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# RURAL DEVELOPMENT COMMITTEE



*Special Series on Landlessness and Near-Landlessness*

## LANDLESS PEASANTS AND RURAL POVERTY IN SELECTED ASIAN COUNTRIES

by

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## PREFACE

This monograph was written as part of a comparative study of landlessness and near-landlessness in developing countries, under the auspices of the Rural Development Committee of the Cornell University Center for International Studies. The general analytical framework was developed by a working group composed of Milton J. Esman, Director of the Center for International Studies, Norman T. Uphoff, Chairman of the Rural Development Committee, Cheryl Lassen, Shubh Kumar, and John Roberts, as well as the authors. This analytical framework has not been published as a Rural Development Committee monograph entitled Landlessness and Near-Landlessness in Developing Countries by Milton J. Esman. Other monographs to be published in this series include the following: Jean Rosenberg and David Rosenberg, The Impact of Population Growth and the "Green Revolution" on Landlessness and Near-Landlessness in Indonesia and the Philippines; Cheryl Lassen, Landlessness and Near-Landlessness in Latin America; and Cheryl Lassen, Reaching the Assetless Poor: An Assessment of Projects and Strategies for Their Self-Reliant Development.

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## SUMMARY

In recent years, there has been a major shift in development objectives from maximizing economic growth and increasing GNP per capita to improving income distribution, reducing poverty, and meeting basic human needs. Many rural development programs reflecting these objectives have attempted to reduce rural poverty by improving the productivity and income of small farmers. This study argues that while small farmers in rural Asia are generally poor, they are not the only poor, nor even the most poor; that there are several other groups of rural workers who are even worse off than small farmers; that these groups are best characterized as landless and near-landless workers because they do not have adequate farming land or other remunerative employment to provide a subsistence; that these landless and near-landless workers comprise a majority of the rural labor force in many Asian countries; and that their numbers are increasing rapidly. By describing these landless and near-landless workers, this study attempts to provide both a better basis for identifying who the rural poor are and a better understanding of the causes of rural poverty in Asia. This in turn may also provide a better basis for policy recommendation for rural development.

## I. Introduction

### A. Objectives of the Study

In recent years, there has been a major shift in development objectives from maximizing economic growth and increasing GNP per capita to improving income distribution, reducing poverty, and meeting basic human needs. Many rural development programs reflecting these new objectives have attempted to reduce rural poverty by improving the productivity and income of small farmers. This study argues that while small farmers in rural Asia are generally poor, they are not the only poor, nor even the most poor; that there are several other groups of rural workers who are even worse off than small farmers; that these groups are best characterized as landless and near-landless workers because they do not have adequate farming land or other remunerative employment to provide a subsistence; that these landless and near-landless workers comprise a majority of the rural labor force in many Asian countries; and that their numbers are increasing rapidly. By describing these landless and near-landless workers, this study will attempt to provide both a better basis for identifying who the rural poor are and a better understanding of the causes of rural poverty in Asia. This in turn will provide a better basis for policy recommendation for rural development.

### B. The Relationship Between Rural Poverty and Landlessness

Poverty can be indicated by three factors: the level of income or expenditure over time, and extent of control over assets, and the degree of economic security. Ideally, all three of these criteria should be applied simultaneously and should be calculated for an individual and a household. In practice, however, there is seldom, if ever, sufficient data to use all three criteria simultaneously at either level of aggregation. In the absence of complete data, this study places major emphasis on the extent of control over assets, especially land, as the primary indicator of rural poverty.

The degree of control over land is emphasized here because it is a more useful explanatory factor than the level of income. It is already

widely used by rural Asians as an indicator of social status and wealth. It can also be used as an indicator of the structural change from traditional subsistence agriculture to modern commercial agriculture. It is also essential to an analysis of the causes of rural poverty. The recent increase in the numbers of the rural poor is largely due to the growing number of landless and near-landless workers. This increase is fueled by several processes: rapid population growth, inflation in the prices of agricultural inputs, and limited access of small farmers to these inputs. There are also long-term cultural and historical factors which influence how poverty is defined and related to landlessness, such as inheritance customs, colonial land policies, neo-colonial export policies, and the erosion of traditional patron-client relations.

Land is emphasized here because it is also the most important asset and the basic means of production in the agrarian economies of rural Asia. Hirashima, for example, estimates in his recent study of Pakistan Punjab that about 85 percent of a rural family's assets are in the form of land, with the remainder in the form of craft tools, draft animals, machinery, or retail capital.

Control over land, however, cannot be the exclusive criterion of rural poverty. In those Asian countries with private property systems, poverty is traceable to a lack of assets or valuable skills in combination with low wages or unemployment. While the landless or near-landless may comprise the majority of the rural poor, there may be others who are landless or near-landless but who possess other assets or skills or enterprises which provide them with an income above subsistence. Since our objective is to identify the rural poor, we will subtract this latter group from the analysis by using the criterion of income level and/or consumption level as a secondary indicator. Our general objective is to estimate the number of landless and near-landless workers who have no other assets or skills or enterprises to provide a subsistence income.

### C. Classification System

Classification inevitably involves some degree of reductionism and to that extent it ignores the specific cultural and historical circumstances which define and explain poverty in a particular case. Furthermore,

Classification System  
Landless and Near-Landless Rural Workers

A. Agricultural Workers:

Rural workers in agriculture, with no ownership or usufruct rights to land, who earn a livelihood from the proceeds of their own labor. Where the data permit, these may be further divided into permanent workers and temporary or seasonal workers.

B. Non-Agricultural Workers:

Self-employed and hired workers outside agriculture, with no ownership rights to land, who earn a livelihood from the proceeds of their own labor.

C. Tenant Farmers:

Rural workers with no ownership rights to land who farm land owned by others and pay rent in cash or in kind. Tenant farmers who can be shown to have secure access to adequate size and quality of landholdings should properly be excluded from this category as not being poor. The terms of secure access and adequate size and quality of landholdings are determined separately for each country.

D. Marginal Farmers:

Cultivators who own or who have customary tenure to small and marginal holdings which are of inadequate size or quality to provide subsistence livelihood and who therefore must seek income from other sources to subsist.

E. Others:

Pastoralists, nomads, squatters, scavengers, pensioners, rent receivers, and others who may be poor rural workers--to be specified for each country where appropriate.

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**Note:** For categories C and D, an operational definition is necessary to determine "inadequate size or quality of landholdings." This determination was made for each country on the basis of the minimum size holding necessary for subsistence under average cropping patterns. Government guidelines on the minimum size landholding necessary for subsistence, under different agronomic conditions and household sizes, were employed where available.

this classification is limited to poor landless and near-landless rural workers. No attempt is made here to differentiate the entire rural labor force, although this would be essential to a general analysis of structural change in agrarian society.

The categories listed below are designed to facilitate a cross-national comparison within South Asia and Southeast Asia and to suggest a basis for regional comparisons. The data available for individual countries, or for localities within countries, may permit a more differentiated classification. This classification should not be regarded as rigid, given the diversity of rural social structures. Our aim here is to present a simple but useful way to estimate the incidence of rural poverty primarily in terms of the extent of control over land.

Since the rural poor often devise complex strategies for allocating household labor and often have multiple occupations, we are concerned to avoid double-counting individuals or households. As previously noted, we will subtract from this enumeration those who are landless or near-landless but who also possess other assets, skills, or enterprises which provide them with an income above subsistence.

## II. Incidence of Landlessness and Near-Landlessness

Table I. Landless and Near-Landless Rural Households in Selected Asian Countries presents a summary of the information to be found in the five country studies in the appendices. The countries are Bangladesh, India, Indonesia (Java only), the Philippines, and Sri Lanka. The year of the estimates differs from country to country, although all are in the 1970's. In certain cases, however, the estimates have been extrapolated from earlier years. The procedures and sources for estimating landlessness for each country are explained in detail in the individual country studies. On the whole, these estimates may be regarded as cautious ones.

The estimates for landlessness and near-landlessness in the table vary from a low of 59 percent of rural households in India to a high of 84.7 percent in Java, with the other three countries around 75 percent. Hence, in most of South and Southeast Asia, a large number of rural people lack a secure access to a livelihood from land in a predominantly agricultural society. Rural development in these countries has been envisioned

Table I

LANDLESS AND NEAR-LANDLESS RURAL HOUSEHOLDS IN SELECTED ASIAN COUNTRIES

	Bangladesh (1977)		India (1971)		Indonesia (Java, 1971)		Philippines (1971)		Sri Lanka (1973)	
	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%
A. Agricultural Workers	628	5.3%	23,000	27.0%	3,850	41.0% <sup>1</sup>	501	11.3%	238 <sup>2</sup>	12.6% <sup>2</sup>
B. Non-Agricultural Workers	2,358	19.9%	13,900	16.0%			756	17.1%	751	39.8% <sup>3</sup>
C. Tenant Farmers	592	5.0%	3,000	3.0%	2,300	24.4%	480	10.8%		
D. Marginal Farmers	5,332	45.0%	11,000	13.0%	1,800	19.2%	1,312	29.6%	453	24.0%
E. Others	--	--	--	--	--	--	381	8.6%	--	--
Total Landless and Near-Landless Rural Households	8,910	75.2%	50,900	59.0%	7,950	84.7%	3,430	77.4%	1,440	76.4%
Total Rural Households	11,849	100.0%	86,000	100.0%	9,390	100.0%	4,434	100.0%	1,888	100.0%

Source: Rosenberg, David A. and Jean G. Rosenberg, Landless Peasants and Rural Poverty in Selected Asian Countries, Ithaca: Cornell University, Center for International Studies, Rural Development Monograph, 1978.

<sup>1</sup> includes agricultural and non-agricultural workers

<sup>2</sup> estate labor households only

<sup>3</sup> includes tenant farmers and home gardeners who also had agricultural or non-agricultural work

as essentially a problem of providing "small" farmers with modern technology and agricultural marketing systems. The data here, however, indicate that a majority of families in rural South and Southeast Asia are poor but are not small farmers. There is also considerable evidence that marginal farmers are very seldom able to benefit from "small farmer" programs, primarily due to the small size of their landholdings. The major variations in landlessness from country to country are noted below.

In Bangladesh, with an estimated 75.2 percent of rural households landless or near-landless, there is a significant amount of cultivation done by hired laborers. This labor force comes primarily from the large numbers of marginal farmer families and families with non-agricultural labor, rather than from a group of households who do only agricultural labor. In contrast, a particular aspect of the Indian rural situation is the large number of former "untouchables" or scheduled castes, who typically have no land or labor skills and must make a living as agricultural laborers. This kind of dire poverty is particularly difficult to ameliorate since scheduled caste members have long been the objects of prejudice.

The overall estimate for India is notably lower than those for the other countries. One reason for this may be that many programs have been tried in India to deal with rural poverty. Land reforms, tenancy reforms, reforms for scheduled castes and tribes, rural public works, rural craft development, as well as private movements like the Bhoodan and Gramdan movements, have been tried in many places. The lower estimates for India may be the result of some of these reforms. On the other hand, these estimates are based in part on projected trends from earlier data and may therefore understate the the degree of landlessness and near-landlessness in 1971. In the absence of further evaluation, it is difficult to provide a more precise estimate.

Landlessness and near-landlessness in Java have long been recognized as a problem, one clearly colonial in origin. The rural population density and the tiny size of farms are more extreme in Java than anywhere else in Asia, as reflected in the estimate here, which is the highest of all the five countries. Agricultural and non-agricultural workers could not be separated on the basis of the data available, and in fact many households pursue both agricultural and non-agricultural occupations in the struggle

to survive. Tenants are all included in one category here, whereas in practice, there are many forms of tenancy. In many cases, tenants share most of the characteristics of agricultural workers.

The Philippines has had a substantial increase in the land under cultivation as settlers have moved into new forests and up the mountains. Tenancy and landlessness are mostly concentrated in the older settlement areas, although land disputes are very common in the newer areas as well. Land and tenancy reforms are generally judged to have been ineffective, and wages for agricultural laborers have been declining. There are a surprisingly large number of rural households headed by women, which may in fact be true in other Asian countries as well. Small and medium farms, increasingly producing for the market, are most common in Philippine agriculture, but there are a growing number of plantations, in sugar, coconuts, pineapple.

Sri Lankan agriculture has a split personality, with large plantations worked by resident landless Indian Tamil workers, and many very small farms worked by Sri Lankan owners, tenants, and hired labor. Most Sri Lankan rural households own at least a small forest garden contributing toward their subsistence. In Table I, the agricultural workers are only estate workers. The non-estate landless agricultural workers (who are probably near-landless since they are likely to own a home garden), non-agricultural workers, and tenants are combined in the second category. The marginal farmers are very conservatively estimated. Hired labor for the non-estate sector is supplied by households many of whom have gardens, tenant plots, or small parcels of their own as well. There was no information available on how common complete landlessness is in the non-estate sector.

Landlessness is common in these five Asian countries. In India it is usually associated with the scheduled castes, though not restricted to them, of course. In Bangladesh, many households who claimed ownership of one quarter acre are suspected to be in fact landless. They appear in the large number of marginal farmers due to their claim. In Sri Lanka, many people own only small garden plots and are virtually landless. In Java, the numbers of landless are the largest of all.

There are a large number of households who derive a major part of their livelihood from non-agricultural pursuits, and many more who derive a significant part from them. In fact, in many cases, the division of households into agricultural or non-agricultural is rather arbitrary, since the family members have many different sources of income. The following two cases from the wet zone of Sri Lanka illustrate this.<sup>1</sup> One household with 13 members had seven sources of income: (1) operation of 0.4 acres of paddy land by the adults, (2) casual labor and road construction by the head and eldest son, (3) labor in a rubber sheet factory by the second son, (4) toddy tapping and jaggery making by the head and his wife, (5) seasonal migration to the dry zone as agricultural labor by the wife, eldest son and daughter, (6) mat weaving by the wife and daughter, and (7) carpentry and masonry work by the head and eldest son. Another household with 11 members had six sources of income, mostly agricultural: (1) home garden by the family, (2) a one acre highland plot operated by the wife, (3) labor on road construction on week days and on the plot on weekends by the head, (4) seasonal migration to the dry zone as agricultural labor by the daughter and son, (5) casual labor in a rice mill in the dry zone by the eldest son, and (6) casual agricultural labor in the village by the head and his wife.

The data indicate that tenancy is fairly common in all five countries, although it is relatively low in India and Bangladesh. However, Januzzi and Peach, the investigators who conducted the 1977 Land Tenure Survey in Bangladesh, state that tenancy there was consistently under-reported. Certain crops seem to lend themselves to tenancy arrangements, notably rice, but tenancy is also found on other staple crop and cash crop farms (corn, coconuts, sugar).

Marginal farmers, who we believe have been conservatively estimated here (except for Bangladesh where the figure contains an unknown number of actually landless people), range in percentage from 13 percent in India

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<sup>1</sup>Wickramasekara, P., "Aspects of the Hired Labour Situation in Rural Sri Lanka: Some Preliminary Findings," in S. Hirashima, ed., Hired Labor in Rural Asia, Tokyo, Institute of Developing Economies, 1977, pp. 77-78.

to 45 percent in Bangladesh. These, of course, are the households who have inadequate land to support their families and must find other work as well. They are the farmers least likely to benefit from agricultural development programs, even those aimed at "small farmers." They are the households most likely to become landless in the future.

### III. Causes and Trends

Landlessness and near-landlessness in rural South and Southeast Asia appears to be increasing. It is very difficult to establish a trend based on reliable numbers for the region or any one country, since that requires at least two sets of comparable and reliable data. It has been difficult enough to find one set of reliable data for each country studied, since the relevant questions have usually not been asked in the censuses and surveys done. Nevertheless, the evidence which exists, aggregate, case study and anecdotal, implies a trend of increasing landlessness.

For Bangladesh, Jannuzi and Peach, Alamgir, and A. R. Khan all note the increasing concentration of land ownership and the accompanying increase in landlessness. Khan notes that the percentage of landless agricultural laborers grew at the rate of 5-1/4 percent per year from 1951 to 1967-68, which is considerably faster than the population increase. The Gini concentration ratio for farm size increased from .49 to .56 from 1960 to 1974; this understates the concentration of landownership since many landlords own several farms. Finally, land sales have been examined for a few years, and it was found that land sales were made mostly by small farmers and purchases mostly by medium and large farmers. The small farmers are clearly becoming landless in that process.

The Indian evidence shows a large increase in the number of agricultural laborers in the 1960's. For the other countries there is some evidence, not very systematic, of similar trends toward landlessness. In particular, there is evidence that farms are becoming fragmented. This implies that over time many farms become so fragmented that the owners become effectively landless. In Sri Lanka, for example, some farms were so small, that a system called thattumaru was devised

whereby the heirs would rotate the right to cultivate the plot over the years rather than divide it further or sell the land.

While there are limited aggregate data on increases in the numbers and proportions of the landless and near-landless, there are many village studies which include this kind of information. For example, an IRRI report on one Philippine village adopting high yielding varieties points out that the proportion of landless laborers is growing.<sup>2</sup> In some villages studied in Comilla District in Bangladesh in 1974-75, 20 percent of the households were landless and 40 percent had some or all of their land mortgaged out. The report states that the cumulative impact of these mortgage transactions is to increase the gap between the richer and poorer peasants.<sup>3</sup> In other cases, peasants with mortgages become landless. In one village in central Thailand, about ten percent of cultivators were estimated to be unable to redeem their debts even after harvesting their crops. Khai Fak, or the mortgage of land as security, is typical in loan transactions; interests rates of 60 percent are common. Over a four year period in the above village, the percentage of families with farming as an occupation declined by eight percent.<sup>4</sup> This is an indication of increasing landlessness and concentration of land ownership.

Why has landlessness been increasing? One frequently-mentioned answer is that the increase in the rural population can explain the fragmentation of landholdings and the increase in landless workers. It should be pointed out here, in passing, that a high birth rate may well be a response to landlessness, as well as providing an increase in their numbers, since those who rely entirely on their labor for income can hope to increase family income by rearing more workers.

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<sup>2</sup>International Rice Research Institute, Research Highlights for 1977, Los Banos, 1978, p. 85.

<sup>3</sup>M. Ameerul Huq, Exploitation and the Rural Poor, Comilla, Bangladesh Academy for Rural Development, 1976.

<sup>4</sup>K. O. Janlekha, "A Study of the Economy of a Rice Growing Village in Central Thailand," Cornell University, Doctoral Dissertation, September, 1955.

The explanation by population increase, however, does not take into account the extensive changes going on in the rural economy and society. These changes are in response to market and technical opportunities as well as to population pressure. As the rural production system responds, the distribution system adjusts (and vice versa), the structure of rural society evolves, and the extent and causes of poverty changes. To outline the developments in the agricultural systems, the following differentiation by natural environment and by the degree and manner of integration into world and regional markets is useful.

In general, three ecological systems are identifiable: First, irrigated agriculture, in lowlands or on terraced hillsides, is traditionally monsoon-dominated, or seasonal. Rice is the usual irrigated crop, although other crops such as wheat and sugar are irrigated in some places. Where water is available from rivers, storage, or underground, irrigation systems can make two and even three crops of rice grow. Second, dry farming, i.e., unirrigated farming, is often, though not always, upland or hillside farming. Corn, wheat, root crops, tree crops, and vegetables all grow this way, and rice can also be grown dry. The rainfall required for a "dry" crop varies a great deal; for example, coconuts require quite a lot of moisture while maguey can get by with little. Land in dry farming is being switched to irrigated farming by leveling it and building water control mechanisms where water supplies exist. Third, forest farming and shifting cultivation consists of a plot in the forest, either permanent, such as "gardens" in Sri Lanka, or temporary, one to three years usually. A large variety of plants are grown in the plot, including some tree crops. These different ecological systems can exist in fairly close proximity, depending on the lay of the land.

The agricultural system can also be differentiated by the degree and manner of integration to the market. This varies from family farming for subsistence to large plantations worked by resident or even migrant labor. The subsistence plots are small and usually classified as owner cultivated, although the indigenous land tenure system may not correspond to capitalist notions of individual property rights in land. Tenancy is widespread in many variants, and while the tenants usually cultivate for subsistence

using their family labor, nowadays much of the share paid to the landlord probably makes its way to the market. There are certainly exceptions to this; for example in Java where the relations of people and land can be a complex method of sharing the work and the output. In India, however, high levels of tenancy are found in the villages which are integrated into regional markets and have relatively high outputs of cash crops.<sup>5</sup> These villages also have high levels of agricultural production by hired labor. This cultivation is also done on relatively small plots, although the landowner may own many of them, and is likely to be market oriented. Dasgupta's cross-sectional analysis indicates that as the produce is increasingly directed to the market, there is a decline in the number of owner-operated family-run subsistence farms and an increase in tenancy and in farms worked by hired labor.

A rather different mode of integration into markets, usually export markets, is the plantation. This is a large holding operated as one unit by hired labor. The labor may be permanent resident labor, as on Sri Lankan tea plantations, or have a large migrant element, as on Philippine sugar plantations. Sugar, coffee, tea, coconuts, and rubber are all grown on plantations. These export crops are also grown by small holders, as is jute, which is almost entirely a small holder crop. These small export-cropping farms frequently are operated by tenants, such as sugar or coconut farms in the Philippines, or jute farms in Bangladesh. Because they are small farms, it has often been assumed they were owner-operated. Bangladesh, for example, has often been described as a land of small owner-operated farms. This seems to be a significant distortion: tenancy is common and operation by hired labor is also; together these essentially market-oriented practices outnumber the owner-operated family-run farms.<sup>6</sup>

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<sup>5</sup> Biplab Dasgupta, Village Society and Labour Use, Delhi, Oxford University Press, 1977, Chapter 5.

<sup>6</sup> F. T. Jannuzi and J. T. Peach, Report on the Hierarchy of Interests in Land in Bangladesh, U.S. Agency for International Development, Washington, 1977.

The agriculture of South and Southeast Asia is becoming more market oriented as more crops are raised for export and regional markets. At the same time, dry farming areas are being converted to irrigated agriculture through all kinds of irrigation works, and forests are being converted to dry farming (frequently resulting in the loss of topsoil, decrease in water retention and an increase in flooding in the lowlands). The continuing integration into market production and the increased productivity of the land are raising the value of land.

In a hierarchical society, where economic, social, and political privileges are limited, we can expect that control over the increasingly valuable resource will tend to become more concentrated in the hands of the privileged. Thus, landholding is apparently getting more concentrated in the more hierarchical rural societies in South and Southeast Asia. Small landowners lose their land and become tenants, agricultural laborers, or have to find a livelihood off the land. Others lose only part of their land and become near-landless. This process, of course, is not new, but has been going on at least since the European colonial days when land was taken over for plantations and was taxed in various ways.

The methods by which small owners become tenants or landless are widely reported anecdotally. In a time of crisis, the economically weak are especially vulnerable to losing what they have. The crisis may be due to the weather or to war, as in Bangladesh in this decade, or may simply be a family crisis, as when money is needed for weddings, funerals, or sickness. The land is sold, or money is borrowed at extremely high rates of interest, and when it cannot be repaid, the moneylender takes over the land. The economically strong can also take more active measures to take over land. In the Philippines in the 1920's there were widespread reports of "land grabbing," when big landowners claimed the land of small cultivators who could not defend their title to it in court. The politically powerful can monopolize the sources of the new inputs, such as tube wells, irrigation water, credit, and fertilizer distribution. They can then direct the crucial inputs to themselves. Without access to productive inputs, small farmers remain vulnerable to crisis and chicanery.

No one knows the real extent of concentration of landholdings in South and Southeast Asian countries. Presumably the big landowners do not want the extent of their holdings to be known. Out of political deference plus the assumption that the truth will not be told, the relevant questions are usually not even asked when censuses or surveys are taken. It is therefore very difficult to find information on how the patterns of landholding are changing. However, we know that increases in the degree of integration with markets, population density on the land, irrigation facilities, agricultural technology, and government programs for agricultural development, all make land more valuable than ever before. We should assume that the patterns of landholding are changing too. Thus the mechanisms for distributing income and determining poverty are changing as well.

The increases in the numbers of the rural poor, the absolute decline in their levels of living in many places, and the increasing numbers of the landless are all evidence to support the contention of the increasing concentration of landownership. In this case, the phenomenon of rural poverty is changing, as families switch from being poor small farmers to even poorer tenants or agricultural laborers. Average incomes are rising in most Asian countries, while the incomes of the poorest 60 percent of the population, mostly rural, are constant or falling.<sup>7</sup> Many families are losing their access to income. The inadequate pace of creation of new jobs, agricultural and non-agricultural, has been exposed and explained, but it does not fully explain the fall in incomes of the former peasants. This requires a changing social structure, a change in the access to income, as experienced with the concentration of landownership and increasing landlessness.

#### IV. Conditions of Landlessness and Near-Landlessness

Studies on the incidence of poverty among different types of workers conducted in these five countries indicate that the landless workers and constrained cultivators have the highest proportion of extremely poor people. To determine the frequency of extreme poverty, the most common practice is to measure household expenditures along a scale of expenditures

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<sup>7</sup> Irma Adelman and C. T. Morris, Economic Growth and Social Equity in Developing Countries. Palo Alto, Stanford University Press, 1973. For information on specific areas, see Poverty and Landlessness in Rural Asia, Geneva, ILO, 1977.

necessary to meet "minimum requirements." Usually the minimum requirements are considered as the expenditures necessary to provide an adequate food intake. Estimates on the incidence of poverty based on income or expenditure data suggest that from 50 to 90 percent of the population in different countries of the region fall below poverty levels. India, Pakistan, and the Philippines fall in the middle with estimates of up to two-thirds of the rural population below the poverty level. Bangladesh and Indonesia have the highest incidence of poverty with some estimates suggesting that 90 percent of the rural population has insufficient incomes to purchase an adequate diet.

Trend data on poverty levels are not very reliable. Studies which take account of changes in commodity prices indicate that the proportion of the population below the poverty level is increasing, as in the case of India in the late 1960's. For Sri Lanka, Lee argues that the income data, even when corrected for consumer subsidies, show that the proportion of people below the minimum level may have increased and that income inequalities may have also increased. Furthermore, it is clear that the conditions of workers in the estate sector have been steadily deteriorating. Lee estimated that the average earnings per day of male workers on tea plantations in 1973 were 6.5 percent lower than in 1963 even without discounting the effect of inflation.<sup>8</sup> Since most of the Tamil estate labor do not have Sri Lankan citizenship, they are not eligible for the government's welfare programs. According to Fernando, "Even today (based on the 1969-70 socio-economic survey), about 40 percent of the estate population is illiterate, whereas the corresponding rate for the whole island is about 20 percent."<sup>9</sup> With the break-up of estates under current land reform legislation and their opening up to the surplus labor force from the surrounding Sinhalese peasant sector, the unemployment problem for Tamil laborers is likely to increase.

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<sup>8</sup>E. L. H. Lee, "Rural Poverty in Sri Lanka, 1963-1973," in Poverty and Landlessness in Rural Asia, Geneva, ILO, 1977.

<sup>9</sup>Nimal Fernando, "Land Reform in Plantation Agriculture: An Analysis of the Case of Sri Lanka with Special Reference to Tea Plantations," paper presented at the Sixth Wisconsin Conference on South Asia, University of Wisconsin, Madison, November, 1977.

Since the landless and near-landless workers depend on wages for all or part of their incomes, trends in real wage rates provide another indication of changes in their conditions. The evidence suggests that real wages have been declining in almost all rural areas. In some areas, effective wage bargaining by organized agricultural labor unions or patterns of labor use, such as the tebasan system in Indonesia or contract labor in Malaysia, may operate to insulate wages and sometimes employment of some workers from the general declining trend. Instances of agricultural labor organizations that succeed in increasing real wages for workers are documented in several parts of India, for example, in Kerala State, and in some selected districts in Tamil Nadu, Andhra Pradesh and West Bengal. In each of these cases, however, either cultivators have (1) reduced the use of wage labor by performing more tasks themselves, or by employing more permanent laborers, thereby circumventing a dependence on casual labor and their demands, or (2) increasingly sought to obtain share-cropping laborers who often accept meager returns to their labor for the security of such arrangements. It is likely that labor organizations may be more effective in maintaining returns to labor if they have some guarantee of subsistence levels. However, in the long run, they may shift capital/labor ratios and investment patterns so as to reduce employment. The long run effects of labor organizations that would be beneficial for the poor would be broader distribution of public welfare budgets resulting from their effective political representation, such as those achieved in Sri Lanka and, to a lesser extent, in Kerala State, India.

Because of economic and institutional constraints, the poor usually have the lowest levels of health and nutrition. Rural areas, where most of the poor live, generally have lower standards of public health facilities. Part of the problem lies in the provision of public health services in the more remote rural areas. Even in China, in 1975, after more than a decade of emphasis on rural health, the crude death rate in rural areas was about 15 per 1000, more than twice the urban rate of 6 per 1000.<sup>10</sup> The same difference was also present in China's rural and urban infant mortality rates (both of which however, are exceptionally low by Asian standards, indicating the success of their general health strategy.) In India, which has a health strategy very different from China's similar rural-urban differences in mortality statistics are present.

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<sup>10</sup> Ben Stavis, "Famines in China," unpublished manuscript, 1977.

Within rural areas, the landless have relatively poorer levels of health and nutrition. In India, a longitudinal study in Khanna district of Punjab during the 1960's indicated that women from landless labor households lose about twice as many children during their lifetimes as do women from landowning classes.<sup>11</sup> Results of a national survey conducted in India in 1971 also indicate that by the age of 45-49 years of age, women from landless households lose 50 percent more children than women from landed households.<sup>12</sup> For those children who survive, the problem of malnutrition is also relatively greater among the landless. Levinson found the incidence of both severe and moderate malnutrition to be about twice as high among the landless Ramdasias compared to the landowning Jat caste households.<sup>13</sup> Similar differences in health status are likely to exist in the other countries as well, with the landless having not only the poorest health and sanitary conditions, but also housing, education, and access to public services.

Obtaining a livelihood for minimum subsistence is the predominant concern for most people living in developing countries. For the landless, for whom returns to labor are the primary or only means of subsistence, generally every member of the household capable of working is contributing towards the household's livelihood. Migrant labor has been increasing with landlessness. Migrations occur not only as an attempt to avoid prolonged unemployment, but also as an attempt to gain access to diverse sectors of the economy. Patterns of seasonal migration, whether from high-density areas, such as the Sri Lankan wet zone and Chao Phraya delta area of Thailand, or from sparsely inhabited areas, such as Rajasthan in India or the Thai northwest, indicate acute economic distress due to unemployment in the place of origin. With declining wages and greater competition for existing employment, more constrained farmers from

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<sup>11</sup> J. B. Wyon and J. E. Gordon, The Khanna Study: Population Problems in Rural Punjab, Cambridge, Massachusetts, Harvard University Press, 1971.

<sup>12</sup> M. T. R. Sarma, "The Economic Value of Children in Rural India," Yale University, Economic Growth Center, Discussion Paper No. 272, November, 1977.

<sup>13</sup> F. J. Levinson, Morinda: An Economic Analysis of Malnutrition Among Children in Rural India, Harvard-M.I.T. International Nutrition Policy Series, 1974.

Bangladesh and Central Thailand give precedence to migrant wage labor, often leading to suboptimal yields on their own lands. Apart from the effect on production, there are other negative effects of these migrations on the participation rates of women and children, and on family disruptions and desertions.

Migrant rural workers tend to provide a cheaper, more willing and steady source of employment than local, casual laborers, with the unfortunate consequence of an increase in unemployment for local workers. Some militant agricultural labor unions, as in Kerala State, India, actively prevent the movement of migrant workers into their areas in an attempt to maintain their own wages and employment. The effect of migrant workers is to dampen the demand for higher wages during agricultural intensification, as was observed in Punjab.

In many places, landlessness is associated with membership in a group which is discriminated against. Scheduled castes and tribes in India are more likely to be landless than other castes. Most estate workers in Sri Lanka are Indian Tamils, not citizens. This ascriptive status may further limit their access to education and other social services. In Sri Lanka, plantation children are less likely to have schooling. Reportedly there are some estates where the rice rations are not distributed, apparently due to the neglect of the estate administrators. In many areas of India, the scheduled caste children do not attend the village school. Cases of discrimination can probably be thought of for every country in the world. When combined with landlessness, the effect, of course, is to worsen the discrimination due to poverty.

#### V. Government Policies

The structure of rural society and conditions of poverty have been affected by government policies in all the countries considered here. All five governments have given some recognition to the severe problems of landlessness and near-landlessness that exist; all have announced or undertaken programs to alleviate them. Unfortunately, all but one of these programs have had negligible impact everywhere, the major possible exception being in India where the effects of many policies and programs remain unevaluated. Other policies to promote development have actually spurred the concentration of land ownership and landlessness or restrained employment growth.

Land reform legislation has been passed, as has tenancy reform legislation, in one form or another in many places. However, nowhere in South or Southeast Asia, with the exception of the state of Kerala, has it been enforced adequately so as to have any more than a negligible impact on the landless, tenants, or marginal farmers. Some land has been redistributed in India, for example, but the numbers of tenants and laborers are so large that it has not affected the problem. Tenancy reforms seem basically to be unenforced everywhere, with their main effect being the increased insecurity of existing tenants. The landlords are unwilling to let tenants attain any sort of claim on their land, and therefore they tend to evict tenants periodically or convert their tenancies into farms worked by hired labor. In India, however, there are some tenants with fairly sizable rented farms; they are likely to be able to claim effectively this protection of the tenancy reform laws. (They have been excluded for that reason from the estimates of the landless and near-landless in India).

Programs for the colonization of new lands have also usually had a negligible impact on the landless, since these projects are usually so expensive per family that they could not be extensive enough. Settlement on the private initiative of families has certainly relocated far more people. In the Philippines for example, extensive pioneering in Mindanao, the Cagayan Valley, the Eastern Visayas and elsewhere has gone on in this century. While not formal programs, these settlements have been either promoted or at the very least recognized to some degree once the population has grown enough to be worth controlling. In all these countries, new sources of maintainable land on a frontier have almost disappeared; the Sri Lankan dry zone may be the only exception. Elsewhere, land settlement has already extended into areas which are environmentally too fragile to maintain farming.

Land reclamation or improvement, mainly through irrigation projects, has been pursued in all these countries, either in conjunction with settlement schemes, as in Sri Lanka, or in areas formerly under dry farming or rain fed paddy. In settlement areas, land is usually given to the landless settlers. In Sri Lanka, the dry zone settlement program has been carried out on a large scale and has affected the land pressure, even if only marginally. It has also been very expensive. Where irrigation projects

are introduced to cultivated land, without any effective land reform, the numbers of landless do not decline. Some marginal farmers may become more secure as their land increases in productivity, but those with very little land may well become less secure as their costs rise. As commercialization of agriculture becomes more common, land is likely to become more concentrated, and marginal farmers are likely to become landless.

Land reform could of course be effective in alleviating the problem of landlessness and near-landlessness. All governments in South and Southeast Asia proclaim the need for land reform as a means to reduce rural poverty and inequity. However, few governments have been able to implement redistributive land reform programs over the objections of landed elites. In the five countries studied, land reform has been largely ineffective. In the Philippines, the program has had greater success in breaking up large absentee-owner holdings than in providing land ownership to tenant tillers. Only four percent of all eligible tenants on rice and corn lands have benefited so far. Land reform in Kerala state in India has turned tenants into owners. Land reform agencies have taken over some land which exceeds the ceiling on ownership in India, Bangladesh, and the Philippines. Its redistribution has been slow, and has only affected a tiny percentage of the landless. The land ceilings are too easy to evade to be effective.

Even if land reforms were fully implemented, they could not come near eliminating landlessness. There just is not enough land for the 50 to 85 percent of the rural households who are landless or near-landless. This is no reason to abandon land reform as a policy, however, since it can significantly alleviate the problem. It should include a program to eliminate the pressures which lead to the increased concentration of land, such as inadequacy of the size of the farm, usurious interest rates, and neglect of the smallest farmers by the development programs.

Government programs to promote employment for the rural poor consist usually of rural public works programs, which are helpful but do not meet the scale of the problem. In India, craft promotion projects remain unevaluated but potentially effective. The greatest effect on employment of government policies has been negative: the subsidies of capital which have reduced demand for labor, and subsidies for import substitution which have competed with craft production.

Minimum wage laws either do not apply to agriculture or are unenforced. In any locality where they might be enforced, they would succeed in depressing the demand for labor, to the extent that they exceed the market wage rate.

Policies for agricultural development have had mixed effects on the landless and near-landless. In some cases, marginal farmers have become landless, while in others, more labor has been required by agricultural intensification programs. On the whole, agricultural intensification programs have been directed toward the large farmer and the small farmer (i.e., those who control at least enough land to support a household and provide at least some marketable surplus). Marginal farmers, however, are not often reached by the credit, extension workers, or even by the water from irrigation pumps which are monopolized by the larger land-owners.<sup>14</sup> The commercialization of agriculture in a hierarchical society is accompanied by an increase in the concentration of land. This only increases the number of the landless and marginal farmers. The intensification of production causes an increase in the number of man-days worked overall, unless mechanization eliminates the jobs. Employment is probably increased, therefore. This is the cautious judgment for Sri Lanka and Tamil Nadu in India.<sup>15</sup> In Java, however, overall employment has decreased due to the break down of the traditional obligation to provide employment. Agricultural intensification as it has been promoted in the last few decades has increased production and incomes for the "small" and large farmers, but has at the same time caused a reorganization of the rural social structures toward increased land concentration, landlessness, and contract labor gangs.

The overall impact of government policies in these five Asian countries has probably been unwittingly to contribute to the problem of landlessness and near-landlessness. Policies have not had a significant impact on decreasing their numbers. By promoting the commercialization of agriculture without effectively counteracting the hierarchical forces in rural society, government policies have contributed to the increase in the concentration of land ownership and thus to landlessness.

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<sup>14</sup>James K. Boyce and Betsy Hartmann, "A Tubewell for the Village Landlord," Food Monitor, May/June, 1978, pp. 6-8.

<sup>15</sup>B. Nanjamma Chinnappa and W. P. T. Silva, "Impact of the Cultivation of High-Yielding Varieties of Paddy on Employment and Income," in B. H. Farmer, Green Revolution? Technology and Change in Rice-Growing Areas of Tamil Nadu and Sri Lanka, Boulder, Westview Press, 1977, pp. 204-224.

## VI. Research Needs

Basic information on the landless and near-landless is needed in order to assess the scope and nature of the problem of rural poverty. Data on asset distribution, occupational distribution, and income distribution need to be cross-classified. Most present methods of data collection and reporting, especially those dealing with asset and occupational distribution, either represent the landless as a residual, often not even included, or are quite useless in documenting the variety of occupational arrangements that exist. Censuses need to record assets, occupations, and incomes by the functional unit of the household, not only by individuals. Sample surveys should recognize the diversity of employment of income earners, especially in low income households. Information on labor allocation by the household would provide better insight into questions of labor supply and economic conditions than aggregate estimates of labor force participation.

Basic data collection on the distribution of land should include a category for landholdings that are mortgaged. Functionally, these owners may be no more than sharecroppers or even may have lost the right to cultivate the land, without any legal transfer of ownership. Technically, they are owners, but in reality they are poorer and in danger of becoming landless. A separate category for mortgages would reveal the structural changes taking place.

In all these countries, the manner of reporting non-agricultural occupations is becoming very important in order to understand the process of rural development. It may be that the ownership of non-land rural assets is becoming more concentrated also, or some other process may be at work. Information on the level and kind of assets is necessary to understand rural poverty and development.

The processes that lead to increasing impoverishment and landlessness need study, particularly the forces and mechanisms behind the loss of land, such as indebtedness and unequal access to resources and inputs for agricultural intensification. Much of the evidence on this process is only anecdotal at this point. The relative importance of population growth and of land concentration in the increase of landlessness needs to be assessed. Does the shift from landed to landless actually tend to

raise the birth rate, thus aggravating the problem? There are some areas where land concentration is not occurring as agriculture commercializes. What are the circumstances there? What makes traditional patron-client relationship break down? Are the landless and near-landless then brought into new alliances? What are the social, economic, and political organizations that exist among the landless which could, if strengthened, provide them with greater access to the benefits of development programs?

The effects of specific public policy measures on different landless and near-landless groups need to be evaluated. Technological change occurs in agriculture under various institutional and ecological conditions, and the differences in its effects need to be understood. To date, much of the information on this question comes from India, with little comparative analysis. Furthermore, the emphasis in this information is on the effects of farm size on adoption and on employment of labor treated as a homogeneous entity. There is little study of how different categories of laborers are affected or created: migrant workers, local casual labor, attached labor, landless laborers, near-landless laborers, women workers. The linkages of technological change in agriculture to off-farm employment and the skills needed there should be assessed. Policy measures should be evaluated on their effects on (a) economic conditions for the different categories of the landless and near-landless, and (b) the patterns of land ownership and income distribution. More thought and evaluation need to go into programs to develop non-agricultural production and employment in rural areas. Attention especially needs to be paid to how to raise productivity in low-capital family business.

## VII. Conclusions

Landlessness and near-landlessness are pervasive in many countries in rural Asia. As land becomes more productive, as crops are directed more toward markets, and as population density increases, the value of land rises. Under these circumstances, the poorest peasants are losing their land to the relatively better off. A profound reorganization of the rural social structure is going on as land ownership becomes more concentrated, and as more and more families lose the status of owning their own land and tools, and become landless workers. This seems to

be one cause of the falling real incomes of the poorest half of the populations, which has been widely observed in Asia.

If the trend of falling incomes and increasing landlessness is to be reversed, governments must intervene with newly thought out and powerful policies. It would be insufficient and also hypocritical to pursue an employment promoting strategy while allowing the concentration of land ownership to intensify, thus creating more of the dispossessed. To deal with the large proportions of the landless and those vulnerable to becoming landless requires a strategy of both redistributing existing assets and the creation of new assets. A comprehensive redistributive land reform is necessary but not sufficient. An agricultural development policy directed specifically at marginal farmers is necessary but not sufficient. Some mechanisms to counteract the forces promoting land concentration are necessary to stop the process of increasing landlessness.

The creation of new assets outside of agriculture will be necessary to provide a livelihood for millions of Asians. Non-agricultural occupations are common in rural areas but very little is known about this sector of the rural economy. It is essential to be wary of a similar process of concentration of ownership of assets which may be going on in this sector. A development program oriented toward small businesses and self-employment will have a greater impact on the welfare of the landless than a scheme for promoting large businesses, since small businesses typically are more labor intensive and the ownership of income producing assets would be more widely spread. Some non-agricultural resources can be directly created by government programs, such as forests, fisheries, electric power facilities, and labor skills.

The impoverishment of some sectors of the population when overall income levels are rising can only take place when those poorest groups have no organization and power to defend their share and to claim part of the benefits. Probably a reverse in the trend toward landlessness will require an increase in the participation of the poorest in the political processes that determine the institutions of economic distribution.

To make rural areas in Asia into productive viable communities where people's needs are met, the needs must be clearly seen and strategies devised to reorganize the communities. International policies have a role here as well as national policies. Foreign assistance, for example, may play an

important role in the recognition of needs and in devising strategies. The impact of private foreign investment and trade should also be reviewed. If the behavior of foreign corporations carries consequences for those foreign nations, international policy can have a role in controlling their behavior. We already recognize the propriety of controlling bribery and racist practices by corporations operating abroad. Other problem-creating actions could be controlled as well. The main responsibility for controlling the actions of foreign companies must be taken by the national governments, however. They must review the licensing of agricultural machinery imports or manufacture. They must decide which new factories will drive too many local craftspeople out of business. They must control the sale of goods which are widely detrimental to nutrition and health. Clearly, there are several factors which contribute to the powerful trend toward the concentration of assets and income in rural Asia. Reversing this trend will surely require powerful policies.

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APPENDIX A: THE LANDLESS AND NEAR-LANDLESS IN BANGLADESH

I. Introduction

Bangladesh is an overwhelmingly rural country, with a very low level of resources per capita. In 1975, it had an estimated population of 75 million, with 91 percent of the people living in rural areas. The density is very high, with 1365 persons per square mile, and 2797 persons per cultivated square mile. There are 0.3 acres of cultivated land per rural person. Estimates of the population growth rate vary from 2.7 percent to 3.5 percent per annum. Of its estimated labor force of 26.3 million in 1973, 85 percent were in the rural areas. About 84 percent of the rural labor force work in agriculture, although many of them have other occupations as well. About 75 percent of all rural households are landless or near-landless. This estimate is summarized in Table 1 and analyzed in the following section.

II. Incidence of Landlessness

Laborers

According to the Land Occupancy Survey (LOS) of Bangladesh conducted in 1977, 33 percent of the estimated 11,849,000 households residing in rural areas owned no land under cultivation. About 11 percent did not own even homestead land. This estimate includes landless tenants who, according to the LOS, comprise about five percent of all rural households. (Many small owners also rent in land as tenants). Subtracting this category of landlessness, an estimate of 26 percent of all rural households were entirely dependent on wage and entrepreneurial labor for their income.<sup>1</sup> In a report on the LOS, Jannuzi and Peach give a figure of 48 percent of rural households as functionally landless, because they include the 15 percent of households who claimed ownership of less than one-half acre. Many of these respondents were actually landless, but were unwilling to acknowledge their landlessness.<sup>2</sup>

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<sup>1</sup>LOS, 1977.

<sup>2</sup>Jannuzi and Peach, 1977, pp. 39-41.

TABLE 1LANDLESS AND NEAR-LANDLESS RURAL HOUSEHOLDS IN BANGLADESH, 1977

	Number of Rural Households (000's)	% of All Rural Households
A. Agricultural Workers <sup>1</sup>	628	5.3
B. Non-Agricultural Workers <sup>2</sup>	2,358	19.9
C. Tenant Farmers <sup>3</sup>	592	5.0
D. Constrained Owner-Cultivators <sup>4</sup>	<u>5,332</u>	<u>45.0</u>
<u>Total Landless and Near-Landless Rural Households</u>	<u>8,910</u>	<u>75.2</u>
<u>Total Rural Households</u>	<u>11,849</u>	<u>100.0</u>

Sources:

<sup>1</sup>Land Occupancy Survey of Rural Bangladesh, 1977, Summary Report,  
Bangladesh Bureau of Statistics, Dacca, 1977.

<sup>2</sup>Abdullah, A. et al., "Agrarian Structure and the IDRP-Preliminary  
Considerations," The Bangladesh Development Studies, Volume IV (2),  
April, 1976.

Footnotes:

<sup>1</sup>This figure was derived by multiplying 16.1 percent (the percent of heads of landless households with agricultural labor as their primary occupation, see Table 2) times 33 percent (the percentage of all rural households which are landless).

<sup>2</sup>This figure represents 28 percent (the study estimate of the percentage of all rural households who were dependent only on wage labor or entrepreneurial activity for their entire income--see the text) minus 2.8 percent (the study estimate of the proportion of landless households with adequate non-land assets or jobs which provide an income over subsistence) minus 5.3 percent (the figure given for agricultural workers in the table) equals 19.9 percent.

<sup>3</sup>Due to the small average size of tenant plots, the insecurity of tenancy, and the high incidence of subletting, we have placed all the tenant households in this category.

<sup>4</sup>This figure includes all the owners and owner-cum-tenants with less than two acres, which is considered to be inadequate for subsistence due to small size, poor quality, suboptimal cropping, rent payments, or high interest payments on debt.

The figures from a much more limited survey done by the Bangladesh Institute of Development Studies (BIDS) in 1974 on eight villages roughly confirm the picture from the LOS.<sup>3</sup> The BIDS survey showed 63.4 percent of rural households as farmers, including 4.12 percent tenants. The other 36.6 percent were wage earners (18.8 percent), in trade, business, and transportation work (8 percent), salary earners (8.55 percent), or others (1.21 percent). Apparently some of the non-cultivator households were landowners, since Alamgir gives the figure of 33.48 percent as the percentage of landless households from this BIDS survey.<sup>4</sup>

Occupational distributions for the landless were reported by Abdullah et al.<sup>5</sup> and by the Integrated Rural Development Program (IRDP) survey of 1973-74 in 12 districts.<sup>6</sup> According to them, only 16 percent of the landless households had agricultural labor as a primary source of employment, while 36 percent had non-agricultural wage labor as the main occupation. However, about half of the non-agricultural laborers also have agricultural work, presumably during peak agricultural employment periods. Similarly, practically all the agricultural laborers have non-agricultural employment as a subsidiary occupation, presumably during slack agricultural periods. According to Abdullah et al., roughly one half of the agricultural laborers could have been attached to a single employer for part of the year. The rest would be casual laborers, finding employment on a daily basis. The 1974 BIDS survey indicates that landless laborers and small farmers (those with less than 2.5 acres) constitute 95 percent of the total working adults hiring themselves out as wage laborers. The majority of households which hired labor were farmers with over 7.5 acres of land.

The following table gives some idea of the diversity of employment sources for the landless. Ninety-five percent of the household heads had subsidiary occupations.

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<sup>3</sup>Salimullah and Islam, p. 270.

<sup>4</sup>Alamgir, 1976, p. 138.

<sup>5</sup>Abdullah, et al., 1976.

<sup>6</sup>Abdullah, et al., 1974.

TABLE 2

MAIN AND SUBSIDIARY OCCUPATIONS OF HEADS OF LANDLESS HOUSEHOLDS  
SUBSAMPLE OF THE INTEGRATED RURAL DEVELOPMENT PROGRAM SURVEY

<u>Occupation</u>	<u>Main (% of Households)</u>	<u>Subsidiary</u>
Agricultural labor	16.1	37.2
Non-agricultural labor	36.2	48.5
Business	12.4	5.6
Fishing	12.1	0.8
Service	7.7	-
Weaving	3.4	-
Begging	2.7	.3
Other, including sharecropping	9.1	7.7

Source:

Abdullah, A., M. Hassain, and R. Nations, "Agrarian Structure and the IRDP-Preliminary Considerations," The Bangladesh Development Studies, Volume IV (2), April, 1976.

Cultivators

a) Tenants and Sharecroppers. According to the LOS, 559,500 households were landless tenants, or roughly five percent of all rural households, and seven percent of all farmers. On the average each of these households cultivated about 1 1/2 acres, which is somewhat more than owner-cultivators, but less than owner-managers, who hire labor, or owner-cum-tenants. In their report on this survey, Jannuzi and Peach (1977) suggest that the degree of tenancy was underreported. Landowners and tenants underreported this for different reasons. A high incidence of subletting rented land is also reported by these authors.<sup>7</sup> This practice in effect is likely to reduce sharply the share of output for the actual tenant-cultivator.

Cultivation rights for most tenants and sharecroppers are insecure, and a rapid turnover usually occurs on the land tilled by these people. The LOS found that slightly more than 70 percent of all tenant households

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<sup>7</sup>Jannuzi and Peach, 1977, p. 29.

had cultivated their rented lands for a period of three years or less.<sup>8</sup> A similar observation was made by Zaman, on data from the late 1960's, who attributed it to the 1950 Tenancy Act, according to which tenants can claim de jure rights to land they have tilled for more than three years.<sup>9</sup>

b) Constrained Farmers. According to the LOS figures, about 29 percent of rural households in Bangladesh own cultivable land that was less than one acre, and an additional 16 percent own between one and two acres. A. R. Khan suggests two acres as barely adequate for a family. This is probably a conservative estimate due to the small size of land allowed, variations in quality and cropping patterns, rent payments by those who rent in part of their land, debt repayment with high interest rates, low prices when farmers sell their crop forward, and so forth.

Thirty-two percent of owners manage to increase the amount of land they are working by renting in some additional land; they are owner-cum-tenants. The average size of the holding they worked in 1977, according to the LOS, was three acres, with 1 1/3 acres rented in on average. At a sharecropping rate of 50 percent, this is equivalent to an average size of 2 1/3 acres of owned land. (Only 1.26 percent of all those who reported paying shares paid less than 50 percent of the crop in kind or cash). In fact, 58 percent of all those who rented land rented less than one acre, and only 10 percent rented more than three acres. Thus, some part of the 32 percent of owners who rent additional land are included in the farmers with less than two acre holdings, and some others should be since their holdings come to an owned equivalent of less than two acres. It is impossible from the data available to estimate what this latter number would be. They are therefore not included in the figure for constrained cultivators, which is another reason that this is a conservative figure.

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<sup>8</sup>Ibid., p. 43.

<sup>9</sup>Zaman, 1973.

Table 3 shows the average size of holding for each type of cultivator. Owner-cultivators cultivate their own land with family labor only. Owner-managers cultivate their own land with both family and hired labor. Owner-cum-tenants own some land and also rent in some land. Tenants cultivate only rented land.

TABLE 3  
PERCENT AND AVERAGE SIZE OF CULTIVATOR HOUSEHOLDS

	<u>% Households</u>	<u>Average Area Owned</u>	<u>Average Area Rented In</u>
Owner-cultivator	24	1.03	
Owner-manager	37	2.73	
Owner-cum-tenant	32	1.67	1.33
Tenant	<u>7</u>		1.48
	100		

Source:

Summary Report of the 1977 Land Occupancy Survey of Rural Bangladesh.

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### III. Trends

Jannuzi and Peach, in a report based on their experience with the LOS, give their impressions of the changes taking place in the agrarian structure of Bangladesh. They perceive:

- "a) the further concentration of land in the hands of a few landholders;
- b) the weakening of the sharecropping institution (with sharecroppers being progressively lowered); and
- c) the rapid growth in the number of landless and near-landless peasants."<sup>10</sup> Alamgir, Abdullah *et al.*, and A. R. Khan basically agree with this assessment of the past and future trend.

Table 4 shows an increase in the number of landless agricultural workers over time. As A. R. Khan points out, the annual growth rate in their absolute number from 1951 to 1967-68 is 5 1/4 percent, which cannot be due to population increase alone.

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<sup>10</sup>Jannuzi and Peach, 1977, p. 72.

TABLE 4LANDLESS AGRICULTURAL LABORERS OVER TIME

	<u>Landless Agricultural Laborers as % of All Cultivators</u>	<u>Number (000)</u>
1951	14.3	1.51
1961	17.5	2.47
1963-64	17.8	2.71
1964-65	17.5	2.75
1967-68	19.8	3.40
1974	21.4	

Source:

A. R. Khan, 1977, p. 155 and M. Alamgir, 1976, p. 139

Tenancy appears to have increased in Bangladesh. According to the 1960 census, 18 percent of the farm area was rented. In 1974, the BIDS survey indicates 25 percent of the farm area was rented, while the LOS of 1977 indicates 23 percent of the farm area was rented. The percentage of farmers who rented some or all of their land was the same in 1960 and 1977, at 39 percent, but the percentage who owned no land and were only tenants had increased from two percent to seven percent over that period. Jannuzi and Peach are sure that tenancy was underreported in the LOS, but they also suggest that at present tenancy may be on the decline as owners switch to cultivating their land with hired labor.<sup>11</sup> In 1960, owner-cum-tenant farms averaged 4.3 acres, larger than the average owner farm or tenant farm, which averaged only 2.4 acres. By 1977, the owner-cum-tenant farms, still the largest, were down to an average of 3.00 acres, while the tenant farms were still the smallest at 1.48 acres.

The average size of farm has been shrinking in Bangladesh for some time. By 1977 it was only 2.3 acres. Table 5 shows the changes.

The percentage of area in the small and middle-sized farms has been increasing while that in the largest farms has been decreasing, as shown in Table 6. The decrease in the percentage of area in the farms over 7.5

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<sup>11</sup>Ibid., pp. 6-7.

TABLE 5

AVERAGE SIZE OF FARM IN BANGLADESH (ACRES)

	<u>1960</u>	<u>1968</u>	<u>1974</u>	<u>1977</u>
Owner	3.1	2.7	2.3	2.03
Owner c/ tenant	4.3	4.0	4.1	3.00
Tenant	2.4	3.0	2.4	1.48
All	3.5	3.2	2.8	2.30

Sources:

M. Alamgir, 1976, p. 52; LOS (1977).

TABLE 6

THE PERCENTAGE OF FARM AREA BY SIZE OF FARM

	<u>1960</u>	<u>1968</u>	<u>1974</u>	<u>Change 1960-74</u>
Less than 0.5	1	1	2	+1
0.5 - 1.0	2	3	3	+1
1.0 - 2.5	13	17	19	+6
2.5 - 5.0	26	30	34	+8
5.0 - 7.5	19	18	19	0
7.5 - 12.5	19	15	13	-6
12.5 plus	20	16	11	-9

Sources:

M. Alamgir, 1975, p. 268.

acres can be explained by subdivision and perhaps the increase in renting out to tenants. The increase in the area in small farms is probably explained by fragmentation and land sales, moving farms out of the larger categories and into the smallest ones. The increase in area in the medium sized farms is probably due to the break up of the largest farms and purchase of land from the smallest farms.

These shifts in farm size are consistent with the increase in the concentration of operational farm holdings. The share of the total farm area in the smallest 60 percent of farms decreased from 25 percent in 1960 to about 19 percent in 1974. The share of the top 10 percent increased from 36 percent in 1960 to 38 percent in 1974. The Gini concentration ratio changed from .49 to .56 over those years.<sup>12</sup> These figures understate the

<sup>12</sup>Alamgir, 1975, p. 268.

concentration of land ownership, of course, since they are based on operating holdings, which include rented land, not on land ownership.

The shifts in farm size are effected partly by land sales. Land sales are made primarily by the small farmers, while purchases are made by medium and large farmers. The 1974 BIDS survey found that for the period 1972 to 1974, farmers with small farms (less than 2 1/2 acres) sold 46.4 percent of the total land sold, medium farmers (2 1/2 to 7 1/2 acres) sold 24.2 percent of the land, and large farmers (over 7 1/2 acres) sold only 11.5 percent of the land sold. The buyers, however, were largely medium and large farmers. Farmers with less than one acre of land bought only 7.9 percent of the land sold, those with one to two acres bought 23.5 percent. Farmers with two to five acres bought 32.4 percent of the land sold and those with over five acres bought 36.3 percent.<sup>13</sup> Another survey of land sales showed also that land sales were alienating land from the smallest farms. The farmers selling land were categorized according to the size of their farm and an average percentage of their land sold, for 1969-70 and 1970-72. The smallest farm group sold over half their land, while the largest farmers sold a negligible amount, as shown in Table 7. No records were taken on who purchased the land in this survey. It is clear, however, how land sales contribute to the concentration of land holdings.

TABLE 7

SALE OF LAND BY VARIOUS SIZE GROUPS

<u>Average Acreage of Land Owned</u>	<u>% of Owned Land Sold 1969-70</u>	<u>% of Owned Land Sold 1972-73</u>
0.53	53	60
1.66	16	18
3.48	14	16
7.46	7	8
19.58	4	4

Source:

A. R. Khan, 1977, p. 159

<sup>13</sup>Alamgir, 1976, p. 151.

Over the past few decades in Bangladesh, landlessness has increased and average farm size has been shrinking. The percentage of small farms has increased, while at the same time some of the very largest farms have increased their size. The introduction of high yielding varieties of rice since 1966 has increased the demand for labor, especially during the slack seasons, although the increased supply of agricultural labor has far outstripped it. Prospects for the next ten years indicate a continuation of the same trends. A USAID/DACCA report concludes that of the five million anticipated addition to the agricultural labor force from 1976 to 1986, no more than one half can be absorbed into agricultural work.<sup>14</sup> This pressure on wage rates and farm sizes must result in an increase in the numbers and percentage of landless and near-landless in Bangladesh.

#### IV. Causes of Landlessness

The dearth of agricultural land relative to the rural population and the growth in population creates a high and rising people to land ratio in Bangladesh. Situated in a social structure which creates and allows inequality, increasing concentration of land and landlessness are the results.

In Bangladesh, there are only 0.3 acres of cultivable land per rural person. In addition agricultural technology is still mainly traditional, and the productivity of land is low. Other resources in rural areas, such as fisheries and crafts, do not at present offer much alternative income. Thus, a small amount of low productivity land implies a very low family income in rural Bangladesh.

Population growth in Bangladesh is proceeding at a rate somewhere between 2.7 and 3.5 percent annually. Thus, farms are broken up into yet smaller parcels as they are inherited. Also wage rates and the number of days of work per year are declining since the labor force is increasing more rapidly than new jobs. Therefore, small farmers who depend on wage income to supplement their farming income are getting poorer.

Poverty itself can lead to landlessness for a small landowner, since it leaves no margin of income in cases of poor management, crisis in the family or the weather, or exploitation. Poverty increased in Bangladesh in recent years not only due to a decreasing amount of land per person, but also to the decline in productive capacity during and after the war of

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<sup>14</sup> USAID/DACCA, 1977, n.p.

liberation and the 1974 floods. By the mid-1970's, output had barely caught up, in both industry and agriculture, with the levels of 1969-70.

The unequal distribution of the already small amount of land per person implies even severer poverty for the smallest landowners, who therefore are more likely to lose their land and become even poorer. Alamgir reports that distress sale of assets increased during the post liberation period in order to raise cash for consumption or repayment of debts. In 1974, 37 percent of the households in the BIDS survey reported distress sale of assets. That was a year of widespread famine due to floods and hoarding, and the levels of distress sales for the years 1972 and 1973 were 3.4 percent and 5.9 percent.<sup>15</sup> These were mostly sales by small farmers and purchases by medium and large farmers. The unequal distribution of land feeds itself and landlessness increases.

The concentrated ownership of assets creates economic power, which is used to maintain and perhaps increase the concentration. For example, the powerful have a strong bargaining position vis-a-vis those with little economic power in any transaction, such as money lending, the purchase of crops, tenancy agreements, or land sales. Terms which are disadvantageous to the poor can make them poorer still. For example, more than half of all village households reported borrowing in the 1974 BIDS survey, most of them for current consumption as well as current capital expenditures. The average size of the loan was high in relation to the net worth of the farm household. They were in debt to large farmers and other money lenders. Also, of the 34 percent of all farmers who sold their crops partially or totally before they were harvested, over 60 percent were small farmers. The implicit rate of interest paid by the recipient was an average 439 percent.<sup>16</sup> These households are in danger of losing their land through inability to pay their debts:

When opportunities for increased productivity and income exist, the relatively powerful are more able to take advantage of them, because they have surplus income to purchase inputs, greater credit worthiness, and

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<sup>15</sup>Alamgir, 1976, p. 143.

<sup>16</sup>Ibid., p. 109.

control of the institutions. For example, the system of rural coops in Bangladesh is dominated by the medium and large farmers who direct the loans to themselves and avoid repaying them with the highest default rates.<sup>17</sup> The smallest farmers then are relatively unable to take advantage of the opportunities available, and they become relatively poorer.

When the value of land increases due to increased productivity or alternate uses, elites are likely to increase pressure on those with small amounts of land and in poor bargaining positions. If the poor are unable to reap the benefits of the increased productive potential of their land, they may not be able to withstand the efforts of others to buy or take over their land. This process does not seem to be important in Bangladesh, possibly due to the recent date of the introduction of HYV to Bangladesh. It is quite possible that it will become more important there.

For all these reasons landlessness has been on the increase in Bangladesh. Industrial employment has not drawn the landless into city jobs, since industrial labor absorption in the 1960's increased at about 2.5 percent annually, while the labor force increased at about 3.3 percent annually.<sup>18</sup> The industrial sector has been surprisingly capital intensive in Bangladesh. In a comparison of capital intensity of different industries, A. R. Khan found that in all cases except basic metals, Bangladesh had capital/labor ratios two to five times higher than Japan.<sup>19</sup> In the case of paper products, the capital intensity was even higher than that in the USA. These technologies may have been the only ones available for certain industries in order to use the resources such as natural gas and bamboo to make fertilizer and paper. Nevertheless, they have not contributed much to labor absorption.

A series of government policies were also partly responsible for the high capital to labor ratio.<sup>20</sup> These policies included an overvalued exchange rate, an artificially low interest rate structure, tax benefits

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<sup>17</sup> Alamgir, 1975, pp. 292-293.

<sup>18</sup> Ahmed.

<sup>19</sup> Khan.

<sup>20</sup> Ahmed, 1974.

and depreciation allowances for capital costs, and the practice of providing licenses and sanctions for importing capital goods at low prices.

Government policies toward agriculture have not been helpful in preventing the increase of landlessness. In the 1950's agricultural development was neglected and export pricing policies kept domestic export agricultural prices low. In the 1960's rural development programs were increased, but by an elite farmer strategy, which did not help the incomes and security of the small farmers most likely to become landless. Since 1970, the Integrated Rural Development Program has been intended to include small farmers, but increasingly the medium and large farmers have been able to dominate the program.

The causes of the growing landlessness in Bangladesh then are basically a social structure of unequally distributed economic and political power operating in a situation of very scarce land and growing population.

#### V. Conditions

Per capita incomes in rural Bangladesh remained approximately the same during the 1960's and then fell during the 1970's. The distribution of income has apparently become more unequal over that time. Thus the proportion of the rural poor has grown. In 1963-64, the Central Statistical Office of Pakistan conducted a household income and expenditure survey and estimated that an income of Taka 32.75 per capita per month would be required to meet dietary intake levels of 2150 calories daily per person, although this would provide inadequate levels of protein and fats.<sup>21</sup>

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<sup>21</sup>There are several methodological problems in deriving diet-based poverty levels. The implication of such low incomes (reported) on dietary intakes and physiological capacities is unknown. It is accepted that "Adequate" dietary levels are set fairly arbitrarily, given the limited agreement on actual human requirements, especially under conditions of prolonged consumption of "sub-optimal" diets and possible physiological adaptation. Thus it is likely that dietary requirements are over-estimated. Incomes may be often underestimated, and this could lead to exaggerated estimates of people with "suboptimal" diets. However, the dietary requirements are estimated for average people, and it is likely that poor people, who are likely to work more strenuously than the average person, require more calories than average. This may offset any overestimate of dietary requirements as suggested above.

According to the levels of reported incomes, 85 percent of the households and 76 percent of the population of Bangladesh could not afford the "adequate" diet in 1963-64, as indicated in Table 8. Fifty-two percent of households were below the absolute poverty level (income sufficient for 90 percent of the "adequate" calorie level) in 1963-74. This had risen to 87 percent in the famine year 1973-74, and fallen to 70 percent by 1975. The most dramatic and persistent increase has come in the proportion of the absolute poor, however, those with incomes sufficient to purchase only 80 percent of the "adequate" diet. In 1973-74, and again in 1975 the top 15 percent of the rural population had higher real income than they had had in 1968.<sup>22</sup>

TABLE 8

POPULATIONS BELOW ESTIMATED POVERTY LEVELS

	Below "Adequate" Daily Per Capita Calorie Intake (2150 Calories)	Absolute Poverty Below 90% of Adequate Calories	Extreme Poverty Below 80% Adequate Calories
1963-64 % Households	85	52	10
% Population	76	40	5
1968-69 % Households		84	35
% Population		76	25
1973-74 % Households		87	54
% Population		79	42
1975 (First Quarter only)			
% Households		70	51
% Population		62	41

Source:

A. R. Khan, 1977, p. 147.

Agricultural laborers are quite certain to be in that large proportion of the inadequately fed. In 1963-64, the estimated monthly household income of a landless agricultural laborer's household, with 259 days of employment per year and 1.2 earners per household of 4.45 persons, placed the family in extreme poverty, that is with income sufficient to buy less than 80 percent of the

<sup>22</sup>Khan, 1977, pp. 148-149.

FAO's adequate diet. Only those agricultural laborer's families who could supplement their wages by two thirds from some other source would be above the absolute poverty line (90 percent of adequate diet).<sup>23</sup> The BIDS survey of 1974, in four famine villages and four non-famine villages, established its own subsistence level based on income for food only (income was presumed not to be spent for other purpose). Seventy-nine percent of all the households were below that level: 75 percent of all landowners, 79 percent of owner-cum-tenants, 90 percent of tenants, and 91 percent of laborers. Salimullah notes that the tenant farmers and wage earners with an income above dietary subsistence were only marginally above subsistence.<sup>24</sup>

Total assets (including land) are highly concentrated. The BIDS survey reports that households with less than 2.5 acres of land owned more than five times the assets of landless laborers on average, while households with more than 7.5 acres owned over 60 times the assets of landless laborers. The top 10 percent of asset holders owned 29 percent, while the bottom 50 percent owned 27 percent.

The decline in incomes of the landless is due partly to the falling real wage rates since 1964. They fell 15 percent from 1964 to 1968-69,<sup>25</sup> and 37 percent from 1970 to 1975. They rebounded in 1976, due entirely to a fall in consumer prices, which started to rise again in 1977 with wages not keeping pace.<sup>26</sup> Khan notes that this decline in real wages was accompanied by an increase in real income to the richest 20 percent. Thus the absolute decline in agricultural output was distributed more unequally.<sup>27</sup>

Underemployment is very high. The agricultural labor force was estimated at about 22 million in 1975-76. At a full year employment rate of 250 days per year, there were jobs for 12.84 million workers. Actually,

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<sup>23</sup>Ibid.

<sup>24</sup>Salimullah, pp. 269-270.

<sup>25</sup>Khan, p. 151.

<sup>26</sup>USAID/DACCA.

<sup>27</sup>Khan, p. 151.

the concentration of employment at seasonal peaks meant a high degree of underemployment.<sup>28</sup> The BIDS survey of 1974 reported an underemployment rate of 32 percent, having measured the man-days worked and man-days available.

The patterns of labor use in agriculture are also in transition. There has been a gradual change from the traditional modes of share-payment at harvest to the use of fixed-wage contract labor, especially migrant labor from outside the village. Thus, "there is a new source of labor, migrant labor, bidding down wage rates. Many farmers are quite willing to accept this advantageous situation without regard to the problems of labor supply in the future or their relationships with local laborers."<sup>29</sup> Thus it may be that the patron-client relationships, which have helped to alleviate the problems of poverty and landlessness in the past, may be breaking down in a situation of new opportunities.

#### VI. Public Policy Measures

a) Rural Cooperatives. The formation of these units is the principal objective of the IDRP or Integrated Rural Development Program, which is based on the Comilla model. The program has been used to channel a significant portion of credit and other inputs for rural development. However, both membership in the cooperatives and access to inputs is determined by level of asset (primarily land) ownership. Thus members of landless households are rarely members of cooperatives. The near-landless have received minimal assistance from the program. A study in Comilla Kotwali Thana revealed that among members of the cooperatives, farmers who owned less than one acre of land received loans amounting to only six percent of loans to farmers with one to three acres, and only 2.7 percent of loans to farmers with more than three acres.<sup>30</sup> It is widely reported that the medium and large farmers dominate the cooperatives.

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<sup>28</sup> USAID/DACCA.

<sup>29</sup> Clay, 1976.

<sup>30</sup> Malek, 1976.

b) Agricultural Intensification. A series of programs and organizations have had the objective of intensifying agriculture through the provision of credit, irrigation, and other inputs. During the 1960's, agricultural production increased by about 2.5 percent annually, mainly due to expansion of irrigation for the production of the dry season "boro" rice crop. Abdullah et al. conclude that the relatively affluent farmers dominate the irrigation groups and thus the water use.

c) Public Works. The Rural Works Programme is probably the only public measure designed to directly benefit the landless and near-landless. Funding has been provided primarily by PL 480, both directly in food-for-work projects, and indirectly from the sale of PL 480 commodities. Between 1962 and 1967, takas 710 million were allocated for construction with about 75 percent of the total allocation for road construction and maintenance. It is estimated that the rural works program provided, on an average, about 170,000 man-years of employment annually during 1962-67.<sup>31</sup>

#### NOTE ON THE 1977 LAND OCCUPANCY SURVEY OF RURAL BANGLADESH

The 1977 LOS was commissioned by the USAID Mission, Dacca, in 1977 in order to attain up-to-date information on the rights to land of the people of rural Bangladesh. It was a sample survey, carried out in March and April 1977 by a "select group of the best enumerators in the Bureau of Statistics." It was designed by F. Tommasson Jannuzi and James T. Peach, of the University of Texas at Austin, and pretested and administered with the Bangladesh Bureau of Statistics. The designers also oversaw the special training of the enumerators and the post-enumeration checks. They designed the questionnaire to be short, taking no more than twenty minutes for the head of the household to answer, and to concentrate only on the relationship of the household to the land and agricultural work.

Jannuzi and Peach feel that the sampling and enumeration processes had problems which were amenable to solution (such as reenumeration), but the most serious problem with the information from the survey is the deliberate erroneous responses provided by some respondents. There was a tendency by

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<sup>31</sup>Rahim and Islam.

large landowners to understate the size of their holdings, and of the landless to claim ownership of some small amount of land (e.g., one-fourth acre). Tenancy also was underreported both by owners and by tenants. Thus they estimate that tenancy and landlessness were understated as was also the area of land owned by the top 10 percent of rural households.

For further information on the LOS, see Report on the Hierarchy of Interests in Land in Bangladesh by F. T. Jannuzi and J. T. Peach.

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## APPENDIX B: THE LANDLESS AND NEAR-LANDLESS IN INDIA

### I. Introduction

India is the second most populous country in the world. Its problems epitomize the problems of underdeveloped countries in general. In 1971, India had an estimated population of 548 million, which was increasing at the rate of 2.24 percent. Eighty percent of the population lived in rural areas. Seventy-two percent of its work force of 180 million were employed in agriculture.

### II. The Incidence of Landlessness and Near-Landlessness

Being an agricultural country, land is the principal source of wealth, especially for the rural population. Many different sources of data exist to estimate the proportions of the population with differential access to land. These are the decennial censuses such as that of 1971, national sample surveys on rural landholdings, inquiries into the problems of agricultural and rural laborers, agricultural censuses, etc. Each of these has its own limitations, but one can use them to make a reasonable estimate of "landless" and "constrained cultivators" in the country.

Of the 130 million agricultural workers of 1971, 79 million (61 percent) were cultivators, farming their own as well as rented land (tenants), 47 million (36 percent) were agricultural laborers, who earned their livelihood mainly by selling their labor, and four million (three percent) were other agricultural workers such as those engaged in fishing or forestry. Among the eight occupational categories into which the working population is classified in the Indian census, agricultural labor is the least desirable one, forming a residual category constituted of workers who cannot find anything better. Agricultural labor implies not only heavy labor and low wage rates, but a socially degraded status as well.

In India, the occupational differentiation of the population has occurred within the larger stratification system of caste, creating an association between an individual's caste and occupation. Generally members of higher castes follow high-prestige occupations like cultivation or white collar occupations; and lower castes, particularly the Harijans

(scheduled castes--ex-untouchables) follow occupations of low prestige, such as agricultural labor. For example, in the State of Tamil Nadu, where Harijans constitute 18 percent of the population, they form only 16 percent of the cultivators against 48 percent of the agricultural laborers. The pattern is similar all over India. Such an association between caste and occupation confounds the problems of the poor in the country, making their social emancipation important to the achievement of their economic well-being.

Agricultural Laborers. Even though the census gives details about the broad occupational division of the population, detailed information such as the percentage of population without land, marginal cultivators, and tenants cannot be obtained from it. Therefore, we resort to another source for estimating the number of laborers without land. The Eighteenth Round of the National Sample Survey of India (1963-1964)<sup>1</sup> gives estimates of rural labor households and agricultural labor households owning and not owning land. According to this Survey out of an estimated number of 68 million rural households, 14 million (21 percent) were those of agricultural labor; among these, 5.5 million, or 40 percent cultivated land (the minimum size plot was 0.05 acres) and 8.6 million or 60 percent did not possess land.<sup>2</sup> The Rural Labour Enquiry,<sup>3</sup> 1963-65, also gives a breakdown of rural labor households on the basis of their possession of land. This report also used 0.05 acres as the minimum required for classifying a family as cultivating some land. According to this study, there were 70 million rural households in 1964-65, of whom 15.3 million (22 percent) were agricultural labor households and 2.5 million (4 percent) were "other rural labor households."<sup>4</sup> Among the agricultural labor households, 56

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<sup>1</sup>Cabinet Secretariat, Government of India, The National Sample Survey, Eighteenth Round, February 1963 - January 1964, No. 134 (1969).

<sup>2</sup>Ibid., p. 15.

<sup>3</sup>Labour Bureau, Ministry of Labour, Government of India, Rural Labour Enquiry, 1963-65, Final Report, New Delhi, 1973.

<sup>4</sup>Ibid., p. 3.

percent (8.6 million) and among "other rural labor households" 57 percent (2 million) cultivated no land. Based on these two enquiries from 1963-65, we can conclude that about 60 percent of agricultural labor and other rural labor households are absolutely landless in India.

The number of agricultural laborers in 1971 was 47 million. The average number of workers in an agricultural labor households in 1963-64 was 2.5.<sup>5</sup> In the absence of any later data, we adopt this figure as a demoninator to arrive at an estimate of the number of agricultural labor households in 1971, which is about 23.1 million, an increase of 7.8 million over the 1963-64 estimate.

The number of non-agricultural labor households in 1963-64 was 2.5 million. Assuming that their number increased during the 1960's at the same proportion in which the general population increased, that is 2.24 percent per annum, there were 2.9 million non-agricultural workers in 1971.

Details on the extent of land owned by agricultural and rural labor households are not given in the NSS, Eighteenth Round, and the Rural Labour Enquiry of 1963-65 referred to above. However, we can make an inference on whether this land constituted a meaningful asset by examining whether there was important variation in the average annual earnings of landowning and landless laborers. The average annual household income<sup>6</sup> of rural labor households, (most of whom were agricultural labor households) owning and not owning land was Rs. 717 and 681. The difference was Rs. 36 which was a very marginal amount, indicating that the extent of land owned by most of the former households was very small. This being the case, all the agricultural and rural labor households can be treated as landless. Thus it may be estimated that there were 23.1 million landless agricultural labor households and three million landless nonagricultural labor households in India in 1971.

The proportion of agricultural laborers in the work force varies from state to state. In 1971, it was as high as 38 percent in Andhra Pradesh and Bihar and as low as nine percent in Rajasthan. Obviously the problem of landlessness also varies from state to state.

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<sup>5</sup>Ibid., p. 9.

<sup>6</sup>Ibid., p. 40.

The percentage of agricultural labor households who owned no land in 1963-65 was the highest in the northern zone, at 75 percent among various states/union territories. Delhi accounted for the highest percentage of agricultural labor households with no land (96 percent) followed by Punjab-haryana (88) and Gujarat (75). On the other hand, the percentage of agricultural labor households owning land was the highest in Kerala (70) followed by Tripura (67), Bihar (62), Manipur (60), Jammu and Kashmir and Assam (each 57), Orissa (55) and Uttar Pradesh (54).<sup>7</sup>

Among the rural labor households, 39 percent were scheduled castes and 10 percent were scheduled tribes. Thus, about half of rural labor households were ethnic and social minorities, who are, as previously noted, the most deprived sections of the population.

Cultivators. Among the 130 million agricultural workers of 1971, 79 million (60 percent) were cultivators, including owner cultivators and different types of tenant cultivators. The population census did not give a distribution by tenurial status or size of land holdings. Therefore, the estimate of these is based on the census of agricultural holdings conducted in the same years. According to this survey, there were 70 million agricultural holdings in the country. Since the number of cultivators (79 million) and the number of holdings (70 million) are more or less similar, we may treat a holding equivalent to a household.

In Table 1, a distribution of holdings according to size and tenancy status is given.<sup>8</sup> The 70 million agricultural holdings covered 162 million hectares of land. Of these, 65 million holdings (92 percent) covering 148 million hectares (91 percent of area) were operated by owner cultivators; 3 million (4 percent) holdings covering four million hectares (2 percent of area) were under tenants; and three million holdings (4 percent) covering ten million hectares (6 percent of area) were under owner-tenants. It is worth noting that tenancy existed in landholdings of all size categories. The percentage of tenants who had small holdings is only a little more than the percentage of owners who had small holdings.

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<sup>7</sup>Ibid, p. 4.

<sup>8</sup>Naidu, I. J., All-India Report on Agricultural Census, 1970-71, Government of India, Ministry of Agriculture and Irrigation, New Delhi, 1975.

One half of the total operational holdings in India were of less than one hectare of land, with an average size of 0.41 hectares. The average size of holdings under 0.5 hectare was 0.23 hectare, and that of holdings between 0.5 and 1.0 hectare was 0.72 hectare. Since the earnings from an average holding of 0.23 hectare would not be anywhere sufficient to meet the requirements of an average family, we may assume that the owner-cultivators with less than 0.5 hectare are also agricultural laborers or have some other occupation. Among tenants and owner-tenants, those holding up to one hectare are assumed to have another occupation. There are 24.24 million of these owners, tenants, and owner-tenants with tiny holdings. 9.24 million of them are the 40 percent of agricultural labor households who cultivate some land, as mentioned above. The other 15 million households must have non-agricultural occupations, and many of them may be relatively prosperous. Those who are non-agricultural hired labor are included in category B1 in Table 2 (approximately 60 percent of non-agricultural laborers cultivate small amounts of land). Those who are self-employed, poor, and cultivate a tiny plot need to be estimated.

If we assume that one half of the 15 million households with tiny plots are relatively prosperous due to their other occupations, that leaves 7.5 million households. 1.6 million of them are the 60 percent of nonagricultural laborers with land. 5.9 million households then are here estimated to be self-employed poor households also cultivating tiny plots of land. They make up category B2b in Table 2.

Landholdings of 0.5 to 1.0 hectare cultivated by owners may be considered to belong to "constrained cultivators." According to this criterion, the number of constrained cultivators comes to 11.4 million.

In India much tenancy legislation has been enacted to give protection for tenants. The large tenants are generally in a position to use the legislation to safeguard their interests. Therefore, we distinguish between small tenants not in a position to defend their interests and the larger ones. We place tenants and owner-cum-tenants operating 1.0 to 2.0 hectares in the category of "constrained tenants." Their number was 1.2 million. The number of larger tenants who farmed more than two hectares was 1.9 million.

The distribution of landless laborers and tenants varies among states, and districts within a state. An analysis of the characteristics of the agrarian social structure of Tamil Nadu<sup>9</sup> shows a higher rate of tenancy in certain districts like Thanjavur. The percentage of agricultural laborers among workers is also greater in such districts. A similar trend was found in the neighboring states of Andhra Pradesh and Kerala. In the former, the percentages of tenants among cultivators, agricultural laborers among workers, and scheduled castes persons in the population are greater districts like East Godavari, West Godavar, Nellore, and Gunter where paddy is the principle crop.<sup>10</sup> In Kerala, the incidence of tenancy is much larger in districts like Calicut, Palghat, and Cannanpore. The concentration of such characteristics in paddy growing areas makes them the centers of agrarian unrest.

### III. Trends and Causes

We may now try to understand the trend of pauperisation in Indian society, which is subject to various socio-economic forces. Probably the most powerful among such factors is the rapid increase in population which increased annually by 2.24 percent in the decade of 1961-70. This, coupled with a more or less static supply of the area under plough, and a very low rate of absorption of workers in industries, created mounting pressure on the per capita availability of land, which decreased from 2.1 acres in 1901 to 2.0 acres in 1921 and to 1.4 acres in 1951. The per capita net area sown in 1951 was 0.77 acres only.<sup>11</sup> In this year, the per capita net sown area was the least in South India (0.53 acres) and East India (0.58 acres).<sup>12</sup> Such subdivision of land inevitably throws millions of persons at the margin into the ranks of agricultural laborers.

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<sup>9</sup>K. C. Alexander, "Some Characteristics of the Agrarian Social Structure of Tamil Nadu," Economic and Political Weekly, Volume 10, No. 16, April, 1975, pp. 664-672.

<sup>10</sup>K. C. Alexander, "Some Characteristics of the Agrarian Social Structure of Andhra Pradesh," Social Action, Volume 27, April-June, 1977, pp. 119-134.

<sup>11</sup>Ministry of Labour, Government of India, Report on Intensive Survey of Agricultural Labour, Volume 1, All-India, 1954, p. 11.

<sup>12</sup>Ibid., p. 11.

Since the 1960's, several elements of modern technology, such as the High Yielding Variety (HYV) seeds, fertilizers, and tractors, were introduced into agriculture. Cultivation practices were intensified also. These led to substantial increases in agricultural production creating a "Green Revolution." A comprehensive analysis of agricultural growth in 51 agricultural regions covering the whole country indicates that agricultural growth occurred mostly in north and northwestern India.<sup>13</sup> In certain areas of Maharashtra, Andhra Pradesh, South Bihar, etc. growth has decelerated. In areas like Punjab where agricultural growth is fast, the process has transformed subsistence peasants into commercially oriented farmers.<sup>14</sup> Controversy exists on the social consequences of recent agricultural development. While authors like Aggarwal,<sup>15</sup> and Alexander<sup>16</sup> believe that all sections of the society have benefited at least to some extent from this process, there are others who believe that its benefits are confined to the rich farmers, and the process has led to the concentration of land and other productive resources with the rich. In an analysis of agricultural growth and rural poverty in rural areas of Punjab, Indira Rajaraman found that "during a decade of rapid growth there was a significant rise of those unable to obtain an adequate diet and lift themselves above poverty. In absolute terms, the number of rural poor increased by 51.6 percent."<sup>17</sup> Similar findings have been reported by Rohini Nayyar<sup>18</sup> in the case of

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<sup>13</sup>V. S. Vyas, "Growth Rate in 51 Agricultural Regions," Indian Journal of Agricultural Economics, Bombay, January-March, 1975.

<sup>14</sup>V. S. Vyas, Ibid.

<sup>15</sup>P. C. Aggarwal, "Some Observations on Changing Agrarian Relations in Ludhiana, Punjab," in Changing Agrarian Relations in India, National Institute of Community Development, Hyderabad, 1975.

<sup>16</sup>K. C. Alexander, "Agrarian Unrest in Kuttanad, Kerala," Behavioral Sciences and Community Development, Hyderabad, Volume 7, No. 1, March, 1973, pp. 1-16. Also, Agrarian Tension in Thanjavur, National Institute of Community Development, Hyderabad, 1975.

<sup>17</sup>Indira Rajaraman, "Growth and Poverty in the Rural Areas of the Indian State of Punjab: 1960-61 to 1970-71," in Poverty and Landlessness in Rural Asia, ILO, Geneva, 1977, p. 68.

<sup>18</sup>Rohini Nayyar, "Wages, Employment and Standard of Living of Agricultural Labourers in Uttar Pradesh," in Poverty and Landlessness in Rural Asia, op.cit.

Uttar Pradesh and Bihar and by C. T. Kurien<sup>19</sup> in the case of Tamil Nadu. But does this mean that the recent agricultural development has led to concentration of land and other production resources leading to increased pauperisation, or that agricultural laborers and other poor sections continue to be pauperized despite agricultural development? There is no estimate of the extent to which the immigration of labor to agriculturally developed areas has prevented local laborers from receiving maximum benefits of agricultural development. However, the observed mobility of labor indicates the limitations of even a growth rate as high as that in north-western India to bring about substantial improvement in the conditions of agricultural laborers in the context of rapid growth in population.

Laborers. Between 1961 and 1971, the percentage of agricultural laborers among workers increased from 26 percent to 36 percent of workers. The number of male laborers during this period increased from 17.8 million to 31.7 million—an increase of 83 percent.<sup>20</sup> The rate is comparable in all the states. Such a disproportionate increase in the numbers of laborers in a situation of a very low increase in the number of cultivators has shifted the cultivator-laborer ratio. Even though at the all-India level the cultivator-laborer ratio is 43:26, in many areas, there are more agricultural laborers than cultivators. For example, in Thanjavur (Tamil Nadu) the cultivator-laborer ratio was 29:41,<sup>21</sup> while in Andhra Pradesh, in East Godavari it was 21:44, in West Godavari 22:49, and in Krishna district it was 22:43.<sup>22</sup> In many districts in Bihar, there were more agricultural laborers than cultivators.

<sup>19</sup>Rohini Nayyar, "Poverty and Inequality in Rural Bihar," in Poverty and Landlessness in Rural Asia, op.cit.

<sup>20</sup>M. S. Prakash Rao, Shashi Kumar and Soluchana Kulkarni, "Growth of Agricultural Labour in India," Paper presented before 16-17th Annual Conference of Indian Society of Labour Economics, Waltair, December 29, 1974.

<sup>21</sup>K. C. Alexander, "Some Characteristics of the Agrarian Social Structure of Tamil Nadu," op.cit.

<sup>22</sup>K. C. Alexander, "Some Characteristics of the Agrarian Social Structure of Andhra Pradesh," op.cit.

Several causes have been attributed to such a rapid increase in the number of agricultural laborers. The population increase is an important cause. It is also suggested that the rate of growth of the population during the decade of 1961-71 was larger among the poorer sections like the Scheduled Castes, to whom a large proportion of agricultural laborers belong.<sup>23</sup> It is also suggested that improvements in wage rates of agricultural laborers might have attracted more persons into this occupation.<sup>24</sup> Eviction of tenants and share croppers in the context of tenurial legislation and agricultural development also might have pushed many from those categories into the pool of agricultural laborers. No doubt, the rapid growth of agricultural laborers is the outcome of multiple causation; but in so far as they are the poorest section of Indian Society, such an increase in their numbers reveals the rapid pauperisation of India's rural population.

#### IV. Conditions

Though agricultural laborers are described as a homogeneous category, this is not the case. There are different types among them such as bonded laborers, attached and permanent laborers, casual laborers. The Agricultural Labour Enquiry of 1950-51 indicated that 15 percent of agricultural laborers were attached/permanent laborers.<sup>25</sup> Their relation with their employers is structured within the broader Jajamani system. It is difficult to say at what point an attached laborer is transformed into a "bonded laborer," about whose numbers even any guesstimate could not be made. All rural and agricultural labor enquiries have neglected the problem of this group, but available evidence such as the Report of the Commissioner for Scheduled Castes and Scheduled Tribes indicates its widespread existence. Such bondage further restricts the ability of the poor to make the full use of even the limited opportunities available to them.

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<sup>23</sup> M. S. Pradash Rao, op.cit.

<sup>24</sup> Ibid.

<sup>25</sup> Ministry of Labour, Government of India, Report on Intensive Survey of Agricultural Labour, op.cit., p. 20.

The average number of earners per agricultural labor household was 2.04 in 1963-64, against 2.0 in 1950-51.<sup>26</sup> The average annual full days of wage employment of usually occupied men in agricultural labor households was 242 days a year in 1964-65, against 218 days a year in 1950-51.<sup>27</sup> The important agricultural operations in which such men were employed were ploughing (48 days) and harvesting (40 days). On an average, agricultural laborers were unemployed for 52 days a year in 1963-64. The incidence of unemployment varied from state to state; it was the highest in Kerala (81 days a year) and Mysore (75 days) and least in Orissa (24 days) and Rajasthan (33 days).

The wage rates of casual laborers (as most agricultural laborers are) also vary from state to state. The minimum wages of agricultural laborers were the highest in Kerala, West Bengal, Punjab and Haryana, where they were about Rs. 8 (\$1) a day.<sup>28</sup> Not only are the minimum wages set by state governments low, but there is no provision or machinery to implement them. The National Commission on Labour observed that the Minimum Wages Act "had remained a dead letter in every state."<sup>29</sup> An evaluation of the minimum wages of agricultural laborers indicates that earning the minimum wage rates, agricultural laborers in no state would be able to earn enough to live above the "poverty line"--the minimum provisions needed to maintain health and working capacity.<sup>30</sup> Therefore, one can assume that bereft of any income deriving asset like land, regularity of employment, and adequate wage rates, the agricultural laborers live in deep poverty.

There have been varying estimates of the number of people living below a poverty line in India. Different authors have set different poverty lines. While a committee of experts of the government set Rs. 240 per capita per annum at the 1960-61 price level as the dividing line, Rs. 200 per capita per year at this price level was set by B. S. Minhas, and Rs. 180 by

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<sup>26</sup> Labour Bureau, Ministry of Labour, Government of India, Rural Labour Enquiry 1963-65, Final Report, 1973, op.cit., p. 9.

<sup>27</sup> Ibid., p. 17.

<sup>28</sup> National Institute of Community Development, Hyderabad, Minimum Wages for Agricultural Labourers, (mimeo).

<sup>29</sup> Ministry of Labour, Employment and Rehabilitation, Government of India, Report of the National Commission on Labour, New Delhi, 1969, p. 400.

<sup>30</sup> National Institute of Community Development, "Minimum Wages of Agricultural Labourers," op.cit.

V. M. Dandekar and N. Rath. If the middle figure proposed by Minhas is adopted as a reasonable one, then the percentage of people below this poverty line in rural areas could be estimated to be 171 million, forming 38 percent of the rural populations<sup>31</sup> in 1972-73, a figure well above the percentage of agricultural labor households.

#### V. Public Policy Measures

The measures taken by the Indian Government to improve the living standards of landless laborers and "marginal" cultivators can be classified as follows: (a) legislation; (b) social welfare programs; (c) rural public works; (d) provision of credit and development of cooperatives and rural industries; (e) land reclamation and resettlement; (f) small farmer development programs; and (g) rural industry.

Legislation. Both at the central and state levels laws have been made covering tenancy reforms and security, fixation of rents, creating limits for the size of land holding and distribution of surplus land among the landless, controlling lending rates for private moneylenders, and the establishment of minimum wages. There is no evidence from any part of the country (except Kerala) that the implementation of these measures has improved the conditions of either laborers or tenants and share-croppers in any way. In states where tenancy and share-cropping is prevalent such as West Bengal, Bihar, Orissa, and Uttar Pradesh, land reform legislation appears to have spurred the eviction of tenants from their lands. In West Bengal a Planning Commission Task Force on Agrarian Relations (1973) found that only the rights of 0.8 million sharecroppers out of an estimated 2.2 million were legally recorded. Even those sharecroppers whose rights were recorded are still paying 50 percent of their crops to the landlord instead of the new provision in the legislation for only 25 percent of the crop.<sup>32</sup>

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<sup>31</sup>Quoted here from M. Zaheer, "Rural Poverty and Its Eradication," Paper presented at the National Seminar on the Eradication of Rural Poverty, Coimbatore, November, 1975, mimeo.

<sup>32</sup>A. K. Mukhopadhyay, "Some Reflections on Agrarian Relations in West Bengal," in Changing Agrarian Relations in India," Hyderabad, National Institute of Rural Development, 1975.

It appears that, in many areas, sharecropping simply went "underground." The majority of agreements were traditionally verbal and in the event of any litigation, it was the landlord's word against the small cultivator's (who was in any case very likely to be indebted to the landlord). Protection of sharecroppers' rights could hardly be expected under such conditions.

Legislation on minimum wages for agricultural laborers is even less meaningful for several reasons. First, it cannot be enforced. The National Commission on Labour in its review of the Minimum Wages Act as applied to agricultural labor concluded that the only purpose served by the Act was to "provide a basis for persons who are prepared to work in the interests of agricultural labor" and to help in evolving norms.<sup>33</sup> Secondly, it was not unusual for minimum wages and maximum wages to remain in force for several years at a time, even though the cost of living rose rapidly. Finally, even when they were revised upward, they often remained below the prevailing wage rates.<sup>34</sup>

Social Welfare Programs. These programs are intended to provide Scheduled Castes and Tribes funding for education (scholarships), improved housing and water supply, and health care. However, the program has not brought any substantial change in their condition.

Rural Public Works. These programs are usually seen as a short term solution to the rural unemployment problem, while improving rural infrastructure through schemes of irrigation, afforestation, soil conservation, drainage and land reclamation, and improving roads and communications. From 1965-66 to 1970-71, a sum of Rs. 902 million (\$113 million) was estimated to have been spent, providing about 1.5 million persons an additional 100 days of employment each year.<sup>35</sup> In April, 1971, the Crash

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<sup>33</sup>G. Parthasarathy and A. D. Rama Rao, "Minimum Wage Legislation for Agricultural Labour," Economic and Political Weekly, Volume X, No. 39, 1975, pp. A. 76-A. 88.

<sup>34</sup>Ibid.

<sup>35</sup>Labour Bureau, Government of India, Agricultural Labour in India, 1969, p. 223.

Scheme for Rural Employment was launched on a pilot scale. According to one report, in the first five months of its operation, a sum of Rs. 31 million had been spent on the program and had led to employment generation of about nine million man-days.<sup>36</sup> However, it is found that implementation of such programmes in a few pockets for brief periods do not bring any substantial change in the condition of the rural poor.

Credit and Cooperatives. While there is frequent mention of the need for state governments to provide financial help to agricultural laborers for the purchase of equipment and livestock, nationalized banks would be the only means to extend this kind of credit in rural areas. The need for labor cooperatives especially for construction work has also been seen as by-passing exploitative arrangements with labor contractors, but there is not much by way of evaluation of such attempts.

Land Reclamation and Resettlement. Allotment of land to landless laborers is one of the major programs for improving the economic status of the Scheduled Castes and Tribes in the country. In all states, either by legislation or executive order, special preference is given to Scheduled Castes and Tribes in the distribution and allotment of surplus land.<sup>37</sup> During the first, second, and third five-year plans, a sum of about Rs. 190 million was allocated by central and state governments for the reclamation of land and resettlement by landless people. From the time of independence to 1971, about 1-1/2 million acres have been colonized involving 800,000 people. Out of these, it has been estimated that 44 percent were from Scheduled Castes, Tribes or other landless groups.<sup>38</sup> Some additional land has been distributed to the landless as a result of the land ceilings imposition or the Bhoodan and Gramdan movements of Acharya Vinoba Bhave.

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<sup>36</sup> Biplab Dasgupta, "Distribution of Rural Income," Economic and Political Weekly, September 20, 1975.

<sup>37</sup> R. Murdia, "Land Allotment and Land Alienation: Policies and Programmes for Scheduled Castes and Tribes," Economic and Political Weekly, August, 1975.

<sup>38</sup> B. H. Farmer, Agrarian Colonization in India Since Independence, London, Oxford University Press, 1974.

Small Farmer Development Programs. In general, agricultural intensification has resulted in some increase in labor demand, though it may reduce the proportional share of labor in the total benefits. Even though the net demand for labor has risen, migration into areas of increasing labor demand has tended to depress real wages, except where a high degree of labor organization has prevented immigration from occurring. Very little information is available on seasonal migration or longer term rural-rural migration. The role of intermediaries and labor contractors is also not known. The relative position of migrant labor and their effect on and relations with local labor have also gone unreported so far.

Rural Industry. Over the years, expenditures on rural or village industries have been a small fraction of the rural development budget. During the first three five-year plans, about Rs. 202 million was spent or about four percent of the rural development budget in those plans.<sup>39</sup> The majority of this effort has been in the manufacture of bricks and tiles, tanning of leather, and local spinning of cotton yarn. Unfortunately the majority of traditional village handicrafts have not been protected or received any support under these schemes, and the potential for utilizing local skills and resources has not been realized.

Research Needs. There are many general areas that need research, for example, both the causes and consequences of seasonal migration patterns, and changes in arrangements along the scale from casual to seasonally attached and permanent (annual) employment. In addition there are a fairly large group of self-employed people in the agricultural sector about whom we know very little. In India, as in Sri Lanka, Bangladesh, and Pakistan, as a number of landless workers has increased, more and more have not been able to find employment in agriculture and seek non-agricultural wages in the rural sector. The kinds of work, its productivity, and the conditions of these workers need to be explicitly addressed in future research. The major research need, however, is one of evaluation. It is possible to find programs of all descriptions that have been

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<sup>39</sup> Labour Bureau, Government of India, op.cit., p. 218.

implemented in India. They range from legislation, technological change in agriculture, land distribution, land reclamation and settlement on both individual and mechanized state farms, public works and some village industries, cooperatives, provision of credit to small cultivators and the landless for productive investment via Nationalized Banks. There is, however, little by way of systematic evaluation of these programs specifically in terms of the landless and near-landless.

More analytical studies are required on the pattern of relations prevailing between the rural poor and the rich. It is this relationship which facilitates the exploitation of the poor. Therefore, understanding these relations and modifying them is as important as the implementation of economic measures.

TABLE 1

Area in thousand Ha/No. in thousands

INDIA: DISTRIBUTION OF HOLDINGS ACCORDING TO SIZE AND TENANCY STATUS, 1971

S. No.	Size Class (Ha.)	Total Holdings		Wholly Self Owned and Operated		Partly Owned And Partly Rented		Holdings Wholly Taken on Rent		Average Size Of Holding (Ha.)
		No. 3	Ha. 4	No. 5	Ha. 6	No. 7	Ha. 8	No. 9	Ha. 10	
1.	Below 0.5	23,178 (33)	5,446 (3)	21,448 (33)	4,988 (3)	355 (13)	110 (1)	1,096 (39)	260 (7)	0.23
2.	0.5 - 1.0	2,504 (18)	9,099 (5)	11,389 (18)	8,237 (6)	449 (16)	340 (3)	608 (21)	427 (11)	0.72
3.	1.0 - 2.0	3,432 (19)	19,282 (11)	12,169 (19)	17,411 (12)	662 (24)	966 (10)	570 (20)	771 (20)	1.4
4.	2.0 - 3.0	6,722 (10)	16,353 (10)	6,099 (9)	14,812 (10)	375 (13)	915 (9)	241 (9)	551 (14)	2.4
5.	3.0 - 4.0	3,959 (6)	13,646 (8)	3,619 (6)	12,444 (8)	229 (8)	793 (8)	111 (4)	360 (9)	3.4
6.	4.0 - 5.0	2,684 (3)	11,929 (7)	2,461 (4)	10,913 (7)	158 (8)	703 (7)	66 (2)	274 (7)	4.4
7.	5.0 - 10.0	5,248 (7)	36,305 (22)	4,811 (7)	33,233 (22)	332 (12)	2,314 (24)	107 (4)	678 (17)	6.9
8.	10.0 - 20.0	2,135 (3)	28,521 (18)	1,949 (3)	25,988 (18)	155 (5)	2,105 (21)	32 (1)	389 (10)	13.3
9.	20.0 - 30.0	401 (1)	9,346 (8)	364 (1.0)	8,479 (6)	32 (1.6)	767 (8)	4 (0)	88 (2)	23.3
10.	30.0 - 40.0	120 (0)	4,178 (3)	110 (0)	3,818 (3)	9 (0)	319 (3)	1 (0)	36 (1)	34.8
11.	40.0 - 50.0	45 (0)	2,050 (1)	42 (0)	1,885 (1)	3 (0)	144 (2)	1 (0)	19 (0)	45.5
12.	50.0 & above	65 (0)	5,971 (21)	61 (0)	5,491 (4)	4 (0)	375 (4)	1 (0)	97 (2)	91.8
	TOTAL	70,493 (100)	1,62,124 (100)	64,522 (100)	1,47,699 (100)	2,763 (3)	9,851 (100)	2,838 (100)	3,950	2.3

Source: All India Report on Agricultural Census, 1970-71.

TABLE 2

ESTIMATE OF LANDLESS AND NEAR-LANDLESS  
RURAL HOUSEHOLDS IN INDIA, 1971

	Number of Rural Households (in millions)	% of All Rural Households
A. Agricultural Workers <sup>1</sup> (laborers)	23	27
B. Non-Agricultural Workers <sup>2</sup>	13.9	16
1. Hired	2.6	3
2. Self-Employed		
a) Landless	5.4	6
b) With Miniscule Plots	5.9	7
C. Tenant Farmers <sup>3</sup>	3	3
D. Marginal Farmers <sup>3</sup>	11	13
E. Others	--	--
<hr/>		
Total Landless and Near-Landless Rural Households	50.9	59
Total Rural Households	86	100

Notes on Calculations and Sources

<sup>1</sup>Figure was obtained by dividing the total agricultural labourers (1971 Census) with average wage earner per agricultural labour family (Rural Labour Enquiry Report, 1963-65).

<sup>2</sup>This figure was obtained by calculating the increase in non-agricultural labour households at the rate of 2.24 per annum. The sub-total for non-agricultural landless self-employed workers was also based on a projection of the 1960-61 Survey, where 10.5 percent of all rural households were reported in this category. Two-thirds of this total--5.4 million households or six percent of all rural households in 1971--were estimated to have incomes below poverty levels. Those who were poor, self-employed, and who also cultivated miniscule plots comprise 5.9 million or seven percent of all rural households (see text for derivation).

<sup>3</sup>Figures taken from All India Report on Agricultural Census, 1970-71.

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APPENDIX C: THE LANDLESS AND NEAR-LANDLESS IN INDONESIA

I. Introduction

Due to problems of availability and comparability of data, this study will focus only on Java, where several micro-level studies and sample surveys can be used to supplement census data. Despite the paucity of reliable data, several studies in Java indicate that landlessness is a pervasive phenomenon.<sup>1</sup> It is estimated that about 85 percent of Java's households working in agriculture do not own, or have access to, enough land to provide for their own subsistence. The system of agricultural involution or shared poverty which Clifford Geertz described in the early 1960's has broken down and is being

TABLE 1

SUMMARY DATA FOR JAVA

Total Population, 1973	86,000,000 (100%)
Population Growth Rate, Per Annum	2.2%
Rural Population	70,500,000 (82%)
Rural Density	1,200+ persons per square kilometer
Arable Land (45% of total), 1973	6,600,000 hectares
Rural Population Working in Agriculture, 1971 (As a Percent of Total Labor Force)	21,000,000 63.0%
Arable Land per Worker in Agriculture, 1971	.3 hectares
Farming Households, 1970	9,390,000
Estimated Rural Unemployment, 1973 (about 1.5 million per year enter the labor force)	8,000,000
Percent of Rural Javanese earning less than \$100 per year per capita, 1973	60.0%

Source:

Atlas Indonesia, 1974.

<sup>1</sup>Of special value is Ingrid Palmer's "Rural Poverty in Indonesia, With Special Reference to Java," Poverty and Landlessness in Rural Asia, Geneva: ILO, 1977, on which part two of this analysis draws heavily.

replaced with a system of contract labor. The government has become increasingly aware of the problems of the landless; however, no programs have significantly reversed the trend toward dispossession and impoverishment in rural Java.

## II. Incidence of Landlessness

According to the 1971 population census, of Java's 62.3 million rural residents, 21 million were defined as economically active in agriculture. They were distributed as follows:

TABLE 2

### POPULATION WORKING IN AGRICULTURE, RURAL JAVA, 1971

<u>Occupational Status</u>	<u>Number (000's)</u>	<u>Percent</u>
Total	21,000	100%
Employer	1,300	6
Own Account Worker	6,200	30
Unpaid Family Worker	7,800	37
Employee	5,700	27

#### Source:

1971 Population Census of Indonesia.

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The Landless. According to Table 2, the landless represent about 27 percent of the rural agricultural labor force. An immediate problem of interpreting these figures arises from the mixed job portfolio of those households which have inadequate land for self-sufficiency. Many people are unpaid family workers part of the time and paid laborers at other times.

Further data come directly from the number of landless households. Of the 9.4 million farm households in 1970, the bottom 20 percent of all farming households averaged less than 0.1 hectares.<sup>2</sup> Thus, in 1970, an

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<sup>2</sup>Sajogyo, Modernization Without Developing in Rural Java, UN/FAO Agrarian Conference: Indonesian Agricultural Institute (IPB); Bogor, 1972.

estimated 1.88 million households (20 percent of 9.4 million) operated farms too small to be included in any agricultural census (which only considers farms larger than 0.1 hectares). These households can be regarded as landless, and are included here as agricultural workers.

Unfortunately, the figure for the absolutely landless in 1970 is not available; but, according to the 1963 Agricultural Census, they amounted to 20 percent of all rural households. Assuming that this figure has not changed much in seven years, we can say that in 1970, at least 41 percent of farming households, or about 3.85 million households, had no land or less than 0.1 hectares. The results of the 1973 Agricultural Census are not available, but in the absence of effective land reform and in view of the impact of population growth and rice intensification programs in recent years, we cannot be far wrong if we say that almost half of Java's rural households are completely or virtually landless workers, primarily in agriculture. The proportion who work primarily in non-agricultural jobs cannot be determined with existing data. This number does not include those (unknown) numbers of tenants and their families operating farms more than 0.1 hectares, but who have been reduced to de facto landless laborers through the mechanization of rice production.

The Near-Landless. The 1963 Agricultural Census revealed that 54 percent of households operating more than 0.1 hectares were within the "0.1 to 0.5" category. If we assume that this percentage has remained constant, and if we were to extend the idea of an adequate farm size to 0.5 hectares of any land, not necessarily of sawah, we could conclude that something in the vicinity of 32 percent (54 percent of the remaining 59 percent of farming households with .1 or more hectares) of Java's farm households are constrained cultivators. They clearly do not have land enough to meet their basic needs. Included among these three million households are an unknown number of tenants. To estimate their proportion of the landless and near-landless, we need to refer again to the 1963 census.

Tenancy. Of the total number of operational farms (over .1 hectares) reported in the 1963 Agricultural Census, 59 percent operated only their own land, while 41 percent operated mostly non-owned land, through

sharecropping, renting-in, and other arrangements. In renting arrangements, on more than 90 percent of total rented land, the rent was paid in money, before the use of the land for one or more seasons. In sharecropping arrangements, on 46 percent of total sharecropping land, payment was made in kind after the harvest. In many cases, the landlord usually functions as a farm manager, specifying input requirements and assigning labor requirements at each phase of the farming cycle. The nominal tenants and sharecroppers thus often function as farm laborers.

Inasmuch as the overwhelming majority of these tenants operated holdings of less than one hectare, often with uncertain security, they are included here among the landless. Using the 1963 census figure, this amounts to 41 percent of all cultivators with .1 to .5 hectares, or about 1.2 million households plus 41 percent of cultivators with .5 to 1.0 hectares, or about 1.1 million households, for a total of 2.3 million landless tenant farming households. This would leave about 1.8 million owner-cultivators who were constrained; i.e., they operated only their own land which was of inadequate size, from .1 to .5 hectares. These estimates are summarized in Table 3.

TABLE 3  
ESTIMATES OF LANDLESS AND NEAR-LANDLESS FARM HOUSEHOLDS  
IN RURAL JAVA, 1971

	<u>Number of</u> <u>Households (000)</u>	<u>% of All</u> <u>Households</u>
A. Agricultural Workers	3,850	41.0
B. Non-Agricultural Workers	NA	NA
C. Tenant Farmers	2,300	24.5
D. Constrained Owner-Cultivators	<u>1,800</u>	<u>19.2</u>
Total Landless and Near-Landless Rural Households	<u>7,950</u>	<u>84.7</u>
Total Farm Households	<u>9,390</u>	<u>100.0</u>

Sources:

1971 Population Census; projections from the 1963 Agricultural Census.

NA = Not Ascertainable

Trends. Both the 1961 and 1971 censuses suffered from age mis-statements, under-reporting, differences in definitions and differences in time reference periods. Hence, labor force data cannot be compared to estimate trends. Going back further, however, a 1903 poverty survey described 45 percent of farms as having less than 0.5 hectares, whereas the 1963 Agricultural Census specified a slightly higher figure: 52 percent. Moreover, over the same period the proportion of farms greater than one hectare merely changed from 21 to 22 percent. Yet over that sixty-year period, Java's population rose from 29 to 66 million. There has been little migration to urban areas, except to Jakarta and Surabaya, and transmigration to the other islands has been insignificant. Some more land has been brought under cultivation and the decline of the sugar plantations also put more land under staple food crops. But the last significant extensions of cultivated land were made prior to 1920. On the evidence so far, then, between 1903 and 1961, something between 24 and 28 million rural residents (80 percent of a 20 to 35 million population increase) have been added to the category of landless households.

In the past ten years, the incidence of landlessness has been greatly affected by population pressures and technological changes in agriculture. These are analyzed in the following section.

### III. Causes

Two important factors associated with near-landlessness in rural Java are historical population pressures leading to the breakdown of traditional institutions of "shared poverty" and recent technological changes leading to the displacement of agricultural labor. The dynamics and interactions of these factors are analyzed below.

The traditional Javanese cultivation system (bawon) has been described as a process of "agricultural involution." For generations, and at least up until 1965-67, the traditions of communal life in rural Java allowed the growing population to feed itself and find some means of employment for the entire labor force.<sup>3</sup>

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<sup>3</sup>Clifford Geertz, Agricultural Involution, Berkeley, University of California Press, 1963.

On the average throughout Java, pre-harvest labor inputs to cultivation required 217 man/days of labor per hectare per rice crop. These inputs have been broken down as follows: slashing and cutting, 20 man/days, hoeing and plowing, 140 man/days; and weeding, 57 man/days.<sup>4</sup> Usually, 50 to 55 man/days of this labor was estimated to come from individual farm-family sources as unpaid labor, leaving at least 167 man/days of hired labor required per hectare.<sup>5</sup> The bawon harvest utilized the services of neighbors, friends, and villagers seeking employment to assist with the harvest. A hectare of rice (approximately 2.5 acres) would be harvested by up to 480 to 500 persons, each using the traditional hand-knife known as the ani-ani.<sup>6</sup> Tradition held that any large implement for the harvest, e.g., the hand sickle, would offend and alienate the mythological Javanese goddess of rice, and hence, prevent all future harvests from being successful. As the harvesting was being completed, the laborers would carry the harvested rice, still on short stalks, to the landowner's house for division and distribution.

Traditional division of the rice harvest allowed between 12 percent and 15 percent of the entire crop to be shared by the harvesters. This would serve as "wages" for the laborers. Generally, en route to the owner's house, the harvesters would pre-divide the best proportion (those stalks holding the most and heaviest rice pericles) for themselves-- although careful not to pre-select any more than their allotment from the harvested stalks. Obviously, the use of the ani-ani was relatively inefficient since harvesters had to search for rice pericles and then cut the stalks high. Often, up to 10 percent of the possible crop might

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<sup>4</sup>Gary E. Hansen, Rural Local Government and Agricultural Development in Java, Rural Development Committee, Cornell University, 1973.

<sup>5</sup>Sajogyo, Modernization Without Development.

<sup>6</sup>This section follows the analysis of D. H. Penny and M. Singarimbun in Population and Poverty in Rural Java, A Case Study, Ithaca, New York, Department of Agricultural Economics, Cornell University, May, 1973.

be missed and left in the paddy. This would, in turn, allow harvest benefits to be shared by yet another group. The landless and unemployed rural Javanese would traditionally follow the harvest and glean the paddies for the remaining pericles.

After the harvest, threshing would be undertaken by village women using hand methods of labor. The short stalks of grain would be hit against the side of woven bamboo matting and the kernels collected in bamboo baskets. After drying, by hand spreading the grain over an expanse of cleared ground, and winnowing, the rice would be hulled by pounding it in a mortar-and-pestle fashion. The total of labor inputs for post-harvest activities for one crop from 1.0 hectares of land averaged about 210 man/days of labor. By subtracting the average 50 days of unpaid family labor, at least 160 man/days of hired or wage labor was required. The wages were usually paid in kind.

By combining the pre-harvest figures of labor inputs (167 man/days of hired labor) and the post-harvest labor inputs (160 man/days), it may be determined that an average total of 327 to 330 man/days of hired labor were needed per crop per hectare. These labor inputs represent only the pre- and post-harvest requirements. The total does not include labor required for the actual harvest (480 to 500 persons), nor those benefiting from the gleaning which traditionally followed each harvest period.

Post 1965-1967: The Advent of High-Yielding Seed Varieties and Other Technological Changes (HYV+). The introduction and spread of HYV+ across Java, as in most areas of Southeast Asia, was accompanied by a proportional increase in the man/days of labor required in pre-harvest activities. In comparison to traditional varieties, HYV+ cultivation required additional fertilizers, insecticides, pesticides, and more intensive irrigation. These increased the necessary labor inputs to a minimum of 250 man/days of labor per hectare per crop. By subtracting the standard 50 to 55 man/days of unpaid family labor, an average figure of roughly 200 man/days may be derived.<sup>7</sup> This increased labor input requirement is still applicable

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<sup>7</sup>Ibid. This assumes that the innovating farmers prefer unpaid family labor and increased profit to family leisure and increased hired labor.

today, even with some labor-saving technology which has evolved parallel to HYV+ cultivation. One example would be the weeding process. In traditional cultivation, rice seeds were usually scattered in the seed beds, and subsequent transplanting done ad hoc and irregularly. HYV+ technology, however, requires straight row planting to ensure the best yields. Hence, the small rotary hand-weeder has been adapted and evolved as more appropriate than weeding by hoe. (In effect, a trade-off occurs; the rotary weeder takes less time than hoe-weeding, but straight row planting is more time-consuming than irregular planting). Despite the general increase in labor inputs for the HYV+, increasing population pressures in rural Java caused intense competition for pre-harvest employment opportunities. By the early 1970's, competition had become so keen that in many rural areas contract groups of Javanese laborers (borongan) were contracting with landholders and tenant farmers for advance working relationships. Contracting on the part of the landholders then began to cause resentment by other traditional laborers in each community and intensified the alienation between the landholders and the rural majority, the landless.<sup>8</sup>

Changes in the actual harvest practices have even been more drastic. By 1970, population pressures and rural poverty in many areas had increased to such a degree that the number of laborers appearing to "assist" in any harvest rose from the standard 450 to 500 persons per hectare of crop to in excess of 1,000 to 1,200 per hectare.<sup>9</sup> The resulting chaos caused great harvest losses due to trampling of paddies and lack of control over the large numbers of people. This situation, being generally unacceptable to overall production, has resulted in yet another institutional change and a general reduction in applications of the bawon system. The new system is known as Tebasan, or literally, the middleman system. Under this practice, a farmer will sell his entire rice crop to a middleman while the

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<sup>8</sup>William L. Collier, Agricultural Evolution in Java: Decline of Shared Poverty, Bogor, Indonesia, Indonesian Agro-Economic Survey, 1976.

<sup>9</sup>Hansen, Rural Local Government.

rice is still unripe and on the stalk in the paddy. This automatically avoids the problem of overcrowding during the harvest on the part of the farmer or landholder. The middlemen are often the local money lenders. As money lenders, they have already recruited small crews of landless laborers who agree to work for the middleman as a means of paying off previous loans. The work, of course, may be extracted from these laborers at low wages for their labor. This kind of labor is classified as Ijon-Kerja, literally, "unripe labor." The tebasan middleman, instead of following tradition and allowing the community's landless into the paddy to share in the harvest, will place these work gangs in the paddy when the crop is ready for harvest. A hectare can then be harvested with less than 25 to 30 workers, and may take as long as three to four days. Since the middleman has only purchased the rights to the crop at hand, and has no rights to or commitment on future harvests, he has nothing to fear from breaking tradition in the face of the rice goddess. In order to obtain maximum efficiency, the tebasan middlemen have been replacing the traditional ani-ani with a minor technological improvement, the hand sickle. This change is resulting in more efficient harvests. With the hand sickle, the rice stalks are cut low throughout the paddy, and no uncut or missed pericles remain. This practice, however, effectively eliminates the opportunity for gleaning.

Another recent innovation has been the introduction of rice scales in the rural areas. With this weighing device, the traditional division of rice stalks by laborers and harvesters has also been eliminated. By using less laborers per hectare of crop harvested, and by applying the ijon-kerja system of mobile labor teams, the overall cost of each harvest has been decreasing. In-kind payments to those harvesting now amount to between six and eight percent of harvest values compared to 12 to 15 percent with the bawon harvest system.<sup>10</sup>

The government began to establish and direct village cooperative organizations in early 1967. These village units are known by the

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<sup>10</sup> Collier, Agricultural Evolution.

acronym of BUUD. For every 20,000 to 25,000 people in any rural area, a BUUD has been set up to assist farmers in such activities as providing agricultural credit, distributing fertilizer and insecticides, and assisting in the post-harvesting handling and marketing of the rice.<sup>11</sup> While under the nominal control of the government, decisions in local BUUDs are made at local levels through a council of village-elected commissioners who must be farm operators. This automatically excludes the majority of the rural population who are landless and under or unemployed laborers. In order to increase production, the BUUDs have recently experimented with new post-harvest technologies. Mechanical threshers have been purchased by many BUUDs and are transported around a given area during the harvest periods. In these areas, mechanical threshers have displaced most hand threshing. Mechanical driers have also appeared. The biggest change, however, has evolved in the hulling and milling processes. Many BUUDs now operate their own mechanical hullers. There are also many privately-owned mechanical innovations which have become a major element in rural Java's agri-business. For the most part, these private mechanical huller entrepreneurs are local Chinese. Traditionally, the hand-hulling of rice by using the hand-pound method would provide a yield of 32 kilograms of husked rice per person per eight-hour day. Labor costs to a farmer/landholder for 100 kilograms, which employed three persons at a standard wage of Rupiah 200 (\$.48) per day was roughly \$1.45 for the 100 kilograms. With the mechanical hullers, the same 100 kilograms may be hulled in a total of two hours, and at a cost of approximately \$.54.<sup>12</sup> The consequence of all these "appropriate" technologies applied to post-harvest rice production in Java has been a dramatic decrease in the number of man/days of labor required. A recent estimate indicates that an average of 105 man/days total labor input is now required for post-harvest activities

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<sup>11</sup> Hansen, Rural Local Government.

<sup>12</sup> H. W. Arndt, Bulletin of Indonesian Economic Studies, Canberra: Department of Economic Research, School of Pacific Studies, Australian National University, Fall, 1974.

by employing the technologies described above.<sup>13</sup> By subtracting the non-paid family labor, only 55 man/days of labor per hectare per crop are needed. This represents only one-half of the labor inputs utilized as recently as ten years ago.

The net results in terms of required hired labor for both the traditional and the post-1965-1967 systems on a per hectare per crop basis are shown below. All figures are for required hired labor; non-paid family labor has been factored out.

TABLE 4  
HIRED LABOR INPUTS FOR RICE PRODUCTION IN RURAL JAVA  
(Per Hectare Per Crop)

	<u>Traditional System "Bawon"</u>	<u>Post 1965-1967 System, Using HYV and Other Technologies</u>
Pre-Harvest	167 man/days	200 man/days
Harvest Period	+480 persons, plus gleaners	30 persons, no gleaners
Post-Harvest	160 man/days	55 man/days
<b>TOTALS</b>	327 man/days, plus 480 har- vesters, plus gleaners	255 man/days plus 30 harvesters no gleaners

It is apparent that in the last ten years, rice-production practices in rural Java have seen a decline or net loss of 72 man/days of hired labor per hectare per crop (327-255 man/days). Additionally, benefits to 450 harvesters per hectare per crop and residual benefits to gleaners have been totally eliminated.

All of these technological and institutional changes have been occurring at a time when Java faces continuing pressures of population increase and high unemployment. The net loss of 72 man/days per hectare per crop of pre- and post-harvest labor on the 3.3 million hectares of

<sup>13</sup>Ingrid Palmer, "To Be Poor in Java," CERES, Volume XX, No. 4, July-August, 1977.

intensively-cultivated land on Java is staggering. This represents a loss of 237,600,000 man/days of labor per crop. If we estimate that one-half of this land is producing two crops annually, the 237.6 million man/days may be increased by another one-half to a total of 356,400,000 man/days of employment displaced. Assuming that full employment requires a minimum of 100 workdays per year, we can estimate that there are about 3.5 million workers who were displaced by the technological and institutional changes in pre-harvest and post-harvest production patterns in the past ten years.

The amount of harvesting labor lost through the spread of ijon-kerja and tebasan appears to be much larger, although the population pressures leading to these institutional changes have been at work for a much longer period of time. Using Sajogyo's estimate of four million hectares under tebasan, we can estimate that the abandonment of traditional harvesting practices has led to the displacement of 17,000,000 farm workers over a period of two or three generations. Apparently, the traditional village obligations of the landowners to provide employment and gleanings are breaking down under the intense pressure of the large, growing population and the opportunities for profit from the new technologies. As fewer jobs are available, the near-landless who must earn extra income to survive are driven to borrow money or sell their land, thus becoming landless.

#### IV. Conditions

In rural Java, the threshold of poverty can be interpreted as the minimum income necessary to purchase 240 kilograms of milled rice per person per year. However, even for farmers working on .5 hectare (well above the mean) and double-cropping, this poverty level cannot be reached without some off-farm sources of income. The burden (and the benefits) of the increased rice production for Java rests with the estimated 2.53 million farm households with over .5 hectares. In the 1971 National Socio-Economic Survey, sample results showed that even the richest and largest farms (those few which exceed 1.0 hectares) reported a single crop gross profit of approximately \$159 per hectare. This was reduced to \$112 for net profit. By double-cropping, the net profit may be assumed to reach

\$224. Farm laborers still employed by these farms earned an average of \$3.60 per month. While all of these figures represent a net increase in incomes over the previous ten-year period, the number of Javanese in the landless and under/unemployed category continues to expand without additional land available for cultivation, and the real average incomes in rural Java have precipitously declined.<sup>14</sup>

The general economic situation for rural Java as an entity is equally bleak. Money lenders at local levels are now extracting an average of 20 percent in interest charges, even for the smallest loans of only one week. Literally millions of unemployed cannot even find work in the ijon-kerja system. Farmers and landholders, in order to survive, are seeking desperately to reduce costs and maximize profits. The incentive is merely survival. To do so, the farmers and landholders must act at the expense of the landless and jobless. Between 1970 and 1975, local hire wages for those finding employment increased by 40 percent. However, during this same time period, inflation increased the cost of living and the rice index by 50 to 65 percent.<sup>15</sup> "Shared poverty" has become "every man for himself."

#### V. Public Policy Measures

In efforts to stimulate rural development, the government has recently undertaken several kinds of projects and activities which are labor-absorptive. Many local-level, labor-intensive public works schemes have been implemented, known as Padat Karya. Other types of labor-intensive projects have been conducted with central to local government subsidy grants known as INPRES, Presidential Instructions for Development. Together, however, these two types of projects have only been able to provide a maximum of 240,000 jobs annually in rural Java. This represents only a small fraction of the labor force displaced by the recent technology applications and institutional changes taking place in rural Java.

Another solution, begun as early as 1905 under Dutch colonial administrations, is entitled "Transmigration," and consists of moving the

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<sup>14</sup> Collier, Agricultural Evolution.

<sup>15</sup> Brewster Grace, Politics of Income Distribution in Indonesia, American Universities Field Staff Report, Volume XXV, No. 9, July, 1977.

poorest families from rural Java to the less-dense, relatively undeveloped "outer islands." The Javanese transmigrants are provided transportation, stipends, land (usually 2.0 hectares) and moderate housing. However, problems have abounded. Most of the transmigrants are totally unprepared for the transition. The pioneer life is too radically different from communal and crowded Java. The soils are different, irrigation is unknown, and dryland farming techniques are difficult. Disease also takes its toll, as schistosomiasis and malaria are rampant in many locations off-Java. Since 1952, only 1.5 million Javanese have been officially transmigrated. The National Five Year Development Plan targets have called for at least 50,000 families (250,000 persons) to be transmigrated from Java, but no more than 20,000 families have ever done so, even in the "best" years. Meanwhile, new births on Java exceed 1.8 million annually.<sup>16</sup>

There is an urgent need for labor-intensive, non-agricultural employment in rural Java. Currently, 70 percent of all Indonesian industry is located in major urban areas. In Java, only about six percent of the entire rural population is primarily engaged in any semblance of non-agricultural industrial endeavor. Aside from locally used handicrafts and local products, these are found in the first-order basic industries for cigarettes, soft drinks, and food processing. Direct and immediate attention must be provided by the government and local Javanese authorities for creating some means to expand the rural industrial base in order to absorb significant amounts of labor.<sup>17</sup> Transmigration will not effectively lessen the population pressures of Java. Labor-intensive public works projects are not capable of absorbing the excess unemployment to any full measure.

Without prompt policy determinations and revised strategies for labor mobilization in rural Java, the immediate and long-range future appears calamitous for the millions of landless under- and unemployed Javanese. Java's problem is not one of stagnation. Neither is it really

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<sup>16</sup> D. H. Penny and M. Singarimbun, Population and Poverty.

<sup>17</sup> Sajogyo, Modernization Without Development.

one of finding a means to increase rice production. The review of the situation demonstrates that the problem lies with labor displacements caused by the adoption of moderate, yet innovative, technological changes in the means of rice cultivation. The problem is further exacerbated by subsequent institutional changes in the pattern of producing rice, which have been caused both by the newly-applied technology and an increasing population rate. The solution must be found in additional technological applications to sectors other than rice.

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## APPENDIX D: THE LANDLESS AND NEAR-LANDLESS IN THE PHILIPPINES

### I. Introduction

There is widespread evidence to indicate that the landless constitute a significant proportion of the rural poor in the Philippines, and that the landless and near-landless have received disproportionately few benefits from economic growth. The overall dimensions of the problem of the rural poor can be estimated in aggregate terms; however, little is known about the composition, labor skills, employment patterns, and social welfare of this group. As a result, few development programs have been designed specifically for the landless and near-landless.

About three-quarters of the population in the Philippines live in rural areas, where, according to one recent survey, "social services are poor, economic activities limited, agricultural productivity low, and underemployment high."<sup>1</sup> Most of the rural population work in agriculture, which is characterized by a high number of small farms and a high rate of tenancy, especially among rice and corn farmers. Table 1 provides an overview of the rural and agricultural population.

### II. The Incidence of Landlessness and Near-Landlessness

The relationship between rural poverty and landlessness can be understood by examining the major source of income of rural households above and below a poverty threshold. For the reference year 1971, a poverty threshold of P 4,000 total income per household per year was adopted by USAID/Manila on the basis of studies prepared by the Development Academy of the Philippines and the Philippine Food and Nutrition Research Council on the minimum income and expenditure requirements necessary to provide adequate food, clothing, and shelter, adjusted for various family sizes of rural households. According to this poverty

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<sup>1</sup>The Philippines: Priorities and Prospects for Development, Washington: World Bank, 1976, p. 92.

TABLE 1

SELECTED POPULATION CHARACTERISTICS IN THE PHILIPPINES, 1948-75

Year	Total Population (millions)	Intercensal Growth Rate %	Rural Population (a)		Rural Population (b)	
			Number (millions)	As a Percent of Total Population %	Number (millions)	As a Percent of Total Population %
1948	19.2		14.9	77.6	12.3	64.1
1960	27.1	3.1	20.2	74.5	15.7	57.9
1970	36.7	3.0	26.5	72.2	19.6	53.4
1975	42.5	2.7	30.2	71.1	21.5	50.6

Source:

The Philippines: Priorities and Prospects for Development, Washington: World Bank, 1976, p. 93.

Notes:

(a) Including 16 percent of urban population who were reported as urban by the Philippine Bureau of the Census and Statistics (BCS) but who were engaged in agriculture according to BCS labor force surveys.

(b) The agricultural population includes all those individuals living in households primarily engaged in farming, fishing, or forestry.

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threshold, the 1971 total of 4,434,000 rural households was divided into two groups: 858,000 households (19.3 percent of the total) with annual household incomes above the poverty threshold and 3,576,000 households (80.7 percent of the total) with annual household incomes below the poverty threshold.<sup>2</sup> Another study by Hickey and Flammang calculated a similar poverty threshold but with greater emphasis on expenditure levels for different family sizes.<sup>3</sup> Using their calculations, the

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<sup>2</sup>Development Assistance Program for the Philippines, Manila: USAID/Philippines, June, 1975. Volume 1, pp. 1-2.1 - 1-2.2.

<sup>3</sup>Hickey, Gerald C. and Robert A. Flammang, "The Rural Poor Majority in the Philippines: Their Present and Future Status as Beneficiaries of AID Programs," Manila: USAID/Philippines, October, 1977.

TABLE 2

INCIDENCE OF POVERTY BY MAIN SOURCE OF INCOME OF RURAL HOUSEHOLDS, 1971

Main Source of Income	Below Poverty Threshold		Above Poverty Threshold	
	Number (000)	% (a)	Number (000)	% (a)
1. Wages and Salaries	971	66	497	34
a. Agricultural	501	83	101	17
b. Non-agricultural	470	54	396	46
2. Trading	134	70	57	30
3. Manufacturing	96	84	19	16
4. Transport	37	64	21	36
5. Other Enterprises	18	59	12	99
6. Practice of Profession or Trade	1	36	2	64
7. Farming, Including Livestock and Poultry	1792	86	305	14
8. Fishing, Forestry and Hunting	205	87	31	13
9. Other Sources (Rents, Gifts, Relief, Pension Benefits, etc.)	176	74	60	26
TOTAL	3430	77	1004	23
TOTAL NUMBER OF RURAL HOUSEHOLDS = 4,434,000 =				100

## Source:

Social Research Associates, "An Analytical Description of the Poor Majority," Project Report IB, Manila: May, 1977. Mimeographed. Reported in Hickey, Gerald C. and Robert A. Flammang, "The Rural Poor Majority in the Philippines," Manila: USAID/Philippines, October, 1977, p. 40. For the Agricultural and Non-agricultural Wages and Salaries estimates, Development Assistance Program for the Philippines, Manila: USAID/Philippines, June, 1975, pp. IV - 7.1. For both sources, the estimates were based on data provided by the National Economic and Development Authority from the 1971 Family Income and Expenditure Survey.

(a) Percentages are rounded off to the nearest whole number and are totaled across the rows.

incidence of poverty can be estimated for rural households categorized according to the main source of household income. These data are presented in Table 2.

Table 2 shows that 77 percent of all rural households in 1971 had annual incomes and expenditures below the poverty threshold for their family size. The incidence of poverty was highest among households whose main source of income was from fishing, logging, and hunting (87 percent), farming (86 percent), manufacturing (84 percent) and agricultural labor (83 percent). The typical manufacturing household is primarily engaged in basket-making, weaving, carving, pottery making, and similar market handicrafts. Only among those few households whose major source of income came from the practice of a profession or trade was the poverty rate less than 50 percent. The percentage composition of the rural poor is presented in Table 3.

TABLE 3

COMPOSITION OF THE RURAL POOR BY MAIN SOURCE OF HOUSEHOLD INCOME, 1971

Main Source of Household Income	Number (000)	Percent
1. Wages and Salaries	971	28.3
a. Agricultural	501	14.6
b. Non-agricultural	<u>470</u>	<u>13.7</u>
2. Trading	134	3.9
3. Manufacturing	96	2.8
4. Transport	37	1.1
5. Other Enterprises	18	.5
6. Practice of Profession or Trade	1	--
7. Farming, Including Live-stock and Poultry	1792	52.2
8. Fishing, Forestry, and Hunting	205	6.0
9. Other Sources (Rents, Gifts, Relief, Pension Benefits, etc.)	<u>176</u>	<u>5.1</u>
TOTAL POOR RURAL HOUSEHOLDS	3430	100.0

Source:

Same as Table 2.

The majority of the rural poor in 1971 were farmers, who comprised 52.2 percent of all poor rural households, according to Table 3. Agricultural laborers and non-agricultural laborers comprised another 28.3 percent of rural poor households. While farm families comprise a majority of rural poor households, there is no direct way to determine how many of these are owner-cultivators and how many are tenants. There are no data publicly available which cross-tabulate income by type of land tenure or income by size of holding, although both cross-tabulations are possible with data from the 1971 Census of Agriculture. The existing data on the size distribution of holdings are grouped in categories which are not very useful for analyzing the relationship between access to land and rural poverty. Given these shortcomings in the available data and the unavailability of better data, an indirect method is used here to estimate the proportion of poor farm households who were tenant farmers.

The 1971 Census of Agriculture reports that of the total number of farms (2,354,469), 58.0 percent were operated by full-owners; 11.4 percent by part-owners; 28.9 percent by tenants; 0.1 percent by managers; and 1.6 percent, other forms of tenure. Elsewhere in the summary volume of the Census, it is reported that 36.4 percent of all farm operators had a sharecropping arrangement with the landlord, the large majority of which were on a 50-50 sharing ratio. Most of these tenant farmers operated holdings of less than three hectares (480,322 or 70.5 percent of all tenant farmers). If we assume that three hectares is the minimum size necessary for tenant farmers to afford an annual family livelihood above the poverty threshold, then it can be estimated that these poor tenant families constitute 26.8 percent of the 1,702,000 poor rural households whose main source of income came from farming. The remaining 1,312,000 who constitute 73.2 percent of poor farm families are full owners or part owners of the farms they operate.

With these estimates and the data presented in the preceding tables, the incidence of landlessness and near-landlessness can be formulated in Table 4. The landless--those with no ownership rights to land, including agricultural workers, non-agricultural workers, tenant farmers, and others--comprise 61.7 percent of the rural poor and 47.8 percent of all rural households. The near-landless--those with ownership of land of inadequate size or quality--comprise 38.3 percent of the rural poor and 29.6 percent of all rural households.

TABLE 4

LANDLESS AND NEAR-LANDLESS RURAL HOUSEHOLDS IN THE PHILIPPINES, 1971

	Number of Rural Households (000)	% of All Rural Households
A. Agricultural Workers	501	11.3
B. Non-Agricultural Workers	756	17.1
1. Self-Employed (a)	285	6.5
2. Hired Laborers	<u>470</u>	<u>10.6</u>
C. Tenant Farmers	480	10.8
D. Constrained Owner-Cultivators	1312	29.6
E. Others	381	8.6
1. Fishermen, Loggers, Hunters	205	4.6
2. Receivers of Rents, Gifts, Pensions, etc.	<u>176</u>	<u>4.0</u>
TOTAL LANDLESS AND NEAR-LANDLESS HOUSEHOLDS	<u>3430</u>	<u>77.4</u>
TOTAL RURAL HOUSEHOLDS	<u>4434</u>	<u>100.0</u>

## Source:

Same as Table 2. Also 1971 Census of Agriculture, Volume II, National Summary.

(a) Including those whose main source of household income came from trading, manufacturing, transport, practice of profession or trades, and other enterprises, as indicated in Table 2.

Regional Distribution of Landlessness and Near-Landlessness

Considerable variation with respect to income levels, poverty, and landlessness exists among the different regions of the country. In 1971, the median income in the City of Manila (the highest income region) with 1.4 million people was three times that of the two poorest regions: the Eastern Visayas (with 5.5 million people) and the Cagayan Valley (with 1.5 million people). In Central Luzon, the second highest income region (with 5.3 million people), the median income was twice that of these two poor regions. Table 5 summarizes these regional variations in income level.

TABLE 5

REGIONAL VARIATIONS IN INCOME LEVELS, 1971

<u>Item</u>	<u>Low Income</u>				<u>Medium Income</u>				<u>High Income</u>	
	<u>Eastern Visayas</u>	<u>Ilocos</u>	<u>Cagayan Valley</u>	<u>Bicol</u>	<u>Northern &amp; Eastern Mindanao</u>	<u>Southern Tagalog</u>	<u>Southern &amp; Western Mindanao</u>	<u>Western Visayas</u>	<u>Central Luzon</u>	<u>Whole Country</u>
Median annual income of farm households	1,115	1,516	1,527	1,530	1,865	1,973	1,973	2,209	2,514	1,818
Density of population per square kilometer	148	71	56	168	75	148	79	175	215	123
Average farm size (cultivated area) in hectares	1.98	1.04	2.75	3.53	2.75	2.79	3.13	3.34	2.65	2.69

Source:1971 Agricultural Census.

The highest proportions of low income families to the total number of families can be found in the Ilocos Mountain Province, Cagayan Valley, Bicol, Northern Mindanao, and Eastern Visayas. Over 64 percent of the entire population in the Eastern Visayas were below the poverty threshold. Regional variations in the incidence of poverty and the composition of the poor are presented in Table 6.

TABLE 6

INCIDENCE OF POVERTY AND COMPOSITION OF THE POOR  
BY REGION (PERCENT) 1971

<u>Region</u>	<u>Poverty Incidence</u>	<u>Composition of the Poor</u>
1. Metro Manila	17.88	3.30
2. Ilocos Mt. Province	56.36	6.84
3. Cagayan Valley Batanes	58.71	5.37
4. Central Luzon	35.94	10.77
5. Southern Luzon & Islands	41.29	12.60
6. Bicol	53.19	9.26
7. Western Visayas	38.21	8.98
8. Eastern Visayas	64.43	22.14
9. Northern Mindanao	52.39	9.58
10. Southern Mindanao	38.59	11.16
NATIONAL TOTAL	<u>44.90</u>	<u>100.00</u>

Source:

Same as Table 2.

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Trends

While total agricultural output and rural income have been growing rapidly, there has been a sharp increase in the extent and intensity of rural poverty, especially among the landless. This can be ascertained in a number of ways. Table 7 shows the increase in the degree of inequality in the distribution of rural income from 1956/57 to 1970/71.

TABLE 7

RURAL HOUSEHOLD INCOME DISTRIBUTION IN THE PHILIPPINES

Percentage of income accruing to	1956/57	1961	1965	1970/71
Lowest 20 percent	7.0	5.9	5.0	4.4
Second 20 percent	11.1	11.8	9.5	8.9
Third 20 percent	14.7	13.5	15.3	13.9
Fourth 20 percent	21.1	21.9	23.0	21.8
Top 20 percent	46.1	46.9	47.2	51.0
Top 10 percent	30.1	31.1	30.0	34.4
Index of quintile inequality	0.34	0.36	0.38	0.41
Gini coefficient	0.38	0.40	0.42	0.46

Source:

Sharing in Development: A Program of Employment, Equity and Growth for the Philippines, Geneva: ILO, 1974, p. 10.

The table indicates that the income share of the lowest 20 percent of rural households declined steadily across the time period. The second lowest 20 percent also suffered a decline in their share of rural income. In fact, only the top 20 percent of rural households managed to increase their share of rural income. Mangahas, Quizon, and Lim indicate that these trends appear to have continued through 1975.<sup>4</sup>

Real wages in agriculture have also been declining over the past twenty years. For the large number of landless rural households who are dependent in whole or in part on the fruits of their own labor, this is a particularly adverse trend. Table 8 and Figure 1 indicate the trend in wage rates in Philippine agriculture. Except for a short up-turn in 1966 and 1967, there has been a steady decline in real wages from 1957 to 1974, with a particularly sharp decline in the 1960's and early 1970's.

<sup>4</sup>Mangahas, Mahar, Jaime B. Quizon, and Antonio Lim, "A Critique of the NCSO 1975 Family Income and Expenditure Survey," Manila: n.p., 1977. Manuscript.

TABLE 8

AVERAGE AND REAL WAGE RATES IN PHILIPPINE AGRICULTURE

Year	<u>Daily Money Wage (pesos)</u>			<u>Daily Real Wages (pesos at 1965 purchasing power)</u>		
	Average Of All Operations Series A	Average Of Ploughmen Harvesters & Planters Only Series B	Ploughmen Only Series C	Series A	Series B	Series C
1957	2.74	2.74	3.41	3.84	3.84	4.78
1958	2.79	2.79	3.40	3.80	3.80	4.63
1959	2.77	2.77	3.34	3.85	3.85	4.64
1960	2.79	2.79	3.33	3.69	3.69	4.40
1961	2.78	2.78	3.31	3.49	3.49	4.16
1962	2.79	2.79	3.32	3.41	3.41	4.06
1963	3.05	3.05	3.58	3.43	3.43	4.03
1964	2.93	2.93	3.45	3.03	3.03	3.56
1965	2.93	2.93	3.34	2.93	2.93	3.34
1966	3.12	3.35	3.90	2.98	3.20	3.73
1967	3.41	3.67	4.50	3.09	3.33	4.08
1968	3.42	3.75	4.50	3.04	3.34	4.00
1969	3.13	3.40	4.34	2.75	2.99	3.81
1970	3.20	3.60	4.49	2.44	2.75	3.43
1971	3.64	3.98	5.13	2.25	2.46	3.17
1972	3.78	4.25	5.30	2.17	2.44	3.04
1973	3.65			1.86		
1974	4.10			1.48		

## Source:

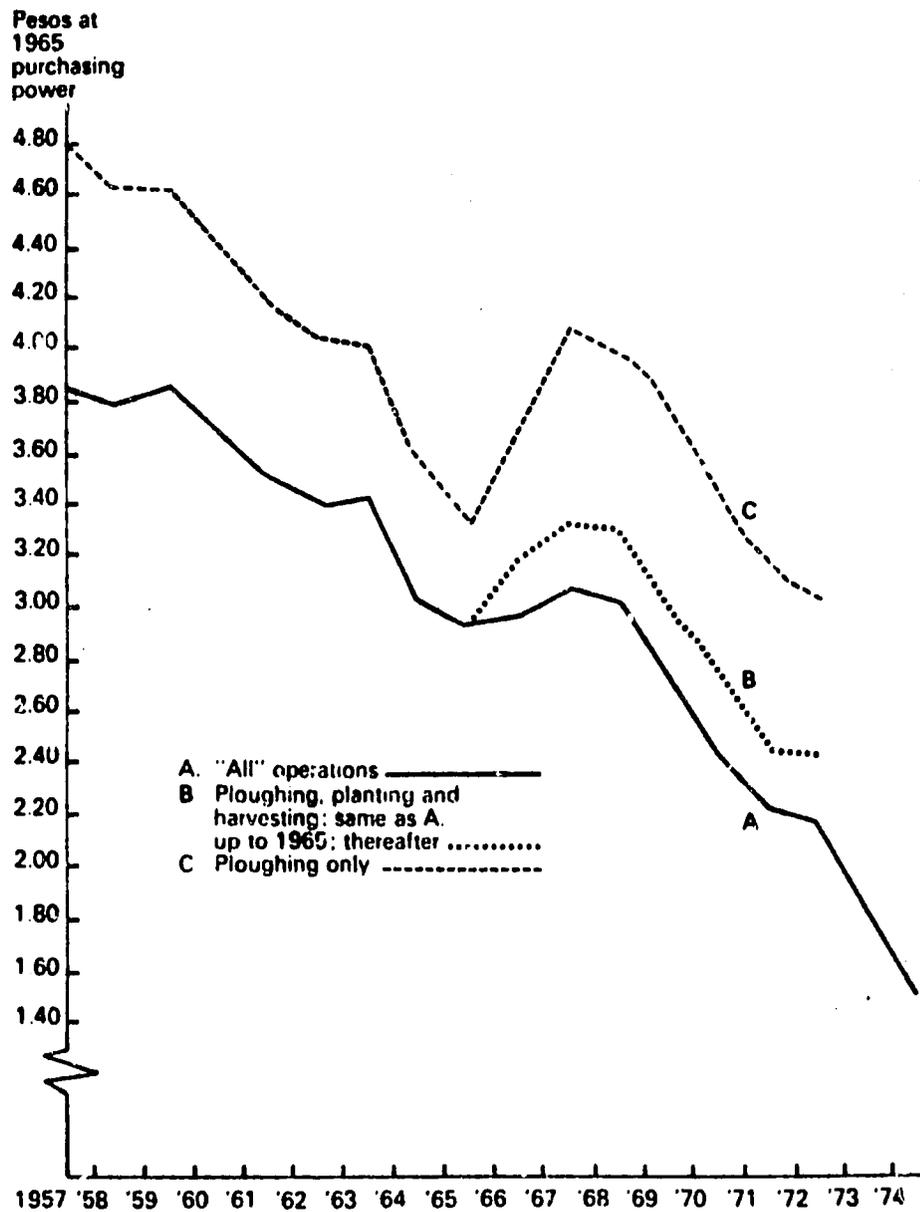
A. R. Khan, "Growth and Inequality in the Rural Philippines," Poverty and Landlessness in Rural Asia, Geneva: ILO, 1977, p. 244.

## Note:

The Bureau of Agricultural Economics of the Department of Agriculture and Natural Resources collects the above wage data through quarterly surveys. Until 1965 wage rates for ploughmen, planters and harvesters only were collected. From 1966 the wage rates for cultivators, weeders and sprayers have also been collected. Thus from 1966 the (unweighted) average wage rate for all operations (Series A) is different from the (unweighted) average wage rate for ploughmen, harvesters and planters (Series B). For 1973 and 1974 wage rates from the same source are not yet available. The average daily cash earnings of salary and wage workers from the BCS Survey of Households Bulletin, Labour Force May Series have been spliced in. The real wages have been obtained by deflating money wages by the Central Bank cost-of-living index outside Manila.

FIGURE 1

DAILY REAL WAGE IN AGRICULTURE IN THE PHILIPPINES



Source: Khan, *op. cit.*, p. 246

The decline in the living standards of the rural poor has been a persistent and widely noted trend for the past two decades at least. In his detailed analysis of the subject, Khan notes that there may be controversy about the actual number of households and the exact extent of deterioration, but there is little doubt that a substantial proportion of the rural households in the lowest income groups experienced a very significant decline in living standards during the last 15 to 20 years. The deterioration in living standards was especially rapid during the early 1970's, a period of high inflation.<sup>5</sup>

It should be emphasized that the deterioration in the living standards of the rural poor took place despite the rapid over-all growth of the rural economy. The output of agricultural goods per head increased rapidly until the early 1970's and the value of agricultural output per employed worker also increased over the long term. These increases, however, were not accompanied by a similar movement in real wages. In economic terms, the factor share of labor has steadily decreased while the factor share of land has steadily increased. In plain language, the rich got richer, while the poor got poorer.

### III. Causes of Landlessness and Near-Landlessness

Several factors are frequently mentioned to explain this pauperization of rural households. This study emphasizes four inter-related factors which contribute to landlessness and near-landlessness, as follows:

1. A marked acceleration of population growth
2. An attempt to foster rapid growth of the relatively narrow, large-scale industrial sector

This meant, first, that in spite of the relatively rich endowment in natural resources, population began to press increasingly against the land frontier by the end of the 1960's. Second, the rural sector--with its two components of domestically-oriented food production and export-oriented cash crops--had to be relied upon to finance much of the rapid

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<sup>5</sup>Khan, A. R., "Growth and Inequality in the Rural Philippines," Poverty and Landlessness in Rural Asia, Geneva: ILO, 1977.

expansion of the industrial sector. These two trends led to the relative stagnation of the subsistence agriculture sector.

3. Despite rapid over-all growth of output of the rural sector, the benefits of growth were not widely distributed, and
4. The trends toward the concentration of ownership and mechanization in agriculture have continued through the post-war period and may have been accelerated by government policies.

The growth of demand for labor within agriculture has lagged far behind growth of output. This decline in the demand for labor can be explained by direct government policies to encourage mechanization, land alienation through indebtedness and eviction, the spread of corporate farming, and the desire of landlords to avoid increasingly unmanageable tenant relations. There have been few government efforts to prevent this deterioration of the status of the rural poor. Minimum wage legislation has had little impact in the rural sector. Land reform legislation is not intended to benefit landless laborers who are among the poorest of the poor. Tenants who receive leaseholds or larger holdings through land reform may benefit, but there is other evidence to suggest that those with very small holdings or with insecure tenant rights have frequently found themselves evicted by wary landlords. The next step for the dispossessed in many cases is to migrate to Manila or other regional cities, there to swell the number of unemployed and underemployed low- or unskilled persons living in squatter settlements in already overcrowded cities. Those sectors in which landless workers predominate--fishing, sugar, coconut, bananas, and other plantation crops including rice plantations--have not as yet benefited appreciably from any reform legislation.

Within the scope of this essay, it would be very difficult to assign precise coefficients or rank in order of priority the several factors which have been used here to explain the causes of landlessness. Another inquiry by the authors will attempt to distinguish short-term, precipitating factors from long-term, historical factors, and will also attempt to determine which causes are amenable to policy solutions and which are beyond political or ecological constraints.

#### IV. Conditions of the Landless and Near-Landless

Families with annual family incomes below the 1971 poverty threshold were characterized by the following<sup>6</sup>:

Income insufficient to needs. Ninety-two percent (92%) of these families have incomes which are insufficient to meet the costs of the minimum requirements of food, clothing, and shelter.

Large deficit spending. These families have an average excess of spending over income equivalent to almost 60 percent of the average family income of 1,741 (\$50/capita). This deficit may reflect among other things, an underestimation of incomes particularly in the rural areas resulting from a relatively low level of participation in the money economy (38 percent of reported income is non-cash), and the fact that heavy indebtedness among rural families is widespread. A study of this phenomenon needs to be undertaken.

An average family size of 5.4. Most of these families are relatively young; fifty percent of household heads are under 40 years of age.

Low educational attainment of households heads. The average number of years of schooling of household heads is four. Seventeen percent of the household heads have no formal education at all. Only six percent have finished secondary schooling.

Family budgets with a disproportionate share accounted for by food expenditures. Food expenditures represent 63 percent of all expenditures. Additionally, 63 percent of total food spending is for cereals, cereal products, fish and other sea foods.

An agricultural base. The major source of income of 68 percent of poor families is agriculture. Fifty-one percent of them work as small-scale farmers. Fifteen percent are landless farm laborers deriving incomes in the form of agricultural wages and salaries while 2.1 percent have incomes mainly from the share of agricultural produce.

A variety of income source. The total income of poor families comes from multiple sources, primarily agriculture. Income from farming consists of 39 percent of total family income; from agricultural wages and salaries, 14 percent and from share of agricultural produce, 2.1 percent. About 45 percent of total family income is derived from non-agricultural sources.

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<sup>6</sup>See the USAID, Development Assistance Plan, op.cit.

Limited access to services and facilities. In general, only one out of every 15 rural households is being provided with electricity. Only 30 percent of the rural population is provided with water, primarily through artesian wells and springs. Road systems are inadequate. For every 470 hectares of cultivated land, there is only one kilometer of feeder road.

As indicated above, the major source of income for the rural poor is small-scale agriculture. This is characterized by the following:

The major crops grown by the small-scale farmer are rice, coconut, and corn. In 1970, out of the 2,355,000 farms in the Philippines, 86 percent were rice, corn, and coconut farms.

Most farms are small and fragmented. The average sizes of rice, corn, and coconut farms in 1970 were 3.0, 2.5, and 4.4 hectares, respectively.

In 1972, one million farms planted to rice and corn were tenanted with an average farm size holding of 1.8 hectares.

In 1972, 44 percent of rice crop area was irrigated. Fifty-six (56%) percent of rice crop area was planted to high yielding varieties.

Fertilizer usage is minimal. Ordinary fertilizer use per hectare (18 kg.) is about six percent and nine percent of the levels used in Taiwan and South Korea, respectively:

While credit from institutional sources is used by an increasing number of farmers, many continue to borrow from landlords, middlemen and other non-institutional sources at high interest rates.

In 1971, the annual income of a typical farm unit was P 1,783.

This brief characterization of the landless and near-landless can be amply complemented with evidence from three recent studies on the subject: The Hickey and Flammang study, previously referred to; a descriptive and documentary survey by Lorna Pena Reyes-Makil and

Patria N. Fermin on Landless Rural Workers in the Philippines (Quezon City: Ateneo de Manila University, Institute of Philippine Culture, 1978); and Gerald C. Hickey, editor, Seminar on Agrarian Reform in the Philippines, December 16-17, 1977, Washington: Rand Corporation, forthcoming.

#### V. Government Policies

The landless wage laborer receives no access to government supported agricultural credit, benefits from no extension services, is penalized by improvements in land reform (because they may reduce the demand for rural labor) and is generally worse off as a result of most efforts to assist the farmer with tenure rights in land. These were the conclusions expressed by the late Garnett Zimmerly, former USAID director in the Philippines, at the Asian Conference on Landless Rural Workers held in Manila, March, 1976. It might also be added that the real wages of landless laborers have been declining, as previously noted in this study.

In general, there are few, if any, programs which have brought direct and primary benefits to the landless. The benefits that may have accrued to the rural poor have typically been indirect and secondary benefits of programs targeted primarily toward the small farmer. There is still considerable debate and uncertainty over the question of how much small farmer program benefits trickle down to the landless and near-landless. On the other hand, recent studies and conferences such as those indicated above are beginning to reduce this uncertainty and resolve the debate over how to reach the landless and near-landless. In the meantime, recent government policies can be briefly assessed as follows:

Small farmer assistance programs and policies. There has been considerable government activity intending to increase the marketable surplus and living standard of the hypothetical small farmer, whether owner or tenant. The small farmer is sometimes characterized as the "One Hectare Farmer," but the major beneficiaries of these government programs probably have much larger holdings. So far, there has not been any systematic effort to examine the impact of these policies on the landless and near-landless; however, a few generalizations can be made.

High-Yielding Varieties (HYV's). In 1975, Castillo published an analysis of the impact of the spread of HYV's which challenged the earlier assumptions that the new varieties benefited only the relatively few wealthy farmers and caused displacement and pauperization within the rural labor force.<sup>7</sup> While the negative effects may no longer be assumed, the consequences are not easily predicted. Real wages in agriculture may be generally declining, but it is difficult to ascertain how much of this may be due to inflation and how much is due to changes in the demand for labor caused by new and generally more expensive agricultural inputs. The controversy over who benefits from the "Green Revolution" remains unresolved. To resolve the controversy, greater attention will have to be paid to government policies concerning food pricing, tariff provisions, and the terms of trade between agriculture and industry which may have a bigger influence on agricultural output and labor demand than government programs which disseminate new seed varieties, water, fertilizers, and pesticides.

Rural Electrification. This program has been hailed as a model for reaching the poor, but it also illustrates some of the difficulties of reaching the poorest of the poor. Herrin's study in Misamis Oriental indicates that 62 percent of new electricity consumers are below the poverty threshold, but 92 percent of all those inaccessible to the program are also below the poverty threshold.<sup>8</sup> In this fashion, government programs tend to fall short of those groups which have the highest proportion of the rural poor.

Land Reform. Presidential Decree No. 27 of October 21, 1972 announced "The Emancipation of Tenants from the Bondage of the Soil."

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<sup>7</sup> Castillo, Gelia T., All in a Grain of Rice, Laguna, Philippines: Southeast Asian Regional Center for Graduate Study and Research in Agriculture, 1975.

<sup>8</sup> Herrin, Alejandro, "Socio-economic Impact of Rural Electrification Upon Western Misamis Oriental," Paper presented to the Philippine Sociological Society, Manila: January, 1976.

Since tenant farmers constitute a significant proportion of the landless, the implementation of a land reform program would do much to ameliorate rural poverty. Since the announcement of the program, however, a number of political, legal, financial, and marketing obstacles have slowed the program to a near-standstill. The Rand Seminar on Philippine Agrarian Reform reached the following conclusions:<sup>9</sup>

1. As the program is structured at the present time, there is little likelihood that it will attain the twin goals of (a) bringing about a more equitable distribution of land, and, (b) stimulating an increase in agricultural production.
2. Implementation of the program has been extremely slow.
3. There has been significant opposition to the program by small landlords and a marked reluctance by many tenants to participate in the agrarian reform.
4. Perhaps the most important reason for the failure of the present agrarian reform program is the lack of political will on the part of the Marcos government to push the program to a successful conclusion.

The seminar's conclusions are supported by recent data from the Department of Agrarian Reform, presented in Table 9. Only the estimated 914,000 rice and corn tenants are covered in the land reform program, which leaves other tenants on other agricultural lands outside the program. Since the land reform program is limited to holdings in excess of seven hectares, only 520,000 of the total 914,000 rice and corn tenants are eligible to receive title. The balance of 394,000 tenants who cultivate less than seven hectares are ineligible to receive title, but they are to be given written leasehold contracts, replacing their highly insecure, usually informal arrangements with landlords. Increased security of tenancy, however, may not compensate for holdings of inadequate size or quality.

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<sup>9</sup>Hickey, Gerald C., ed., Seminar on Agrarian Reform in the Philippines, December 16-17, 1977, Washington: Rand Corporation, forthcoming, p. ii.

TABLE 9

MONTHLY ACCOMPLISHMENT REPORT, DEPARTMENT OF AGRARIAN REFORM, SEPTEMBER 30, 1977

	<u>Tenants</u>	<u>Parcels</u>	<u>Hectares</u>	<u>Cost (Mil)</u>	<u>% of Landlords</u>	<u>% of Tenants</u>
i. Total number of rice & corn tenants (1)	914,000	---	1,700,000	---	---	100%
ii. Program scope	520,000	728,000	1,000,000	---	---	57%
iii. CLT's* issued (i.e., printed by the computer)	247,862	345,875 (2)	429,513	---	---	27%
iv. CLT's* distributed to tenants.** (3)	130,000	183,000	---	---	---	14%
v. Valuation received by Center for OLT,*** DAR	80,865	---	121,214	---	3,882	9%
vi. Valuation transmitted to the Land Bank	68,072	---	102,863	P714**	3,139	7%
vii. Compensation <u>paid</u> by Land Bank	41,614	---	78,650	P555**	2,113	4.6%

Source: Department of Agrarian Reform

<sup>1</sup> It is generally believed that these figures are low: actual tenancy could be 50 percent higher.

<sup>2</sup> One CLT per parcel is the procedure.

<sup>3</sup> Based on past findings, these are probably too high, perhaps 25 percent above actual (e.g., barrio captains holding CLT's while claims are contested).

\* CLT's means Certificates of Land Transfer

\*\* Estimate

\*\*\* OLT, DAR means Operation Land Transfer, Department of Agrarian Reform.

The Department of Agrarian Reform reported that as of September 30, 1977, 247,862 Certificates of Land Transfer (CLT's) had been printed up by their computer, which amounts to about 27 percent of the reported total of all rice and corn tenants. Only 14 percent of the total had been distributed to the village authorities and only 4.6 percent of the total had been delivered to the former tenants--presently amortizing owners--subsequent to the payment of compensation to the former landlords by the Land Bank. At this rate of implementation, it is unlikely that land reform will do much to ameliorate the poverty of the landless.

Given the high population growth rates in the rural Philippines, given the bleak prospects for increasing the extent of arable land, given the deterioration in the quality of existing arable land due to over-cropping, deforestation, and erosion, and given the declining real wages and living standards of the rural poor majority of landless workers, then the failure of the New Society's agrarian reform program may have dire consequences not only for the landless and near-landless, but for the Philippine nation as a whole.

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APPENDIX E: THE LANDLESS AND NEAR-LANDLESS IN SRI LANKAI. Introduction

Sri Lanka in 1972 had a population of about 12.7 million, with 77.6 percent of the population in rural areas. The population grew from 1963 to 1972 at a rate of 2.3 percent per year, a lower rate than the decade before. It is a small country, but quite densely settled; in 1972 there were 1161 people per square mile. Per capita agricultural land was less than half an acre in 1962. The labor force in 1969-70 was 4,141,000 of whom over 55 percent were in agriculture.

Though small, the country divides into three environmentally distinct zones, the wet zone, intermediate zone, and dry zone. The wet zone is in the southwest quadrant of the country, with about 30.4 percent of the area but 67.7 percent of the population. Two-thirds of this area is mountain upland, with tea and rubber plantations, and some paddy terraces and forest gardens around the villages. The southwest lowland coastal region contains the bulk of the wet zone population, with coconut and rubber estates as well as smallholder paddy fields, gardens, coconuts and rubber. The dry zone is the northwest and eastern sections of the country, much more sparsely settled, where colonization schemes have been carried on in conjunction with tank irrigation systems. Paddy is grown on the irrigated land, and garden crops of all kinds on the upland slopes, usually under shifting cultivation called chena. The intermediate zone receives an intermediate amount of rainfall and lies in the middle of the country.

The agricultural system has two major sectors, the estate sector and the smallholder sector. The estates grow tea or rubber (there are also a few coconut estates), and are worked by Indian Tamil laborers who were imported in the 19th century, are isolated on the estates, and are not Sri Lankan citizens. They were nine percent of the population of the country in 1972. The smallholder sector consists of the native Sri Lankans living in their villages, owning or operating small amounts of land. Tenancy is fairly common, usually on paddy land. Most rural families own or claim at least a home garden if no other land. In the wet zone, this is a forest

garden, usually upland, growing a variety of interspersed crops, including tree crops, vegetables, grains, and root crops. In the dry zone, it is usually a chena, or piece of upland forest under shifting cultivation.

Tenancy is lower in the dry zone than the wet zone and the size of land operated is larger. These characteristics can be attributed to the recent settlement of much of the dry zone land. The government has built new irrigation systems and settled families with a minimum of two acres of irrigable land.

## II. The Incidence of Landlessness and Near-Landlessness

While Sri Lanka has many sources of data on rural life, many of them are difficult to interpret, and they do not easily lend themselves to calculating the numbers of landless and near-landlessness. In order to construct these categories, several assumptions have been made in order to utilize the available data. The methods used to do this are explained here step by step.

First, it was assumed that the number of agricultural operators reported in the 1973 census equals the number of households in agriculture. 51.4 percent of these owned no land or only home gardens.<sup>1</sup> This number includes all tenants and also people whose income is derived primarily from non-agricultural pursuits. This latter group includes an unknown number who own significant non-agricultural assets. In order to exclude these, 10 percent of the whole group were subtracted, leaving 46.3 percent of agricultural operators, or 750,978 households as tenants, home gardeners, and agricultural and non-agricultural labor.

In order to calculate the number of marginal cultivators (other than those with only home gardens), information on cultivators by crop was used.<sup>2</sup> In 1970, 836,209 agricultural operators operated some paddy land, and 691,890 of them operated less than two acres of land (this land was not necessarily all paddy land; it included their home gardens, chenas, or land in any other

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<sup>1</sup>Silva, p. 67, citing 1973 Census of Agriculture.

<sup>2</sup>All the information in the paragraph is from Silva, pp. 50-58 citing data from the Department of Agrarian Services.

crop such as coconuts). Some of these were tenants, of course; in fact, 31.1 percent of all paddy parcels were operated by tenants. Tenants have already been counted in the paragraph above, so they must be removed from the marginal cultivator figure. Most tenants are in fact on paddy land. In order to generate a conservative figure on marginal paddy farmers, it was assumed that 31.1 percent of paddy farmers were tenants (the same percentage as tenanted parcels, whereas actually some of those parcels must have been worked by part-owners, who would not have been counted as tenants owning no land). It was also assumed that all the tenants operated lands under two acres. The assumed number of tenants was subtracted from those paddy operators with less than two acres of land, in order to obtain marginal paddy farmers excluding tenants who have already been counted.

TABLE 1

LANDLESS AND NEAR-LANDLESS RURAL HOUSEHOLDS IN SRI LANKA, 1973

	<u>Number of Rural Households (000's)</u>	<u>% of All Rural Households</u>
A. Agricultural Workers		
1. Estate	238	12.6
2. Non-estate		
B. Non-agricultural Workers	751	39.8
C. Tenant Farmers		
D. Marginal Farmers	453	24.0
E. Others	---	---
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Total Landless and Near-Landless Rural Households	<u>1,443</u>	<u>76.4</u>
Total Rural Households	<u>1,888</u>	<u>100.0%</u>

Source:

<sup>1</sup>Silva, A. T. M., Sri Lanka Country Study on Rural Employment Promotion," Geneva, ILO, December, 1975.

<sup>2</sup>Ceylon, Department of Census and Statistics, Socio-Economic Survey, 1969-70.

The data on paddy operators above were all for 1970, whereas the data on tenants and home gardeners were for 1973. Therefore, all the figures for 1970 were increased by five percent, assuming a five percent rate of household formation and land subdivision (but the same percentage of paddy farms under two acres) over those three years, a rate lower than population growth. The final number was 453,421 paddy owners operating less than two acres of land for 1973. Two acres is a very small amount, especially since this is not all paddy land in the great majority of cases. (In Colombo district, an average two-thirds of it was home garden<sup>3</sup>). Also many of the larger plots of land are in the dry zone where only one crop of paddy is possible due to lack of water, and four acres of paddy there might yield a comparable amount to two acres of paddy in the wet zone. In short, the figure used for marginal paddy owner operators is most likely quite conservative.

No figure could be calculated for small operators who operated no paddy, due to lack of information. There are many small holdings of rubber and coconuts, but some of their operators also farm some paddy. Also, coconuts are raised in home gardens in some areas, and would be counted both as home gardens and coconut holdings. Therefore, to avoid double counting, marginal operators without paddy were left out.

The landless agricultural laborers in Sri Lanka are mostly those working on the tea and rubber estates. The Socio-Economic Survey of 1969/70 reports 252,000 households on the estates. This number was increased by five percent to bring it up to 1973. Ten percent of these households were then subtracted, as being possibly "elite" estate workers with higher wages: clerks, foremen, and so on. This leaves 238,146 estate households as landless poor workers.

The total number of rural households in 1973, for our purposes, will consist of all estate households plus all non-estate rural households. The Socio-Economic Survey of 1969/70 reports, 1,506,000 rural households. Increasing this figure by five percent to generate the number of rural households in 1973 gives 1,581,000. This number is slightly smaller than

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<sup>3</sup>Silva, p. 58, citing ARTI study.

the 1,623,386 agricultural operators given in the 1973 Census of Agriculture. The number of agricultural operators has been assumed to be equal to the number of agricultural households here. Agricultural operators include all those with home gardens, which may well be inclusive of almost all rural households. The 1973 census figure on agricultural operators (the larger number) has therefore been used as the number of non-estate rural households. The estate households plus non-estate households give a total of 1,888,000 rural households in Sri Lanka in 1973.

The figures for the landless and near-landless in Sri Lanka then have been calculated to be a total of 76.4 percent of rural households. 12.6 percent of rural households are poor estate laborers. Tenants plus agricultural and non-agricultural workers with home gardens and without significant non-agricultural assets are 39.8 percent of rural households. Small farmers owning less than two acres of land, including some paddy, compose 24.0 percent of rural households. Landless agricultural worker households then are estate workers almost entirely and are Indian Tamils, while native rural Sri Lankans have access to some land as tenants and/or to gardens or chenas. Tenancy is fairly common in Sri Lanka and small plots of farm land are typical.

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