractive of the financing schemes for small industries.

Under the 1986 Constitution, the government was given the mandate to "promote industrialization and full employment based on sound agricultural development and agrarian reform, through industries that make full and efficient use of human and natural resources, and which are competitive in both domestic and foreign markets." Furthermore, "all sectors of the economy and all regions of the country shall be given optimum opportunity to develop." In consonance with the law, the government has made it a policy to rationalize, promote, and strengthen small and medium enterprises in the country. It has designated the Department of Trade and Industry to be the principal government agency to implement its economic development policy through a strategy that revolves around regional and small enterprise development, as well as domestic trade promotion and price stabilization, industrial development and investment promotion, and strengthening the export sector. It has initiated fiscal incentives and financial assistance programs that are designed to provide benefits to SMEs.

[1]This section is adopted from Lapar (1994).

Fiscal incentives program

Two programs providing fiscal incentives to SMEs are the Kalakalan 20 and the Omnibus Investment Program.

The signing into law of R.A. 6810, also known as the Kalakalan 20 law, on December 14, 1989 was a significant development in the promotion of rural nonfarm enterprises. The law, also known as the law on countryside barangay business enterprises (CBBEs), is patterned after the Italian 'Law of 20' which accelerated Italy's industrial development. To achieve the stated objective of 'releasing(sic) the energies of our people to achieve rapid development of our rural areas' it encourages the establishment of productive business enterprises in the countryside through the simplification of registration procedures, tax exemptions, and other incentives. Aside from promoting new business creation, Kalakalan 20 also encourages the formalization of the informal enterprises belonging to the so-called 'underground economy.' Under the Kalakalan 20 law, any business entity, association, or cooperative engaged primarily in the production, processing, or manufacturing of products or commodities is considered as a CBBE and eligible for incentives. These enterprises should have no more than 20 employees and have assets of no more than ₱500,000 before financing. Moreover, the enterprise should be located in the countryside, e.g., all cities and municipalities except the four cities and 13 municipalities of Metro Manila and other highly urbanized cities.

Enterprises registered under the Kalakalan 20 law benefit from all taxes and fees (except real property and capital gains taxes, import duties and taxes, value-added taxes on imported articles, other taxes on imported articles, and taxes on income not from the enterprise), exemptions of enterprise income from computation of owners/members individual income tax, and exemption from any government rules and regulations pertaining to assets, income, and activities directly connected with the business of the enterprise. As of February 10, 1993, 5,747 enterprises have been registered (BSMBD-DTI 1993).

The Omnibus Investment Program of the Board of Investments grants benefits and incentives to entrepreneurs who choose to invest in preferred areas of investments indicated in the Investments Priorities Plan (IPP). Fiscal incentives include income tax holidays for 4-6 years, tax and duty-free importation of capital equipment, tax credits on domestic capital equipment, additional deductions from taxable income for labor expense, and exemption from the contractor's tax. Additional benefits include unrestricted use of consigned equipment and access to the bonded manufacturing warehouse system.

Financial assistance programs

The 'Magna Carta for Small Enterprises' (R.A. 6977) which was signed into law on January 24, 1991, provides for the mandatory allocation of credit resources to small enterprises. As such, all lending institutions, whether public or private, are required to set aside a portion of their total loan portfolio based on their consolidated statement of condition/balance sheet as of the end of the previous quarter, and make it available for small enterprise credit. The law requires the allocation of at least five percent by the end of 1991, 10 percent by the end of 1992 through 1995, five percent by the end of 1996, and may go down to zero by end of 1997.

A corporate body called the Small Business Guarantee and Finance Corporation (SBGFC) is also established to provide, promote, develop, and widen alternative modes of financing for small enterprises, as well as to provide guarantees on loans obtained by qualified small enterprises. The alternative modes of financing provided by SBGFC to small enterprises include direct and indirect project lending, venture capital, financial leasing, secondary mortgages and/or rediscounting of loan papers to small business, and secondary/regional stock markets, among others. These programs are exclusively for small, cottage, and micro enterprises and do not include crop production.

For the period 1992 to 1993, SBGFC guaranteed a total of 29 loans amounting to ₱32.134 million. This translates to an average of ₱1.108 million per loan. The majority of the enterprises who were approved for guarantees are engaged in manufacturing (52 percent). Those engaged in services account for about one-third of the total guarantees given (31 percent). The rest (17 percent) are engaged in various activities.

In 1991, a number of credit/relending programs provided financial assistance to small enterprises. These include the Industrial Guarantee and Loan Fund (IGLF), IGLF Special Financing Program for Microenterprises (IGLF-SFPME), Agro-Industrial Technology Transfer Program (AITTP), Export Industry Modernization Program II (EIMP II), Guarantee Fund for Small and Medium Enterprises (GFSME), Philippine Export and Foreign Loan Guarantee Corporation (PHILGUARANTEE), Tulong sa Tao-Self Employment Loan Assistance (TST-SELA) Program, NGO Microcredit Project (NGO MCP), Small Market Vendors Loan (SMVL), Pangkabuhayan ng Bayan (PNB) Program, Self Employment Loan Fund (SELF), International Trade Financing (FXT) Program, Kabalikat sa Pagpaunlad ng Industriya (KASAPI), Members' Assistance to the Development of Entrepreneurs (MADE), ASEAN-Japan Development Fund-Overseas Economic Cooperation Fund (AJDF-OECF), Micro Enterprise Development Program (MEDP), Small and Medium Industries Lending Program (SMILP), Tulong Pangkabuhayan ng

DTI (TUNGKOD) and the Livelihood Assistance for Victims Affected by Eruptions of Mt. Pinatubo (LAVA). These financing programs, of which two (AJDF-OECF and LAVA) became operational only in 1991, posted a total of ₱6.7 billion in loans to 60,087 micro, cottage, small, and medium enterprises and 1,027 non-government organizations (NGOs). This performance registers a growth rate of 81 and 22.2 percent, respectively, over the loans approved and enterprises/NGOs assisted in 1990 (NEDA 1991).

New financing programs were also introduced in 1991, among which are the Cottage Enterprise Finance Project of the Development Bank of the Philippines (DBP) and the Second NGO Microcredit Project of DTI. The former aims to develop the country's cottage enterprises through the creation of Mutual Guarantee Associations, while the latter will provide better access to credit for microenterprises.

Other relevant assistance programs

The Small and Medium Enterprise Development Council, created under the 'Magna Carta for Small Enterprises' is responsible for facilitating and coordinating national efforts to promote the viability of small enterprises. Its secretariat, the Bureau of Small and Medium Business Development (BSMBD), provides technical assistance programs including management and skills training programs, lectures/dialogues and workshops, research, and information dissemination. In 1991, a total of 3,452 skills and managerial training programs for 84,290 existing and potential workers, entrepreneurs, and supervisors were conducted. The participants were engaged in food processing, metalworking, and furniture, gifts, toys, and housewares manufacturing. Also, a total of 613 technical requests and inquiries from field offices and small and medium entrepreneurs were serviced in 1991.

The DTI also sought the assistance of the German government for its Countryside Enterprises Development Program, aimed at training entrepreneurs nationwide through the use of the model called Creation of Enterprises, Formation of Entrepreneurs (CEFE). The program started in 1992.

The UP-ISSI also conducted a total of 55 local and foreign entrepreneurship and management development programs in 1991. It has also conducted seven seminars in entrepreneurship in various regions of the country (NEDA 1991).

C. DELINEATION OF RURAL AREAS

Since this project is about the dynamics of rural development, it is very important to identify the physical areas being analyzed and to examine their economic transformation through time. It has been pointed out that until recently development policies have been biased against the rural areas and have favored urban areas. In other words, the emphasis on rural development has not been backed up by corresponding government policies and programs, thereby leaving rural areas underdeveloped. Some indicators, such as poverty and public investment in basic infrastructure, have been used to support this view. Moreover, it has been pointed out that migration from rural to urban areas, which accordingly contributed to rapid urbanization, aggravates the economic disparities between the two areas because migrants tend to have better human capital than those who are left behind in the rural areas. Thus, one cannot expect great economic dynamism in rural areas.

Delineating rural areas from urban areas is indeed problematic. This would not be hard if the interest of the project was limited only to agricultural activities, which in all probability can be found in rural areas. However, when the focus of the analysis is shifted to the development of nonfarm enterprises in rural areas, their physical location needs to be unambiguously defined.

The National Census Office (NSO) delineates areas considered urban or rural. It does so by defining what an urban area is. Areas that do not fall under the definition of an urban area are classified as rural. Thus, rural areas are defined residually. The problem here is twofold. First, the NSO had changed the definition of an urban area several times in the past. "In the 1961 FIES, urban areas included all places within the boundaries of chartered cities and provincial capitals and Metropolitan Manila (Manila and adjacent cities and municipalities) as well as provincial capitals and town centers of municipalities. The 1965 FIES added population density as another criterion, qualifying as urban areas all town centers of municipalities with a population density of at least 500 persons per square kilometer as well as villages contiguous to these centers and having at least 2,500 inhabitants. Since 1971, any district, regardless of population density, with at least six establishments (commercial, manufacturing, recreational and/or personal services), can also qualify as an urban area." (Balisacan 1994, p. 2). Thus, what used to be rural areas could be classified as urban areas not because of changes in their demographic and economic characteristics but because of changes in definition.

Second, apart from the effect brought about by changes in definition, areas previously considered to be rural have undergone changes in their characteristics (e.g., increase in the

number of establishments) so that they can now be classified as urban. The change could have been facilitated by government policies. Yet, when looking at officially published data without closely looking at areas that graduated into urban areas, one would likely be led to conclude that rural areas have not developed at all, and therefore lack dynamism.

Balisacan (1994) tried to demonstrate the problems associated with using the NSO definition of urban areas in analyzing urbanization and rural poverty. With regard to the first issue, he compared the urban and rural population counts officially published between 1960 and 1990 with those using fixed physical rural and urban areas using the urban-rural definition of the 1970 census of population (**Table 2.1**). He found that under the fixed physical rural and urban areas approach, the population share of rural areas declined moderately between 1960 and 1990 from 69 percent to 64 percent, respectively. In contrast, the published census report showed a sharp decline from 70 percent to 51 percent during the same period. He concluded that: "it is the reclassification of physical areas, not the physical movement of population from rural to urban areas, that mainly accounts for the growing share of urban areas in total population" (p. 4).

With regard to the poverty issue, Balisacan made the same comparison. He found that the FIES estimates showed a mild increase in poverty incidence based on head count from 50 percent to 52 percent during the period 1988 to 1991, whereas the fixed physical area approach yielded a declining poverty incidence from 48 percent to 41 percent during the same period (**Table 2.2**). He concluded that the "discrepancy comes mainly from the shifting of physical areas arising from reclassification of villages" (p. 12).

The findings above seem to suggest that past efforts to develop rural areas have not been in vain and, in fact, rural poverty has decreased rather than increased.

Table 2.1

RURAL AREAS AND URBANIZATION

	1960	1970	1980	1990
1. Total Population				
(in million)	27.09	36.68	48.10	60.69
% Change per year	3.01	2.71	2.33	
2. Proportion Which is				
Rural Census Report	70.20	68.17	62.49	51.16
Fixed Rural Areasa/	68.55	68.17	66.35	64.16
3. Proportion Which Is Urban				
Census Report	29.80	31.83	37.51	48.84
Fixed Rural Areas	31.45	31.83	33.65	35.84
4. Rural Population Growth				
Census Report	_	2.74	1.84	0.32
Fixed Rural Areas	_	2.98	2.44	1.99
5. Tempo of Urbanization b/				
Census Report	_	0.95	2.51	4.64
Fixed Rural Areas	_	0.80	0.83	0.97

a/ Based on 1970 urban-rural classification of villages.
b/ Urban-rural growth difference.

Sources: National Statistics Office, Integrated Census of the Population, various years.

Table 2.2

RURAL POVERTY, FIES AND FIXED PHYSICAL AREAS, 1961-91
(in %, except for t-ratios)a/

	1961	1965	1971	1985	1988	1991
FIES Rural Areasb/						
Population Share	64.50	68.70	69.60	61.40	62.10	50.40
Head Count	64.06	55.23	57.31	59.43	50.19	52.40
	(-6.50)	(1.69)	(2.75)	(-12.46)	(2.48)	
Poverty Gap	30.42	26.18	27.08	23.52	18.58	19.00
	(-5.08)	(1.20)	(-8.05)	(-13.31)	(1.00)	
FGT (a=2)	18.05	16.08	16.35	12.25	9.05	9.03
	(-2.97)	(0.46)	(-12.33)	(-12.53)	(-0.07)	
Fixed Physical Areasc/						
Population Share	68.51	68.36	67.99	65.30	64.60	64.20
Head Count	60.33	55.54	58.66	55.94	48.27	41.13
	(-3.50)	(2.54)	(-3.51)	(-10.29)	(-8.07)	
Poverty Gap	28.65	26.33	27.72	22.14	17.87	14.91
	(-2.78)	(1.86)	(-12.64)	(-11.59)	(-7.29)	
FGT (a=2)	17.00	16,17	16.74		11.53	8.70
7.09						
	(-1.26)	(0,96)	(-15.70)	(-11.25)	(-6.16)	

a/ Figures in parentheses are t-ratios for poverty difference between the year indicated and the preceding year. The test is based on Kakwani's (1990) methodology. Critical t-value at 5% significance level is 1.96. At 1% level, t-value is 2.58.

b/ Estimated directly from published Family Income and Expenditures Survey (FIES) data.

c/ See text for the calculation.

Chapter 3

RURAL NONFARM ENTERPRISES

This chapter consists of three sections. The first presents a description of RNEs using sample survey data. The second section examines the impact of credit on RNE behavior. The last section analyzes the impact of macroeconomic policies on RNEs using a macroeconometric model.

A. PROFILE OF RURAL NONFARM ENTERPRISES[2]

A survey of rural nonfarm enterprises was undertaken in 1991 for the DRD Project. The survey was intended to provide a representative sample of rural nonfarm enterprises operating in the provinces of Bohol, Iloilo, Negros Occ., and Cebu. The sample obtained was used to generate primary data for analyzing the impact of credit on RNE behavior, which is discussed in the next section. This section presents a profile of rural nonfarm enterprises from the sample area to get a sense of what types of economic activities RNEs are engaged in, entrepreneurs' skills and business knowhow, which can be roughly represented by educational attainment, and NREs characteristics and performance.

1. Types of Enterprise Activities

The activities undertaken by rural nonfarm enterprises in the survey area are grouped into three major types, namely: manufacturing, trading and services. Manufacturing activities include the manufacture of bamboo crafts, woodcrafts, shellcrafts, ceramics, pottery, garments, bakery products, as well as weaving, pillowmaking, and blacksmithing. Trading mainly includes retail trade of various commodities. Services, on the other hand, include such enterprises operating as 'carinderia', coffee shops and refreshment shops, as well as automotive and battery charging shops.

[2]This section is adopted from Lapar (1994).

Trading accounts for almost half (41 percent) of the activities of the total number of rural nonfarm enterprises in the sample. Manufacturing accounts for approximately one-third (31 percent), while services more than one-fourth (**Table 3.1**).

Table 3.1: Distribution of RNEs by types of activity, by province

Type of activity	PROVINCE								TOTAL	
	Bohol		Iloilo		Neg. Occ.		Cebu			
	No.	%	No.	%	No.	%	No.	%	No.	%
Manufacturing	7	14.0	45	45.0	10	10.0	63	42.0	125	31.2
Trading	20	40.0	30	30.0	59	59.0	55	36.7	164	41.0
Services	23	46.0	25	25.0	31	31.0	32	21.3	111	27.8
Total	50	100.0	100	100.0	100	100.0	150	100.0	400	100.0

Source of Data: DRD - Survey of Rural Nonfarm Enterprises, 1992

2. Entrepreneurs' Educational level

On the average, the entrepreneurs have had some schooling at least at the secondary level. Entrepreneurs engaged in trading have the highest number of years spent in school at almost 12 years, on the average, followed by those in services at approximately 10 years, and then those in manufacturing at about 9 years. On the whole, almost half of the entrepreneurs have completed or at least attended tertiary education (**Table 3.2**). Less than one percent have had no schooling. These findings suggest that rural entrepreneurs have at least the basic educational background that helps them prepare for engaging in economic activities.

3. Enterprise Characteristics

a. Age of the enterprise and legal status

The average age of nonfarm enterprises in the sample is 13.6 years. Manufacturing enterprises have the highest mean age at 15.1 years, followed by services at 13.3, and trading at 12.7. These averages imply that manufacturing enterprises have been operating the longest among the three types of enterprises. On the whole, around half of the enterprises have been

Table 3.2: Distribution of RNEs by educational attainment of owners/operator, by type of activity

Educational attainment of owner/operator	Activity						TOTAL	
	Manufacturing		Trading		Services			
	No.	%	No.	%	No.	%	No.	%
No schooling	1	1.0	1	1.0	1	1.0	3	0.8
Primary, not completed	20	16.0	7	4.3	10	9.1	37	9.2
Primary Completed	31	24.8	14	8.5	12	11.0	57	14.2
Secondary, not completed	20	16.0	9	5.5	24	22.0	53	13.2
Secondary completed	20	16.0	25	15.2	23	21.0	68	17.0
Tertiary, not completed	13	10.4	23	14.0	20	18.0	56	14.0
Tertiary completed	20	20.0	85	52.0	21	19.0	126	31.5
Total	125	100.0	164	100.0	111	100.0	400	100.0
Mean years in school	8.5 (3.7)		11.7 (3.3)		9.7 (3.4)		10.2 (3.6)	

Figures in parentheses are standard deviation.

Source of Data: DRD - Survey of Rural Nonfarm Enterprises, 1992

operating for 1-10 years, while more than one-fourth for more than 10-20 years. Thus, the majority of these enterprises are really just starting to establish themselves in the market. The rest (22 percent) have been operating for more than 20 years.

In terms of legal status, the majority of the enterprises are registered with their municipal government (**Table 3.3**). This contradicts the commonly held view that RNEs especially the small ones, do not bother to register with the proper government agencies. The registration

takes the form of permits to operate. Enterprises operating as corporations are registered with the Securities and Exchange Commission (SEC). On the other hand, those enterprises not registered with any government agency account for less than one-fifth of the total enterprise in the sample.

Table 3.3: Distribution of RNEs by legal status, type of activity

Legal status	Activity							
	Manufacturing		Trading		Services		All	
	No.	%	No.	%	No.	%	No.	%
Registered	80	64.0	160	98.0	103	94.	343	86.0
Not registered	45	36.0	4	2.4	7	6.4	56	14.4
Total	125	100.0	164	100.0	110	100.0	399	100.0
No answer					1		1	

Source: DRD- Survey of Rural Nonfarm Enterprises, 1992

b. Amount of initial capital

The average amount of initial capital put up by the entrepreneurs is ₱61,786. By type of activity, the average initial capital wass ₱96,807 for trading, ₱54,408 for manufacturing, and ₱18,668 for services. Overall, more than half of the enterprises (54 percent) have initial capital ranging from ₱5,000 and below, while more than one-third have initial capital ranging from more than ₱5,000 to ₱50,000 (**Table 3.4**). This suggests that newly established enterprises in rural areas are typically micro enteprieses.

The major source of initial capital is personal investment by the owner/operator. The average initial capital personally invested by the owner/operator is ₱28,373, accounting for almost half of the average amount of initial capital. Capital contributed by family members amounted to ₱27,578, on the average. The initial capital coming from loans from banks and other formal financial institutions averaged only ₱5,253, while those coming from informal loans amounted to only ₱233, on the average.

Table 3.4: Distribution of RNEs by amount of initial capital, by type of activity

Age of the enterprise	Activity							
	Manufacturing		Trading		Services		All	
	No.	%	No.	%	No.	%	No.	%
5,000 & below	71	57.0	72	44.2			215	54.0
Above 5,000 to 50,000	36	29.0	69	42.3	34	31.0	139	35.0
Above 50,000 to 100,000	8	6.4	11	7.0	4	4.0	23	5.8
Above 100,000	10	8.0	11	7.0	1	1.0	22	5.5
Total	125	100.0	163	100.0	111	100.0	399	100.0
No answer			1				1	
Mean value	54,408 (22,192)		96,807 (787,138)		18,668 (86,509)		61,786 (515,919)	

Figures in parentheses are standard deviation.

Source: DRD- Survey of Rural Nonfarm Enterprises, 1992

Most special credit programs for SMEs emphasize the provision of credit for start-up capital. The findings in this study show that RNEs depend on their own capital at the initial stage. This is consistent with the results found in earlier studies in the Philippines (e.g., Lamberte 1993) and other countries (e.g.). Over time, RNEs build a good credit track record, which makes them attractive to banks.

c. Assets, liabilities and net worth

The mean value of total assets of the RNEs at the time of the survey was ₱385,039 (**Table 3.5**). Total assets include the total value of all fixed, variable and other assets of the enterprise as of the end of 1991. Trading enterprises have the highest value of total assets, on the average, at ₱487,560. Manufacturing enterprises come second with ₱405,535. Service enterprises have the lowest average value of total assets at ₱210,486, about half of the average value of those in manufacturing and trading. In terms of distribution, 38 percent of the enterprises have total assets valued at least ₱100,000 but less than half a million pesos. About

one-fourth have total assets below ₱50,000, while almost one-fifth have total assets of at least ₱50,000 but less than ₱100,000. On the other hand, less than ten percent have total assets of at least one million pesos. This distribution implies that most of the rural nonfarm enterprises belong to the micro- and cottage-type enterprises, and only a small number can be considered small-scale. This evidence reinforces the "missing middle" hypothesis noted by earlier studies.

Table 3.5: Distribution of RNEs by total value of assets, by type of activity

Total value of assets (in pesos)	Activity						TOTAL	
	Manufacturing		Trading		Services			
	No.	%	No.	%	No.	%	No.	%
Below 50,000	47	38.0	20	12.2	35	32.0	102	25.5
At least 50,000 but < 100,000	21	17.0	25	15.2	23	21.0	69	17.23
At least 100,000 but < 500,000	29	23.2	80	49.0	42	38.0	151	37.8
At least 500,000 but < 1 M	16	13.0	22	13.4	6	5.4	44	11.0
At least 1 M	12	1.0	17	10.4	5	5.0	34	8.5
Total	125	100.0	164	100.0	111	100.0	400	100.0
Mean value	405,535 (1,029,375)		487,560 (1,010,134)		210,486 (411,158)		385,039 (897,597)	

Figures in parentheses are standard deviation.

Source: DRD- Survey of Rural Nonfarm Enterprises, 1992

It is interesting to note that enterprises with total assets below ₱50,000 have the highest relative share in manufacturing. This implies that most of these manufacturing enterprises are really household-based microenterprises. On the other hand, those enterprises with total assets of at least ₱100,000 but less than ₱500,000 have the highest relative share in trading as well as in services.

The average value of outstanding liabilities of the enterprises in the survey was ₱22,711. These liabilities include loans from both formal and informal financial institutions. Loans from

formal financial institutions generally consist of short-term loans (at most one-year maturity) for working capital. Only a small number of formal loans were used for either the purchase of fixed assets or for initial capital investment. Loans from informal lenders mostly involve consignment of goods for resale and/or the provision of input supplies in advance. Trading enterprises have the highest average amount of outstanding liabilities at ₱34,600, followed by manufacturing enterprises at ₱17,949. Service enterprises have the least outstanding liabilities at ₱10,509. In terms of distribution, 63 percent of the enterprises surveyed have no outstanding liabilities. Only a little less than one-third have outstanding liabilities of less than ₱50,000, while only one percent have outstanding liabilities of at least half a million pesos. The high percentage of enterprises without outstanding liabilities indicate either of two situations: (a) that the majority of these enterprises have sufficient funds to finance their operation so that they do not need to avail of funds from outside, (b) that these enterprises without outstanding liabilities are not able to avail of funds from outside because of factors internal or external to the enterprise, or (c) that some of these enterprises had fully paid their outstanding liabilities by the time of the survey.

The average net worth of the enterprises surveyed was ₱362,327. Trading enterprises have the highest average net worth at ₱452,960, followed by manufacturing enterprises at ₱387,586. Service enterprises have the lowest average net worth at ₱199,976. A little more than one-third of the enterprises have net worth of at least ₱100,000 but less than ₱500,000, while almost one-third have net worth of below ₱50,000. Enterprises with a negative net worth (i.e., assets are greater than liabilities) accounted for a little more than one percent of total enterprises surveyed. Trading and services, on the other hand, have the highest relative share accounted for by enterprises with net worth of at least ₱100,000 but less than half a million pesos. Trading also has the largest number of enterprises with net worth of at least half a million pesos. This is consistent with the previously mentioned fact that trading activity has received the most loans, i.e., their high asset and net worth position plus high cash turnover indicates more credit worthy clientele compared to other sectors.

d. Number of workers

On the average, enterprises included in the survey started their activity with four workers (**Table 3.6**). Currently, the average number is five workers. This implies an average increase in employment of 25 percent since the enterprise started operating. Overall, the majority of the enterprises started with the number of workers ranging from more than one to 10 workers (74 percent). Likewise, more than three-fourths of the enterprises are currently operating with more than one but less than 10 workers. Enterprises that started with only one employee (i.e., only an owner/operator) accounted for almost one-fifth (20 per cent) of total enterprises. Currently,

however, this relative share has declined to just about one-eighth (12 percent) of the total sample. This implies that some of those one-man operated enterprises have expanded their number of workers over the years that they have been operating. The distribution of enterprises according to the number of workers likewise implies that the majority of them belong to the microenterprise category (i.e., with at most 10 workers). Only a small percentage of enterprises (less than one percent) have more than 50 workers (i.e., small-scale category).

Table 3.6: Distribution of RNEs by number of workers, at the start and current, by type of activity

Number of worker	Activity						TOTAL	
	Manufacturing		Trading		Services			
	No.	%	No.	%	No.	%	No.	%
Start								
Single	29	23.2	26	16.0	24	22.0	79	20.0
Above 1-10	75	60.0	137	83.5	85	77.0	297	74.23
10-50	21	17.0	0	0.0	2	2.0	23	6.0
Above 50	0	0.0	1	1.0	0	0.0	1	0.3
Total	125	100.0	164	100.0	111	100.0	400	100.0
Mean no. of workers	5.7 (7.0)		3.4 (7.8)		3.0 (2.1)		4.0 (6.5)	
Current								
Single	16	13.0	16	10.0	18	16.2	50	12.5
Above 1-10	79	63.2	141	86.0	89	80.2	309	77.1
10-50	28	22.4	6	4.0	3	3.0	37	9.3
Above 50	2	2.0	1	1.0	0	0.0	3	0.01
Total	125	100.0	164	100.0	111	100.0	400	100.0
No answer					1	0.25	1	0.25
Mean no. of workers	7.3 (10.9)		4.4 (7.9)		3.5 (3.2)		5.0 (8.2)	

Figures in parentheses are standard deviation.
Source: DRD- Survey of Rural Nonfarm Enterprises, 1992

Manufacturing enterprises have the largest number of workers, on the average, both at the start of operations and currently (5.7 and 7.3, respectively). Trading enterprises follow with average number of workers of 3.4 and 4.4 at the start and currently, respectively. Enterprises engaged in service activities have the lowest average number of workers at 3.0 and 3.5, respectively.

Trading enterprises have the highest relative share (36 percent) of unpaid family members working full-time. On the other hand, manufacturing enterprises have the highest relative share of unpaid family members working part-time (38 percent).

These findings suggest that RNEs offer job opportunities. Their modest growth over the years has been accompanied by modest increases in employment opportunities they offer.

e. Costs of operation

Labor. The average yearly cost of labor (wages and other compensation) was ₱68,907 (**Table 3.7**). Manufacturing enterprises have the highest average yearly cost at ₱145,955. Trading enterprises follow at ₱45,589, while service enterprises have the lowest average yearly cost at ₱16,595. The high average yearly labor cost of manufacturing enterprises can be attributed to the fact that it is the most labor-intensive among the three types of enterprises. The average number of workers for manufacturing enterprises is 7.3 being paid an average hourly wage of ₱7.11 per worker. Trading enterprises, on the other hand, have an average of 4.4 workers with average hourly wage of ₱5.17 per worker, the highest among the three types of enterprises. Service enterprises employ the least number of workers (3.5 on the average) being paid an average hourly wage rate of ₱3.34 per worker.

Raw materials. Manufacturing enterprises have the highest average yearly cost of raw materials at ₱325,569. Service enterprises come second at ₱49,968. Trading enterprises have the lowest average yearly cost at ₱2,716.

Overall, the average yearly raw material cost was ₱115,781.

Other materials and supplies. These include materials and supplies that are not primary inputs in the production of the good or service. The average yearly cost of other materials and supplies for all enterprises was ₱10,768. Among the three types of enterprises, those engaged in manufacturing have the highest yearly average cost at ₱20,568. Trading enterprises come next at ₱7,080, while service enterprises have the lowest at ₱5,180.

Table 3.7 : Mean values of costs of operation, by type of activity

Cost items	Activity			
	Manufacturing	Trading	Services	All
Labor	145,955 (826,667)	45,589 (882,563)	16,595 (37,495)	68,907 (498,224)
Raw materials	325,569 (1,412,729)	2,716 (17,429)	49,968 (77,585)	115,781 (798,254)
Other materials and supplies	20,568 (60,846)	7,080 (39,339)	5,180 (11,455)	10,768 (43,166)
Interest paid on loans	4,573 (43,100)	2,806 (18,176)	238 (1,226)	2,646 (26,748)
Cost of goods for resale	39,693 (297,329)	3,624,292 (38,371,480)	30,339 (75,757)	1,506,707 (24,589,585)

Note: Figures in parentheses are standard deviation.

Source of data: DRD- Survey of Rural Nonfarm Enterprises, 1991

Cost of goods purchased for resale. This refers to purchases of goods that are being resold. Trading enterprises have the highest average yearly cost at ₱3,624,292. This is not surprising because trading enterprises generally do not undertake production activities but obtain their goods for resale by buying them from other traders or directly from manufacturers. Manufacturing enterprises come in second at ₱39,693, while service enterprises have the lowest at ₱30,339. Overall, the average yearly cost of goods purchased for resale was ₱1,506,707.

f. Gross sales

Average gross sales in 1991 was ₱608,027 (**Table 3.8**). Manufacturing enterprises exhibited the highest average gross sales at ₱587,619, followed by trading enterprises at ₱423,932. Service enterprises have the lowest average gross sales at ₱164,267. About two-fifths of total enterprises have gross sales of more than ₱ 100,000 up to half a million pesos. On the other hand, a little more than one-fifth have gross sales of ₱50,000 and below. Only less than ten percent have gross sales of more than a million pesos.

Table 3.8: Distribution of RNEs by yearly gross sales in 1991, by type of activity

Gross sales in 1991 (in pesos)	Activity						TOTAL	
	Manufacturing		Trading		Services			
	No.	%	No.	%	No.	%	No.	%
50,000 & below	40	10.00	15	3.75	32	8.00	87	21.75
Above 50,000 to 100,000	20	5.00	25	6.25	31	7.75	76	19.00
Above 100,000 to 500,000	45	11.25	78	19.50	39	9.75	162	40.50
Above 500,000 to 1 M	7	1.75	24	6.00	9	2.25	40	10.00
Above 1 M	13	3.25	22	5.50	0	0.00	35	8.75
Total	125	31.25	164	41.00	111	27.75	400	100.00
Mean gross sales	587,619 (1,779,888)		423,932 (3,849,869)		164,267 (190,798)		608,027 (2,673,089)	

Figures in parentheses are standard deviation.

Source: DRD- Survey of Rural Nonfarm Enterprises, 1992

g. Net income

The average net income in 1991 of the enterprises surveyed was ₱88,365 (**Table 3.9**). Manufacturing enterprises have the highest average net income at ₱102,914, followed by trading enterprises at ₱98,926. Service enterprises have the lowest average net income at ₱56,378. Almost half of the enterprises have net income of more than ₱10,000 to ₱50,000. Among these enterprises, the majority are engaged in trading activities. Enterprises with net income of ₱10,000 and below account for almost 13 percent of all enterprises surveyed. Service enterprises account for the largest number among these enterprises. Only a little more than three percent of the sample have net income of more than half a million pesos, and such enterprises are engaged in manufacturing and trading. Again, this illustrates the "missing middle" hypothesis.

Table 3.9: Distribution of RNEs by yearly net income in 1991, by type of activity

Net income in 1991 (in pesos)	Activity						TOTAL	
	Manufacturing		Trading		Services			
	No.	%	No.	%	No.	%	No.	%
10,000 & below	16	13.0	13	8.0	22	20.0	51	12.8
Above 10,000 to 50,000	60	48.0	77	47.0	54	47.0	191	47.8
Above 50,000 to 100,000	28	22.4	28	17.1	19	17.1	75	18.8
Above 100,000 to 500,000	14	11.2	40	24.4	16	14.4	70	17.5
Above 500,000	7	1.8	6	3.7	0	0.0	13	3.3
Total	125	100.0	164	100.0	111	100.0	400	100.0
Mean net income	102,914 (226,093)		98,926 (141,707)		56,378 (74,386)		88,365 (161,282)	

Figures in parentheses are standard deviation.

Source: DRD- Survey of Rural Nonfarm Enterprises, 1992

B. NREs AND CREDIT MARKETS

1. Credit status

The majority of the enterprises surveyed (54%) have availed of loans from credit markets (**Table 3.10**). The rest have never availed of credit from external sources since they started their operations. Among those who have availed of credit, 52 percent borrowed from informal sources (i.e., moneylenders, suppliers, buyers/customers, relatives, and friends) only. Those who have borrowed from formal sources only (i.e., commercial banks, development banks, rural banks, thrift banks, savings and loan associations, credit unions and cooperatives) account for a little more than one-fourth of the total number of enterprises who have availed of credit. On the other hand, those enterprises that have availed of credit from both formal and informal

sources account for a little less than one-fourth. The majority of the enterprises indicated that informal credit is more accessible to them than formal credit.

Table 3.10: Distribution of RNEs by credit status and sources of credit

Status	No	%
With loan	217	54.3
Without loan	183	45.8
Total	400	100.0
Sources	**No**	**%**
Formal sources only	55	25.3
Informal sources only	112	51.6
Both formal and informal sources	50	23.1
Total	217	100.0

Source of Data: DRD-Survey of Rural Nonfarm Enterprises, 1992

The amount of loan applied for ranges from ₱200 to ₱1 million, with an average of ₱44,706. The average amount applied from formal sources is bigger than that from informal sources by about 75 percent. The amount of loan received, on average, is ₱40,640, with loans from formal sources larger than those from informal sources by about 75 percent, on the average.

Loans received may either be in cash or in kind. On the average, the amount of loan received in cash is about ₱40,000, while that in kind is around ₱34,000. Formal loans are usually given in cash; the average loan amount in cash from formal sources is a little more than twice the average amount from informal loans. Loans in kind are, however, common among informal sources, particularly input suppliers and traders. The average amount of loan given in kind by formal sources is slightly higher than that given by informal sources.

To obtain an indication of the existence of unmet demand for formal credit, entrepreneurs were asked whether they would want to borrow more than what they have availed of at the prevailing interest rate. The majority of them answered in the negative while only about two-

fifths indicated a desire to borrow more. For those who wanted to borrow more, the majority of them indicated that the additional loan would be used for working capital. About one-third, on the other hand, would use the additional loan for capital investment. Only one respondent indicated that the additional loan would be used for personal needs. For those who borrowed from informal sources, the majority of them indicated that their credit needs are fully met. Among those whose credit needs are not fully met by informal sources, the majority of them have unmet credit needs ranging from ten to 25 percent of total credit needs. About one-third, on the other hand, have unmet credit needs of less than ten percent.

In terms of interest rate charged on the loan, the average for both formal and informal loans is 23 percent per annum. There is not much difference in the average between formal and informal rates.

For collateral, informal sources do not require borrowers to provide one, in general; although there are still some informal lenders who require that borrowers provide security for their loans. Formal sources, on the other hand, require that loans be secured by collateral, the most commonly offered types of which are real estate (land or building), equipment, and vehicles. In some instances where the loan granted is a 'character loan' the borrower is not required to provide collateral; instead a guarantor is needed. The average amount of collateral offered is around ₱19,000. The amount of collateral offered for formal loans is three times that for informal loans, on the average.

The highest share of respondents that ranked collateral requirements first among the difficulties encountered in applying for formal loans. This is followed by the long processing period before loans can be disbursed. High interest rate have the highest share of respondents that ranked it third among the difficulties. Thus, it appears that collateral requirements are still a major factor constraining the easy access of entrepreneurs to formal loans.

The majority of the enterprises have not availed of other financial services from formal financial institutions aside from credit, although the relative share of those that have availed is only slightly lower than those that have availed. Among the types of enterprises, it is only among those engaged in trading where the majority have availed of other financial services. The most commonly availed financial service among the enterprises is a savings account (about 84 percent).

2. The Impact of Credit on Productivity and Growth of RNEs

Capital constraints faced by RNEs inhibit them from operating at the optimal level. Relaxing these constraints through improved access to credit will increase the expected revenues and income obtainable from given resources and market opportunities.

Measuring the impact of credit presents empirical problems arising from the likely heterogeneity of credit recipients and non-recipients. As Adams (1988) pointed out, credit in general will enhance the opportunities of those who use it, however, it is very likely that credit recipients would still be performing better than non-recipients even without credit because the former may have better inherent characteristics than the latter. It is important, therefore, to be able to segregate the effect of credit on productivity from the effect of inherent characteristics of the entrepreneur.

An econometric method designed to segregate the impact of credit from the impact of latent and observable characteristics of credit recipients and non-recipients was developed to tackle the issues presented above. The results are summarized in **Table 3.11**. The average credit effect is estimated to be positive at the average level of characteristics and resources. This implies that credit enhances the returns to observable characteristics and resources. The estimated figure indicates that credit availment increases output supply by more than two times (220 percent).

Table 3.11: Estimated Credit Effects

Effect	Estimate
Average credit effect	2.220
Differentiation effect	0.064
Conditional credit effect	2.284

The differentiation effect is estimated to be positive, although quite small in magnitude. The result implies that credit recipients enjoy differential returns to latent productivity attributes over non-recipients resulting in positive effects on output. The statistically significant estimated differentiation effect implies that the hypothesis of no differentiation effect is not accepted at the one percent level.

The conditional credit effect, or the counterfactual effect is also estimated to be positive. Since this effect measures the difference in the level of output of credit recipients operating with credit and without credit (the counterfactual state), the result implies that output is higher under credit availment relative to the level in the counterfactual state. The estimated figure translates to a difference of more than two times (228 percent) the level of output when operating without credit.

Note that the difference between the average credit effect and the conditional credit effect can be interpreted to be the effect accounted for by the unobservable productivity attributes of credit recipients. In this case, this effect is estimated to be 18 percent. This means that credit recipients enjoy an 18 percent increase in output over non-recipients due to their latent productivity attributes. This also validates Adams' hypothesis (Adams 1988) that credit recipients are generally more productive than non-recipients even without credit.

Several conclusions emerge from this empirical study of NREs. First, the strong Metro Manila urban bias and industrial concentration inherent in past government policies has created a relatively weak rural manufacturing base and a specialized focus on agricultural activities in rural areas. This has led to an emphasis on trading activity to join these spatially disparate sectors. The field results confirms this predominant role of trading activity among the NREs in terms of average level of assets, size of start up capital, net worth and loan activity.

Second, there appears to be a "missing middle", i.e. a dynamic small scale manufacturing sector in rural areas, in that practically all the manufacturing enterprises documented here were relatively micro in size. This could be reflecting the absence of a strong subcontracting tradition in the country. Large firms, given the lack of suitable infrastructure, avoid any significant subcontracting, especially in rural areas in contrast to the East Asian Experience.

Third, it is clear that there are numerous creditworthy clients among the sample of NREs surveyed. This is seen through the strong positive impact of credit on output through the regression switching model employed in this work. Relaxing credit constraints can add to output, productivity, and employment within the NRE world. More importantly, this positive impact on output and sales revenues means that these NREs are clearly able to pay market rates of interest for any loans they might receive. There is no need to introduce subsidized interest rates for this clientele.

Finally, it is clear that the challenge now is to develop financial intermediaries that can effectively screen, monitor, and enforce contracts with this promising NRE clientele. This raises questions concerning the most appropriate institutional design to enhance the access of credit for these creditworthy clientele and, at the same time, ensure responsible loan recovery at market rates of interest. Only then will there be a sustainable, continuous supply of loan services ensuring growth in output and productivity beyond a one-shot-fix.

C. IMPACT OF MACROECONOMIC POLICIES ON RNEs

As discussed earlier, macroeconomic policies affect RNEs' behavior and performance through various markets. This section traces the effects of some of these policies on RNEs by using a macroeconometric model. Librero (1994) constructed a NRE submodel and linked it with the existing PIDS-NEDA macroeconometric model. The RNE submodel consists of 3 major blocks, namely demand, employment and prices, and 12 RNE sectors, namely food, beverage tobacco, textile, wood, paper, chemicals, petroleum, basic metals, machinery, electrical and others. Time series data ón those 12 sectors do not distinguish between RNEs and urban-based enterprises. However, regional time series data are available. For convenience, RNEs in this particular exercise are defined as manufacturing industries located outside Metro Manila. This definition, of course, has a lot of deficiencies. For example, it includes large firms that are located in highly urbanized centers of the country, such as Cebu City and Davao City. Nevertheless, the exercise yields interesting results and paves the way for better analysis whenever appropriate data are available.

Using the above classification of NREs and urban enterprises, data show that RNEs comprised about 80 percent of the total number of establishments in the country, contributed between 45 to 58 percent of total output during the period 1975-1989 and employed about 50 percent of the total number of employed people in the manufacturing industry during the same period.

To analyze the effects of three policy variables, namely wage, exchange rate and export orientation, on output, employment and prices of RNEs, a simulation analysis was performed using the period 1981-1989. The results are as follows:

1. Effect of a Ten Percent Increase in Wage Rate

The effect on employment of a ten percent increase in wage rate is a decline of slightly less than one percent in employment in the food RNEs in the initial year which increases to 1.8 percent in the second year. The percentage decline later goes up although at a decreasing rate. the change in food output follows the same trend but the percentage change is higher than that for employment. The resulting percentage change in food prices is higher at 3.4 percent in the initial year increasing steadily until 1989 when it reaches a rise of 7.9 percent.

The level of employment in the beverage sector is lower than that for food and because of this lower base, the percentage decline in employment is higher: 10 percent in the first year and increasing to 15 percent in the second year, then falling a bit lower until 1984 after which the percentage drop accelerates to 15 percent again in 1987. The effect on output is also downward but to a much lesser extent ranging from one to three percent per year. Raising the wage rate by ten percent increased prices of beverage products by up to 6.6 percent.

The effect on employment in tobacco industries is surprisingly positive but output declined and prices went up.

The textile industry which employs more than a hundred thousand workers in rural areas was affected by a wage rate increase by a four percent drop in employment in 1981 and up to a 32 percent fall in 1989. The value added, however, declined only by about one percent initially and up to 8.9 percent in 1989.

The effect of the wage rate increase on employment in the wood industry is slight - from 2 to 7 percent. The change in the value added is almost a constant 14 percent in the downward direction. Prices of wood products steadily rose but only at a slow rate.

The increase in the price of paper products due to the increase in wage rate reduces the demand for paper products, printing and publishing. Consequently, output declines by about 2 to 4 percent which in turn leads to a decline in employment by about 8 to 10 percent during the simulation period.

The chemical industry in the rural areas employs less than 20,000 people and an increase in the wage rate would reduce employment by only about 1.4 thousand or 8.05 percent of the baseline. As a result, value added would go down by about 2.1 percent.

The manufacture of petroleum and coal products in the rural areas employs the least number of workers among the RNE sectors and the reduction in the employment due to a ten percent increase in the wage rate is estimated to be less than 600 people. The effect on output would only be about 2 percent.

The negative impact of a ten percent increase in the wage rate on employment in machinery industries ranges from 2 to 6 percent on the negative side. Prices would increase by about 6.5 percent leading to a drop in value added by approximately 14.7 percent.

The electrical industry in the rural areas employs about 15 thousand people and if wage rate increase, employment would go down by an average of about 11 percent while prices would rise by about 5.4 percent.

For all rural nonfarm enterprises, a ten percent increase in the wage rate is estimated to result in a drop in employment by about 1.8 percent initially. Continuing wage increase would reduce employment by up to 7 percent. Aggregate value added from all RNEs would then decline by 1.1 to 4.2 percent.

2. Effect of a Ten Percent Peso Devaluation

The immediate effect of a 10 percent devaluation of the peso vis-a-vis the US dollar is to increase domestic prices of imported goods as well as locally produced goods with some import content. Thus, inflationary trends would ensue. The increase in prices would tend to lower the demand for goods and services which would then reduce employment. The empirical results of the simulation exercise determining the effects of a ten percent devaluation on rural nonfarm enterprises generally conform with these expectations. The only deviation observed is employment in the beverage and basic metals sectors which increased by a very small percentage of 0.5 percent and 0.6 percent, respectively, for the period 1984 to 1989, suggesting their export competitiveness.

Food prices increased by 7.7 percent which changes food output in the opposite direction by about two percent. Employment would also decline by about the same percentage.

The immediate effect of the devaluation on the tobacco industry in the rural areas is an increase in employment and prices of manufactured tobacco. The latter probably outweighs the employment effect on output, which decreased by about 2 percent. As devaluation continues,

however, the number of workers employed is reduced due to wage increases and therefore output continued to fall.

Continuing devaluation has almost similar negative effects on value added, employment and prices in the textile and wood industries in terms of direction of change and the rate at which the percentage difference between the baseline solution and the shock run quantities change.

For the paper and paper products of RNEs, the stability of the model is reflected by an almost equal magnitude of decline in output particularly between 1985 and 1989. Likewise, employment practically declined by the same volume annually.

The largest negative impact of the devaluation on value added is observed in the machinery and electrical RNE sectors, where the percentage difference between the baseline solution and that of the short-run averaged 20.4 percent and 12.9 percent respectively, for the period 1985-89. For employment the largest negative effect occurred in the textile industry, with 7.0 percent, and machinery, with 6.0 percent.

3. Effect of an Increase in Merchandise Exports Equivalent to One Percent of GDP on the Baseline

Given the structure of the PIDS NEDA macroeconometric model, the impact of higher manufactured exports on GDP will consist of the direct effect through higher exports and output in manufacturing, and of the indirect effects working through the resulting changes in the money supply, prices, real interest rate (which will change due to the effect on inflation), and balance of payments and availability of foreign exchange to finance imports and investment.

An increase in exports would result in a more favorable balance of payments position, which subsequently would increase the amount of foreign exchange available to finance imports which are an important input in the production of rural nonfarm enterprises. This greater capacity to import would enhance investments and improve GDP growth. These changes would be expected to positively affect employment and output in rural nonfarm enterprises. Such change are validated in the results of the simulation exercise which increases merchandise exports by an amount equivalent to one percent of GDP on the baseline. Thus, one observes increases in RNE value added and in output. The magnitude of the difference between the baseline and the shock run appears relatively smaller than the previous two policy changes considered above. It would be recalled that some of the employment equations in the RNE

submodel included exports as an exogenous variable.

The increase in merchandise exports resulted in an increase in value added in the RNE food sector by one percent and in the textile industries by 0.9 percent for the entire simulation period. The largest effects were observed in tobacco and machinery at 4.1 percent each.

As a whole, the initial effect of the increase in merchandise exports on RNE value added is only 0.1 percent which increased to almost 2 percent in 1989. The change in employment is smaller and ranged from 0.1 percent in the first year of the simulation period to 1.3 percent in 1989.

There are several observations that can be made from the results above. One is that RNEs seem to be sensitive to wage changes, which suggests the importance of having an appropriate wage policy in the country. A legislated uncompetitive minimum wage policy can have a negative impact on RNE performance. Another is that RNEs appear to be domestically oriented firms, i.e., they produce mainly for the domestic market. This could be the effect of past policies that were biased towards the urban sector, which did not produce significant linkages between rural-based and urban-based industries through sub-contracting. Thus, a devaluation that feeds into inflation has a significantly negative impact on RNE demand. The types of NREs developed so far seem to be different from those that can be found in Taiwan that played a significant role in their export drive. Thus, a significant restructuring of the RNEs is required if RNEs are expected to play a significant role in the current emphasis on export competitiveness. This, in turn, implies a stronger export orientation in trade and exchange rate policies to generate the incentives to engage in a more export-oriented restructuring of RNEs. The devaluation itself can cause a restructuring in rural industries. As existing RNEs shrink, new ones might emerge that can flourish under a new policy regime. Given the capability of rural entrepreneurs as indicated by their relatively high educational attainment, rural entrepreneurs can easily perceive new opportunities that will emerge under a new policy regime.

Chapter 4

RURAL LABOR AND RURAL NONFARM ENTERPRISES

As suggested by the analytical framework outlined in **Figure 1**, certain policies have impacts on RNEs through the labor market. Conversely, the growing interest of RNEs stems from the fact that RNEs provide additional job opportunities to growing rural labor force that could not be absorbed by the agricultural sector. Interestingly, some of the jobs offered by RNEs demand less physical work and could be done at home. These are types of jobs that are attractive to women who prefer to do paid jobs that are compatible with their household responsibilities, such as child rearing. Unfortunately, most existing studies have focused on farm households and their participation in the agricultural labor markets. Very little is known about rural nonfarm households' participation in labor market, especially the labor market for RNEs.

As part of the activities of the DRD Project, Sanchez (1994) analyzed the rural nonfarm households' pattern of labor allocation and structure of employment. A survey of 451 rural households in the provinces of Iloilo, Negros Occidental, Cebu and Bohol was conducted in 1992.[3] These sample rural households involved 2,374 people, of whom 1,556 belong to the working age population. About 52 percent (813 people) were in the labor force, of whom 89 percent were employed.

A. DESCRIPTION OF RURAL EMPLOYMENT

The composition of employment by sector shows that the bulk of the sample households are in the nonagricultural sector. This implies that the extent of dependence of rural households in the selected provinces on rural nonfarm activities is very substantial (**Table 4.1**) Between 75 and 95 percent of employed persons in the sample are in the nonagricultural sector. In the four provinces, the agricultural sector is male dominated as evidenced by a very high proportion of male employment to the total agricultural employment. It appears that female workers participate more in nonagricultural activities than in agricultural activities.

[3]These are the same sample areas for the survey of RNEs discussed in the previous chapter.

TABLE 4.1

Distribution of Employed Household Members by Classification Agriculture and Non–Agriculture by Province

Province	Classification												Total
	Agriculture						Non–Agriculture						
	Sex				Total		Sex				Total		
	Male		Female				Male		Female				
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Iloilo	25	86.2	4	13.8	29	15.4	86	54.1	73	45.9	159	84.6	188
Negros Occidental	8	80.0	2	20.0	10	4.8	116	58.6	82	41.4	198	95.2	208
Cebu	29	93.5	2	6.5	31	14.8	106	59.6	72	40.4	178	85.2	209
Bohol	31	96.9	1	3.1	32	25.0	40	41.7	56	58.3	96	75.0	128
Total	93		9		102		348		283		631		733

Source: DRD Survey of Rural Households 1992

Table 4.2 shows the number and the distribution of employed persons by industry group. In the sample provinces, services accounted for the biggest share of total employment with 30 percent followed by wholesale and retail trade with 21 percent and manufacturing with 17 percent. Agriculture, fishery and forestry accounts for 16 percent of employed household members.

The structure of rural employment in the sample provinces confirms the general observation that a strong consumption linkage exists in the rural sector. Services and trade activities also dominate the nonagricultural component of employment in the survey areas. The expenditure pattern of the survey households shows that the largest proportion of the households' income was spent on food.

The composition of rural employment by industry and sex reflects the special importance of rural manufacturing for women. Rural manufacturing is composed mostly of small and cottage industries . In particular, rural manufacturing is composed of a variety of activities which include food processing, handicraft making, weaving , basketry ,and other cottage industries. Most rural women possess the traditional skill required by these activities.

Wholesale and retail trade is also an important source of employment for rural women. These commercial activities usually involve retail trade in small stores (petty commodity trading) and food vending. Although wholesale and retail trade activities are predominantly female occupation, the males also participate as evidenced by considerably high male participation in these activities. Rural manufacturing and wholesale and retail trade activities are small-scale, labor intensive, and are usually owner-operated.

There is a clear gender division of household labor. Males are involved in income-generating activities which are done away from the household. For instance, farming activities are male dominated. Majority of the women are engaged in rural manufacturing and wholesale and retail trade activities which are mostly household-operated. The development of sub-contracting arrangements in rural manufacturing activities could encourage further the participation of women in these. Rural women have strong preference for work which can be done within the household or neighborhood so that there would still be time left to devote to domestic household work.

The number and distribution of workers by class (**Table 4.3**) show that the majority of the workers in all the provinces are wage and salary workers. The proportion of wage and salary workers to the total rural employed workers ranges from 25.0 percent to 35 percent. A

TABLE 4.2

Distribution of Employed Household Members by Major Industry Group by Province

Major Industry Group	Province												Total
	Iloilo			Negros Occidental			Cebu			Bohol			
	Sex			Sex			Sex			Sex			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Agri.,Fish., For.	23.0	7.0	16.8	10.5	6.0	8.7	22.2	2.7	15.3	43.7	1.9	25.6	15.6
Manufacturing	17.7	4.2	12.5	10.5	1.2	6.8	27.4	39.2	31.6	8.5	22.2	14.4	16.7
Elec., Gas & Water	0.9	0.0	0.5	0.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Construction	12.4	0.0	7.6	11.3	0.0	6.8	9.6	0.0	6.2	5.6	0.0	3.2	6.2
Wholesale & R Trade	13.3	40.8	23.9	19.4	48.2	30.9	8.1	18.9	12.0	11.3	24.1	16.8	21.2
Transportation	1.8	1.4	1.6	12.1	1.2	7.7	14.1	1.4	9.6	7.0	0.0	4.0	6.1
Financing	0.0	0.0	0.0	1.6	3.6	2.4	2.2	2.7	2.4	1.4	1.9	1.6	1.7
Services	27.4	42.3	33.2	33.9	38.6	35.7	13.3	32.4	20.1	19.7	48.1	32.0	29.9
Ind. Inadec. Def.	3.5	4.2	3.8	0.0	1.2	0.5	2.2	2.7	2.4	2.8	1.9	2.4	2.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: DRD Survey of Rural Households 1992

TABLE 4.3

Distribution of Employed Household Members by Class of Worker by Province

Province	Class of Worker												Total
	Wage & Salary Worker			Self–Employed			Unpaid Family Worker			Others			
	Sex			Sex			Sex			Sex			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Iloilo	60.0	40.0	34.6	56.8	43.2	23.4	57.1	42.9	22.3	62.2	37.8	19.7	100.0
Negros Occ.	68.0	32.0	46.6	54.3	45.7	16.8	47.6	52.4	30.3	69.2	30.8	6.3	100.0
Cebu	63.5	36.5	55.0	41.7	58.3	5.7	74.1	25.9	27.8	58.3	41.7	11.5	100.0
Bohol	46.9	53.1	25.0	43.3	56.7	23.4	60.4	39.6	41.4	84.6	15.4	10.2	100.0
Total	62.5	37.5	42.2	51.2	48.8	16.5	59.7	40.3	29.5	65.5	34.5	11.9	100.0

Source: DRD Survey of Rural Households 1992

larger proportion of wage and salary workers are male, although females have significant share in the group. The self-employed workers also have a considerable share in the total rural employment except for Cebu. The self-employed are more or less equally shared by males and females, while unpaid family workers are mostly males. Bohol has the largest share of unpaid family workers at 41 percent.

Wage work is an important source of employment and income particularly of the landless and small holder households. Participation in nonfarm wage work is related to the size of land holdings and access to the means of production. Generally, the primary sources of employment for males are wage work in manufacturing and agriculture. Women also make up a significant proportion of total participation in the labor market as wage and salary workers. There are more women in the professional occupations than men which indicates that they are more educated than the males.

The earnings in the rural areas are paid in cash and/or in kind. This mode of payment which combines cash with payments in kind are common in farming, service, and trade occupations wherein free meals and lodging comprise the kind components of the earnings. **Tables 4.4** and **4.5** present the average weekly earnings of workers by sector and in nonagricultural activities. Caution must be taken in analyzing the kind component of the average earnings because of the difficulty in estimating the cash value of such payments.

On the average, the earnings generated by rural households from nonagricultural work exceed those generated from agricultural activities. The cash values of the payments in kind are small and negligible relative to the cash payment except for the agricultural activities in Cebu. Average weekly earnings in the nonagricultural sector vary across types of activities and province. It can also be observed that the average rural earnings reported by the sample households are lower relative to the urban earnings as reported by various surveys covering the urban areas.

B. WAGE LABOR IN SURVEY PROVINCES

The number and distribution of wage workers in the sample provinces are presented in **Table 4.6**. A considerable number of rural households in the sample areas earn income by hiring out labor. The data show that 55 percent of the total rural employed persons in Cebu are wage workers. Wage labor accounts for 47 percent, 35 percent, and 25 percent of the rural workers in Negros Occidental, Iloilo, and Bohol. The presence of a large proportion of wage

TABLE 4.4

AVERAGE WEEKLY EARNINGS OF WORKERS IN AGRICULTURAL AND NON-AGRICULTURAL ECONOMIC ACTIVITIES BY PROVINCE (PAST WEEK; IN PESOS)

PROVINCE	AGRICULTURE		NON-AGRICULTURE	
	CASH	KIND	CASH	KIND
ILOILO	–	–	1,550.2	–
NEGROS OCCIDENTAL	445.2	22.2	674.8	34.0
CEBU	653.3	346.7	807.6	37.0
BOHOL	685.0	–	2,221.0	–
TOTAL	544.2	77.5	1,129.5	–

Source: DRD Survey of Rural Households 1992

TABLE 4.5

AVERAGE WEEKLY EARNINGS OF WORKERS IN NON–AGRICULTURAL ACTIVITIES BY INDUSTRY AND PROVINCE (PAST WEEK)

INDUSTRY	PROVINCE							
	ILOILO		NEGROS OCC.		CEBU		BOHOL	
	CASH	KIND	CASH	KIND	CASH	KIND	CASH	KIND
Manufacturing	635.7	–	817.5	40.0	576.2	–	480.0	–
Construction	602.6	–	536.3	–	555.6	–	1,680.0	–
Transportation	720.0	–	577.5	–	761.2	–	1,663.3	–
Services	2,016.9	–	719.3	–	783.6	37.0	2,479.8	–
Wholesale & Retail Trade	858.3	–	486.9	28.0	1,650.8	–	1,200.0	–
Financing	–	–	416.7	–	1,478.0	–	3,450.0	–

Source: DRD Survey of Rural Households 1992

TABLE 4.6

WAGE LABOR IN SAMPLE PROVINCES

	PROVINCE				TOTAL
	ILOILO	NEGROS OCC.	CEBU	BOHOL	
TOTAL SAMPLE HOUSEHOLDS	132	78	112	129	451
NUMBER OF WAGE AND SALARY WORKERS	65	97	115	32	309
% OF WAGE WORKERS TO TOTAL EMPLOYMENT	34.6	46.6	55.0	25.0	42.2

Source: DRD Survey of Rural Households 1992

workers in the survey areas supports the view that a wage labor market exists in the rural sector of the sample provinces. Opportunities for wage labor are available to rural households to hire out their labor both in farming and non-farming activities along with the other alternatives such as work in own farm and self-employment in the nonfarm sector.

On the average, the hired workers in the nonagricultural occupations worked longer hours and received higher wages relative to those in the agricultural occupations (**Table 4.7**) Sales and service workers in the survey areas spent an average of 48 hours a week in the labor market. However, the average weekly earnings of these types of workers are relatively low compared with the other nonagricultural occupations. These observations can be partly explained by the nature of activities in sales and service occupations which are most commonly in the low productivity informal sector.

The varying agricultural wages across sample provinces is reflective of the variations in agricultural productivity as well as the nature of agricultural operations undertaken by the hired workers.

It can also be observed that the wage differentials between the nonagricultural and agricultural occupations in the survey areas are large. This observation reveals the kind of labor market linkage between the agricultural and the nonagricultural sectors in the survey areas. It appears that the labor market outcomes in the agricultural sector in the form of low wages and limited labor absorption have significantly influenced the existing structure of labor markets in the nonfarm sector.

The major factor which determines the supply of hired labor in the nonfarm sector is the distribution of productive assets. In the rural areas, agricultural land is the most important productive asset of households. The distribution of landless households in the survey areas reveals that provinces with large proportion of landless households have a relatively high proportion of hired workers. In particular, the percentage of landless households in the surveys areas of Negros Occidental and Iloilo are estimated at 93 percent and 63 percent, respectively. On the other hand, hired labor accounts for 30 percent and 24 percent of employment in the survey areas of the two provinces. The observations from the survey areas confirm the hypothesis that the lack of productive resources is the main factor that gave rise to larger share of hired labor in the nonfarm sector. The nonfarm sector is an important source of employment of the landless households in the survey areas.

TABLE 4.7

AVERAGE NUMBER OF HOURS WORKED OF WAGE/SALARY WORKERS BY OCCUPATION AND PROVINCE (PAST WEEK)

OCCUPATION	PROVINCE				TOTAL
	ILOILO	NEGROS OCCIDENTAL	CEBU	BOHOL	
Professional, Technical and Related Workers	37.8	40.7	39.6	37.7	38.9
Administrative, Executive and Managerial Workers	28.0	48.0	40.0	–	36.0
Clerical and Related Workers	41.6	42.3	41.0	47.7	43.2
Sales Workers	41.6	41.3	46.6	40.0	48.1
Service Workers	36.3	47.2	44.8	39.3	48.5
Agricultural, Animal Husbandry, and Forestry Workers, Fishermen and Hunters	40.2	30.0	33.5	28.0	35.1
Production and Related Workers, Transport, Equipment Operators and Laborers	38.5	45.3	45.2	34.3	43.1
TOTAL	38.1	45.6	48.0	38.2	43.4

Source: DRD Survey of Rural Households 1992

C. ENTREPRENEURIAL ACTIVITIES OF SURVEY HOUSEHOLDS

A significant proportion of rural households are engaged as producers, owners and operators of farm and nonfarm enterprises. **(Table 4.8)** Out of 451 rural households, 250 are engaged in entrepreneurial activities. Only 10.4 percent or 26 households are operating farm enterprises. The remaining 89.6 percent households are operating nonfarm enterprises. The bulk of the enterprises (45.2 percent) are in wholesale and retail trade comprising mostly of sari-sari stores and markets stalls. Livestock and poultry raising , and manufacturing have considerable shares to the total number of enterprises at 15.6 percent and 11.2 percent, respectively.

It is noteworthy that majority of the sample rural households in the four provinces are engaged in wholesale and retail trade. Negros Occidental has the highest share of households engaged in wholesale and retail trade at 69 percent. About 44 percent, 33 percent, and 27 percent of the household enterprises are engaged in wholesale and retail trade in Iloilo, Bohol, and Cebu, respectively. In Cebu, 20.8 percent of rural households engaged in entrepreneurial activities are in crop farming and gardening business. Bohol, on the other hand, has a bigger proportion of household enterprises in manufacturing with 19 percent. A larger proportion of enterprises in Iloilo are engaged in livestock and poultry. These observations reveal that majority of the household-based enterprises serve the local markets.

Table 4.9 shows the number and the type of labor utilized in the household-operated enterprises. The 250 enterprises in the sample provinces employed 267 workers. This indicates that household-based enterprises have a considerable direct employment effect in the survey areas. The number employed by the household-operated enterprises excludes the owner-operators. It appears that the use of family workers is still a common practice in the rural areas. About 57 percent or 151 of the total employed in household-operated enterprises are family labor. Hired labor is estimated at 43 percent. In particular, the rural household-operated enterprises in Cebu has the highest share of family labor at 75 percent. On the other hand, the proportion of hired workers in the rural household-operated enterprises in Negros Occidental is highest at 57 percent. The data suggest that although most rural household-based enterprises in the sample areas still rely on family labor, the share of hired workers are considerably high particularly in Negros Occidental and Iloilo.

It is also interesting to know which type of activities employ greater proportion of hired workers. **Table 4.10** presents the number of employed in household-operated enterprises by type of activity and type of worker. The data revealed that household-based enterprises engaged

TABLE 4.8

DISTRIBUTION OF HOUSEHOLD MEMBERS ENGAGED IN ENTREPRENEURIAL ACTIVITIES BY TYPE OF ACTIVITY

ENTREPRENEURIAL ACTIVITY	PROVINCE								TOTAL	
	ILOILO		NEGROS OCC.		CEBU		BOHOL			
	No.	%	No.	%	No.	%	No.	%	No.	%
Crop Farming & Gardening	6	6.7	4	6.2	10	20.8	6	12.5	26	10.4
Livestock & Poultry	24	27.0	2	3.1	6	12.5	7	14.6	39	15.6
Fishing	8	9.0	4	6.2	5	10.4	7	14.6	24	9.6
Manufacturing	8	9.0	4	6.2	7	14.6	9	18.8	28	11.2
Wholesale & Retail Trade	39	43.8	45	69.2	13	27.1	16	33.3	113	45.2
Transport, Storage & Com.	2	2.2	4	6.2	2	4.2	0	0.0	8	3.2
Construction	0	0.0	0	0.0	1	2.1	0	0.0	1	0.4
Services	1	1.1	2	3.1	2	4.2	0	0.0	5	2.0
Other Non–Agr'l. Activities	1	1.1	0	0.0	2	4.2	3	6.2	6	2.4
TOTAL	89	100.0	65	100.0	48	100.0	48	100.0	250	100.0

Source: DRD Survey of Rural Households 1992

TABLE 4.9

EMPLOYMENT IN HOUSEHOLD–OPERATED ECONOMIC ACTIVITY BY TYPE OF LABOR

TYPE OF LABOR	PROVINCE								Total	
	ILOILO		N. OCC.		CEBU		BOHOL			
	No.	%	No.	%	No.	%	No.	%	No.	%
HIRED	42	44.7	45	57	16	25.4	13	41.9	116	43.4
FAMILY	52	55.3	34	43	47	74.6	18	58.1	151	56.6
TOTAL	94		79		63		31		267	

Source: DRD Survey of Rural Households 1992

TABLE 4.10

EMPLOYMENT IN HOUSEHOLD–OPERATED ECONOMIC ACTIVITY BY TYPE OF ACTIVITY AND TYPE OF LABOR

TYPE OF ACTIVITY	PROVINCE												TOTAL		
	ILOILO			NEGROS OCC.			CEBU			BOHOL					
	HIRED	FAMILY	TOTAL	HIRED	FAMILY	TOTAL	HIRED	FAMILY	TOTAL	HIRED	FAMILY	TOTAL	HIRED	FAMILY	TOTAL
Crop Farming and Gardening	11	3	14	13	1	14	9	13	22	1	4	5	34	21	55
Livestock and Poultry	0	5	5	0	1	1	0	1	1	0	0	0	0	7	7
Fishing	3	5	8	10	3	13	0	2	2	1	0	1	14	10	24
Manufacturing	9	12	21	1	3	4	4	14	18	0	0	0	14	29	43
Wholesale and Retail Trade	19	26	45	16	24	40	3	12	15	8	13	21	46	75	121
Other Non–Agr'l Activities	0	1	1	5	2	7	0	5	5	3	1	4	8	9	17
TOTAL	42	52	94	45	34	79	16	47	63	13	18	31	116	151	267

Source: DRD Survey of Rural Households 1992

in crop farming and gardening, and fishing activities employ a greater proportion of hired workers. Wholesale and retail enterprises have greater proportion of family labor. The data by province showed the same observations. For instance, hired labor dominates employment in household-based enterprises engaged in crop farming and gardening in Iloilo and Negros Occidental. On the other hand, family labor dominates employment in wholesale and retail trade enterprises in all the sample provinces.

The employment data in the household-based enterprises are supported by the data on the average number of hours worked. On the average, hired labor worked longer hours in household-based enterprises engaged in crop farming and gardening while family labor worked longer hours in wholesale and retail trade enterprises. These observations are partly explained by the nature of work in these activities. Wholesale and retail trade activities are mostly composed of sari-sari stores and markets stalls usually located within the confines of the household or within the neighborhood. Given this kind of set up, family members can easily substitute for each other in performing their tasks. Trust is a major factor that explains the employment of family workers in these enterprises while experience or skills are not necessarily required. On the other hand, the small farmers usually hire workers to perform specific tasks that may require skills and experience.

D. DETERMINANTS OF RURAL LABOR FORCE PARTICIPATION IN RNEs AND WAGE RATES

The probability of labor market participation is significantly affected by the ownership of household-operated enterprises, non-labor income, and work location. The ownership of household-operated enterprises decreases the probability of labor market participation. Likewise, non-labor income lessens the likelihood of labor market participation. Work location and proximity of the place of residence to the place of work strongly affects the probability of labor market participation. The shorter the distances between the residence and work place, the greater the likelihood of labor market participation. The human capital and demographic variables are not significant in explaining the probability of labor force participation of rural household members.

Wages are significantly affected by the age variable which serve as a proxy for years of work experience. However, the education dummy variables do not have significant impact on wages. This may imply low private returns to education in the rural areas.

The labor supply in terms of hours of work is significantly affected by non-labor income in all equations. Hours of work decreases in response to non-labor income. These results reflect the dominance of the income effect and confirm the hypothesis that leisure is a normal good. The predicted wage has a positive and significant effect on hours of work in all equations. The rural labor supply in terms of work hour is inelastic with respect to wages. Among the demographic variables, children below 6 years of age has a significant negative impact only on female hours of work. Moreover, age has a positive significant effect only on the hours of work of females.

In terms of number of work weeks, non-labor income is found to have a negative effect on weeks work but the coefficients are significant only in the total and female equations. The coefficients of non-labor income are smaller relative to those in the hours of work equations. These imply a weaker supply response in terms of work week. Likewise, the predicted wage carried the expected sign but is significant only in the equations for the total and female workers. The rural labor supply in terms of work weeks is also inelastic with respect to wages. The magnitude of the elasticities suggests that work week is less responsive to wage rates relative to hours of work.

E. CONCLUSIONS AND POLICY IMPLICATIONS

A number of important conclusions and policy implications emerge from the study.

a) Over the years, the rural nonagricultural activities have become important components of the rural economy in terms of employment and income generation. The rural nonagricultural sector has provided employment to a significant proportion of excess labor in the rural sector. Observations from the aggregate and micro-level survey data indicate a considerably high proportion of rural labor force in nonagricultural activities but a lower proportion in rural manufacturing. The observations also reveal that the economic activities in the rural nonagricultural sector are characterized by low productivity and are by their nature limited to the domestic markets. In particular, the case study using the micro-level data shows that retail trade and service activities which cater largely to local consumer demand dominate the rural nonagricultural sectors of the survey provinces. It is also quite evident that the rural nonagricultural sector is linked with the agricultural sector. To explore the full potential of the linkages between the agricultural and the rural nonagricultural sectors, policies and programs

supporting the rural nonagricultural sector particularly rural manufacturing should be complemented with policies that will foster the growth of productivity and incomes in the agricultural sector.

b) The growth of employment in rural nonagricultural activities is not influenced much by demand factors such as the availability of more productive nonagricultural activities. Employment in rural nonagricultural activities appears to be supply determined or characterized by the dominance of the push factors like limited access to agricultural productive resources, increasing rural labor force, increasing rural unemployment and underemployment, and widespread rural poverty. The findings also indicate that access to land determines agricultural employment and rural nonagricultural activities are of particular importance to small and landless rural households.

c) In the more developed provinces like Cebu, the accessibility and proximity of rural households to urban centers have a significant direct employment effect on the rural workers. This type of rural-urban labor market link will be strengthened by better infrastructure and transportation facilities. Moreover, the empirical model reveals that work location is a significant factor affecting wage and labor supply in the rural areas of the survey provinces. This indicates that the development of rural infrastructure in these areas will generate opportunities for nonagricultural employment by improving rural workers' mobility.

d) The analysis of the micro-level data reveal that the rural households' labor supply decisions are strongly but negatively influenced by non-labor income and opportunities for self-employment in household-operated nonagricultural enterprises. Policies that will provide incentives to these household-operated economic activities will not only ease the employment problem in the survey provinces but will also transform these activities into more dynamic ones. This will pave the way for rural industrialization in the areas.

Female labor supply responds strongly to demographic variables particularly the presence of young children in the household. Human capital variables like education do not have significant effects on rural labor supply. This may indicate that labor market opportunities in the rural nonagricultural sector of the survey areas require less education.

Chapter 5

INTERACTION OF RURAL CREDIT MARKETS WITH AGRARIAN REFORM

Agrarian reform changes the basic structure of agriculture by changing the ownership and distribution of land. In the long term, these changes redistribute rural incomes and these changes alter the consumption linkages between the farm and nonfarm sectors. This chapter describes the way in which the comprehensive agrarian reform program (CARP) affected the use of land as collateral in rural credit markets. It reports the research results on the behavior of banks in agrarian reform areas, discusses alternative credit delivery mechanisms, and describes how group lending and interlinked credit contracts are used by formal and informal lenders as collateral substitutes. The chapter also discusses some issues related to the sustainability of some of these financial operations.

A. FRAMEWORK OF ANALYSIS

Following the recent work of Hoff and Stiglitz (1990); Besley (1994) and others on new developments in understanding rural credit markets, we argue that CARP, as an exogenous shock to the credit markets, exacerbated the small borrower's traditional lack of access to formal credit brought about by transaction and information costs associated with small loans; diminished the role of landowners as source of informal credit; and motivated various private and government attempts to create alternative mechanisms for rural credit delivery. Among the latter are the formal credit delivery structure created by Land Bank; the experimental credit delivery approaches initiated by some private banks, non-governmental organizations (NGOs) and people's organizations (POs); and the heightened role of input suppliers and traders in providing credit to small rural borrowers. The findings and conclusions of the different studies of the Dynamics of Rural Development Project can, therefore, be appreciated in the context of rural credit markets characterized by imperfect information, imperfect enforcement and high transaction costs. This is explained by Llanto (1994) as follows.

B. RURAL FINANCIAL MARKETS IN DEVELOPING COUNTRIES[4]

Various studies have pointed out that the lack of access of small borrowers (i.e. small farmers and fisherfolk, small enterprises, microentrepreneurs and landless borrowers) in developing countries to formal or bank credit is a significant issue in rural credit markets. The lack of access can be appreciated in light of certain features of credit markets which are "felt much more accurately in rural credit markets, and in developing countries, than in other contexts in which credit markets operate" (Besley 1994). The traditional collateral (land) is scarce; complementary institutions are underdeveloped and there are significant covariant risks (Binswanger and Rosenzweig 1986; Besley ibid.). Land is inequitably distributed and the small borrowers. may not have physical assets which can be pawned to the creditor. Climatic conditions and fluctuation in commodity prices affect agricultural output, and determine the incomes and loan repayment capacity of borrowers from the same contiguous areas. Poor roads, communications and transport system and other infrastructure adversely affect the viability of projects. Furthermore, financial intermediation is made much more difficult by high transaction costs, weak legal systems and the insecurity of land tenure (Yaron 1992). Information asymmetry also drives a deep wedge between the vast number of small rural borrowers and banks, making loan contracting an extremely difficult process to undertake (Llanto 1990).

A loan transaction is a complicated task for the bank and borrower as well. Information asymmetry and high transaction costs in rural credit markets make loan contracting between the bank and the rural borrower a difficult task. It may be a lot easier for the informal lender, given his familiarity with the borrower, the countryside and his access to other relevant local information. A great deal of information both on the personal attributes of the borrower and the project applied for financing is required. It is crucial for the bank to know the viability of the project, the loan purpose, the likelihood of generating sufficient cash flow to cover the loan, the creditworthiness of the borrower and his strategic behavior after the loan has been granted (Llanto ibid.).

These features of rural financial markets give rise to several problems for the lender, especially the formal lender such as a bank :

a. screening or sorting good from bad borrowers;

[4]This section is entirely drawn from Gilberto M. Llanto, "The Impact of Collateral Substitutes on Bank Lending Behavior," unpublished paper, July 1994.

b. creating an incentive structure for loan repayment; and

c. enforcement of the terms of the loan contract on erring borrowers.

The Screening Problem

Borrowers are not a homogeneous lot and obviously they do not have the same access to formal/informal credit. They have to be able to present themselves to the potential lender as a good credit risk and a profitable customer. Much time is spent by the lender in locating a "good borrower" and a "good project." In addition to the effort spent in determining the viability of the project, the bank/lender has to invest time and effort in determining the creditworthiness of the borrower. Unlike the commodity seller who does not worry about the character of the buyer as long as he gets paid for the commodity, the bank/lender is concerned with the character and strategic behavior of the "loan buyer," i.e. the borrower (Llanto ibid.)[5]. Among other things, the bank/lender worries about what the borrower will do with the loan, how it will be used and whether the borrower will abide by the terms and conditions of the loan contract (see Clemenz 1986).

The implication is that because of asymmetric information in credit markets (which tends to be more severe in rural credit markets), the borrower who has more information about his objectives behind the loan transaction relative to the lender, can therefore exploit the situation to his advantage. He may employ a high-risk strategy in his commercial venture or may choose to limit his productive effort in that venture which eventually affects the project output.

The lender undertakes to commit financial resources without complete certainty of whether or not the loan contract will be kept. This stems from the inter-temporal character of loan transactions. Funds are provided for disposal by a borrower with the expectation of repayment and profit at some future time for the lender. Borrowers know themselves and their projects better than lenders do and may, thus, subject the loan to wilful default. Because borrowers have potentially great gains from understating personal as well as the project's weaknesses and exaggerating the positive qualities, lenders seek to counteract the moral hazard and incentive problems by employing elaborate screening devices to sort "good" from "bad" borrowers. As a defensive mechanism, the lender may practice credit rationing which discriminates among borrowers.

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[5]R. Meyer commented that in other commodities such as a used car, buyers and sellers must also be concerned about product quality.

Banks tend to be conservative and risk averse; they prefer to deal with those borrowers with a proven credit track record and acceptable collateral because this reduces the screening and enforcement problem. The banks, therefore, are concerned about the expected net return from lending the quality of the collateral, the borrower's equity in the project, cash flow and, consumption pattern and other personal attributes of the borrower as well. The upshot is that the asymmetry of information drives banks to install elaborate screening mechanisms to sort "good" from "bad" borrowers and "viable" from "unviable" projects (see Llanto ibid.). Collateral becomes important for screening loan applicants.

In this context, a borrower provides an acceptable collateral to signal his good intentions over the loan to be transacted. His pledge of collateral serves as a "measure of comfort" or security to the bank that he will not renege on the loan contract. The pledged collateral is in some sense a revelation of the borrower's intention over the loan proceeds and an indicator of his frame of mind. The collateral is here used to screen out "bad" borrowers (see Stiglitz and Weiss 1986). In another sense, the collateral acts, although imperfectly, to fill the information void on the borrower and his intentions. A substantial collateral-loan ratio serves to inform the lender of the borrower's ability to cover any loan default and to compensate the lender for a loan loss[6].

The Incentive Problem

Lending is basically a risky task. For this reason, the lenders must be able to "ensure that borrowers take those actions which make repayment most likely" (Hoff and Stiglitz 1990). This is important in order to minimize the strategic behavior of borrowers. A high-risk investment behavior of borrowers increases the likelihood of loan default and the lender seeks to influence borrowers to desist from undertaking such risky undertakings. The way loan contracts are designed may induce borrowers to more efficiently use the loan. The requirement of collateral from the borrower has a direct bearing on his incentive to comply with the terms of the loan contract. For example, the effective foreclosure of the land in the event of a default is an incentive to repay the loan. The design of a loan contract to ensure loan recovery usually takes into account the cost to the borrower of losing the pledged collateral in the case of a loan default. Losing the collateral or even the threat to lose the pledged collateral should be a painful (and costly) experience to the borrower in order to deter him from reneging on that contract. Thus, the transfer of the cost of loan default from the bank/lender to the borrower, minimizes

[6]In agrarian reform areas, Llanto and Magno (1993) documented substantial collateral-loan ratios are demanded by banks.

the lender's losses in the event of a default.

The Enforcement Problem

The use of collateral in loan contracts reduces the risks of default[7]. Given the imperfect information in rural credit markets, the inclusion of collateral in a loan contract increases the lender's expected returns, caeteris paribus, from the transaction (Esguerra 1993). The lender must have some certainty that he can enforce the loan contract under the existing legal system of the country. According to Hoff and Stiglitz (ibid.), the lender must be able "to compel repayment." In the event of a loan default, the lender will be compensated for the loan loss by foreclosure and liquidation of the pledged collateral or security. To enforce repayment, the lender must get a benefit from enforcement that exceeds the cost (Besley ibid.). The problem here is that the proceeds of the liquidation of the collateral may be insufficient to cover the value of the loan (Bell 1988). Property rights may not be well-defined and enforceable. The existence of a functioning legal structure that will guarantee ease of loan recovery in the event of a loan default is critical because it will help assure the lender that in the face of credit risks brought about by information asymmetry, he can protect himself from severe financial losses brought about by defaulting borrowers (Lamberte and Llanto 1993). By the same token, the borrower is aware that the legal structure will compensate the lender at his expense in the event of a loan default. Thus, a functioning legal structure should protect property rights and permit easily the transfer of financial claims. It should also have rules for the issuance and trading of those claims. The first requirement is the recognition of an enforceable loan contract whereby one of the parties (the lender) obligates himself to deliver a loan to the other (the borrower) who on his part, binds himself to pay over a specific period a sum of money or its equivalent which covers both the principal of the loan and its interest. However, in those developing countries where the property rights are not well-developed and enforceable, the lender may find it to his advantage to restrict credit only to those whose collateral can be easily appropriated at the least cost possible. The certainty of ownership of the collateral, e.g. through a legal title in the case of land, the ease of transfer of ownership of the collateral from the borrower to the lender, and the conversion of the acquired (foreclosed) asset to cash all have a bearing on the acceptability of a given collateral which is required as an instrument to enforce loan repayment (see Llanto 1993). Thus, it becomes obvious that collateral with well-defined and enforceable rights over ownership, transfer of ownership, utilization and disposition will be superior to other types of collateral.

[7]The collateral strengthens the enforcement aspect so that borrower screening may be less important. In this sense, evaluation of the value of collateral takes an increased importance.

C. THE POLICY AND INSTITUTIONAL ENVIRONMENT IN CREDIT MARKETS[8]

The policy and institutional environment obtaining in credit markets, specifically rural credit markets, have a direct bearing on the ability of agents to successfully transact in those markets. Weak institutions and defective legal enforcement of contracts undermine financial markets. They also increase the transaction costs of borrowing and lending which adversely affect efficient financial intermediation. Unstable macroeconomic policies adversely affect investment and production behavior of agents both in the real and financial sectors. Conversely, stable and consistent macroeconomic and financial policies provide a consistent and healthy framework for financial market transactions. The absence of well-defined property rights and the inability of the state, much less those private agents in the credit markets, to enforce those property rights will diminish the role of credit markets in allocating financial resources to their best alternative use. This is especially evident in formal credit markets which use a system of laws, regulations, and norms governing the conduct and obligations of transactors. A creditor must be able to fully alienate the acquired asset, without other parties questioning the transfer of ownership of the concerned asset and its eventual disposition. As the rightful and incontestable owner of that asset, the borrower must be able to pledge the asset. He must also be legally qualified, e.g. of legal age, to sue or be sued in a court of law, to execute a debt contract, and to become answerable for the outcome of the enterprise for which a loan is being sought. Thus, the legal framework of a given country must enforce the transaction between agents in the credit markets. Where the legal institutions and processes are weak, there will be a disincentive on the part of formal lenders to transact with any borrower, in particular small borrowers for obvious reasons. If property rights are not well-defined and enforceable, if defaulting borrowers can question the final disposition of the foreclosed assets and shirk from the penalties for deviant behavior, then access of borrowers to formal lending institutions will be difficult, if not impossible to achieve (see Llanto 1994).

The agents in credit markets can more efficiently transact in a liberal financial environment. In a regulated environment with various types of restrictions, such as interest rate ceilings, loan quotas and restricted bank entry and branching, agents will have to consider these distortions in the debt contracts they write. Further, the financial intermediation cost tends to be larger in a regulated than in a liberal financial environment. For instance, loan quotas and taxes on financial transactions increase the cost of intermediation. A deregulated financial policy

[8]This section is drawn from Llanto (1994).

provides a more competitive financial environment which enhances the accessibility of bank credit, especially by small borrowers. Under this kind of policy regime, the bank which is willing to deal with small borrowers may be able to experiment with various schemes to address screening, incentive and enforcement problems. In a restrictive policy regime, a bank may be less willing to take the risk of validating, or even "mimicking" those screening, incentive and enforcement mechanisms that are commonly used in the informal credit markets to the mutual advantage of borrowers and lenders. This is not to say that in a restrictive policy regime small borrowers will fail to obtain credit, for they do so from informal lenders who are more attuned to the unique features of rural credit markets, regardless of the policy environment. But the restrictive access to bank credit strengthens the position of informal lenders in rural credit markets. This is to say that the rise and use of financial innovations, which may facilitate the transaction between a small borrower and the bank, are directly correlated with a more liberal financial policy environment. For instance, innovations such as mutual guarantee schemes, cash-flow based lending, interlinked contracts, and blocked group savings which have been successfully used in informal credit markets may prove to be useful in improving small borrower access to formal credit (Llanto 1994).

D. THE RISE OF NEW SMALL LANDOWNERS, THE RESPONSE OF LENDERS AND PUBLIC POLICY ISSUES

The Comprehensive Agrarian Reform Program (CARP) comes as an exogenous shock to credit markets, introducing "a new structure of property rights among landowners, tenants, hired laborers and landless workers" (Geron 1994) which affects both the demand for and supply of credit. The new structure of property rights has turned formerly landless individuals to a new small landowning class with "define(d) rights, privileges and limitations for the use of the resources (i.e. land, in this case)" (Clont 1991), as cited in Geron (1994). On the demand side, the emergence of a new class of numerous small landowners who benefitted from land distribution, brings about a non-trivial increase in credit requirements. There is a tremendous increase in the number of small rural borrowers, who seek access to formal credit for productive and investment purposes. The Department of Agrarian Reform (DAR) estimates that CARP will have as many as 3.9 million agrarian reform/farmer beneficiaries, many of whom are potential borrowers from the formal financial markets. **Table 5.1** shows the magnitude of the CARP in terms of the extent of its coverage and number of agrarian reform beneficiaries. CARP altered the production relations between landowners and tenants in the agrarian economy, motivating numerous small agrarian reform beneficiaries to have direct control and management of the distributed lands, and to demand formal credit. Geron (1994) pointed out that "the

implementation of land reform entails a change in the relation of the landlord and tenant. The new landowner (formerly the tenant) is now faced with the problem of financing his farm operations and bearing the full risk of farm production."

The new landowners are typically small farmers. Small farmers/rural borrowers have traditionally relied on landowners and other informal lenders for production and consumption loans. CARP created a new class of numerous small borrowers who now demand more formal credit because of the severance of landowner-tenant credit ties and the incentive to invest and improve farm productivity that has been brought about by ownership of the land . Some banks, especially the rural banks and cooperative rural banks, have tried to service these borrowers but the fact is that small rural borrowers rely more on informal lenders or self-finance than on formal credit markets. This is partly due to the lack of banking facilities in the countryside. Chan (1988) reported that as of 1988, about 44% of all municipalities and cities in the country did not have banks. The skewed distribution of banks across regions is fairly evident from bank density ratios. Compared to the rest of the regions which are "underbanked", i.e., lacking in or without banking facilities at all, the National Capital Region is "overbanked." If ever, private banks provide only a small proportion of the total credit requirements of small farmers/rural borrowers. However, many studies of PIDS, TBAC and ACPC as well, pointed out that banks do not service small rural borrowers mainly because of their relative comparative disadvantage in screening, motivating loan repayment and enforcing debt contracts in rural credit markets.

CARP has also affected the collateral value of agricultural land (Estanislao and Llanto 1993). As noted above in Llanto (1994), for a collateral to be acceptable to a lender, especially a bank, (1) it must be able to sustainability compensate the lender for the loan loss; (2) its ownership rights must be fully transferable; and (3) the lender must be able to dispose it the free market (see Llanto 1994). From another perspective, Clont (1991) notes that an efficient property rights structure has to satisfy the following characteristics: (1) exclusivity, that is, all benefits and costs incurred as a result of owning and using the resource accrue only to the owner; (2) transferability, that is, all property rights may be voluntarily exchanged among individuals; and (3) enforceability, that is, property rights are secured from involuntary seizure or encroachment by others. However, according to Geron, certain features of the agrarian reform law, RA 6657, weakens the collateral value of agricultural land. For instance, Section 27 of RA 6657 states that lands acquired by beneficiaries under the law cannot be sold, transferred, or conveyed except through hereditary succession, or to the government or to the Land Bank or to other qualified beneficiaries for a period of 10 years. Furthermore, as Estanislao and Llanto (1993) observed, foreclosure of a land mortgage land by a lending bank does not give that bank the right to dispose of it in the land market because under RA 6657 it

Table 5.1

COMPREHENSIVE AGRARIAN REFORM PROGRAM (CARP)
BY PHASE AND BY SCOPE

SCOPE	AREA(ha)	NUMBER OF FARMER BENEFICIARIES
Total	10,295,600	3,901,271
PHASE I	1,054,800	631,674
Rice and Corn Lands	727,800	631,674
Idle and Abandoned Lands	250,000	522,675
PCGG-Surrendered/Sequestered Lands	2,500	83,332
Gov't owned Agricultural Lands	74,500	833
		24,834
PHASE II	7,659,803	2,742,600
Public Alienable & Disposable Lands and Lands under Agricultural Leases	4,595,500	1,721,000
Integrated Social Forestry Areas	1,880,000	626,667
Resettlements	478,500	159,500
Private Agricultural Lands in Excess of 50 hectares	706,303	235,433
		354,526
PHASE III	1,580,997	526,997
Other Private Agricultural Lands		
- 5.01 to 24.00 hectares	1,063,581	354,526
- 24.01 to 50.00 hectares	517,416	172,471

About 400,000 hectares out of the total 2.3 million hectares of private agricultural lands will be voluntarily offered for sale to the Government.

- Preliminary data

Source : Presidential Agrarian Reform Council

/a:carp.wk1

is only the government which can purchase the foreclosed land, at the price and time it will determine. Thus, while the distribution of land has conferred ownership rights to agrarian reform beneficiaries as indicated by the legal documents that they hold, such as emancipation patents and certificate of land ownership awards, the irony is that those lands have unfortunately lost their collateral value for formal loans. Effective access to formal credit is premised on the quality of loan security provided by the traditional land collateral. With CARP, however, the traditional land collateral has become unacceptable to private banks. With the demise of private land markets, the utility of agricultural lands as collateral to bank loans seems to have disappeared (see Estanislao and Llanto 1993; Llanto and Magno 1994). This is confirmed by the findings of Geron (1994) who observed that the credit-restricting provisions of RA 6657 "affect the beneficiaries' access to other markets to which the land market is usually interlinked. For instance, sales restrictions affect the farmer's ability to obtain credit inasmuch as the restrictions affect the collateral value of the land."

What is more disturbing is the observation of Adriano (1994) about the increasingly dominant pattern of declining size of landholding that each agrarian reform beneficiary received or will receive from CARP. Upon transfer of the ownership of the distributed lands to the legal heirs of the agrarian reform beneficiaries, further parcellization of lands may be expected. The reduction of the size of cultivable lands into uneconomic size production units may render agricultural production unprofitable (Adriano ibid.), and will surely make access to formal credit more unlikely, unless the government considers "innovative property and land use rights" which will minimize the parcellization of agricultural lands.

An important issue at this juncture is the government's "dismal performance," according to Adriano, in distributing CARP lands. Of the targeted 10.3 million hectares, there remain 7.2 million hectares to be distributed in the remaining period of implementation (1995-1998). But insofar as the credit markets are concerned, more than the issue of distribution of land, the following have to be addressed: (1) the slow pace in the land survey process; (2) backlogs in land registration; (3) lack of support from landowners because of the slow processing of and low payment for their land; (4) cumbersome land acquisition and distribution procedure for each land type. These contribute to the erosion of the collateral value of agricultural lands, not to mention the fact that RA 6657 inhibits the land use choices of farmer beneficiaries. Because of the implicit zero collateral value of agricultural land, farmer beneficiaries are prevented from accessing large capital. Conversion of agricultural lands into non-agricultural use is not legally possible until 5 years have elapsed after the award and/or the farmer beneficiary has paid in full his financial obligations to the government. Moreover, the farmer beneficiaries cannot sell their cultivation rights or hire tenants in cases when the farmer beneficiaries have lost interest in

direct cultivation (Adriano 1994).

Another issue pointed out by Estanislao and Llanto (1993) is the reluctance of banks to accept agricultural lands as collateral because of (1) the uncertainty of the time when lands due for distribution under CARP will actually be distributed; (2) the problem over land valuation and the inability of banks to dispose of the lands to buyers other than the government, and (3) the absence of a land market for such agricultural land in the event of foreclosure by the banks due to loan default. Thus, because of the virtual absence of land markets, the private banks would not be encouraged to provide credit, especially to small rural borrowers.

On the supply side, the advent of CARP severed the age-old credit tie of tenants with the landowners. The tenant farmer, who has depended on the landowner for consumption and production loans, must now secure financing from formal and informal sources. However, in most instances, he is able to borrow only from informal sources. Floro (1986) pointed out that this role of landowners has diminished with land reform and new farm technology; and that new informal lenders such as traders, input suppliers, and more recently the wives of overseas contract workers, have taken over the traditional role of landowners as informal lenders. On the other hand, other economic agents with their own "world-view" of rural credit markets, try to provide the small farmers an alternative source of credit. First, the government, motivated by the desire to provide credit to small farmers so that they may acquire modern inputs and technology, created special credit programs for these targeted borrowers. These highly subsidized credit programs generally failed to achieve their objective of reaching the target beneficiaries, the small rural borrowers, weakened the rural banking system and cost taxpayers a huge amount of money to mount. Second, some private banks, spurred by the expected profits from agricultural loans, have designed their own credit delivery mechanisms to small borrowers. In addition, the cooperatives, NGOs, POs and other informal groupings, funded partly by their own savings, government transfers and donor money, also try to extend loans to small rural borrowers. However, formal lenders face huge transaction and information costs of servicing numerous geographically-dispersed agents. They are very much concerned with agricultural risks and loan default risks of small borrowers. The result was that most small farmers are credit-rationed by formal lenders because of adverse risk selection and moral hazard problems (Stiglitz and Weiss 1981). Ownership of land does not necessarily allow access to formal credit in view of perceived credit risks of small farmer credit as well as the relative comparative disadvantage of banks in small scale lending. Empirical studies by Lapar and Graham (1989); Llanto and Dingcong (1994); Geron (1994), among others, documented this credit rationing behavior of banks. On the other hand, the dependence of nonbanks on external funds for lending and their unsustainable lending policies have put in question the viability of many of

these well-intentioned but poorly-designed alternative credit schemes, as found by Llanto, Cabezon, Mirasol and Tabada (1994) in their recent survey of rural credit markets in Ifugao, Antique, Southern Leyte and Agusan del Sur.

Thus, the CARP exogenous shock has perturbed the credit markets. At first blush, that shock seemed to have made life more difficult for both borrowers and lenders in rural credit markets. Indeed it had, not only because it has multiplied the number of potential borrowers, but it has also adversely affected the collateral value of agricultural lands (Llanto and Magno 1994; Geron 1994; Estanislao and Llanto 1993). The CARP legal documents, such as emancipation patents (EPs) and certificates of land ownership awards (CLOAs) that are issued to agrarian reform beneficiaries as evidence of land ownership, find no merit with banks (Llanto and Dingcong 1994; Geron 1994). On the other hand, those agricultural lands waiting to be distributed have lost their collateral value, creating a disincentive among banks in funding commercial and long-gestating crops. The uncertainty of actual distribution of lands has driven the banks to demand additional collateral, such as real estate in urban areas, government securities and bonds, to secure loan (Estanislao and Llanto 1993).

But CARP also drove the self-interested economic agents (i.e., borrowers and lenders) to find ways to transact in a rural economy that is noted for its imperfect and incomplete markets, asymmetry of information and high risks (Geron 1989; Llanto 1989). For instance, banks, at least those with interest in the agriculture sector, have not abandoned agricultural lending but continue to deal with that sector after adopting defensive mechanisms such as credit rationing, and requiring of additional collateral to shield themselves from loan default risk and its consequences (Llanto and Magno 1994). It is indeed a very dynamic market as economic agents realize that a credit transaction is not a linear relationship between traditional lenders and borrowers; instead, rural credit transactions rest on a web of intricate and complex activities of screening the borrower, motivating him to repay the loan and enforcing the debt contract, with all of these activities done in the context of imperfect information, imperfect enforcement and high transaction cost. Innovative approaches such as group lending (see Untalan 1994), pledging deposits to secure credit, interlinked marketing and credit arrangements (see Teh 1994; Floro 1986; Nagarajan 1993 and Esguerra 1994); government-organized credit delivery structure (see Geron 1994; Penalba et al. 1994); and alternative institutions such as Grameen-inspired organizations, self-help groups, and marketing-technical assistance-banking consortiums (see Penalba et al. 1994) arise to address the nuances of "CARP-shocked" rural credit markets. While CARP has exacerbated the sources of difficulty in rural credit markets such as high transaction cost of small loans, lending risk to geographically-dispersed production units, and asymmetry of information, it has also motivated the self-interested search for efficient loan

contracting by borrowers and lenders as well and revealed the inherent dynamism of economic agents. This is not to suggest that all is well in the "CARP-shocked" credit markets. The self-seeking search for ways to efficient exchange is not without cost. Indeed, the government's approach to the question of creating access to credit for small borrowers consists of providing subsidized credits (still through the Land Bank credit delivery mode), credit guarantee as well as of using non-conventional credit conduits such as NGOs and POs, leads one to ask whether the funds so utilized would have generated more benefit to society if used otherwise. This suggests that the objective of expanding credit flows to the agriculture sector may be achieved not through credit programs, but by non-financial measures which can bring down the high transaction cost and information asymmetry in rural credit markets.

The government responded to the lack of access to formal credit by agrarian reform beneficiaries by using the Land Bank as the wholesale bank for agrarian reform credit. Following the mandate of the law to provide credit to agrarian reform beneficiaries, the Land Bank helped prepare a rehabilitation program for rural and cooperative rural banks in its bid to strengthen the existing formal credit delivery structure in the countryside. It can be recalled that the rural banking system was drastically weakened by the failure of the massive special credit programs of the government in the 1970s-1980s. Abiad and Llanto (1989) pointed out that out of 1,167 rural banks in 1981, only 856 were operational by 1986, of which 82% were in arrears with the Central Bank. The Land Bank also provided the rural banking system an easier access to its rediscounting window by allowing those with past due ratios of not more than 50% to be eligible for rediscounting[9]. In the last four years, the Land Bank has also actively organized cooperatives to act as credit conduits to small borrowers. The Land Bank has since then decided to provide wholesale loans to the private financial institutions, including rural banks, cooperative rural banks and cooperatives which in turn on-lend to the end-users/borrowers. With this credit strategy, the Land Bank was able to reach hundreds of thousands of new small rural borrowers, while at the same time passing on loan screening, motivating borrowers to repay their loan and enforcement of debt contracts to its agents in rural credit markets, namely, the rural banks, cooperative rural banks and cooperatives. Geron (1994) found out that the presence of Land Bank field offices in her survey areas had made it easy for the new landowners (i.e., the agrarian reform beneficiaries) to acquire production loans at lower rates compared to that of the informal lenders. The Land Bank imposes interest rates of 14% per annum for its wholesale production loans to cooperative banks and farmer cooperatives which the latter relends to individual farmer members at 18 to 22% per annum. However, some

[9]Only those rural banks with past due ratios of not more than 25% are eligible to rediscount with the Bangko Sentral.

field information indicates that the Land Bank is encountering loan repayment difficulties from a large number of cooperatives which it has helped to organize. This is because the motivation for the existence of many of these recently-organized cooperatives was easy access to Land Bank loanable funds. They did not experience the painstaking process of maturation, consolidation and cleansing of the ranks that the privately-organized credit cooperatives have undergone to have a self-sustaining financial intermediation among members (Llanto 1994b). On the other hand, the Land Bank provides loans at below market rates from the loanable funds it sources from the Agrarian Reform Fund (ARF). With cheap money from the ARF, the Land Bank has become the most important source of credit for agrarian reform beneficiaries, but the question of sustainability of the operation which provides the small farmer beneficiaries subsidized credits has become an issue (Geron 1994; Penalba et al. 1994).

In sum, the implementation of CARP meant providing agrarian reform beneficiaries access to institutional/formal credit. This was made possible through a legal mandate to the Land Bank to provide credit to agrarian reform beneficiaries, and operationally it was done through a satellite of rural banks, cooperative rural banks and cooperatives which the Land Bank uses as credit conduits. However, the agrarian reform beneficiaries remain outside the mainstream of the formal financial system as documented by Geron (1994) who noted that "none of (her) respondents are able to borrow from other institutional sources outside of Land Bank." It seems that Land Bank's intervention in rural credit markets has somewhat mitigated the adverse impact of CARP on the collateral value of agricultural lands, and on the high transaction cost of numerous agrarian reform beneficiaries' loans. According to Geron, another effect of the Land Bank's presence in the field and its use of cooperatives is to reduce the small coconut and sugar agrarian reform farmers' dependence on informal lenders (Table 5.2) Pursuant to its mandate, the Land Bank provides loans to agrarian reform beneficiaries even when the land transfer process has not been fully completed. On the strength of EPs, CLOAs, third party guarantees and even pledging of standing crops, the agrarian reform beneficiaries in coconut and sugar areas are able to access Land Bank credit. For as long as an agrarian reform beneficiary is in control and possession of a definite piece of land suitable for production, he would be provided a production loan by the Land Bank through his cooperative or a duly-recognized farmers' organization. Given this interaction of CARP and credit markets, the important policy issues, therefore, are whether the present credit delivery structure and loan pricing policy of Land Bank are sustainable; how agrarian reform beneficiaries can be brought to the mainstream financial system where the bias against lending to agrarian reform beneficiaries runs deep; how the government shall best deploy its scarce resources given the competing claims, to prime the rural credit markets to finance the entrepreneurial activities of agrarian reform beneficiaries. The utilization of cooperatives to deliver credit to agrarian reform beneficiaries has some

intuitive appeal. A recent survey (Llanto, Cabezon, Mirasol and Tabada 1994) found out that in the more depressed provinces, the cooperatives have emerged as the only institutional lender willing to cater to agrarian reform beneficiaries and rural borrowers in general. Private banks are not motivated to lend to these borrowers. However, we would like to think that there is no case for an active involvement by government in the organization of cooperatives because of the wrong signal that it renders to borrowers and lenders alike, i.e., that the government is prepared to subsidize at all cost, the loan transactions, even when these are failing. The past costly experience of government's direct involvement with the organization of cooperatives and the provision of cheap funds to them for on-lending to their members need not be repeated (see Llanto and Quinones 1987). Rather, the government's tack is to help address what Adriano (1994) noted to be the "weak organizational base and leadership, coupled with the lack of management and financial expertise (which) have contributed to the insolvency of many cooperatives."

From the point of view of economic growth and development, land redistribution into small family farms is potentially and effective policy instrument for increasing farm output and employment as well as for improving the distribution of rural incomes. An effective CARP will, therefore, enhance the consumption linkage effect on non-agricultural production in the rural economy, and stimulate the expansion of rural non-farm enterprises (Bautista 1991). From this it can be concluded that access to formal credit by the small rural borrowers/agrarian reform beneficiaries is not an end by itself. It is only a means to stimulate the consumption and production linkages in the rural economy. Agrarian reform's impact on productivity and rural incomes will strengthen the demand stimulus for rural nonfarm production which, because it is rural-based and labor-intensive, will translate into rural development and self-sustaining economic growth (see Bautista 1991). Finally, expanding the flow of credit to the rural sector would very likely be better served, if public sector resources were directed to the source of market failure, namely, the higher transaction costs of lending to small rural-based borrowers relative to large, urban-based borrowers (Bautista 1991). Policies aimed at increasing farm productivity, investments in public infrastructure, macroeconomic reforms are indispensable measures to provide rural borrowers, including nonfarm enterprises, access to formal credit. Land distribution and titling, improvement of the creditworthiness of rural borrowers through capability building activities, will reduce transaction costs and informational asymmetry in rural credit markets.

This is to say that there are some "priors" that must first be addressed before loanable funds are mobilized and coursed to the rural sector through various credit delivery channels. The rural sector is not a monolithic sector; it is composed of big and small borrowers as well;

Table 5.2

Number of Sample ARBs Who Availed of a Loan and Average Amount of Loan by Type of Crop By Source of Credit

	SUGAR						COCONUT					
	Ever Availed			In 1991 and 1992			Ever Availed			In 1991 and 1991		
	Average Amount	No.	%	Average Amount	No.	%	Average Amount	No.	%	Average Amount	No.	%
No. of ARBS who availed of loan	14,986	83	52	13,890	74	46	5,878	33	21	5,421	32	20
No. of ARBS who self-financed		77	48		86	54		127	79		128	80
Source												
Bank	19,190	29	34.9	19,690	21	28.4	7,267	7	21.2	6,979	6	18.8
Cooperative	12,688	46	55.4	12,680	45	60.8	6,324	17	51.5	6,324	17	53.1
Friend	0	0	0.0	0	0	0.0	300	1	3.0	300	1	3.1
Farmer	0	0	0.0	0	1	1.4	5,625	4	12.1	3,667	3	9.4
Private Moneylender	5,617	6	7.2	5,617	6	8.1	3,600	3	9.0	3,600	3	9.4
Trader	0	0	0.0	0	0	0.0	2,000	1	3.0	1,000	2	6.2
Landowner	60,000	1	1.2	0	0	0.0	0	0	0.0	0	0	0.0
Parents	10,000	1	1.2	10,000	1	1.4	0	0	0.0	0	0	0.0
TOTAL	1,243,840	83	100	1,027,840	74	100	193,972	33	100	173,472	32	100

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of small farmers and big commercial farms alike. The "priors" may consist of a thorough understanding of different rural investment activities and how land assets are presently being utilized. Costales (1994) noted that formal finance almost did not play a part in the finance of initial investments in the pasture lease. In part, this was because pasture leases are not eligible as collateral for formal loans. The pasture leaseholder does not constitute the average "farmer" because he has more education, owns various assets as agricultural land, business enterprises, real estate, and residential properties, of even greater value that the assets sunk in the pasture lease. In fact, substantially higher incomes are earned from these assets than from the pasture lease activities. That the loan market had little direct role in the financing of the initial investments and almost none in the operating phase of the pasture leasing activity may be understood in the light of the fact that self finance is made possible from the substantial income derived from non-pasture activities and from loans for other business activities. There are strong indications that there are significant non-livestock production activities taking place within the pasture lease **(Table 5.3)**. The capital equipment and the workforce within those pasture leases have relatively little to do with livestock production. In this respect, CARP has not been a major factor in deterring investments in the pasture lease become very few investments related to livestock production are being made. It is obvious that it is rational to obtain lease rights to as large a tract of land as possible in the name of pasture activities, while directing investments to non-livestock activities, at the same time maintaining a herd that would give the pasture lease its legal character. Thus, Costales (1994) recommends that the pasture lease be open for bidding for the most productive use of the land, subject only to environmentally and economically sustainable regulations.

E. BANK BEHAVIOR IN AGRARIAN REFORM AREAS

Geron (1994) indicated that in coconut and sugar areas, were it not for the Land Bank and its credit delivery strategy, the agrarian reform beneficiaries would not be able to avail themselves of institutional or formal credit. She stated that the bias against lending to agrarian reform beneficiaries by institutional sources (other than the Land Bank) due to uncertainties in land ownership while the process of land transfer is in effect (as earlier indicated by Llanto and Dingcong 1994) is not felt by the agrarian reform beneficiaries in view of the Land Bank's credit intervention. This is to say that private banks, with the exception, perhaps, of a few rural banks and the cooperative banks, since the latter are owned by cooperatives and samahang nayons, have consciously avoided dealing with CARP's beneficiaries. As pointed out above, the legal provision on the non-transferability of ownership for a period of 10 years and the confiscation of land in case of three annual defaults on land amortization, prevent the access of agrarian

Table 5.3

Profitability of Pasture Leases Using Recorded Revenues, 1992
(In Pesos)

Entry	Masbate	Bukidnon	S. Cotabato	All
A. Revenues: (1992)				
1. Revenue on Cattle Sales	566,625	1,455,566	1,363,570	3,382,561
B. Expenditures				
1. Expenditure on Workers	2,690,205	4,066,633	3,514,572	10,271,410
2. Expenditure on Variable Inputs	2,132,660	4,359,034	2,296,168	8,987,862
3. Total Operating Expenditures	4,822,865	8,625,667	5,810,740	19,259,272
C. Net Income From Sales of Livestock	(4,256,240)	(7,170,101)	(4,447,170)	(15,876,711)
D.1. Revenue From Other Agricultural Activities	2,491,952	10,174,175	352,302	13,018,429
D.2. Revenue From All Activities	3,058,577	11,629,741	1,715,872	16,400,990
E. Net Income From All Activities	(1,764,288)	3,004,074	(4,094,868)	(2,858,282)
1. Per Farm	(31,505)	66,757	(93,065)	(19,712)
2. Per Hectare	(1.79)	4.63	(4.46)	(0.37)

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reform beneficiaries to formal credit. As earlier documented by Llanto and Dingcong (1994) and now by Geron (1994), banks are unwilling to accept EPs and CLOAs as collateral on loans because they are not considered negotiable instruments. This motivates private banks to credit-ration agrarian reform beneficiaries, inducing these borrowers to flock to Land Bank which under the law, is mandated anyway to provide agrarian reform credit. Geron further observed that because of the low rates charged by the Land Bank and the associated risks in agricultural loans, private bank lending is not a competitive venture.

A related finding is that of Llanto and Magno (1994) who noted that in the aquaculture areas, CARP has some adverse effects on access to formal credit by the aquaculture sector. Despite the Supreme Court's decision to defer the implementation of CARP in aquaculture areas for 10 years, the impact on the aquaculture sector has been felt in two ways: (1) on the erosion of the collateral value of aquaculture areas, and (2) on the profitability of a sector which uses an extensive method of cultivation that requires at least 13 to 18 hectares of ponds. The extensive method is used because of the huge investment requirements of the intensive method of cultivation. Credit rationing is practiced in the aquaculture areas as a defensive mechanism of banks which are obviously affected by the uncertainty surrounding the ownership of lands while the land distribution phase of CARP is in effect. **Table 5.4** shows the extent of credit rationing among the sample banks in the survey areas. Credit rationing is observed to be greatest for aquaculture loans as compared to the non-aquaculture loans. Fishpond operators are, however, able to borrow from input dealers with whom they have a marketing tie up. The main drawback it seems that informal credit cannot provide adequate financing for the capital investments required in aquaculture production, especially for those operators who want to use the more modern intensive cultivation method. Using sample data from 954 individual bank accounts randomly chosen from 34 sample banks, Llanto and Dingcong (1994) found out that the probability of agrarian reform beneficiaries being quantity-rationed is lower, the greater is the collateral offered relative to the loan. The more highly collateralized the loan is, the more secured it is against future default and this encourages banks to lend. In this respect, borrowers such as agrarian reform beneficiaries whose agricultural lands' collateral value has been eroded by CARP, will probably find it difficult to access private bank credit.

F. ALTERNATIVE CREDIT DELIVERY MECHANISMS

The documented behavior of private banks vis-a-vis the agrarian reform beneficiaries and small rural borrowers in general motivates the search for alternative credit delivery mechanisms. The study by Penalba et al. (1994) aims to (1) identify possible alternative mechanisms for

Table 5.4

Extent of Credit Rationing Among Sample Banks
By Type of Bank and Borrower
As of 1991

Type of Borrower	Type of Bank					All
	Private Commercial Bank	Private Development Bank	Rural Bank	LBP-FO	DBP	
Fishpond Operators						
Mean No. of Applicants	9.00	58.00	79.00	4.00	35.00	33.00
Mean Percentage Approval (%)	17.86	42.00	14.10	2.73	51.50	19.37
Mean Percentage Rejection (%)	82.14	58.00	85.90	97.27	48.50	80.63
Agricultural Borrowers						
Mean No. of Applicants	17.00	105.00	832.00	117.00	200.00	285.00
Mean Percentage Approval (%)	14.59	7.60	44.17	96.45	14.00	35.99
Mean Percentage Rejection (%)	52.41	92.40	55.83	3.55	86.00	64.01
Non-Agricultural Loans						
Mean No. of Applicants	31.00	1,246.00	250.00	1.00	250.00	179.00
Mean Percentage Approval (%)	65.91	88.20	41.74	0.67	34.50	46.07
Mean Percentage Rejection (%)	34.09	11.80	58.26	99.33	65.50	53.93
All						
Mean No. of Applicants	19.00	470.00	388.00	41.00	161.00	166.00
Mean Percentage Approval (%)	32.79	45.93	33.34	33.28	33.33	33.81
Mean Percentage Rejection (%)	67.21	54.07	66.66	66.72	66.67	66.19

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extending credit to agrarian reform beneficiaries, and (2) assess the effectiveness, viability and sustainability of the alternative mechanisms that have been considered. According to Penalba et al. effectiveness refers to the ability of a conduit to provide credit to its target clientele, viability measures the ability to continue its profitable operations within a given period of time, and sustainability refers to the ability to maintain and sustain a certain level of effectiveness and viability for a long period of time. **Figure 2** shows the existing rural credit delivery mechanism while **Figure 3** indicates the factors that must be considered in credit delivery systems.

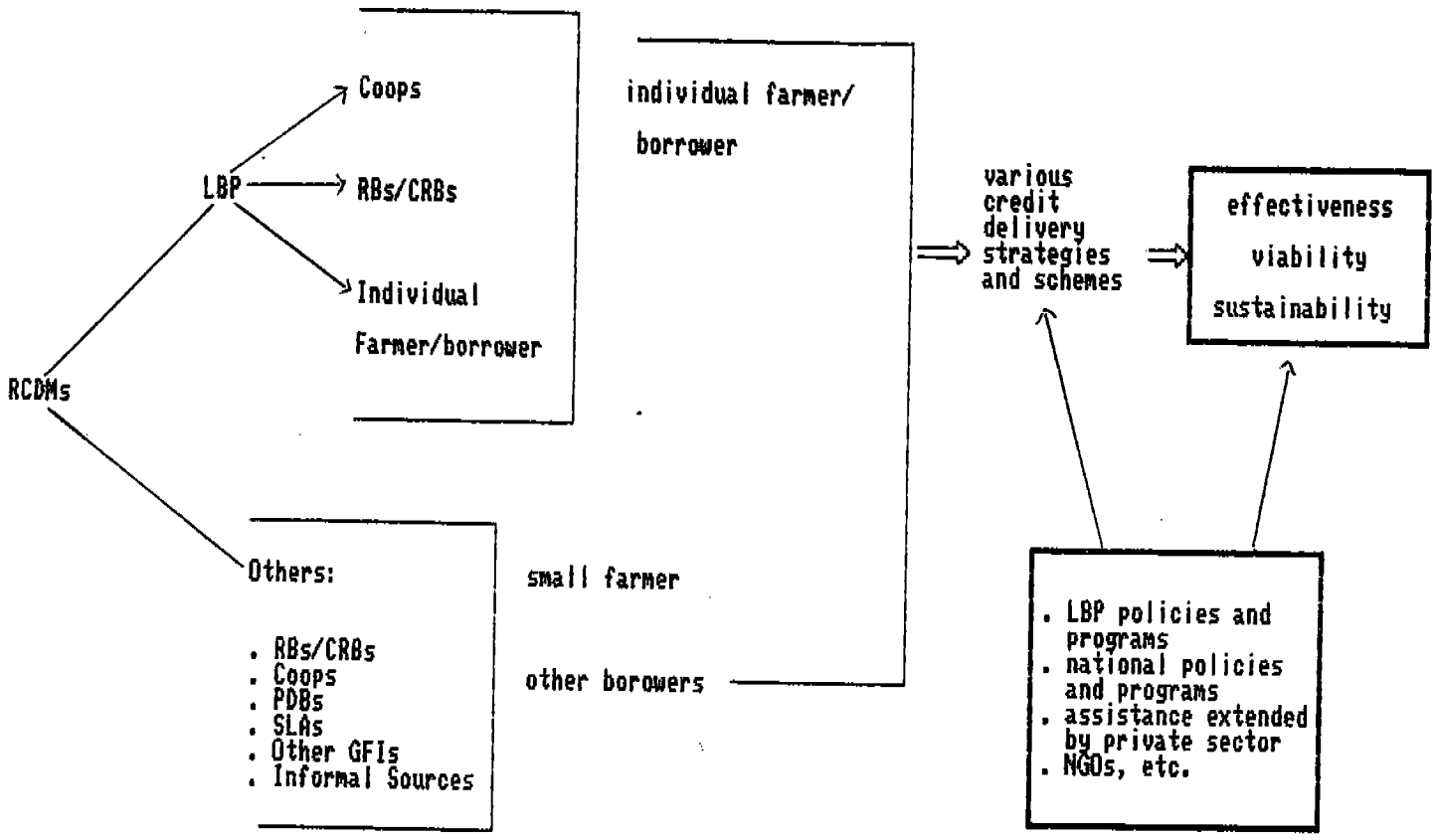
Peñalba et al. maintains that credit institutions cater to different clientele who have various credit needs. Their survey indicates that cooperatives are the most effective rural credit conduit because they are accessible to small borrowers and offer the most affordable credit terms. However, they are constrained by their limited capability to finance bigger ventures, and manage big loan operations. Moreover, they are heavily dependent on subsidized loans from the government and grants from external sources. But there is no assurance that these funds will always be available. At this stage, cooperatives should be provided assistance in mobilizing savings from members and improving their capability to handle big credit operations. Peñalba et al. observe that there are indications of the viability of cooperatives in terms of their relatively higher loan collection rates and lower administrative costs. However, her study notes that the cooperatives, NGOs and POs obtain their loanable funds at a reasonable interest rate, and therefore, they can afford to lend at a low interest rate. Since most of their funds came from grants, there is not much pressure for them to recover their exposure. Their terms and conditions are more liberal and flexible, and the incentive to increase their efficiency is not as great as those that use their own funds or bear the full cost of operations.

However, only members can borrow from cooperatives. In this light, Penalba et al. believe that the private development banks will also be critical agencies which can meet the credit needs of those who are not members of cooperatives. She suggests that government financial institutions should channel their loanable funds to the rural-based credit institutions to improve their funding capability. Furthermore, incentives must be given to encourage private lenders to lend to small farmers and other rural borrowers.

An alternative lending scheme to ease credit market rationing due to information asymmetry is to provide lenders an alternative risk-sharing arrangement in the form of group credit (Untalan 1994). In the Philippines this mode of lending is at a relatively early stage. Little is known yet about the group process that provides the motivation for this approach to small borrower credit. However, this approach seems to offer a way of dealing with the high transaction cost and imperfect information setting of rural credit markets. Here the bank lends

Figure 2

Existing Rural Credit Delivery Mechanisms



RCDMs - Rural Credit Delivery Mechanisms

LBP - Land Bank of the Philippines

RBs - Rural Banks

CRBs - Cooperative Rural Banks

PDBs - Private Development Banks

SLAs - Savings and Loan Associations

LIs - Lending Investors

GFIs - Government Financing Institutions

Figure 3

Factors Affecting Effectiveness, Viability and Sustainability of RCDMs

	Effectiveness	Viability	Sustainability
micro structure, capability, policies and programs of financial institutions, credit conduits and recipients	– No. of clientele (ARBs, etc.) served – size of loan – type of loan – use of loan – geographical distribution of borrowers – loan processing time – terms and conditions of loan (i.e., interest rate, collateral, etc.) – cost of processing – mode of release of loan – collection schemes – capability of staff	– repayment rate – collection mechanisms – trend in no. of borowers – adm./processing cost incurred – net iincome of conduits and farmer–borrowers – capaital build up – monitoring system	– policies re–qualification of borrowers, default/non–repayment – screening of borrowers/ credit investigation – savings mobilization – management/staff capability – development plans/programs (HRD, investment, etc.) – linkages with other FIs and development organizations
macro national/LBP policies/ programs and assistance extended to financial institutions, credit conduits and recipients	– monitoring system – terms and conditions – loan processing time – type/size of loan granted – collection schemes – assistance extended	– monitoring system – assistance extended – repayment/default policies – discount rate – transaction policies	– development plans/programs – policy directions – assistance extended

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to a group, which can be a formal organization such as a cooperative, or an informal association like self-help groups. The essence of this approach is that the lender entrusts his funds to one who has a comparative advantage in lending, i.e., the conduit of the fund has the information available that the lender lacks. Evidently, the size of the group is an important aspect of this approach. Bigger groups may have free-riders which increase the monitoring effort by each individual member-borrower. Fairly homogeneous and cohesive groups appear to have the information as well as the monitoring advantage. The lender is also able to reduce his transaction costs in lending, but the same is also true of the individual borrower who has an easier access to the loan through his group. A great part of the reduction in the bank's transaction costs is the fact that the motivation of the borrower to repay the loan is left to the responsibility of the group. There is an incentive on the part of individual members of the group to monitor the effort of the member-borrowers of the group, to use the loan as intended, and to repay it as warranted by the lender. On the part of the borrower, he reduces his transaction costs of borrowing. His explicit costs, consisting of travel expenses and food, as well as his implicit costs, are reduced. Under a condition of joint liability of the group members, he finds that he need not produce the traditional collateral, such as land, jewelry or bank deposits, that is normally required by risk averse lenders. Indeed, he also eliminates his search cost for collateral (see Untalan 1994).

Untalan looked into three major group credit programs in the Philippines, namely, the ACPC's Grameen Bank Replication Program, the DTI's Tulong sa Tao program, and the Land Bank's Group Lending. Based on his very preliminary assessment and cursory analysis of the data, Untalan found out that there is a consistent pattern of lack of good livelihood opportunities among those surveyed. This is mainly the result of low educational attainment. The lack of opportunities lead to less appreciation of credit. But the scarcity of credit itself limits the rural borrowers' opportunities to earn a living. The introduction of group credit may be the best opportunity to break this cycle. There is a perceptible appeal of this lending process to individual borrowers, because first, they scorn the practices of most local informal lenders and second, they are attractive to group credit because of the value of partnership in the group. Enforcement of the debt contract does not seem to be a problem. The mere knowledge of the existence of these mechanisms within the organization is sufficient to encourage the borrowers to meet his obligation. **Table 5.5** shows the enforcement mechanisms employed by the group. These mechanisms vary in degree and form according to the type of organization. The bigger the group, the less influence members have on other members. The effectiveness of group pressure is inversely related to the size of the group. However, collateral may substitute for peer pressure, as an enforcement mechanism. Untalan warns though that while group process could work for the benefit of the group, e.g. by enforcing the debt contract, it is also likely that

when the group process weakens, uncooperative behavior, just like cooperative behavior, becomes contagious. Thus, there is the threat that when group discipline breaks down, loan default across members may arise. As Adams and Romero (1981) emphasized, group sanctions to reinforce repayment are often weak if the group has been formed only to get access to loans. This was also pointed out by Penalba et al. (1994) and Llanto (1990).

Interlinking of credit and marketing is shown in Teh (1994) as an efficient way to provide small borrowers' access to credit. He explains it in terms of the traders' objective to avoid costs of searching for low-priced sources of marketable output. Search costs are bound to be high in agrarian economies characterized by poorly linked markets, and underdeveloped infrastructure and communications facilities. The provision of credit is, thus, a way of finding a source of marketable output while avoiding the possible high cost of search. The empirical evidence does not, however, confirm the search cost hypothesis of interlinking credit and marketing arrangements in the survey areas. However, two key pieces of evidence surfaced: (1) there are traders willing to extend loans with no explicit interest rates attached; and (2) traders do not distinguish between borrowers and non-borrowers in determining the price that they pay for farm output. Teh then concludes that tradérs are willing to pay a price premium for the output provided by some farmers; and in exchange for this premium, farmers respond by being regulars or "suki," providing a consistent and reliable source of farm products for the trader.

From his survey of traders and their clients in Bohol and Iloilo, Teh found out that a large proportion of traders provided some form of credit to their suppliers of farm output. These loans were small on the average (P2,900) but were extended to large pool of farmers. Default rates tend to be very low, only 3.3% of farmers said they ever defaulted but a large number (38%) admitted to having been in arrears. **Table 5.6** shows the terms of credit arrangements between traders and small farmers in the survey areas. Collateral was hardly required from the borrowers. Based on his logit regressions, Teh concluded that the longer the amount of time that the borrower and lender knew each other (5 years or more), the greater is the likelihood that the collateral requirement would be waived.

From this experience of interlinking marketing and credit, Teh points out the efficiency gains for society brought about by interlinking marketing and credit, or interlinking tenancy contracts with credit. This is because the provider of credit is able to more efficiently sort from a heterogeneous pool of borrowers, better monitor the behavior of borrowers, and secure better enforcement of the terms of the credit contract. Thus, the imperfections in the credit markets are mitigated to some extent by the presence of those bundled contracts (Teh 1994). The welfare gains associated with interlinking marketing and credit comes from the reduction in price

Table 5.5

Enforcement Mechanisms Within The Organization

Response	Verbal		Written	
	Frequency	Percent	Frequency	Percent
Regular Meeting	42	24.9	1	0.9
Verbal Notice	54	30.0	-	-
Written Notice	-	-	22	20.00
House Visit	30	17.3	2	1.80
Interest Penalty	18	10.4	81	72.30
Warning	6	3.5	0	0.00
Get From Group Fund	10	5.8	5	4.50
Group Pays Amount	13	7.5	1	0.90

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Table 5.6

Terms of Credit Arrangements

Item	Number of Respondents	Proportion (or Mean)
1. Type of Loans Granted		
* Cash	155	25.5%
* Kind Only	52	55.8%
* Both	71	18.7%
2. Average Amount of Cash Loan	226	P 4,154.23
3. Average Amount of Loan in Kind	123	P 2,551.31
4. Proportion Charged Interest	118	42%
5. Range of Interest rates (per month)		
* 1 - 10 %	97	84.3%
* 11 - 20 %	10	8.7%
* 21 - 50 %	8	7%
6. Proportion with No Collateral Requirements	265	94%
7. Proportion who Admitted to Previous Default	9	3.3%
8. Proportion who Admitted to having Arrears	105	38.6%
9. Length of Arrears		
* 1 - 2 Months	25	23.6%
* 3 - 6 Months	55	51.9%
* 7 - 12 Months	16	15.1%
* More than One Year	10	9.4%
10. Consequences of Arrears		
* Loan is Rolled Over at the Same Terms	96	88.9%
* Loan is Rolled Over with Higher Interest	8	7.4%
* lending is more Difficult the Next Time	2	1.9%
* Others	2	1.9%

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uncertainty faced by farmers. Teh argues that the loans extended by the traders constitute a forward sale of part of their future output, allowing thereby a transfer of risk from the farmer to the trader. That the trader exercises market power over the farmer is disputed by Teh's assertion that this does not seem to be the case in reality. The farmer always has the option of choosing an unbundled contract, i.e. he can borrow instead from the village moneylender and market his produce at the spot price that prevails at harvest time. However, it is possible for the trader to capture the gains from the welfare contract by pushing the farmer to the point where the expected utility of the bundled contract is the same as that of the unbundled contract. It seems however, that Teh largely ignored the motivation of the borrower for interlinking marketing and credit. It may be that a matching of borrower and lender takes place in response to the peculiar nuances of rural credit markets. But this together with many other issues raised in this integrative paper call for more empirical research.

G. CONCLUSIONS

Agrarian reform can have a positive impact on consumption linkages between the farm and nonfarm sectors. This chapter has discussed, however, how CARP has had some unintended negative impacts on rural financial markets because of the way it has influenced the use of farm land as collateral for loans. This has occurred because of the uncertainty about which land would be affected and when. It also imposed restrictions on the buying and selling of land. These two problems reduced the value of land offered as loan collateral. As a result, lenders demanded more collateral, required collateral other than farm land, or stopped making agricultural loans entirely.

In response to these problems, the LBP was mandated to lend to agrarian reform beneficiaries. To do so, they began to wholesale loans to cooperative rural banks, rural banks, cooperatives, NGOs and POs. Therefore these beneficiaries were able to receive loans even though other formal lenders would find them unacceptable as borrowers. Loans provided by the LBP to these agents were subsidized so they could pass these interest savings on to their borrowers.

A problem is that these subsidies undermine the ability of other lenders to serve agrarian reform beneficiaries. Many of the lenders do not mobilize savings and depend on the LBP on the government for loanable funds. Loan recovery rates have slipped for some lenders suggesting that lending has expanded too rapidly. For these several reasons, it is unlikely that all these lenders will be sustainable in the long run. These developments represent a retreat

from the efforts made in the 1980s to liberalize the financial sector. As such, they represent a step backward in the development of competitive rural financial markets.

Chapter 6

CONCLUSIONS, POLICY IMPLICATIONS, AND REMAINING RESEARCH ISSUES

A. BACKGROUND

Past industrial, trade and development policies created a strong urban bias through the concentration of industrial activity in Metro Manila. At the same time, a weak agrarian reform program allowed an unequal bi-modal distribution of land holding to continue shaping rural development in the country. As a result, the multiplier effects of agricultural and nonagricultural in sectoral linkages were considerably weaker than those associated with the more broad based rural industrialization cum agricultural development model of Taiwan. Demand stimuli from a concentrated agricultural growth pattern largely promoted import intensive and urban produced products. There was weak spillover stimuli for local rural non-farm enterprises outside of Metro Manila. Similarly, supply side stimuli were equally weak, given the low level of public investment in rural physical infrastructure basic needs, and human capital up to the late 1980s. Finally, up to mid-1980s protectionist trade and exchange rate policies reinforced the large city urban bias through import substitution policies that penalized agriculture and short changed rural development.

From the mid-1980s onwards policies promoting market liberalization reduced (though did not eliminate) the burden of import substitution biases. Financial liberalization reduced credit subsidies, cleaned up the nonperforming portfolios of lending institutions and encouraged more competition in the supply of financial services in rural areas. At the same time, given the small supply response to market liberalization, a large number of programs were designed to facilitate the growth of rural nonfarm enterprises. These, in turn, stimulated the growth of many NGO and other nonbank financial intermediaries to supply loans for RNE clientele.

Finally, a comprehensive agrarian reform effort was launched in the late 1980s to promote more broad based agricultural development. It was expected that the initiative would interact positively with the market liberalization measures and the programs promoting RNE development to strengthen the agricultural and nonagricultural linkages. In the end, this would allegedly launch a more spatially decentralized and equitable growth process and a more dynamic linkage of demand and supply stimuli between RNEs and agriculture.

B. RURAL NONFARM ENTERPRISES PROFILE AND CREDIT IMPACT RESULTS

Chapters 3 and 4 highlighted the principal profile of RNE development in the survey area of Cebu, Bohol, Iloilo and Negros Occidental in the early 1990s. The results can be summarized as follows:

(1) Trading activity predominates in the RNE world, followed by manufacturing and then service sector activity; trading enterprises register considerably higher levels of assets, start up capital, net worth and loan liabilities. The Employment profile from the rural household survey in these regions reinforced the important role of services and wholesale and retail trade. This highlights the fact that goods consumed by rural households are produced largely in the urban areas. This is a result of past policies that favor the urban areas;

(2) RNE manufacturing activity is largely based on small "micro level" cottage industries with low-levels of assets frequently based on traditional female labor skills in food processing, handicrafts, weaving and related products;

(3) Field results underscore the existence of a "missing middle" RNE size in the manufacturing sector in these provinces. Large size firms of course exist in the distant Metro Manila setting which micro sized firms (1-10 employee) predominate in the RNE environment. Small to medium sized firms (10-50 employees) are nonexistent due to absence of strong intersectoral linkages and a weak subcontracting traditions from large to small to medium sized firms that characterizes the dynamic East Asian industrialization patterns. Greater incentives for spatial decentralization of industry are required to strengthen the possibilities for subcontracting and stronger intersectoral linkages through manufacturing activity;

(4) The gender divisions of labor in Chapter 4 highlight the predominant role of men in agricultural pursuits with women participating more in nonagricultural activity. Earnings from nonagricultural activity were greater than from agricultural activity in the household survey of 451 households in the four provinces. This was due to higher wages in non-agricultural activity and longer hours of work;

(5) The probability of rural labor force participation is increased if the rural households holds little to no land and the household does not own and operate an enterprise. RNE employment is essentially supply determined, in that push factors from a low

productivity, land scarce agricultural sector with growing under-employment predominate.

(6) Econometric modelling of the RNE firms with loans underlines the positive impact of credit on output and productivity among RNEs in the four provinces surveyed. Among other things, the results confirm that RNEs are clearly able to repay loans at market rates of interest given the strong positive impact credit has on output and revenues.

(7) The results of the promising impact of credit on output and sales confirm that the RNEs are a creditworthy clientele that can repay market rate loans. The challenge is to develop lending agents or institutions that engage in cost effective screening and monitoring of its RNE client base and design incentives compatible contracts that ensure contract enforcement (i.e. loan repayments) so that it can continue to supply loans on a sustained, viable basis. This is a question of the appropriate institutional design to reach the RNE clientele in a sustained manner rather than a one-loan, one shot fix that does not last for the future.

(8) Simulation results using a RNE macroeconometric model suggest that RNE output, employment and prices would be negatively affected by wage increases and peso devaluation and positively affected by export orientation policy. Indeed, the types of RNEs developed so far in the Philippines seem to be different from those that can be found in Taiwan that played a significant role in its export drive. Thus, a significant restructuring of the RNEs is required if RNEs are to play a significant role in the current emphasis of the country on export competitiveness.

C. RURAL CREDIT MARKETS AND AGRARIAN REFORM

Agrarian reform can be expected to make a positive impact on RNEs by increasing the consumption linkages between the farm and nonfarm sectors. These positive effects are difficult to identify and measure, but important unintended negative impacts have occurred in rural financial markets because of CARP and the financial policies pursued with it.

Land is the most common form of physical asset used as collateral in rural credit markets. Therefore, the expanded agrarian reform program had major negative repercussions on formal credit institutions because of its impact on the land offered as loan collateral. First, CARP introduced uncertainty as to which land would be actually affected by reform and when.

Second, CARP imposed restrictions on the buying and selling of land. These problems contribute to a decline in the demand for investment in agriculture, aquaculture, and pasture land. It has prompted lenders, especially commercial banks, to reduce their agricultural lending, to increase the amount of collateral required for loans, and demand collateral other than farm land for agriculture and aquaculture loans.

To support agrarian reform, the Land Bank of the Philippines was mandated to lend to agrarian reform beneficiaries. In an effort to reduce its costs and risks in trying to reach thousands of new borrowers, the LBP began to wholesale loans to private banks, NGOs, people' organizations (POs) and other organizations that emerged with experimental credit delivery approaches. Many new credit cooperatives were created with the assistance of the LBP. Several organizations began experimenting with some form of group lending. Informal lending by farmer and trader lenders also reemerged especially in geographic areas where technological change contributed to increasing marketable surpluses of rice and corn.

Although these bank and nonbank lending institutions improved access to loans for agrarian reform beneficiaries, many relied on funds received from the LBP and the Central Bank of the Philippines. Many did not attempt to mobilize savings so they become vulnerable to irregularities and delays in receiving funds from the sources. Some of these funds were subsidized so that interest rates were reduced to benefit the beneficiaries. But the subsidies and delays may have jeopardized the sustainability of some of these lenders as the borrowers may not have taken seriously their responsibilities to repay the loans. There is also some evidence that farmers rapidly and casually created borrowing groups in order to get loans without accepting the responsibility implied in group liability lending. The failure to mobilize savings also deprived the agrarian reform beneficiaries of important savings deposits services that they would have enjoyed if they would have received their loans from regular financial intermediaries.

The subsidization of agrarian reform lending, the expanded role of the LBP, and the emergence of several nonbank institutions making rural loans has contributed to a decline in the competition among formal financial institutions servicing rural areas. This trend has potentially important negative consequences for the development of viable, competitive financial services for rural farm and nonfarm enterprises. These policies, along with the quotas established for bank lending to small enterprises, represent a disappointing retreat from recent efforts to deregulate and liberalize financial institutions and create market driven rural financial markets. Financial institutions are discouraged from actively competing for customers and developing a healthy balanced portfolio of farm and nonfarm loans. Taken together, these developments will

set back the development of sustained rural financial institutions.

D. RECOMMENDATIONS FOR FUTURE RESEARCH

The implementation of CARP has constituted to an increase in the market share of loans made by the LBP, both in direct lending and in its wholesaling of loans to on-lending agents, and to a decline in the market share of commercial banks in agrarian reform areas. The implications of these changes for the long-term development of competitive rural financial markets need to be analyzed. For example, will both farm and nonfarm enterprises be saved in the future with more efficient and competitive financial services and products? Will deposit mobilization be ignored in rural areas as financial institutions rely on subsidized sources for loan funds?

Financial innovations are being introduced as lenders serve agrarian reform beneficiaries. Group lending, the wholesaling of loans by the LBP, and the creating of credit cooperatives are three important areas. Are these innovations sustainable? Do they effectively reduce the costs and risks for the lenders? Do they contribute to good loan recovery?

Some of the nonbank institutions, such as some of the NGOs, that have recently became involved in rural lending have little experiences and expertise, and are heavily dependent on subsidized funds provided directly or indirectly by the government and donors. Which of these will be sustainable in the long run? What are the consequences of their future failure? Have they developed useful innovations which might be mimicked by formal financial institutions?

Agrarian reform has a negative impact on the use of land as the most frequent collateral accepted for formal loans. Are these additional defensive policies that could be implemented that would dampen the negative impact of agrarian reform on the acceptability and value of land offered as collateral for loans? Can the implementation of CARP be improved to remove the uncertainty about which land will be involved and when?

The informal lenders have found ways to expand lending without taking land as collateral. What can be learned about their techniques that could be adopted by formal lenders? Are there opportunities for expanded linkages between the farm and nonfarm enterprises?

And, finally, what is the track record of the financial programs and lending agents servicing the rural nonfarm enterprise clientele? Many new programs and lenders have entered

this market in the past five years. Research in the survey areas has shown that there should be creditworthy RNE clientele that can repay loans priced at market interest rates. However, it is still unclear how many of the current set of institutions and NGOs servicing this new clientele have developed a cost-effective institutional design to supply these loan services on a continuous sustainable basis. Future research should address this current lack of information on the program performance from these institutions.

ANNEX A

Members of the Steering Committee of the Dynamics of Rural Development Project

Chairman:

Dr. Dante B. Canlas - Deputy Director-General, National Economic Development Authority

Members:

Dr. Marietta Adriano - Director of the Agriculture Staff, National Economic Development Authority

Dr. Richard L. Meyer - Professor, Ohio State University

Dr. Ponciano S. Intal, Jr. - President, Philippine Institute for Development Studies

Mr. Carlos A. Fernandez - Undersecretary for Policy and Planning, Department of Agriculture

Ms. Martha Carmel C. Salcedo - Director for Policy and Strategic Research, Department of Agrarian Reform

Observers:

Mr. Alfredo Buergo - Program Specialist, ONRAD, Agriculture, Policy and Planning Division, USAID

Mr. Sulpicio Roco - Mission Evaluation Officer, Office of Development Resource Management, USAID

ANNEX B

STATE OF THE ART REVIEWS UNDER THE DYNAMICS OF RURAL DEVELOPMENT PROJECT (PHASE I)

1. An Overview of the Technical Resources Project - Dynamics of Rural Development Research Program
   Mario B. Lamberte and Julius P. Relampagos

2. Dynamics of Rural Development: Analytical Issues and Policy Perspectives
   Romeo M. Bautista

3. Supporting Rural Nonfarm Enterprises: What Can Be Learned from Donor Programs?
   Richard L. Meyer

4. Agrarian Reform, the Cattle Industry and Rural Financing Market
   Achilles C. Costales

5. Interlinked Credit and Tenancy Arrangements: A State-of-the-Art Review
   Robert R. Teh, Jr.

6. Credit Markets in the Fisheries Sector under the CARP: A Review of Literature and Conceptual Framework
   Gilberto M. Llanto and Marife T. Magno

7. Growth and Dynamics of Microenterprises: Does Finance Matter?
   Lucila A. Lapar

8. A General Assessment of the Comprehensive Agrarian Reform Program
   Lourdes Saulo-Adriano

9. Impact of Agrarian Reform on Landowners: A Review of Literature and Conceptual Framework
   Gilberto M. Llanto and Clarence G. Dingcong

10. Linkages, Poverty and Income Distribution
    Arsenio M. Balisacan

11. Gender Issues in Agrarian Reform and Rural Nonfarm Enterprise
    Ma. Piedad S. Geron

12. A Study on Rural Labor Markets, Rural Nonfarm Enterprises and Agrarian Reform in the Philippines
    Ma. Teresa C. Sanchez

ANNEX C

STUDY MODULES UNDER THE DYNAMICS OF RURAL DEVELOPMENT PROJECT (PHASE II)

1. Development of Rural Areas - Measurement Issues
   Robert Rañola, Jr.

2. Agricultural Growth and Rural Incomes: Rural Performance Indicators and Consumption Patterns
   Arsenio M. Balisacan

3. Effects of Macroeconomic Policies on Rural Nonfarm Enterprises
   Aida R. Librero

4. The Impact of Credit on Productivity and Growth of Rural Nonfarm Enterprises
   Ma. Lucila A. Lapar

5. Rural Labor and Rural Non-agricultural Activities in the Philippines
   Ma. Teresa C. Sanchez

6. Study of Alternative Mechanisms for Rural Credit Delivery
   Linda M. Peñalba

7. Department of Agrarian Reform, Land Reform-Related Agencies and the Comprehensive Agrarian Reform Program: A Study of Government and Alternative Approaches to Land Acquisition and Distribution
   Lourdes Saulo-Adriano

8. Interlinked Marketing and Credit Arrangements: Some Recent Evidence from Rural Philippines
   Robert R. Teh, Jr.

9. The Impact of Agrarian Reform on Credit Markets in the Aquaculture Sector
   Gilberto M. Llanto and Marife T. Magno

10. Comprehensive Agrarian Reform Program (CARP) and the Fisheries, Livestock and Crop Sectors: Adjustments in the Pasture Leases
    Achilles Costales

11. The Impact of Comprehensive Agrarian Reform Program (CARP) on the Crop Sector
    Ma. Piedad S. Geron

12. Group Credit: Recent Evidence from the Philippines
    Teodoro S. Untalan