# CHANGING ECONOMIC ENVIRONMENT AND THE WELFARE OF LOW INCOME GROUPS IN THE PHILIPPINES\*

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### ABSTRACT

In spite of their heterogeneity, major low-income groups are generally characterized by lack of ownership of, or access to, productive assets, low level of technology in production activities, poor and rapidly deteriorating resource base, limited human capital of its members, and poor access to basic economic and social services. The interplay of these factors in the context of a rapidly growing population and an unfavorable price structure result in the commonly observed welfare characteristics of the poor: low incomes, low levels of consumption and investment (particularly in human capital), greater incidence of underemployment, poor housing and sanitation, high incidence of malnutrition, poor health, high infant and child mortality, and high fertility.

From the 1970's to the middle of the 1980's, the economy was subjected to various external shocks. These shocks, together with the policy adjustments that followed and the cumulative effects of past development policies and priorities, have resulted in an economic environment, reflected in the structure of prices, wages and public expenditures, that became increasingly adverse to the welfare of the poor.

The general elements of public policy to arrest and later reserve the more than a decade of decline in the welfare of the poor must necessarily include those that directly bear upon the roots of their poverty: lack of ownership of, or control over, productive assets, inappropriate technology, deteriorating resource base, lack of education and skills, lack of access to basic services, and an unfavorable incentive structure (prices and wages). In designing policies and programs there is a great need for clearly identified target groups, careful monitoring of the coverage of the programs on these target groups, and systematic evaluation of the impact (including, and perhaps especially, the unintended consequences) and cost-effectiveness of such programs.

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#### Introduction

In the 1970's and up to the early part of the 1980's the Philippine economy has been subjected to various external shocks. The major external shocks are the sharp oil price increases in 1973 and 1979 and the recession in the developed economies that followed each shock. Policy responses to these shocks included increased borrowings from external sources to finance the growing deficits on current accounts, trade adjustment through export expansion, and tax increases. The crisis of 1983 brought forth additional adjustment measures including foreign exchange restrictions and import controls, new trade taxes, tax increases, restrictive monetary policy, and price and wage adjustments. Underneath these external shocks and adjustment policies are development policies that were generally characterized by the increasing role of the government in markets for products and financial assets, by an increasing trend towards a monopolistic structure in important sectors of the economy, and by trade and price policies that biased the agricultural sector in favor of large-scale industry.

The effect of these shocks and adjustment policies together with the general character of overall development policies and priorities on macro-level variables, i.e. balance of payments, inflation, output and employment has been amply described in various reports, e.g. De Dios (1984), Lamberte, et al. (1985) and NEDA (1986). These shocks and policies also affected the economic environment faced by the low income groups at the household level, through their effects on prices, wages and public provision of basic services.

The purpose of this paper is to describe the salient features of the changing environment and examine how this has affected the welfare of specific low-income groups. Such examination, however, had to rely on reasonable inferences in view of the unfortunate absence of empirical micro-level studies that determined the actual impact of various aspects of this changing environment on the welfare of specific low-income groups.

This paper is organized as follows. After describing the conceptual framework for viewing the impact of external shocks and adjustment policies on household welfare, the paper then presents a general profile of low income families based on national survey data with attention to the size and location of major low income groups and to their characteristics. This is followed by an analysis of the probable impact of external shocks and adjustment policies on the welfare of the low-income groups. The paper concludes with some suggestions on the directions, public policy and programs that might take in the short run in line with the overall economic recovery program.

#### Conceptual Framework

A simple framework for analyzing the impact of external shocks and public policies and programs at the household level can be described with the aid of

Fig. 1 below. The basic components of this framework are (a) a model of household decision-making; (b) the physical, social and economic environment of the community; and (c) exogenous changes to this environment arising for external shocks and public policies and programs.

In this framework, the household, in an attempt to improve its welfare, is assumed to make various kinds of decisions based on a set of opportunities and constraints defined by its household resources (physical and human capital, as well as by the size and age-sex composition of its members), and by the community environment. This environment includes the community's natural resource endowments; the prevailing structure of markets and prices for both factors of production and products; and the prevailing social structure and organization. The latter defines, for example, land tenure, non-family labor utilization, and socio-economic and political alliances which influence cooperative behavior and community participation. Exogenous changes arising from external shocks affect the environment through changes in prices of agricultural export commodities and imported inputs, as well as through changes in domestic prices of basic commodities.

Another source of shocks are public programs which include (a) provision of physical infrastructure such as roads, irrigation, flood control, electrification, etc.;

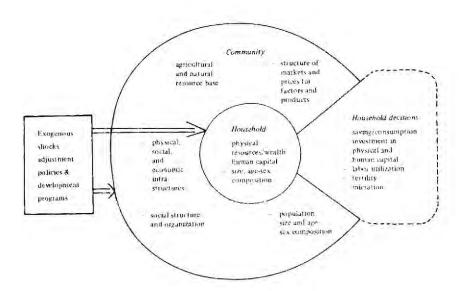


Fig. 1. Framework for analyzing the impact of exogenous shocks adjustment policies and development programs on the welfare of selected low income households.

(b) provision of social infrastructures and services in the field of education, health, nutrition, environmental sanitation, family planning, etc.; (c) agricultural programs such as land reform, development of cooperatives, provision of extension services and rural credit, and of various input subsidies and price supports; and (d) industrial promotion programs involving the provision of credit and various subsidies to small-and large-scale enterprises.

The exogenous shocks are expected to affect the structure of opportunities and constraints facing households either directly by increasing household resources and access to basic economic and social services, or indirectly through the community, by increasing community resources and service available to households. The households are then expected to respond to these changes in a manner they perceive will improve, or at least prevent a deterioration of, their present economic and social welfare. Depending upon the nature of the emerging structure of opportunities and constraints, we may expect a "multiphasic response" from these households in terms of decisions regarding savings/consumption, investment in physical and human capital, labor force participation of its members, fertility and migration. These decisions in turn affect various dimensions of welfare notably health, education of children, employment of family members, and household incomes.

## Profiles of Low Income Groups

Obtaining a national perspective on the socio-economic and demographic aspects of poverty is hampered by the lack of readily available published data at the national level to identify demographically significant low income groups, to determine their size and location, and to describe major characteristics that are directly related to their low income situation. While various Family Income and Expenditure Surveys have been conducted at various times in the past, the data have not been analyzed specifically to address questions regarding size, location and specific characteristics of major low-income groups. It is only recently that some attempts are being made in this direction, and it is obvious from such attempts that much more needs to be done.

## Size and location

Two recent attempts to provide a national perspective on low-income groups that are useful for our purposes are those conducted by the World Bank (1980) and by the NEDA (1985). The World Bank retabulated data from the 1971 Family Income and Expenditure Survey (FIES) to examine poverty incidence by major social groups.\* The data reveal various demographically significant social groups with high poverty incidence. The data may be briefly summarized as follows:

<sup>\*</sup>Although the 1975 FIES was available at the time, it was not suited for the purposes at hand because the data did not contain detailed information on occupation of household head to serve as a basis for identifying major social groups.

- (1) In 1971, of the 6,347 thousand families, 39 percent fell below the poverty line (defined in terms of a \$\mathbb{P}\$500 per capita expenditure standard).
- (2) Of the total families, 49 percent or 3,106 thousand out of 6,347 thousand families belonged to six readily identifiable social groups (determined by the occupation of the household head). These groups are farmer owners, farmer part-owners, farmer tenants, other farmers, farm laborers, and fishermen. In the aggregate more than half (54) percent) of the families in these groups were below the poverty line, in contrast to only 24 percent for all other families.
- (3) In the aggregate, these six major social groups were more or less evenly distributed in all regions, except Metro Manila. Moreover, the incidence of poverty in these six major social groups was high in all regions, except in Metro Manila, Central Luzon and Central Mindanao. The highest incidence of poverty was found in Central Visayas (86 percent), Eastern Visayas (72 percent), Cagayan Valley (65 percent), Bicol (65 percent) and Northern Mindanao (67 percent).
- (4) In terms of size, farmer owners were the largest of the six social groups, followed by farmer tenants. The fishermen groups, on the other hand, were the smallest. In terms of poverty incidence, however, farmer tenants and other farmers showed the highest incidence, while farmer owners the lowest.
- (5) In terms of size, more poor farmer owners were found in Central Visayas, Eastern Visayas, Northern Mindanao and Southern Mindanao than in other regions; poor farm tenants in Ilocos, Cagayan Valley, Bicol, Southern Tagalog, Central Visayas and Eastern Visayas; poor farm laborers in Southern Tagalog, Bicol, Western Visayas and Central Visayas; and poor fishermen in Southern Tagalog, Central Visayas, and Eastern Visayas. Thus, while poor families in these six major groups were found in all regions except Metro Manila, some groups were found in some regions more than others, reflecting differentials in regional economic activity and resources, among others.

Poverty incidence varied not only by farmer types, but also by farming activity. Palay and corn farming was the largest sector among farm-related activities. Families engaged in this activity constituted 34 percent of total families: 2,186 thousand out of 6,347 thousand families. These were more or less evenly distributed across regions, except in Metro Manila. Poverty incidence was highest in Central and Eastern Visayas and lowest in Central Luzon. Families engaged in coconut farming and sugarcane farming also constituted a large group, although together they were only 18 percent of the number of the families engaged in palay and corn farming. Moreover, these families were more or less concentrated in few regions: sugarcane farming in Western and Central Visayas, and coconut farming in

Southern Tagalog, Bicol, Eastern Visayas, Northern Mindanao and Southern Mindanao.

Using the same P500 per capita expenditure threshold, 336 thousand families in the urban areas were poor, representing 18 percent of total urban families in 1971. The incidence of urban poverty was much higher in Ilocos, Cagayan Valley, Central and Eastern Visayas and Northern Mindanao than in the other regions. In Metro Manila, the size of the urban poor was 61 thousand families. Although this constituted only 9 percent of the total families in Metro Manila, it was by far the largest concentration of urban poor in any region, and they constituted 18 percent of the total urban poor in 1971.

The above information are quite revealing of the size and location of major social groups characterized by high poverty incidence. Unfortunately, such tabulation of FIES data has not been replicated by subsequent poverty-related studies using more recent FIES; hence, we have no clear idea as to how the above patterns have changed over time. The only recent study on low-income groups which gives us a national perspective is the Low-Income Group Study Project of NEDA (1985). The data are derived from secondary analysis of the 1985 FIES and from a Socioeconomic Survey of Special Group of Families. Preliminary statistical tables made available by NEDA provided the basis for the description below.

Table 1 presents the distribution of low-income families (defined in terms of the bottom 30 percent in the national income ladder) by region in 1985. The low-income families totalled 3,061 thousand of which 2,228 thousand or 73 percent were found in agriculture. The data show higher absolute and relative sizes of low-income families in Bicol, the three Visayas region, and three of the four Mindanao regions compared to the remaining regions.

Although the 1971 data on poverty incidence and the 1985 data on the bottom 30 percent are not comparable, there appears to be some shift in the regional distribution of low income families. In 1971, high poverty incidence relative to the national average was found in Ilocos, Cagayan Valley, Bicol, Central and Eastern Visayas, Northern Mindanao and to some extent Southern Mindanao. In 1985, the incidence of low income families relative to national average, i.e. bottom 30 percent benchmark was lower in Ilocos, Cagayan Valley and Southern Mindanao but higher in Western Visayas and Western Mindanao. Bicol, Central and Eastern Visayas and Northern Mindanao, however, continued to be regions with high incidence of poverty relative to the respective national averages. The higher incidence of poverty in Western Visayas and Western Mindanao in 1985 relative to 1971 may be directly related to the sugar crisis affecting Western Visayas and the peace and order problem affecting Western Mindanao.

The data from the 1985 FIES above as reported by the NEDA do not provide us with disaggregation by major social groups comparable to those provided by the World Bank study. The above data also do not allow us to get an idea of the relative size of the urban poor. In spite of such limitations, the NEDA (1985) study has the advantage of allowing us to obtain, on the basis of data from the Socio-economic

Table 1. Distribution of low-income families by region, 1985 (January-June 1985)

	Region		Number of low income families (x100)		Percent of low income families	Percent of low income families in agriculture to total low income	Mean per capita expenditures of low income families		
Kegion		of families (x100)	Total	In agri- culture	to total families	families	Total .	In I agriculture	
PHILIPPIN	ES	10,202.1	3,061.1	2,228.6	30.0	72.8	1,030	975	
National Ca	epital Region	1,365.6	79.8	3,8	5.8	4.8	1,383	1,117	
I	Hocos	756.5	157.9	114.3	20.9	72.4	964	953	
11	Cagayan Valley	474.0	122.0	95,9	25.7	78.6	961	918	
111	Central Luzon	989.0	217.8	131.4	22.0	60.3	1.588	1,452	
IV	Southern fagalog	1,325,3	331.9	224.6	25.0	67.7	1.083	1.019	
V	Bicol	706.6	323.2	260.9	45.7	80.7	1.041	1,007	
VI	Western Visayas	923.1	388.9	293.5	42.1	75.5	992	977	
VII	Central Visayas	813.8	388.1	253.9	47.7	65_4	793	754	
VIII	Eastern Visayas	578.4	269.5	218.5	46.6	81.1	900	887	
IX	Western Mindanao	518.3	190.9	162.9	36.8	85.3	955	922	
X	Northern Mindanao	574.0	221.8	162.6	38.6	73.3	956	898	
XI	Southern Mindanao	704.2	205.3	173.7	29.2	84.6	1,001	974	
XII	Central Mindagao	473.2	164.2	132.6	34.7	80.8	1.226	1.178	

Source: NEDA, Low-Income Group Study Project, unpublished statistical tables based on the 1985 Family Income and Expenditure Survey of NCSO.

Survey of Special Group of Families, a quick national profile of low income families (bottom 30 percent).

# General profile of low-income families

It is a common perception that low income families are characterized by (a) lack of productive assets or control over such assets; (b) limited use of modern technology in their production activities; (c) limited human capital; and (d) limited access to basic economic and social services. In addition, as a result of the above and of their increasing numbers, they face a declining community resource base.

Resource base and asset control. Of the 3,061 thousand families belonging to the bottom 30 percent in the income ladder in 1985, 2,228 thousand families, or 73 percent, were found in agriculture. Of those in agriculture, the largest source of income is derived from crop farming. (See Table 2).

In 1985, the low income families engaged in crop farming numbered 1,625,8 thousand, cultivating 2.5 million hectares of land. The average farm size is, therefore, 1.56 hectares. Based on the 1981 Census of Agriculture, the average farm size in the Philippines was 2.63 hectares in 1980 (NCSO, 1984). Even among low income farm families, the distribution of farm families by farm area cultivated is highly skewed. Thirty-five percent of farm families cultivated farm sizes of less than 1.0 hectares, altogether representing 11 percent of total farm area cultivated by all low-income crop farm families. Another 37 percent cultivated farm sizes ranging from 1.0 to less than 2.0 hectares, representing 29 percent of total farm area. Another 23 percent cultivated farm sizes ranging from 2.0 to less than 5.0 hectares, representing 38 percent of total farm size. The remaining 5.0 percent cultivated farm sizes greater than 5.0 hectares, representing 22 percent of total farm area.

Further differentiation among low income crop farm families by asset control is revealed by data which show that 52 percent of such families do not own the land they cultivate. These include tenants (44 percent) and leasees (8 percent). Altogether they cultivate half of the total farm area cultivated by all low income crop farm families.

Of the 1,625,8 low income farm families, 616.8 thousand or 38 percent produced rice as the main crop, 481.8 thousand or 30 percent produced corn; and 318.1 thousand or 20 percent produced coconuts. The others produced various types of crops. Tenure status varied by type of crop cultivated. Ownership of land is generally lower for rice crop cultivators (39 percent) than for corn cultivators (48 percent) or for cultivators of other crops (53 percent).

Technology. With limited resource base (land), poor farm families can increase productivity by adopting modern farm technology. However, the available data show that low income crop farm families still adopt traditional or subsistence methods of agriculture. Only 21 percent used irrigation, a little more than one third used pesticides and fertilizers, less than quarter used high yielding varieties, and less than a third practiced interplanting or double cropping. Part of the reason for the

Table 2. Percent distribution of income of low-income families by source of income and by broad industry group, Philippines: January-June 1985

Source of income	Total	Agriculture	Non-ugriculture
INCOME FROM ALL SOURCES	100.0	0.001	_100.
Salaries and wages	32.1	24.9	50,
Agriculture	12.7	17.5	
Non-agriculture	19.3	7.4	49.
Net income from entropreneurial activities	40.4	48.6	20.
Crop farming and gardening	23.5	32.8	
Livestock and poultry raising	1.4	2.0	
Fishing	5.9	8.2	
Forestry and hunting	.9	1.2	).
Wholesale and retail	5,2	2.7	11
Manufacturing	1.9	1.2	3
Community, social recreational and personal			
services	.8	,2	2
Transportation, storage & communication services	.5	,1	1
Minute and quarrying		.1	
Construction	-1	.01	
Other entrepreneurial activities	$L_{c}$	.01	
Family sustenance activities	10.3	11,6	7
Net share of crops or livestock and poultry			
raised by other households	1.1	1.2	1
Cash receipts, gifts & other forms of assistance	3.7	2.5	6
From abroad	.6	.2	1
From domestic source	3,1	2,3	S
Other sources of income	12,4	11,3	15
Number of families (in thousand)	3,061.1	2,228.6	832

Source: NEDA (1985) from NCSO, 1985 Family Income and Expenditure Survey.

low rate of adoption of modern technology is obviously the cost of such technologies. The data reveal that it could also be partly due to lack of information: the percentage of these families who availed to government extension service, for example, is only around 5 percent.

Access to government programs. In addition to the small number of farm families who have availed of government extension service, very few have also availed of other government services. The importance of credit to finance agricultural activities is crucial to the survival of these families in view of their limited financial resources. Yet according to the survey data, only 16 percent of the 2,228.6 thousand agricultural low income families have availed of credit during the 1975-80 period, and of these, only 30 percent availed of credit from government-sponsored credit programs. The rest obtained credit mainly from traditional sources (relatives, neighbors/friends, landlords, moneylenders, etc.). The average amount of loans ranged from P978 from relatives to P3,732 from government banks. Those who borrowed from program sources reported paying interest rates from a low of 4 percent to a high of 60 percent per annum. Those who borrowed from traditional sources, however, reported paying interest rates as high as 300 percent from moneylenders to 400 percent from landlords; the latter were mostly paid in kind.

Among agricultural families who did not avail of credit, only 6 percent had other sources of income to finance agricultural activities. The rest mentioned as reasons for not borrowing: burdensome requirements, no collateral to offer, high interest rates, etc. Interestingly, 22 percent who did not borrow claimed they were unaware of various sources of credit, including government institutions.

Of those engaged in crop farming only 39 percent of palay farmers were aware of price support for palay; while only 28 percent of corn farmers were aware of price support for corn. Of those who reported selling their palay products, only 7 percent sold at the support price of \$\mathbb{P}3.50\$ per kilo, while 83 percent sold at lower than support price averaging \$\mathbb{P}2.25\$ per kilo. The remainder (10 percent), however, were able to sell at higher than support price averaging \$\mathbb{P}4.31\$ per kilo. A similar observation can be made for corn farmers. Among those who sold their corn produce, only 2.0 percent sold at the support price of \$\mathbb{P}2.90\$ per kilo, while 74 percent sold at lower than the support price averaging \$\mathbb{P}2.06\$ per kilo. The remainder (24 percent) were able to sell at higher than the support price averaging \$\mathbb{P}3.43\$ per kilo.

The prices at which crop farmers can sell their produce depends on their access to different marketing outlets. The major outlets for palay, corn and copra are the traders at the farm or the middlemen at the market. Both outlets account for 77 percent of palay sold, 80 percent of corn sold, and 83 percent of the copra sold by respective farm families. Interestingly enough, the National Food Authority which implements the price support program for palay and corn accounts only for 2.5 percent of palay sold and 0.6 percent of the corn sold by the respective farm families.

Human capital. Of the low-income family members aged 6 years and over, only 77 percent can read and write a simple message. The percentage is lower among agricultural families than non-agricultural families: 75 vs. 83 percent. Moreover, 64 percent of these family members were not attending school: the percentages for agricultural and non-agricultural families were 65 and 62, respectively. Among those not attending school, 16 percent in both agricultural and non-agricultural families explicitly reported "no money for schooling" as the reason for not attending school.

Based on the 1983 Integrated Survey of Households (third quarter), 10 percent of the population 15 years old and over among low-income families did not go to school, 37 percent had some elementary schooling, 26 percent completed elementary schooling, and 13 percent had some high school. Only 13 percent completed high school or higher. The 1980 Census reveal that for all population 15 years old and over, the corresponding percentages in each of the above schooling categories were 9, 27, 22, 14 and 28, respectively. Although the time periods under consideration are not comparable, these data clearly suggest that, on the whole, the educational levels of low-income family members tend to be lower than the rest of the population. For example, only 26 percent of low-income family members had at least some high school education, compared to 42 percent for the national population of the same age range.

Among low-income family members 15 years old and over in 1985, only 3 percent had completed some vocational/technical course/training, compared to 15 percent of the same age group for the national population in 1975, again suggesting the generally low level of acquired vocational skills among the low-income groups.

Access to public services. Data presented in Table 3 show the number of low-income families with access to facilities/services and who have availed of them. The data reveal generally low access to many facilities/services, except perhaps for elementary schools. Of those with access, still large numbers have not availed of specific services, indicating among others, financial constraints.

Other aspects. Two other aspects regarding low-income families are worth noting. The first is their consumption patterns: 67 percent of total expenditures are for food, of which 49 percent are for cereals and another 17 percent for fish and marine products. The vulnerability of low-income groups to changes in basic food prices is evident.

A second aspect worth noting is the main source of financial help low-income households can count on in time of extreme economic stress. Of the total low income-families, 64 percent reported "relatives" as their usual source of financial help, neighbors/friends were reported by 43 percent, employers/landlord by 13 percent, private moneylenders by 14 percent, and all other sources by 5 percent. Because relatives, neighbors and friends are likely to be also poor, the amount of help they can offer is likely to be small. On the other hand, landlords and moneylenders probably exact more from the poor than the help they actually offer.

Table 3. Number of low-income families with accessibility to facilities/services and who have availed of them, by kind of facility/service, Philippines: 1985
(Details may not add up to total because of rounding)

Enablish /non-ing		ies with accessibility ies/services		ne families who have of facilities/services
Facility/service	Number (in hundreds)	Percent to total number of low- income families	1,110,110,110	Percent to total families with accessibility to facilities/services
Educational services				
Elementary school	27,686	90.4	22,480	81.1
Secondary school	17,082	55,8	9,262	54.2
College/university	7,629	24.9	1.975	25.8
Health Center/Rural Health Unit.				
Day Care Center, etc.	21,485	70.1	17,770	82.7
Bus, PUJ and other public transport				
services	21,756	71.0	20,755	95.4
Roads	24,204	79.0	22,778	94.1
Bridges or ferry boats	10,284	33.6	8,950	87.1)
Flectricity	17.332	56.6	9,400	54.2
Waterworks system	18,524	60.5	16,124	87.0
Irrigation	6,788	22.1	4.124	60.7
Postal services	15,876	51.8	13,475	84.8
TV, radio, newspaper, and other				
mass media	15,262	49,8	12,511	81.9

Table 3 (Continued)

E. William Control		ies with accessibility ties/services	Low-income families who have availed of facilities/services				
Facility/service	Number (in hundreds)	Percent to Total number of low- income families	Number (in hundreds)	Percent to total families with accessibility to facilities/services			
Bank and other financial institutions	11,183	36.5	3,504	31,3			
Police precinct and other security agencies	14,970	48.9	10,089	67.4			
Recreation/entertainment centers	9,537	31.1	6,204	65.0			
Public parks	8,695	28.4	5,839	67.1			
Market places	15,566	50.8	14,558	93.5			
Employment/placement services	2,408	7.8	861	85.7			
Others	366	1.1	203	55,4			

Source: NEDA, 1985 Socio-Economic Survey of Special Group of Families.

## Profiles of selected low-income groups

While data on families at the bottom 30 percent income ladder provide us a quick national perspective of the socio-economic situation of low-income families, the data are still aggregative and are inadequate to provide us with a closer look at the situation of specific low-income groups. Different groups of low income families are likely to have characteristics unique to each group that make them more or less vulnerable to various external and internal shocks. In determining the major characteristics that distinguish between social groups, micro-level studies of specific groups would be useful, Reviews and attempts at syntheses of these studies have been made in the past, (See Castillo, 1977; NEDA, 1980a, 1980b; World Bank, 1980; Carner, 1981). We briefly summarize their findings below.

The major social groups include (a) upland farmers; (b) lowland farmers; (c) agricultural wage workers; (d) artisanal fishermen; and (e) urban poor.

(e) urban poor.

Upland farmers. These farmers generally cultivate a variety of subsistence crops. One of their major distinguishing characteristics is their initially poor resource base (marginal land on rolling hills and steep mountain slopes), which rapidly deteriorates through soil erosion, leaching, etc. as a result of their destructive cultivation techniques (slash-and-burn) or inappropriate farming practices. More importantly, since these farmers are located in more remote areas than the lowlanders, they have even more limited access to markets and are likewise relatively inaccessible to various economic and social services. Because of the highly seasonal nature of production activities and low productivity, a large proportion engage in non-crop farming activities (e.g. rattan gathering, firewood gathering, production of hand-sown timber, etc.) or seek farm-related work in the lowlands.

Two major groups of upland farmers are the *kaingeros*, indigenous or migrants from the lowlands in search of land, and the upland rice and corn farmer. The former is more disadvantaged than the latter in terms of resource base, rights to land, technology, human capital, access to markets and public services, and off-farm employment opportunities in the lowlands.

Lowland crop farmers. By far the largest group among the low income families are the lowland farmers. These farmers are perhaps the most heterogenous of all. They can be classified by type of crop: rice, corn and coconuts; tenure status: owner, tenant, and lessees; and type of cultivation: irrigated and rainfed. Farm owners, irrespective of crop, are more likely to be better off than non-owners. However, coconut farms are more directly affected by changes in the international prices of copra or coconut oil, while rice and corn farmers are generally affected by price supports and input subsidies: Farmers with irrigated land have an advantage since yields are greater than in rainfed areas. However, differences in net incomes between irrigated and rainfed farms depend upon the cost of modern inputs that complement irrigation, including hired labor on the one hand, and again, tenure status, on the other. Seasonality of employment varies by crop and availability

of irrigation. It is more seasonal for corn, rainfed rice and coconuts than for irrigated rice.

The large size of the group and the limited land available leads to farm fragmentation thus further limiting their resource base. The group, as a whole, are more accessible to markets and basic services than the upland farmers, but their ability to avail such vary with their incomes, assets and other endowments.

Agricultural wage workers. Landless farm workers are perhaps the poorest among the lowland farm groups. They are either rice and corn laborers, coconut laborers or sugar plantation workers. A distinguishing feature of these groups is the absence of productive assets, except their labor power. Because they lack skills and have low education, escape from poverty is most difficult. As their numbers increase, competition for farm work becomes keen. Their relative low income, aggravated by the high seasonality of their income receipts, make them highly vulnerable to small changes in job prospects and price increases. Due to the same factors, they have less effective access to basic social services, especially health and education. Moreover, since many of the agricultural programs are geared towards farmers, e.g. credit, extension services, etc., they are not often directly benefitted by such programs.

Artisanal fishermen. Artisanal fishermen are those who fish within three miles from the shore using boats of less than 3 tons in weight. This group is heterogenous with each sub-group competing among themselves over the limited resource base. Fishermen can be classified by ownership of or control over productive assets. They may be categorized into boat owners (motorized and non-motorized), boat borrowers or leasees (motorized and non-motorized) and laborers. Generally boat owners have higher income than boat borrowers. Owners of motorized boats have higher incomes than those of non-motorized ones. Borrowers of motorized boats, however, do not necessarily have higher income than owners of non-motorized boats. While the former tends to have higher catch, their net income could be lower because part of the gross is shared with the owner of the boat. Laborers, on the other hand, have the lowest income.

The resource base of artisanal fishermen is gradually declining in view of the increased number of fishermen, poor technology, increased competition from commercial fishermen, and inappropriate fishing practices (e.g. dynamite fishing).

Although fishing in general is a year round activity, the volume of catch and the types of species caught vary by season, resulting in fluctuations in income within the year. Moreover, fishermen with non-motorized boats and inadequate gears are unable to exploit alternative fishing grounds during the lean months. These fishermen also have less access to alternative marketing outlets. Thus they must face a relatively lower price than what larger fishermen or commercial fishermen can command.

Urban poor. The urban poor consists of various sub-groups as reflected by the occupation of the household head. Their occupations range from transport workers, various services workers, sales workers, various protection workers, and construc-

tion workers, not to mention hawkers, vendors, scavengers, mendicants and other workers in the informal sector. Among wage earners, their respective incomes vary by occupation, but their overall income is low because of their low levels of education and skills.

A large part of the urban poor are migrants, and as such are probably part of the rural poor who had the opportunity to migrate. Among migrants who add to the size of the urban poor are young and less educated females who tend to occupy the lowest paying occupations, mainly as maids, cooks, etc.

# The Impact of Changing Economic Environment on the Welfare of Low Income Families

The net effects of the external shocks and adjustment policies, together with the cumulative effects of past development policies, are reflected in the economic environment (i.e. prices, wages and public expenditure patterns), that low income groups faced during the 10-year period, 1975-1985.

Table 4 shows various indicators of the changing environment faced by low-income households during the past decade. Since a large majority of the poor are agricultural families and those that rely solely on wage income, the indicators deal with prices of agricultural products and inputs, general prices of basic commodities, mainly food and fuel, employment absorption and wage rates.

Farm incomes. Farmer net incomes depend on the cost of their products and their inputs. Between 1975 and 1979, the international price of copra (the main product of small-scale coconut farmers) went up steadily. The obvious beneficiary of this are those engaged in coconut farming, but the benefits would vary betwen owner-cultivators, caretakers who have to give the owners a share of the income, and the laborers who often are paid a standard price for certain activities (i.e. harvesting of nuts, husking, copra making and drying). Seasonal variations in yield also affect the full impact of this upward trend in copra prices. Because small copra sellers often have limited marketing outlets, part of the gain in improved prices go to the traders.\*

After 1979, the price of copra fluctuated downward and although prices rose in 1983 and 1984, the price fell sharply in 1985 to a level lower than that of 1977. The average price for the period 1980-85 is little better than the average for the period 1975-79. The low-income coconut farmers were adversely affected by the fluctuation in income in the face of rising consumer prices.

For rice and corn farmers, the price support program of the government offered some insurance against sharp fluctuations in the market prices of rice and

<sup>\*</sup>On a larger scale, part of the benefit of favorable prices of copra went elsewhere (export tax, special levies, trade monopoly) rather than directly to coconut farmers.

Table 4. Selected indicators of prices, employment and wages, 1975-1985

	Indicators	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1983
T.	Prices of major agricultural export products (US cents per pound)											
	1. Coconut oil	17.9	19.0	23.6	31.0	44.7	30.6	25.9	21.1	33.2	51.3	26.
	2. Sugar	20.4	11,5	8.1	7.8	9.9	28.7	17.0	8.5	8.5	5.2	4.
	3. Copra	11.6	12.5	18.3	21.4	30.6	20.6	17.2	14.3	22.5	32,3	17.
11.	Terms of trade in agriculture											
	Ratio of the price of agricultural output to price of agricultural inp     Ratio of the price of agricultural output to consumer prices in rural areas	133	96 132	92 128	88 125	88 120	74 96	70 92	74 89	NA 86	NA 93	N.
111.	Inflation rate (%; CPI, 1978 = 106	))										
	All items	6.9	9.7	9.8	7.2	17.5	18.2	13.1	10.2	10.0	50.3	23.
	Food, beverage & tobacco	5.4	9.6	9.8	5.9	15.6	15.0	12.7	8.5	8.6	53.8	22.
	Fuel, light & water	9.6	10.9	7.3	11.5	27.6	36.2	21.7	13.5	17.3	51.6	28
IV.	Employment											
	Unemployment rate (%)	4.4	6.3	9.1	7.1	NA	8.1	8.9	9.5	7.9	10.6	11
	Underemployment rate (%)	13.3	16.6	20.0	19.6	NA	20.9	23.9	25.5	30.1	36.4	22

Table 4 (Continued)

	Indicators	1975	1976	1977	1978	1	979	1980	1981	1982	1983	1984	1985
V	Real legislated wages (in pesos)												
	Non-agricultural												
	Metro Manila	12.94	1 13.	94 15.	40 1	5.74	17.17	19.36	19.77	18.06	17.52	16.63	16.22
	Outside Metro Manila	13.90	) 13.	42 14.	28 1	4.65	16,55	19.00	19,32	17.81	17.48	16.60	15.83
	Agriculture												
	Plantation	9.3	1 10.	33 11.	95 1	2.48	14.19	16.39	16.49	15,17	14.15	13,89	13.23
	Non-plantation	9.3	9.	49 10.	79 1	1.40	12,08	12.31	12.39	11.38	11,05	10.48	10.1

Source: NEDA, "The Philippines: External Shocks, Adjustment Policies and Impact on Selected Development Concerns," 1986, various tables.

corn. But it appears from the data on low-income crop farmers we described earlier that a very small minority of them had actual access to such programs. More often it is the large-scale producers who are benefitted. Small-scale rice and corn farmers are either too far away from the major buying centers paying the support price (especially true for upland rice and corn farmers), they do not have adequate drying facilities to meet certain quality standards, or they are forced to sell to traders at lower than support price as a condition for loans obtained earlier from these traders.

Rice and corn farmers using traditional technology, mainly upland farmers, obviously get lower yields than those who are able to shift to modern technology, mainly in rice, (i.e., use of irrigation, fertilizers, pesticides, high yielding varieties). While this shift may increase yields, it would not necessarily result in significant increases in net farmer incomes if the cost to modern inputs, especially fertilizers, rises.\* Prices of modern inputs generally rose much faster after 1979 than before. Thus, the net gains to be achieved from the use of these modern-inputs would tend to be smaller and therefore act as a disincentive for their wider use. Moreover, the use of these technologies could not be sustained unless further support is provided through subsidized credit to finance such inputs. But access to such credit is expected to vary between different sub-groups. The upland rice and corn farmers probably had poorer access to such credit as are smaller farmers in the lowland than relatively larger lowland farmers cultivating their own irrigated land.

In the aggregate, the combined effect of fluctuating and declining prices of agriculture outputs and increasing prices of agricultural inputs is revealed in Table 4. The terms of trade consistently deteriorated since 1975.

Fishing income. Incomes of artisanal fishermen are affected by external shocks in both direct and indirect ways. In the face of unstable prices of fish products, the rapid increase in fuel prices, in 1973 and 1979, coupled with the generally increasing prices of fishing equipment tended to squeeze the net incomes of these fishermen. The increase in fuel prices had serious direct implications for the livelihood of fishermen who use motorized boats and indirectly on those who work for them.\* The seriousness of the problem is illustrated by the 1978 survey findings in Leyte which revealed that in some barangays, as a result of higher fuel prices, practically all fishermen had abandoned the use of motorized boats in favor of non-motorized ones. (Laopao and Latorre, 1979). This shift affects the productivity of fishermen in terms of catch and, therefore, incomes. While this situation may be isolated, various surveys on artisanal fishermen invariably find that one of the major problems commonly reported by fishermen is the rising prices

<sup>\*</sup>The effect of sales taxes, import duties and special surcharges further raised prices of fertilizers to the farmer.

<sup>\*</sup>The imposition of higher petroleum tax had the effect of further increasing fuel prices faced by fishermen.

Table 5. Estimated real per capita government expenditures, pesos in 1972 prices by sectoral classification, 1975-1984

Sector	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984		rage _ 1979-83
Total expenditures	271.6	283.2	256.8	281.7	283	268.3	306.7	279.4	261.0	197.5	273.8	279.8
Economic services	123.6	100.5	88.7	111.6	121.6	114.2	117.2	101.3	80.3	52.8	106.1	106.9
Agriculture, fishery & forestry Industry, trade, labor & tourist Utilities and infrastructure (including other economic services)	14.6 21.0 88.0	24.5 8.7 67.3	18.9 7.1 62.6	12.9 7.1 91.6	22.1 7.3 92.2	18.0 10.3	19.0 18.1	23.7 12.4 65.2	17.2 8.5	12.9 4.0	17.7 11.0	20.0 11.3 75.6
Social services	51.5	58.9	56.4	64.2	62.6		60.9	62.6	68.7	52.9	57.8	62.0
Fducation & manpower Health, housing & population Social welfare & other community & social services	31.5 11.2 8.8	35.0 14.1 9.8	31.5 14.3	37.5 17.7 9.0	32.9 24.4 5.3	19.4	35.1 21.1 4.7	37.4 21.1 4.1	40.5 19.6 8.6	32.3 13.6 7.0	33.9 14.3 9.6	35,3 21,1 5,6
National defense	56.7	49.7	58.2	37.3	43.1	34.6	32.7	31.6	30.6	18.3	50.5	34.6
General public services including debt service	39.7	74.1	53.5	76.1	71.8	64.5	89.7	83.6	81.5	73,5	60.9	78.2

Source: NEDA, Philippine Statistical Yearbook, 1985, computed from various tables.

of fuel and fishing equipment. Moreover, perhaps mainly as a result of rising fuel prices, commercial fishermen (trawlers) increasingly encroach upon their fishing grounds, thereby, reducing their catch.

Rising prices of equipment make it difficult for low income fishermen to own such equipment. For example, the 1985 Socio-Economic Survey of Special Group of Families conducted by NEDA identified 369.3 thousand families engaged in fishing; of this, 181.8 thousand or close to half were reported to be needing a boat but could not afford to buy one.

Wage income. With low productivity, the seasonal nature of their farm and fishing operations, and the lack of capital to finance small-scale enterpreneurial activities, a large number of the poor must supplement family income from wages. Moreover, those family groups without any productive assets or access to them rely almost totally on wage income. These include the landless agricultural workers in rice, corn, coconut and sugar; fishing laborers; and a large proportion of the urban poor. In the 1985 Socio-Economic Survey of Special Group of Families conducted by NEDA, 41 percent of the low income families had a wage or salary worker in the family.

Off-farm employment opportunities are limited in the uplands; hence, upland farmers and their families seek wage employment in the lowlands, mainly as hired hands in rice and corn or workers in sugar farms. In the rice/corn areas, competition for employment is extremely keen in view of the large number of landless workers. While irrigation and adoption of new technology in recent years have increased farm labor requirements, the growth of the landless rural population has also been rapid. The increased competition among landless and upland farmers depresses the wage rate. Although legislated minimum wages have been gradually adjusted upwards over the 10-year period 1976-85, farm workers do not always receive even such minimum.

Intense competition for farm labor has led to labor arrangements that adversely affect certain groups of workers over others. In rice farming, a labor arrangement has emerged whereby landless workers contract to do the weeding or transplanting for "free" in exchange for an exclusive right to the harvesters/threshers share of the harvest on the weeded portion. Those who are able to enter into this arrangement gain some security in employment. But those who could not, become even more disadvantaged, for such arrangements further limit their chances of obtaining employment.

A different class of farm workers are plantation workers. In sugar farms, these workers include permanent workers who live and work regularly on farms, seasonal workers who are employed on a casual basis and live in nearby villages, and the migratory seasonal workers. The legislated minimum wages for plantation workers are generally higher than those for rice/corn farmers. Permanent workers probably are better able to command at least the minimum wage, but not so for the other types of workers who are hired on a temporary basis. The most disadvantaged are the migrant seasonal workers who are recruited by labor contrac-

tors to work on a flat rate basis per hectare for a given operation. The total rate has to be shared between the workers and the labor recruiter; the more workers, the less pay per worker.

The sharp decline in the international price and demand for sugar and the contraction in sugar production that followed affected both the owners and the workers, but the latter more severely. Among the workers, the most severely affected were the migrant workers and the casuals.

The urban poor workers faced a different environment but its impact had similar adverse effects, if not more. Their large and growing numbers (due partly to migration) in the face of limited job openings in their skill category depressed wage rates. They were highly vulnerable to cyclical fluctuations in industrial labor demand. The severest blow came with the contraction of the industrial sector in the 1980's when thousands of workers were laid off, especially in Metro Manila.

Real incomes and consumption. The declining capacity to earn incomes in the face of adverse changes in the environment (declining prices of products, increasing cost of inputs, reduced opportunities for wage employment) is aggravated by the increasing prices of consumer items, more specifically food and fuel. The rate of inflation has risen since 1979, reaching a peak in 1984. The real income squeeze suffered by the low-income groups meant significant readjustments in consumption patterns with serious implications for nutrition, health and education, especially of children. Unfortunately, there is little concrete information regarding the nature of these readjustments and their consequent impact. But recent survey data in selected urban poor communities in Davao and Cebn might be illustrative (Herrin, forthcoming).

A 1985 survey of 1,575 households in selected poor communities in Davao and Cebu revealed the following:

- (1) When asked to compare household income in 1985 relative to two years before, 17 percent claimed their income rose, 36 percent claimed their incomes remained the same, while 47 percent claimed their incomes had declined. (Actual income data are not yet available, and while the sample came from poor communities, some households may be better off (non-poor) than others.
- (2) Among those who claimed their incomes had declined, the following adjustments in spending patterns were revealed: 35 percent maintained spending on food but reduced other items of consumption; 11 percent reduced spending on food while maintaining others:\* and 54 percent reduced spending on both food and other items. Thus altogether, 65 percent had to reduce spending on food.

<sup>\*</sup>Most likely rental of housing; the data do not provide information on specific expenditure items.

In view of the fact that expenditures on food constitute a large proportion of total expenditures, 67 percent among the 1985 sample of low income (bottom 30 percent) families, it is not surprising that reduced incomes have a significant effect on food expenditures. With rising food prices, real food consumption would even be lower, and the nutritional quality of food consumed could deteriorate. In fact a survey conducted by the Food and Nutrition Research Institute (FNRI) in Metro Manila in February-March 1984 based on 400 households found that "the quantity and quality of diets in Metro Manila households tended to become inferior as manifested in the shift of the energy and protein intake from upper to lower levels of adequacy when compared with a similar data base for 1982" (FNRI, 1984, p. 80).

We expect that rural poor families, in the face of declining incomes and rising food prices, made similar consumption adjustments as described above with serious consequences on nutrition. Between 1978 and 1982, the ratio of the price of agricultural output to consumer prices in the rural areas declined from 125 to 89. Inflation rate for food for the country as a whole, rose from 5.9 percent in 1978 to 15.6 percent in 1979 and remained at the two-digit level up to 1981. The net effect of this changing price structure on nutrition is reflected in national data on the nutritional status of pre-schoolers in 1978 and 1982 obtained by the FNRI (1981, 1983). The data show no change in the high rate of undernutrition (mild, moderate and severe) which stood at 69 percent in both periods. Severe malnutrition also remained the same in both periods: 1.6 percent. The only change is a shift from moderate to mild undernutrition, Considering that the data is for the national population, including less vulnerable income groups, it is safe to presume that the nutritional impact of declining real income of the poor was so great as to cancel whatever nutritional status gains might have been achieved by the higher income groups. We expect the situation to have worsen during the extreme crisis period, 1983-85.

Role of public programs. In spite of adverse macroeconomic conditions, the welfare of the poor can be improved directly by timely and well-focused public interventions geared towards income generation, improving the price structure, and provision of health, nutrition, education, housing, sanitation, social welfare and other services. The potential contribution of the public sector to the welfare of low income groups in the decade 1975-1985 however, has been severely limited by increasing budgetary constraints and misplaced priorities, among others. Table 5 shows the trend in real per capita government expenditures by sectoral classification. National defense and general public services, including debt service (which grew rapidly in the 1980s), constituted roughly 40 percent of total outlays over the period 1975-1983, while social services constituted only around 21 percent of total outlays. Economic services which constituted 46 percent of total outlays in 1975 declined to 31 percent in 1983 and to 26 percent in 1984.

Generally, while real per capita expenditures rose from 1975 to 1979, they have declined since then. Much of the decline is accounted for by the decline in

economic services and to some extent by the decline in defense expenditures. Expenditures for education, health and social welfare services continued to maintain their initial low share in total expenditures.

The above trends indicate a declining general capacity of the public sector to provide for basic economic and social services since 1979 and this capacity has been reduced even further as a result of the crisis in 1984. Worse, basic economic and social services that have a direct bearing on the income of the poor (credit, price supports, input subsidies, etc.) have not widely reached the poor. Moreover, effective access to basic social services such as health, education and housing has been low because such access depended partly on income.

# Summary and Conclusion

This paper described the major characteristics of low-income groups based on available national data and on findings of micro-level studies. It also attempted to examine the impacts of external shocks and public policy responses on the welfare of the poor mainly through their effects on prices, wages and public expenditures. Major low-income groups as a whole are characterized by lack of ownership or access to productive assets, low level of technology in production activities, poor and deteriorating resource base, limited human capital of its members, and poor access to basic economic and social services. The interplay of these factors in the context of a rapidly growing population and an unfavorable price structures, result in the commonly observed welfare characteristics of the poor: low incomes, low levels of consumption and investment (including investments in human capital), greater incidence of underemployment, poor housing and sanitation, high incidence of malnutrition, poor health, high infant/child mortality, and high fertility.

The low-income families, however, constitute a highly heterogenous group. They include upland farmers, low land crop farmers, landless agricultural workers, artisanal fishermen and urban poor. Within each of these major social groups, there is further differentiation in these major characteristics. Upland farmers are generally characterized by their remoteness to markets and basic services, their poor and rapidly deteriorating resource base, and their highly seasonal pattern of production and employment. Lowland crop farmers are by far the largest group among low income families and their welfare vary by type of crop cultivated, access to irrigation and modern farm technology, and tenure status. Their large and ever-growing numbers, however, are putting severe pressure on the limited land available thus hastening farm fragmentation and eventual loss of ownership of land. Landless agricultural workers are perhaps the poorest of the low-income farm groups. They are distinguished by the absence of productive assets except their labor power. With low education and lacking skills, escape from poverty is most difficult. Moreover, because of their growing numbers, competition for farm work becomes intense, resulting in depressed wages, and often to certain labor

arrangements that either excludes others from entry into certain labor markets or further reduce wages. Artisanal fishermen, are faced with a declining resource base resulting from the interplay between their increase in numbers, lack of access to modern fishing technology and increased competition from larger fishermen. The last major group is the urban poor which is also a very heterogenous group. Their numbers are increasing due to migration of the rural poor to the urban areas. They have little to rely upon except their labor power, which is often limited by low level of education and skills; their meager capital to finance small enterpreneurial activities; and their imagination and determination to eke out a living from scraps and from the good nature of their well-off urbanites.

From 1973 to the middle of the 1980's, the economy was subjected to various external shocks. These shocks together with policy adjustments that followed and the cumulative effects of past development policies and priorities have created an environment that became increasingly adverse to the welfare of the poor. Fluctuating and declining international prices of export commodities, notably copra/coconut oil and sugar, directly affected the incomes of coconut farmers and sugar workers, respectively. Relatively low prices of rice and corn and limited access to support prices reduced the earning capacities of affected farmers and their workers. Fluctuating prices and limited marketing outlets limited the incomes of artisanal fishermen. On the other hand, increased prices of irrigation and modern agricultural inputs in agriculture, and increased prices of fuel and fishing gears further reduced net incomes of farmers and fishermen, respectively. Rapid population growth and the growing inability of the economy to generate employment depressed the wages of landless agricultural workers and unskilled urban dwellers. A further squeeze in incomes resulted from increasing prices of basic commodities. mainly food. Squeezed from all sides, the poor looked to the government for support in their production and consumption activities. The government responded with credit, price supports, input subsidies, price controls, livelihood assistance, primary health care, housing, water, electricity, rural roads. But many of the very poor could not be reached by such programs and services because the poor were located in remote areas and in many cases the programs, in actual implementation, failed to focus on these groups. At the start of the 1980's, the severe budgetary constraints reduced the capacity of the government to maintain these programs and services thereby limiting wider coverage of the poor.

The general elements of public policy to improve the welfare of the poor must necessarily include those that directly bear upon the roots of their poverty: lack of ownership or control over productive assets, inappropriate technology, deteriorating resource base, lack of education and skills, lack of access to basic services, and the unfavorable incentive structure (prices and wages). The specific strategies, policies and programs to deal with each of these major concerns are well known, and in fact they have been implemented in varying degrees in the past. Perhaps what really needs to be stressed at this point is the need, in the design and implementation of such programs, for clearly defined target groups, careful moni-

toring of the coverage of the programs on these target groups, and systematic evaluation of the impact (including, and perhaps especially, the unintended consequences) and cost-effectiveness of such programs for future decisions regarding choice of alternative programs, or modification of design and implementation procedures of existing programs. Beyond such broad generalizations, it might be useful to consider a few short-term measures to improve the welfare of low-income families in the context of the overall economic recovery program.

Perhaps a more immediate step that public policy reform might take is to correct the distortions in the incentive structure that tend to be biased against the rural sector. At the macro level, this involves a review of various export taxes on major agricultural commodities; import taxes, sales taxes, and surcharges on imported agricultural inputs; price support for specific commodities, etc. In addition, at the micro-level, attention must be paid to programs that would tend to enlarge small producers' access to various product markets. For small farmers, programs might focus on better organization, better drying and storage facilities. and wider dispersion of government buying centers. For small fishermen, in addition to better organization, programs might focus on developing cold storage facilities and processing activities. A similar set of considerations might be made to enlarge small producers' access to modern technology and inputs, with attention to developing better organization among small producers to enable them to have greater access to credit, and to more focused extension services. Because local conditions vary, and because a more focused approach is essential, there is a need for a more decentralized responsibility for problem identification, program design and implementation, and evaluation.

The deterioration of the resource base due to indiscriminate logging and inappropriate farming practices in the uplands might be addressed directly through better enforcement of forestry laws and massive reforestation programs to absorb the currently large unemployed and underemployed in the rutal sector. In the low lands, deterioration of the resource base due to floods and siltation of irrigation systems might similarly be arrested by public works programs to absorb surplus rural labor. The deterioration of the resource base of artisanal fishermen could similarly be arrested by stricter enforcement of fishery laws (i.e. against dynamite fishing).

The lack of access to productive assets especially land, might be addressed quickly by programs utilizing idle lands.

Finally with respect to social services, attention might be paid to strengthening community-based programs to deliver health, nutrition, water/sanitation and family planning services to the poor in both urban and rural areas.

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