LAND REFORM

Sector Policy Paper



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World Bank
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LAND REFORM
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INTRODUCTION

Land reform is concerned with changing the institutional structure overning man's relationship with the land. At present, the livelihood f more than half of mankind depends directly on agriculture. Nine-nths of this total agricultural population is in the developing coun-ies, where questions of access and rights to land are of paramount terest to more than 2,000 million people.

Land is one of the basic factors of production for food and other gricultural products. With food production rising in the developing ountries at about the same rate as population, there is growing ressure on land resources to increase output. Much of this increase ill have to come from higher output per hectare. Changing the pat-rn of landownership and redistributing land can contribute to in-eases in output in some countries but will make little difference in thers.

Conditions governing agriculture vary enormously in developing ountries. But one characteristic that is common to all is a very rapid owth in rural population. Thus, while pressure on the land is in-easing, the average man-land ratio is worsening. At the same time, onagricultural employment opportunities are not expanding rapidly nough to provide adequate incomes for all those entering the labor arket. Some countries have prospects for expanding the frontier of ltivation to absorb more labor. In other countries, more labor could e employed in the rural sector through a redistribution of land, hile in yet others changing the rights to land will make little direct ontribution toward absorbing more labor.

Distribution of land in terms of size of holdings varies from country country. The greatest disparities are found in Latin America. Where e pattern of land control is skewed, the distribution of income is enerally uneven, although to some extent it is the poorer land that akes up the larger holdings. In Asia and the Middle East, maldis-bution is reflected in the landlord-tenant problem; the population more evenly spread, but rights of access to land are restricted. Much Africa presents a different problem, as the traditional pattern of oup ownership and communal rights is eroded in favor of individual wnership with varying degrees of equality.

In terms of land reform policy, therefore, one is confronted with a nge of cultural and political situations—based on different patterns social organization and customs—and with different levels of velopment. As shown in Chapter 1, at least six land-tenure situa-ns can be delineated. The differences among these types point to e varying reforms necessary to achieve more equitable land access

and improved productivity in specific country situations. Accordingly, while it is possible to identify the need for land reform, it is difficult to make general prescriptions with regard to the form of landholding or pattern of distribution necessary to achieve the multipurpose objectives of development.

Further, one is dealing with a dynamic situation, where rural population growth and changing technology interact with the existing institutional structures of rural society. The manifestations of this interaction are seldom benign for the majority of the land-based population. A situation that has seemed relatively stable and equitable for decades can become untenable. This dynamism means that a solution which was appropriate ten years ago may be inappropriate today. Not surprisingly, therefore, many developing countries are experimenting with a variety of possible solutions—with different forms of rural organizations, ranging from communes to private ownership.

While recognizing the broad context of the land reform issue, this paper focuses on a much narrower aspect—the appropriate role of the World Bank.[1] In pursuing this question, Chapter 1 looks at the characteristics of land reform in terms of both its rural context and its component elements. Chapter 2 examines the economic implications of land reform in relation to the goals of development. Chapter 3 reviews the Bank's policy in relation to land reform. The quantitative background to land reform in terms of population patterns and land distribution is outlined in Annex 1, while some experiences with land reform programs are summarized in Annex 2. The policy guidelines are presented at the end of the Summary.

[1] *All references to the World Bank in this paper are to be deemed to refer also to the International Development Association, unless the context requires otherwise. The fiscal year (FY) of the two institutions runs from July 1 to June 30.*

SUMMARY

Land reform involves intervention in the prevailing pattern of land-ownership, control and usage in order to change the structure of holdings, improve land productivity and broaden the distribution of benefits. In practice, land reform is pursued in response to political pressures for socioeconomic change arising from factors such as increased population, pressure on a limited land base or an ideology of egalitarianism based on more even distribution of land or income. Land reform, by its very context, has interlinked political, economic and social dimensions which in turn have significant implications for development.

The systems of land control in developing countries can be classified into six types, as presented in Chapter 1, although in many countries examples can be found of more than one type. Three of the six types are found in a traditional context: the feudalistic landlord and tenant system of some Asian countries; the feudal Latin American system of large farms; and the communal landownership patterns of many tribal groups (especially in Africa). The other three major types have a modern context: the private ownership of land common in most market economies; the state or collective ownership of socialist countries; and the plantation or ranch type, which is often interspersed with other forms of tenure.

Land reform necessarily implies many different kinds of adjustments in an array of situations where there are great variations in individual equity and agricultural productivity. In most instances, social or equity considerations are the main concerns. Thus, when there are exploitative landlord-tenant systems of the Asian or Latin American feudal type, reform incorporates changes in the rights of tenants, redistribution of ownership to existing tenants, or the replacement of the landlord by the tribe or the community. When individual ownership of the market economy type is the norm but the distribution of land is skewed, reform may require subdivision of large holdings or transfer to the state. In contrast, reform in states with extensive government control may involve the transfer of some land from the state to individuals.

Other variations of land reform focus more on the economic use of resources than on equity. Where holdings are fragmented, an appropriate reform might involve consolidation of holdings without change in the patterns of ownership of land. Where communal lands are eroded or depleted, the appropriate reform might involve a program of supervised cooperative land management without changing the distribution of land. Elsewhere, land reform might involve changing

tenancy arrangements with emphasis on providing security of tenure so as to encourage on-farm investment. Again, these do not require redistribution but eventually lead to a more economic use of resources.

The typology outlined in Chapter 1 makes it clear that there are situations where land reform is a necessary precondition for modifying the structure of a society and raising agricultural output. However, while land reform in itself may be necessary, it alone is not sufficient for improving land productivity and distribution of income. Changes in patterns of landownership will not automatically lead to an increase in output or technological change in agriculture. These will come about only if adequate provision is made for the supply of necessary inputs and mandatory services to the users of the land. Indeed, as stressed in Chapter 2, the organization of the supply of inputs to accompany any land reform program is essential, especially where the process of reform leads to a breakdown of the institutional structure of agriculture and leaves nothing in its place.

Finally, it must be recognized that a policy for land reform for a given situation cannot be stated in simple terms. Any policy involves fundamental judgments about the adequacy of an existing system and the most appropriate alternative. The judgments of policy makers differ. The case studies in Annex 2 show that reform-minded governments, such as in Kenya and Peru, have pursued different approaches. Some governments favor individual ownership of land; others favor communal or collective control over land. Clearly, the policies followed are not a matter of economics alone. They also reflect politics and ideology, and reach far beyond any purely economic calculus.

Distribution of Land and Income

Although few data are available, the distribution of landownership is known to be skewed, the degree of concentration varying with the types of tenure situation. The Asian and Latin American feudal types, and the plantation ranch types, have high degrees of property concentration. The socialist and traditional communal types have low concentrations. The market economy type falls somewhere in between. Individual countries are classified on the basis of landownership concentration in Annex 1, Table 1:9.

The distribution of land by size of holding is highly skewed throughout the world. As shown in Annex 1, Table 1:6, an estimated 80% of all holdings are less than five hectares in size, with about 40% less than one hectare. These holdings account for approximately 20% of all cultivated land, and only 7% of all land in holdings. Considered

separately, the pattern in Latin America is particularly skewed. Less than 20% of holdings (those over 50 hectares) account for over 90% of the total area in holdings, and more than one-third of all holdings (those less than five hectares) account for only 1% of the area held (see Annex 1, Table 1:8). In Asia, by contrast, 40% of the land (accounting for almost 80% of holdings) is in holdings of less than five hectares.

The distribution of holdings by size is frequently used as a first approximation in estimating the distribution of wealth and income in the agricultural sector. The skewness of the distribution of holdings, however, does not reflect precisely the patterns of distribution of wealth or income. This is because, firstly, all land is not homogeneous; a concentration of large holdings in a semiarid region may reflect a smaller concentration of wealth than a concentration of small holdings in an irrigated area. Secondly, the distribution of holdings by size is not the same as the distribution of ownership of land; in general, there is a greater concentration of landownership than of holdings, as evidenced by widespread tenancy, especially in parts of Asia (see Annex 1). The distribution of income in these regions will depend largely on the contractual arrangements between owners and tenants or sharecroppers. But, in most cases, the distribution of income will be more skewed than the pattern of holdings. Frequently, the income of sharecroppers and tenants may be little different from that of landless labor.

Social and Economic Issues

The rural population in developing countries continues to increase by more than 2% per year, adding to the already heavy population pressure on the land. Except in a few places, there is no virgin cultivable land left, so that absorption of more people into agricultural activity requires more intensive cultivation of land already in use. The need to absorb more people in the rural areas differs among developing countries. In many, massive rural underemployment is accompanied by high rates of open unemployment in the cities and growing inequality in the overall distribution of income. Where the problems are most acute—as in parts of Asia—the emergence of large numbers of landless laborers in rural areas suggests that the family farm system as a means of spreading work among family members may be breaking down.

The extreme poverty of many who live on the land, and the increasing pressure on the land through population growth highlight the double challenge of rural development: to raise productivity and in-

come in agriculture and, at the same time, to provide more employment. Access to land, and the conditions that govern access, are questions of major importance in these circumstances. Where land is marketable, increasing population pressure will inevitably drive up the price of land, thus benefiting those who own land. Where landownership is skewed, this will tend to exacerbate inequalities in income distribution.

These same circumstances (relating to employment and income distribution) give rise to questions about the efficiency of land use under existing arrangements. For various reasons, landowners often prefer to underutilize land, either by working it themselves on an extensive basis instead of through tenants on an intensive basis, or by leaving it unused. In other cases, tenancy arrangements are such that landlords are discouraged from making investments and tenants from applying variable inputs, because half the benefits will go to the other party. In some situations, the fragmentation of holdings causes great inefficiencies in land use associated with transportation, irrigation and mechanized operations (even on a small scale). In general terms, increases in the population of working age create additional demands for work and income. At the same time, however, the additional labor available, if used productively, could serve to augment output. A strong case can be made for land reform (including tenancy reform and consolidation) in situations where land would otherwise be underutilized in terms of its production potential.

Evidence on the effects of changing farm size (examined in Chapter 2) indicates that the productivity of land—defined as yield per hectare—is generally higher on smaller holdings than on larger holdings. The main reason is that smaller holdings are worked with bigger inputs of labor than are large holdings. The economic benefits, however, often depend on the effectiveness of new technology when used on small as compared with large farms; mere redistribution of land may not suffice to raise farmer output substantially without accompanying agrarian reforms and new services.

These effects on output may be reinforced by some of the possible side effects following land reform. Smallholders tend to consume more of their own produce and, therefore, market less, per unit of output, than do large farmers; this may necessitate food imports to meet the needs of urban consumers. On the other hand, the additional food consumed by small farm families might have otherwise been purchased if members of the family had moved to the city. The consumption of food by poor growers may also be less costly than the consumption of imported or capital-intensive consumer goods by the better-off farmers. Small farmers may also save less per unit of

income. The evidence suggests, however, that small farmers save proportionately *more* than urban dwellers, and that in the aggregate they may also have larger savings than large farmers, though these may be directly invested in the smallholding.

A program based on the prescription that "the benefits should go to those who till the soil" is often reasonable in an agrarian society. But in a partly urbanized setting, those who do not work on the land still require and should have some rights of access to the products of the land. The food and fiber needs (and the spatial requirements) of the nonfarm population are not infrequently overlooked by the advocates of land reform. In this respect, attention should be paid to both a minimum and maximum farm size. These sizes might be designed, firstly, to ensure that smallholdings are large enough to provide food sufficient to meet with a high degree of certainty the minimum physiological needs of the farm family; and, secondly, to ensure a scale large enough to provide a salable surplus to meet the needs of urban consumers, especially for fresh produce. Few land reform programs provide for such a minimum limit despite evidence, from many areas, that allowing farms to become too small (relative to the best available technology) may be just as unsatisfactory in terms of equity and efficiency as an uncontrolled tenancy situation.

Recent Experience with Land Reform

Experience with land reform in the past points to the overriding importance of the political factor in securing meaningful change. The concentration of control over land provides a power base for many groups in developing countries. Land is a symbol of authority and a source of political power, especially where the landowner controls the access of peasants to their only source of security—land. A meaningful land reform program will inevitably destroy or limit the power base of many persons. It is not surprising, therefore, that land reform is often a central issue in political debates, and that these debates are often couched in terms of redistributing political power as well as wealth. Ambitious programs of land reform will seldom be implemented unless there are shifts in political sentiment and power. Many countries have legislated land reform, but only a few can be said to have implemented it. And in these cases the reforms were implemented only when there was a change in government in circumstances that favored drastic change, as in the Republic of China, Japan, Kenya and Mexico.

A second factor of importance in making reform effective is the creation of institutions to implement the reforms once legislated, and

to press for continuing development. This has usually involved organizing the beneficiaries to create follow-up pressure. For example, in Japan, Taiwan and Venezuela suitable institutions were established to ensure that land was indeed transferred. In other countries, a community of interests between landowners and officials, combined with an absence of organized pressure from the beneficiaries, largely nullified positive reform efforts. The land reform experience in much of Asia and Latin America suggests that some form of rural organization, especially involving local representation, may be a critical condition for successful land reform.

A third conclusion is that land reform is rarely undertaken without considerable upheaval and loss of production, although there is evidence to suggest that these costs can be kept small and temporary. The restructuring of landholdings is often accompanied by the destruction of traditional delivery systems for input needs and marketing, since these systems are almost always tied to the operations of the larger farmers who are dispossessed. Because of this, rather than because of any deficiency inherent in the small relative to the larger farmers, land reform has often proved costly in terms of lost output. Minimizing such costs necessitates the provision of services concurrently with reform implementation, incorporating as much forward planning as feasible.

A fourth consideration relates to the problem of perspective, over time, in assessing the effects of land reform. As the country experiences summarized in Annex 2 reveal, the effectiveness of land reform may be relatively limited in the short run, and many socioeconomic benefits, such as are associated with greater social mobility and improved political stability, emerge only in the longer run and accrue for many years subsequently. The cases of Japan and Mexico are particularly significant in this respect. While the direct short-run effects of the land reforms in these countries have not been considered wholly beneficial, there is little doubt that the long-run effects for their total societies have been overwhelmingly favorable, contributing substantially to the ultimate economic development of both countries.

The World Bank and Land Reform

The World Bank has taken an active interest in land reform on a number of occasions. Concern has usually been focused on new or improved possibilities for production following changes in the tenure situation, with emphasis on security of tenure being a particularly important theme. More recently, the extent and gravity of the

employment problems and income disparities in developing countries have caused a new concern over land reform, from an equity as well as a productivity standpoint.

The Bank's experience through project financing of land reform has been very limited. In part, this may be because there have been relatively few cases of land reform, particularly in areas where the political situation was reasonably stable and otherwise conducive to World Bank involvement. But also relevant is the fact that the financial requirements of land reform tend to be relatively limited. Even where the land transferred is purchased from the previous owners, the amounts involved are usually small, especially where payments are in the form of bonds. In addition, such payments usually constitute an internal transfer (unless foreign owners are involved) and, thus, are not attractive for external financing. Some examples of World Bank involvement in land reform programs, notably in Malawi and Tunisia, are discussed in Chapter 3.

In general, this report concludes that land reform is consistent with the development objectives of increasing output, improving income distribution and expanding employment, and that the World Bank should support reforms that are consistent with these goals. However, it is recognized that the Bank cannot force structural change; it can only support appropriate efforts within existing structures. Although the Bank's direct action must be limited, its preferences regarding national policy choices and those which are considered consistent with the Bank's development goals are set out below as country guidelines. These same conclusions are reflected in the subsequent Bank policy guidelines.

Country Guidelines

1. Governments which accept a basic commitment to land reform should consider three components: (i) redistribution of landownership to reduce the present maldistribution; (ii) tenancy reform; and (iii) consolidation, where necessary.

2. A commitment to land reform implies simultaneous action to create or develop an input supply system to meet the special needs of the beneficiaries of land reform. This may require either the creation of new institutions, or special branches or fund allocations within existing organizations to supply credit, inputs and technical services, including research and extension.

3. In sparsely populated regions or countries, specially structured settlement schemes can serve as second-best substitutes for, or supplements to, the redistribution of land currently in use.

4. It should be recognized that a small farm structure can generate employment to absorb underemployed labor in crowded regions where there is no short-term prospect of absorbing it in nonfarm or large farm employment. With a seed-water-fertilizer technology now available that is neutral to scale, such a structure can produce at least as much per unit of land as a large farm structure.

5. Equity-oriented land reform should be so programmed that (i) the effective ceiling on size of holdings is low; (ii) the beneficiaries belong to the poorest group; (iii) the extension and (nonland) input distribution system favors the beneficiaries; and (iv) owned and self-operated land, as well as leased land, is redistributed.

6. Where efficient large-scale plantations or ranches exist, these need not be broken up, but it should be accepted that in such cases the objectives of reform can only be realized if the enterprises are covered by a progressive tax system and the workers participate adequately in the benefits of the enterprise.

7. Research should be organized to evolve a low-cost settlement policy. Wherever settlement policy is used to supplement land reform, settlement schemes should be planned to have approximately the same effects as the redistribution of existing holdings. These effects can accrue if (i) the settlers are the really poor small farmers or landless workers and an input supply system is available to support their operations; (ii) the size distribution of the new holdings is equitable; and (iii) tenancy is discouraged, and allowed only under specified types of contracts.

8. Where the shortage of land is so acute that even with a low ceiling both smallholders and landless workers cannot be given minimum holdings, preference should be given to smallholders in the allotment of land, and a rural works program should be organized for the landless.

9. Experience in East Asian and some Latin American countries clearly shows that the organization of beneficiaries, both before and after the enactment of reform, is an indispensable condition for its success.

10. It should be recognized that landless recipients of land who take up independent farming for the first time may need to be provided with their entire short-term and long-term credit requirements and perhaps some consumption credit for three or four initial crop seasons. There may also be a need for special training facilities, research activities and field demonstrations in such circumstances.

11. The abolition of tenancy may not be feasible in many countries or regions where the demand for land by the landless and small farmers far exceeds the available supply. In such cases, regulation of

tenancy might be a more efficient policy. Generally, fixed cash-rent contracts are superior to crop-sharing contracts because they encourage the use of inputs to the optimal level. But where crop sharing cannot be eliminated because it provides risk insurance to sharecroppers, it can be made more efficient and equitable if it is combined with cost sharing. Such contracts should be promoted with a system of incentives and deterrents. The incentives can include the accrual of legal rights in land and the availability of credit and other inputs only if preferred types of tenancy contracts are implemented.

12. When the land-labor ratio becomes favorable, the conversion of tenants into owners of the land they cultivate, preferably against very low compensation payments, should be undertaken because, in general, owner-operated farming is likely to be more efficient and equitable than tenant farming.

World Bank's Policy Guidelines

1. The World Bank will give priority in agricultural lending to those member countries that pursue broad-based agricultural strategies directed toward the promotion of adequate new employment opportunities, with special attention to the needs of the poorest groups. The Bank will support policies of land reform designed to further these objectives.

2. The Bank will make it known that it stands ready to finance special projects and programs that may be a necessary concomitant of land reform, so long as the reforms and related programs are consistent with the objectives stated in the previous paragraph. These programs would include credit, technical services and infrastructure projects designed to meet the special needs of land reform beneficiaries.

3. The Bank will cooperate with the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and other organizations to provide support and assistance to member governments seeking help with the specification and design of land reform programs where these are in keeping with the Bank's objectives. This support will include financial and technical aid with cadastral surveys, registration of land titles and similar services.

4. The Bank will continue to explore, through its agricultural and rural development projects, ways of providing for a distribution of benefits consistent with the goals outlined under (1) above, including appropriate tenurial arrangements and projects designed to serve the needs of small farmers and settlers.

5. The Bank will intensify its efforts through sector and country economic work to identify and draw attention to the need and opportunities for land reform with respect to existing tenurial situations and their economic effects.

6. The Bank will support and encourage research related to the economics of land reform in its broadest aspects, including its social dimensions. It will continue its support for programs of economic and technical research directed toward the special needs of the type of small farmer likely to emerge from land reforms.

7. The Bank will undertake studies of the costs and benefits of settlement projects, with particular attention to developing approaches which will lower the cost per family settled.

8. The Bank will not support projects where land rights are such that a major share of the benefits will accrue to high-income groups unless increases in output and improvements in the balance of payments are overriding considerations; in such cases, it will carefully consider whether the fiscal arrangements are appropriate to ensure that a reasonable share of the benefits accrues to the government.

9. In circumstances where increased productivity can effectively be achieved only subsequent to land reform, the Bank will not support projects which do not include land reform.

10. Where land is held under some form of tenancy, the Bank will foster the adoption of tenancy conditions and sharecropping arrangements that are equitable and conducive to the optimal use of resources.

11. Where land is communally held without regulation of access, the Bank will encourage subdivision, if sedentary forms of agriculture are possible, or pursue land usage and access arrangements that are compatible with the long-run productivity of the land and the welfare of the resident population.

12. The Bank will pay particular attention to the consequences of the interaction of new technology and the prevailing institutional structures, as reflected in the pattern of landownership, in order to avoid adjustments which will increase the maldistribution of income and cause economic hardship.

Chapter 1: CHARACTERISTICS OF LAND REFORM

Man and Land

Man's relationship to land, and patterns of landholding and land use, are shaped by the interaction of a complex of forces—climatic, economic, cultural, religious and political. In Eastern Africa, for instance, physical conditions in the temperate areas are suited to sedentary agriculture, whereas the more tropical and arid areas are better suited to shifting cultivation or livestock herding. As a result, different systems of land management and patterns of holdings have emerged in adjacent zones. Similarly, laws and customs governing inheritance have an effect on the distribution of land. Where land is inherited by the oldest heir and not subdivided, the pattern of holdings is less fragmented than in societies where the custom is to divide holdings equally among all heirs. In addition, many socioeconomic factors affect customs of usufruct, traditions of crop sharing and other arrangements surrounding land use in varying situations.

The political ideologies of governments also have a bearing on the relationship between people and the land. The right of the individual to own, sell and accumulate private property—including land—is one of the cornerstones of the market economy. While this right might be constrained in the public interest, land can in general be exploited, held and traded by individuals for private gain. Under some other ideologies, individuals do not have the opportunity to acquire and accumulate land; the right to own land may be vested solely in the state or in semipublic institutions, and it is the state which organizes and controls the land according to its own criteria. To the extent that the state controls the land, the allocative process may serve any number of ideological ends. Some governments have used control over land to implement policies of geographical separation of racial groups. The People's Republic of China, on the other hand, has changed rights to land and the organization of work several times over the past 25 years as part of a drive to eliminate rural inequality.

The level of economic development of a country has a strong influence on attitudes toward land. The more industrialized a country, the smaller the proportion of the population in agriculture and the less significant the role of land in the economy. In countries with mobile populations which have ample opportunities for employment, land is often seen merely as one factor of production in a highly developed commercial agriculture. However, in less developed countries with large rural populations, limited alternative opportunities and increas-

ing pressure on the land, access to land may provide at least a subsistence income. In these circumstances, producers see land as more than a factor of production; it may well provide the margin between destitution and subsistence.

The established pattern of landownership is basic to both the social organization and institutional structures in rural areas. The social hierarchy in most agrarian societies reflects the kinds of access that different groups have to land, while individual status within these groups depends on the amount and quality of land commanded. The institutional structures which formalize the various means of control and the relationship between categories of land users, also determine the accessibility of external institutions and services to the various groups.

Context of Land Reform

The many complex factors that influence the patterns of landownership and land use in different regions of the world may be summarized as: (1) the political system and situation; (2) the structure of the economy; (3) the social system; (4) the legal system; (5) the demographic situation; (6) the agricultural system; and (7) the national resource base. When these interacting elements are taken into account, it is possible to delineate six main categories of land tenure and land use. These are characterized as follows:

1. *Feudal Asian Type*

High property concentration.
Great social inequality.
Great economic inequality.
Low land productivity.
Low labor productivity.
Low level of technology.
Mainly operated by sharecroppers.
High labor intensity.
Low capital intensity.
Production mainly for subsistence.
Land very scarce.
Institutional structure centralized.

2. *Feudal Latin American Type*

High property concentration.
Great social inequality.
Great economic inequality.

Low land productivity.
Low labor productivity.
Low level of technology.
Labor provided by squatters, neighboring smallholders and migrant workers.
Capital-extensive.
Labor-extensive.
Operated by owner or manager plus hired labor, serfs or sharecroppers.
Production for subsistence and export.
Institutional structure highly centralized.

3. *Traditional Communal Type*

Low property concentration—sovereign rights vested in community.
Decentralized cultivation—usufruct rights for members of group.
Moderate or high socioeconomic equality.
Low labor productivity.
Low land productivity.
Low level of technology.
Medium labor intensity.
Low capital intensity.
Production for subsistence.
Supporting service structure underdeveloped.

4. *Market Economy Type*

Medium property concentration.
Decentralized cultivation.
Medium socioeconomic inequality.
High land productivity.
High labor productivity.
High level of technology.
Capital-intensive.
Labor-extensive.
Market production oriented.
Institutions and services dispersed.

5. *Socialist Type*

Property right vested in the state or a group.
Centralized or decentralized cultivation.
Low, medium or high socioeconomic equality.
Low, medium or high land productivity.
Low, medium or high labor productivity.
Medium level of technology.

Production for market or subsistence.
Supporting systems centralized.

6. *Plantation Ranch Type*

High property concentration—owned by state or foreigners.
Great social inequality.
Great income inequality.
High land productivity.
Low or medium labor productivity.
Medium or high level of technology.
Operated by manager plus wage labor.
Production mainly for export.

In a traditional context, extremes in the pattern of land control are exemplified, on the one hand, by the feudalistic landlord-tenant system found in some Asian and Latin American countries and, on the other, by the communal landownership pattern of certain tribal groups in Africa. In the landlord-tenant system, landownership is vested in an elite minority with the majority having access through tenancy arrangements of various kinds. The ownership of property is generally highly concentrated, more so than the pattern of land-holdings. However, since holdings (the only category for which the Bank has data) involve leasehold units for which rent is paid on a share basis, the distribution of income is also highly skewed (see Annex 1, Tables 1:6 and 1:8). In the communal system, by contrast, land is common property and access to it is relatively unrestricted. Whereas in the feudalistic system the distribution of landownership and benefits are highly skewed and class differentiation is marked, the communal system has relatively egalitarian land access and class differentiation is less marked.

Both systems are relatively stable under favorable conditions, but face difficulties as the man-land ratio declines through population growth, unless there are offsetting changes in technology. In the landlord-tenant system, land pressures are reflected in a growing army of landless people and widening income differentials (see Annex 1, Table 1:11). The communal system manifests the same pressures by compressed fallow periods and declining soil fertility, overgrazing and increased erosion, accompanied by extensive poverty and vulnerability to seasonal effects.

The two systems differ in their ability to respond to changing external conditions and especially to new technology. The landlord elite, by virtue of its privileged position and power, can, and often does, become educated and innovate both through experimentation

and the adoption of external ideas. (In doing so, however, its primary concern may be to promote its own narrow interests in terms of wealth and power, for instance, by displacing tenants through mechanization.) The communal system generally lacks such an institutional mechanism and tends to be both static in its technology and relatively insular, but such communities seldom manage to remain completely isolated from external influences.

In a modern context, the extremes in patterns of land control are seen respectively in the private ownership of land, which is a fundamental aspect of the market economy and common in most Western countries, and the state or collective ownership characteristic of socialist countries. Under private ownership, land is held by individuals and, while usually subject to special restrictions, can be bought or sold like any other commodity. Such holdings are typically operated as family units with little hired labor. However, a range of subtypes exists within this category which reflects a gradation in size from the predominantly subsistence smallholdings of many developing countries to the broad acres of North America and Australia. Although similar in legal and institutional respects, these differ significantly in their technology and input mix as well as in the degree of market orientation.

In the socialist system, on the other hand, little or no provision is made for individuals to acquire or accumulate land, this right being vested in the state, with control determined in accordance with the objectives of the state. But some variations remain within many socialist systems, often providing for the existence of private smallholdings in parallel with larger social units. A special type found in a modern context is one which includes the plantations and large ranches that often operate in developing countries as well as in some developed countries. These form, in some respects, a special category of the market economy type, but the tendency toward a corporate legal structure and dependence on hired labor differentiate them from privately owned family farms.

While private ownership has generally been compatible with technological progress and the economic adjustment of agriculture, it has often created inequities as people have been compelled to give up rural pursuits or have been squeezed into land-scarce rural enclaves. Generally, private control has been most satisfactory where population pressure could be offset by colonizing virgin land or moving people out of the rural sector. It has been most unsatisfactory where ownership patterns have become skewed because of the growth of large farms, combined with limited opportunities for people to move out of agriculture, and the subsequent emergence of economic

dualism. State or communal control has led to fewer interpersonal inequities, although in most cases not without some broader economic inefficiencies.

Land reform raises issues of equity in the context of both the traditional landlord-tenant relationship and the modern skewed ownership pattern. In both these contexts, it is often a highly political concern, especially in the traditional feudalistic and communal systems. In many situations, the prevailing tenure conditions are the major impediment to development. For example, a high level of fragmentation can make canal irrigation virtually impossible and seriously impede mechanized operations even when on a very small scale. In other cases, the contractual share arrangement is such that neither landlord nor tenant are able to introduce new technology because, on the one hand, the landlord cannot capture a profitable share of the return on his investment, and on the other, the tenant cannot find the capital for investment or lacks the security of tenure that would guarantee a return from it. Further, in some situations, the social environment is characterized by inequity and oppression to the extent that it destroys human motivation to improve productivity or to resolve any problem within existing structures. In such circumstances, land reform may become a prerequisite of development. But, whether primarily an equity or a production concern, it is clear that land reform will involve different changes in different types of situations.

Dimensions of Land Reform

Land reform is thus concerned with the interrelated aspects of productivity and equity of land use. It is frequently pursued as a goal in itself, but in a development context is usually seen as a part of agrarian reform or of rural development programs. Land reform differs from political, administrative, fiscal or monetary reforms in that it normally relates to one sector and involves changes in control of a tangible asset that not only is fixed in supply but also provides the basic factor on which most of the people in developing countries depend for their livelihood.

Land reform can involve varying degrees of change, including some or all of the following:

1. Redistribution of public or private land in order to change the patterns of land distribution and size of holdings. Usually, this involves an increase in the number of small- or medium-sized farms and a reduction in the number of large holdings. Alternatively, all land can be nationalized and regrouped into state-owned holdings, all of which might be large.

2. Consolidation of individual holdings, thereby reorganizing the physical pattern of control. Fragmented holdings can be regrouped into contiguous blocks of land. This can be done with or without changing the distribution of landownership in terms of acreage or value belonging to each individual.

3. Changes in landownership and tenurial rights, with or without physical redistribution of land. Redistributed land can be allocated to new owners or to farmers working on the land. Alternatively, land need not be redistributed but tenants or workers can be made owners of the land they work. In that case, the result is generally a redistribution of income away from the former owners of the land to the new owners. The new owners may farm cooperatively or as individuals.

4. Changes in conditions of tenure without changing ownership or redistributing land. The rights of those working on the land can be safeguarded by law without a change in ownership. Changes in conditions of tenure would include providing security of tenure, introducing equitable crop-sharing arrangements, cooperative land management, and so forth. These changes would also include the conversion from customary to legal rights to land.

Structural Change

In the main, land reform is seen as a means of bringing about structural changes in the agricultural sector, thereby altering the size distribution of holdings or the distribution of income. By definition, therefore, pilot projects cannot be considered to be land reform for they operate within an existing structural framework, even though they might be useful in identifying problems of management, or the economics of various "models," or arrangements that might be part of a subsequent reform. Similarly, land settlement on the frontier does not usually constitute land reform, although land settlement might be a means of bringing unused land into production. Land settlement, by itself, may or may not have an impact on the structure of landholdings in a country, depending on the manner in which the settlers are selected and the size distribution of the new holdings. The kind of structural change involved depends on the prevailing tenure type and the proposed alternative. As reflected in the country experiences summarized in Annex 2, most changes involve a shift from traditional to modern types. Thus the Republic of China, the Republic of Korea and Japan moved from a "feudal Asian" to a "market modern smallholding" type; India and Iran moved from a "feudal Asian" toward a "market modern" type, with some traditional farms retained and some "plantation ranch" type variations in certain areas. Kenya and Morocco redistributed the large-scale, alien-owned "market economy" type holdings of their colonial eras, some going to smallhold-

ings of the "market economy" type and some to "plantation ranch" type units. Mexico and Peru moved from a "feudal Latin American" type to a "market modern mixed large and smallholding" type, and a mixed "market modern" and "socialist" type structure, respectively. These changes in tenure systems were in all cases accompanied by changes in related organizations and services.

Fiscal Measures

Land taxes and preemptive taxes on income earned from land are often cited as instruments that will obtain the same ends as land reform. An effective land tax may have an impact on land use but its main purpose is usually to encourage more intensive production by making it costly either to leave productive land idle or to use it below its productive capacity. On the other hand, such taxes may provide a disincentive to investment with the potential of increasing productivity or bringing new land into production. In any event, the use of a fiscal instrument, such as a land tax, will not lead to structural changes in agriculture—at least not in the short run. A more likely fiscal instrument to encourage structural change is a graduated estate tax which would force estates to dispose of land to meet their financial obligations. But this is likely to bring about structural change only over a long period of time. While land taxes and estate taxes are often considered significant elements in fiscal policy intended to redistribute income, they cannot ensure the same degree of structural reform as can land reform and have, in general, been quite ineffective. In situations where fiscal measures—whether of a redistributive kind or a type which provides a return to the state on its investment—are found to be ineffective, land reform may be the only alternative option if economic development is to be pursued.

Agrarian Reform

Agrarian reform is a much more comprehensive concept than land reform, since it involves modification of a wide range of conditions that affect the agricultural sector. These modifications might include changing price policies so as to turn the terms of trade in favor of the agricultural sector; increasing allocations to the agricultural sector in order to expand research, extension, training and storage facilities; making physical supplies, such as fertilizers, available and increasing credit for their purchase; or providing infrastructure to facilitate agricultural production. Agrarian reform may or may not include land reform; in some instances, there may be no need for land reform since land is already evenly distributed. In other cases, it may not be politically feasible to have land reform—although it might be both

politically and economically feasible to raise output through the measures involved in agrarian reform. The point is that land reform may be a necessary condition for agrarian reform, but it is seldom a sufficient condition for increasing agricultural output, since land is only one factor of production.

Rural Development

Broader still is the concept of rural development, because it embraces all dimensions of the rural sector (agricultural and nonagricultural) and is more concerned with the welfare of rural people than with agricultural output or productivity as an end in itself. Since it has significant equity implications, land reform may be a necessary concomitant of successful rural development, depending on the prevailing pattern of land control. Where the ownership of land directly affects the nature of local institutions and the participation in them by the majority of rural people, land reform may be essential. However, in terms of implementation, in some situations establishing local institutions and smallholder services may be a prerequisite of land reform rather than vice versa. Where the existing service systems and administrative structure is geared to working with large-scale farmers, land reform without concurrent rural development activity might cause hardship and economic losses which would outstrip the equity gains associated with land redistribution. Tenancy reform, on the other hand, insofar as it stabilizes the existing relationship between landowners and renters, may be a useful precursor of rural development programs.

Political Dimensions

Substantial reform of the structure of holdings and the distribution of income from the land cannot be achieved without political action. For instance, where semifeudal conditions prevail, patterns of land rights and tenurial conditions have been established by tradition, and these cannot be changed through market operations, as there is virtually no organized market for land. Elsewhere, large landholders have accumulated capital and expanded landholdings acquired through the market; in most market-oriented economies with a skewed distribution of land, the tendency is for the skewed distribution to worsen. Whatever the prevailing situation, it can seldom be changed without actions that emanate from outside the market. Since these actions are based on policies deliberately intended to alter the distribution of land and change tenure, the implementation of the policies depends on the political will of the policy makers and the ability of the administrators to execute this will.

The concentration of control over land provides the base for powerful elements in many nonindustrialized societies. Where groups derive authority from their land, a meaningful land reform program will inevitably destroy or limit the power base of these groups. Land reform can change the political balance and the power structure in a country. Reforms have stripped large landholders, whether they were military, religious or private, of their power. It is not surprising, then, that land reform is often a central issue in political debates and that these debates are often couched in terms of redistributing political power as well as wealth. The political implications of land reform must be taken into account; ambitious programs of land reform will seldom be implemented unless shifts are made in political sentiment and power. Many countries have legislated for land reform but relatively few have achieved it—and these only with a change in government.

Frequently, the implementation of massive reform legislation has depended on the effective organization of the beneficiaries. In Japan, the Republic of China and Venezuela—to name three countries—suitable organizations were established to ensure that land was indeed transferred. In other countries, such as India and Pakistan, the official bureaucracy was the only implementation agency contemplated by the reformers. Because of the community of interests between the bureaucrats and the landowners, and the absence of organized pressure from the beneficiaries, the massive legislation has produced no significant reform. Experience in much of Asia and Latin America suggests that effective popular participation of rural people may be a critical condition of successful land reform.

Implications for Social Justice

The imbalance between the distribution of control over the land and the numbers dependent on it has historically led to increasing pressures for change. While the focus on land reform is related to economic development, the concept of an overriding social function of land justifying the imposition of limitations on private rights appears to be gaining the support of many groups, including the Catholic Church. Formerly one of the largest landholders in the world, the Church in Europe as well as in Latin America has increasingly put its weight behind this new concept, both in precept and in practice. The Church's new philosophy regarding the relationship between man and land declared that "private property does not constitute for anyone an absolute and unconditional right." And the immediate extension of this postulate to the world's agrarian problem is that "if certain landed estates impede the general prosperity because they are

extensive, unused or poorly used, or because they bring hardship to peoples or are detrimental to the interests of the country, the common good sometimes demands their expropriation."

A further facet of land reform that warrants consideration in this respect is the potential of a new societal structure following a reform. Mexico, and more recently Bolivia and Egypt, had semifeudal societies similar to many which still prevail in other parts of the world. In these societies, large numbers of tenants and laborers were tied to the land and were held in forms of human bondage; this arose from custom, tradition or sheer indebtedness to landlords. The reforms which have taken place in these countries have changed the situation. The reform in Mexico broke a system that denied many people any range of choice in the pursuit of a livelihood. If the experience of Mexico—which has had the longest period of reform—is any indication of the long-run outlook, the reforms have led to an increase in social mobility.

Land reform is a complex subject. The issues involved are diffuse and appropriate reform measures vary according to the situation. Land reform is in practice predominantly a question of equity and, therefore, one that is often highly political. Nevertheless, it has significant implications for economic development, and these in turn are relevant concerns in the formulation of the World Bank's policy.

Chapter 2: LAND REFORM AND ECONOMIC DEVELOPMENT

Economic development has three basic objectives: rapid economic growth, full employment and distributive justice. Some policies and related investments, such as those affecting power plants or large-scale industry, are primarily growth oriented; others, such as those for rural works, are employment oriented; still others, such as those related to land reform, are essentially equity oriented. Each set of policies and investments aimed toward one objective has important repercussions with regard to the other two objectives, and these must be taken into account when weighing the potential impact of particular policies on economic development. For this reason, it is important to determine to what extent land reform might be costly in terms of growth and employment.

Many problems arise in assessing the costs and benefits of land reform. These include the definition of an acceptable time frame for measuring the effects of the related structural change in the agricul-

Productivity, Employment and the Distribution of Land, in Selected Countries

Country	Data year	Farm GDP per hectare (US$)	Farm GDP per worker (US$)	Employment per hectare	Size of average holding (hectares)	Gini's Index of Land Concentration
Europe						
Greece	1961	424	848	0.50	3.18	0.597
Spain	1962	90	980	0.09	14.85	0.832
Central America						
Costa Rica	1963	83	951	0.09	40.70	—
Dominican Republic	1971	129	463	0.28	8.64	—
El Salvador	1961	186	489	0.38	6.95	—
Guatemala	1964	144	492	0.29	8.17	—
Mexico	1960	22	569	0.04	123.90	—
Nicaragua	1963	55	580	0.09	37.34	—
South America						
Argentina	1970	18	1,903	0.01	270.10	0.873
Brazil	1960	14	285	0.05	79.25	0.845
Chile	1965	18	692	0.03	118.50	—
Colombia	1960	67	663	0.10	22.60	0.865
Paraguay	1961	11	479	0.02	108.70	—
Peru	1961	50	477	0.10	20.37	0.947
Uruguay	1966	14	1,333	0.01	208.80	0.833
Venezuela	1961	31	925	0.03	81.24	0.936
Asia						
China, Republic of	1960-61	841	410	2.05	1.27	0.474
India	1960	172	141	1.22	6.52	0.607
Indonesia	1963	323	149	2.17	1.05	—
Iran	1960	187	581	0.32	6.05	0.624
Korea, Republic of	1970	1,085	377	2.88	0.85	—
Japan	1960	1,720	1,188	1.45	1.18	0.473
Nepal	1961-62	352	138	2.54	1.23	—
Pakistan	1960	240	249	0.96	2.35	0.607
Philippines	1960	250	200	1.25	3.59	0.580
Sri Lanka	1962	376	337	1.12	1.61	—
Thailand	1963	166	137	1.21	3.47	—
Turkey	1963	155	243	0.64	5.03	0.611
Viet-Nam, Republic of	1960	355	127	2.79	1.33	—
Africa						
Botswana	1969-70	168	142	1.18	4.75	—
Egypt, Arab Republic of	1960-61	681	360	1.89	1.59	—
Kenya	1969	183	140	1.31	4.20	—
Malagasy Republic	1961-62	293	88	3.32	1.04	—
Mali	1960	98	48	2.06	4.35	—
Morocco	1961	144	295	0.49	4.62	—
Senegal	1960	209	174	1.20	3.62	—
Togo	1961-62	189	180	1.05	2.62	—
Tunisia	1961-62	42	341	0.12	15.41	—
Uganda	1963-64	167	198	0.84	3.29	—
Zambia	1960	68	101	0.67	—	—

Sources: Columns 1 and 3 are based on FAO, *Production Yearbook 1971*, pp. 10-11, 21-23, and column 4 on UN, *Monthly Bulletin of Statistics*, XXVI, No. 4, April 1972, and XXVII, No. 11, November 1973. For currency exchange rates, see *ibid*, and IMF, *International Financial Statistics*, XXVI, No. 8, August 1973. Gross Domestic Product (GDP) in agriculture shown here includes, unless otherwise indicated, agriculture, hunting, forestry, and fishing.

ture sector. The available evidence suggests that a well-designed land reform program need not entail unacceptable costs in terms of other objectives; its contribution to output and employment—as well as to equity—depends on the speed and effectiveness of the reform and complementary investments. However, the effects of land reform can best be examined by focusing on particular measures, such as the effects of farm size on productivity, equity and employment as well as on savings and market surplus. These measures are interrelated but, for analytical convenience, are treated separately here.

Implications for Productivity

The effects of land reform on productivity might best be isolated by comparing productivity in a given area before and after reform. Unfortunately, this is not possible as there is no situation where change has occurred in only one variable—size of farm—over time. The nearest alternative is the comparison over a defined period of the productivity of groups of different-sized farms in a given area. The ideal measure for comparison would take into account the contributions of all factors of production and so measure total factor productivity. Since data are not available to derive this measure, changes in yields per hectare are considered to be the most appropriate substitute.

Several comparative multicountry analyses have been made of the effect of differences in distribution of size of holdings on yields. One 13-country study undertaken by the FAO analyzed the relationship among size of holding, concentration of land and productivity. A similar study of 40 countries was undertaken by the Bank (see Table 1). Both studies indicated that a smaller average size of holdings and a lower concentration of landownership were associated with an increase in output per hectare.

Similar findings can be cited from cross-section studies in a number of individual countries. In Sri Lanka, for example, in 1966-67, the yield of paddy averaged 36 to 37 bushels per acre on farms of up to one acre and 33 to 34 bushels on larger holdings. In central Thailand, yields were reported to decline from 306 kilograms per rai on holdings of two to six acres, to 194 kilograms per rai on holdings of 140 acres or more (1 rai equals 0.4 acre). Small farms in the Philippines—that is, farms of less than two hectares—produced 2.9 tons of paddy per hectare, while farms of more than four hectares produced 2.2 tons per hectare. In a systematic analysis of the differences between large "multifamily" farms and small "subfamily" farms in Argentina, Brazil, Chile, Colombia, Ecuador and Guatemala, output per hectare was

Table 2

Agricultural Output per Hectare and per Worker, by Farm Size, in Latin America

Country	Year	1 Smallest subfamily farms	2 Largest multifamily farms	3 Ratio of col. 1 to col. 2
		National monetary unit per agricultural hectare		
Argentina	1960	2,492	304	8.20
Brazil	1950	1,498	170	8.80
Chile	1955	334	41	8.20
Colombia	1960	1,198	84	14.30
Ecuador	1954	1,862	660	2.80
Guatemala	1950	63	16	3.90
		National monetary unit per worker		
Argentina	1960	40	192	0.21
Brazil	1950	1,197	8,237	0.14
Chile	1955	268	1,171	0.23
Colombia	1960	972	9,673	0.10
Guatemala	1950	74	523	0.14

Source: Barraclough and Collarte. *Agrarian Structure in Latin America*, a resume of the CIDA Land Tenure Studies of Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, Peru. xxvi, 351 p. Studies in the Economic and Social Development of Latin America. Lexington, Massachusetts: Lexington Books, 1973.

found to be three to 14 times greater, on the average, on the small farms than on the large farms (see Table 2).

There is other evidence to support these findings, including the results of Bank-sponsored analysis in Mexico, as well as studies on Japan and the Republic of China. However, there is no claim that all conditions were identical; the studies simply indicate that yields were higher on small farms than on large farms.

The important implication is that reductions in either the size of holdings or land concentration need not be associated with a reduction in output per hectare. On the contrary, it appears that under controlled circumstances output per hectare is likely to be higher. There are two associated reasons for this assumption. Firstly, there are limited economies of scale in most agricultural production. Secondly, small-scale producers tend to maximize output by applying labor intensively, while large-scale operators tend to maximize profits by using hired labor only until incremental production covers incremental costs. This is usually short of the output per hectare that would be produced if the goal were maximization of output.

In broad terms, land reform can be consonant with development from a point of view concerned purely with productivity, with output per hectare as the relevant criterion. Output per worker, however, is likely to decrease for the simple reason that, as pointed out below,

smaller farms would employ more labor per hectare. In other words, the larger income would be shared by an even larger number of families. This decline in labor productivity only reflects the employment and equity benefits of land reform: the same land would supply more people and the income generated would be more widely shared.

Land Reform and Employment

Evidence exists that the use of labor per hectare is greater on smaller holdings than on larger ones. The cross-sectional analysis of the 13 countries previously mentioned shows that manpower per hectare of agricultural land is significantly correlated with the size of the holding—the smaller the holding, the greater the input of manpower. This cross-sectional evidence of the higher productivity of small farms indicates their long-run equilibrium potential. But the realization of this potential is contingent on the supply of nonland inputs being increased as soon as farm size is decreased.

A limited number of studies in Asia and Latin America have also confirmed these findings. In the Ferozepur district in Punjab (India), for example, in 1968, labor absorption varied between 33 and 39 man-days per acre on holdings of less than 30 acres. On larger holdings, it ranged from 20 to 23 man-days per acre. In Colombia, man-years per hectare declined steadily from 2.7 on small holdings (less than 0.5 hectare) to 0.17 on large farms (500 to 1,000 hectares) in 1960. In other Latin American countries (Argentina, Brazil, Chile and Guatemala), the number of workers per hectare of agricultural land on the smallest farms (subfamily units) has been estimated to be 30 to 60 times greater than on the largest (multifamily) farms.

More intensive labor use is the main reason why small farms are able to produce more per unit of land than the larger farms. But inputs other than labor are also likely to be applied more intensively on small farms, unless access to these inputs is blocked by institutional arrangements. Unfortunately, the relationship between these other inputs and farm size cannot be studied in many developing countries for want of data. It is interesting to note, however, that in the cross-section of *developed* countries, in 1961, fertilizer consumption and gross fixed capital formation per unit of land were relatively higher in countries with smaller average holdings.

In developing countries, too, small farms undoubtedly need much more nonlabor input in order to raise productivity. The mere redistribution of land and increase in employment may not suffice to raise output substantially. Therefore, the organization of an effective extension-*cum*-input supply system for small farmers must accompany

land reform. Where there is such a system—as in Japan, the Republic of Korea and the Republic of China—the absorptive capacity of agriculture tends to be high even though holdings are small; at the same time, output per hectare is high. Small holdings can yield high returns to labor provided output per hectare is high—a condition that can only be fulfilled by the application of high-yielding, labor-intensive technologies.

Land Reform and Equity

The more radical the land reform and the more important the share of agricultural land in relation to total tangible wealth, the larger will be the equity effect of the reform program. In the rural areas, agricultural land accounts for such a large proportion of total wealth that it is usually the single most significant determinant of the distribution of both income and power. Evidence of this can be seen in many Latin American and Middle Eastern countries where the large landowners often dominate both commerce and government. There, land reform could have a major equity impact. However, where much of the wealth exists in the form of financial assets, real estate and other investments apart from farmland, and commodity stocks in the hands of traders, the redistribution of farmland alone may not improve the distribution of total wealth substantially. Landowners may easily change the composition of their assets on the eve of land reform if agricultural land alone is the target of redistributive zeal.

If rural and urban areas are considered together, the limitations of redistributing farmland alone appear even more serious. The distribution of real estate, financial assets and commodity stocks in the urban areas is even more skewed than the distribution of farmland in the rural areas. If, therefore, urban property reform or highly progressive taxation on urban wealth does not accompany land reform in countries with a substantial and prosperous industrial-commercial urban sector, land reform alone is not sufficient. By itself, it not only may not decrease the inequity of the distribution of total wealth in the country as a whole. It may even increase the inequity—in particular, the inequity between the town and the village—since it will freeze the maximum permissible ownership of the main rural asset, without freezing the maximum permissible ownership of urban assets.

Even with this broader focus, the equity effect of land reform will be significant only if: (1) the effective ceiling is low; (2) the beneficiaries belong to the poorer groups; (3) the extension and (nonland) input distribution system favors the beneficiaries; and (4) owned and self-operated land as well as leased land is redistributed.

The Population Factor

Opportunities for the redistribution of land depend to a great extent on the existing pattern of distribution of holdings and population density. As will be shown later, there are some countries, notably in the Americas, where land distribution is skewed and population is not dense. In such countries, there are ample opportunities for redistributing land so that inequalities can be diminished and the recipients of the land can generate an acceptable minimum income. In other areas, however, the pressure of population is such that there is not enough land to meet the minimum requirements of all claimants. The density of the farm sector is so high in some countries in Asia that, even if holdings above a certain size were completely eliminated, not enough land would be available either to raise the acreage of the minifarms to a tolerable minimum or provide for the landless.

In India, even if the maximum holding was 20 acres, the available land (43 million acres) would be barely sufficient to bring up the size of miniholdings to a minimum of five acres, and no land would be available for the landless (20-25 million households). In Bangladesh, a low 10-acre ceiling would not suffice even to bring all miniholdings up to a minimum two-acre size. The millions of landless families could not be provided for at the same time. In Sri Lanka, too, even with a low ratio between the ceiling and the floor holding (5 to 1), there would be enough land only to give two acres to each minifarmer. In Haiti, only 1.5 hectares is available for the average rural family of five. The solution to rural poverty clearly cannot be found exclusively in the agriculture sector. In these situations, it might be wise to give land only to the minifarmers and to attack the poverty problem of the landless by means of a massive rural works program. (Settlement of the landless on new land, where available, and their migration to urban areas, when possible, are the other obvious alternatives.)

Effects on Marketed Surplus and Savings

The redistribution of land can have a pronounced impact both on the availability of a marketable surplus and on aggregate savings in the agricultural sector. Although the total effect of the redistribution process will depend to a large extent on the costs of increased output after the redistribution, the change in the size distribution of holdings will shift the distribution of the source of the marketable surplus and savings. As the marketed surplus generates agricultural incomes and so potential cash savings, it determines the size of the rural market for domestically produced industrial products. The marketed surplus also represents the supply of agricultural products, mostly food, for

the urban population. Thus, a fall in the surplus could necessitate imports and put an added strain on the balance of payments. But increasing the marketed surplus will not necessarily increase savings. Where it does, the savings need not be monetized, but may take the form of increased on-farm investment in such items as improved housing, wells and access roads.

Marketed Surplus

A reduction in land concentration through land reform could lead to a fall in the marketed surplus—at least in the short run. Small farm households tend to consume a larger proportion of their small output than do households which have a large enough acreage to produce in excess of domestic requirements. Thus, the ratio of marketed surplus to production falls as farm size decreases. Data from India show, for example, that small farms (2.5 acres or less) sell only 24.5% of their output, whereas large farms (50 acres or more) sell 65.4%. But these farm groups produce only 9.5% each of the national output. If output remained the same but, hypothetically, farms above a certain size were eliminated and their land transferred to the small class, the surplus-output ratio would probably decline. The rate of decline, however, might not be very great given that the largest and the smallest farm-size groups account for only small proportions of the total output.

The surplus-output ratios of different farm-size groups, however, and their shares of total output and sales can differ widely across countries and regions. Sixty-one percent of the maize farmers in Puebla (Mexico), for example, sell no maize at all; and another 16% sell 25% or less of their output. In Chile, on the other hand, a typical sharecropper sells as much as 43% of his output. In Mexico, 6.6% of the marketed surplus comes from 70.7% of the farmers; and 55.4% comes from only 1.7%. In India, 48% of the farms (less than 2.5 acres) contribute only 6% of sales, 1% (more than 50 acres) contribute 16%, and 51% (with 2.5 to 50 acres) contribute the bulk (78%) of the total surplus.

These differences would determine how much the surplus ratio would fall after land reform; but there can be no doubt that it *would* fall, with adverse effects on the economy. However, this decline in the market surplus ratio need not result in a decline in *total* surplus, *provided that there is a compensatory increase in total output*. Since per acre yields on small farms can be higher than on large farms, there may be a sufficient increase in output if, after reform, the necessary conditions are fulfilled whereby small farms can realize their full pro-

duction potential. In addition, from the welfare point of view, a decline in the market surplus ratio has a direct distributive dimension which should be offset against the decline. As the surplus-output ratio falls, the subsistence consumption of small farmers increases—the extra consumption in kind representing a direct increase in their incomes (nutrition). Insofar as the productivity of small farmers was previously constrained by inadequate nutrition, there should also be a positive effect on productivity.

Savings

In considering the productivity effect of land reform, it is necessary to examine the implications of a change in farm-size structure on the aggregate savings rate of the farm sector as a whole, since the savings rate represents the contribution of the sector to the long-run growth of both its own productive capacity and that of the rest of the economy. Although the evidence on savings rates of different classes of farm households in developing countries is scant, it can be expected that the behavior of the savings rate will be similar to that of the marketed surplus. At the lowest end of the farm-size scale, the subsistence farmers can be expected to be net "dissavers" (for instance, by running down the existing soil fertility). As farm size increases, the savings rate can be expected to become positive and increase along with it (although large farmers can be "dissavers" too, by using capital for consumption). A recent study in the state of Haryana (India) tended to confirm this: the savings ratio was found to be —0.24% for small farmers, 8.5% for medium farmers and 16.3% for large farmers. In a further study in Orissa (India), there was no direct measure of the savings made, but the ratio of net capital formation as a proportion of income was found to be 5.5% in the smallest farm-size group (0 to 2 acres) and 19.3% on the larger farms (8 acres and above). For unirrigated villages, the corresponding figures were lower —2.6% on the smallest farms, and 11.2% on the larger ones.

It follows that a reduction in concentration of land will reduce the average savings rate of the farm sector. But, again, if a compensatory increase in total income can be secured by intensifying inputs per unit of land soon after land reform, the aggregate savings can be prevented from falling. This adds to the urgency of introducing effective agrarian reform (including improved technology and services) along with land reform.

A policy implication, from the foregoing, is that the farm-size structure created by any land reform program should fix a minimum as well as a maximum farm size. The minimum farm size clearly should

be determined on the basis of the current national norm of minimum family income. But one of the criteria for determining the minimum income itself should be that it should at least enable the smallholder to cease to be a "dissaver." An analogous criterion can also be derived from the known behavior of marketed surplus: the smallholder should have at least enough land for positive sales.

Tenancy Reform

The most successful land reforms include those whereby tenants become owners of the land they operate, as in Japan, Taiwan and some parts of Europe. Ownership control and income from the land is thus redistributed. However, if landlords are allowed to retain land that might be self-operated, and tenants become owners of the land that they operate, then the size distribution of operational holdings may not change. With the conversion of tenants into owners, security of tenure is greater and incomes for the farmers are larger. This, in turn, encourages increased savings and, hence, on-farm investment and higher output.

The conversion of tenants into owner-operators generally leads to a more efficient and more equitable form of production organization than tenancy. This is seen not only from the reforms in Japan and Taiwan, but also from experience in parts of Africa where "customary" tradition is converted into freehold. In Kenya, the provision of security of tenure, especially in the temperate production areas, has increased on-farm investment and helped raise output.

There may be situations where tenancy reform aims at stabilizing the position of tenants with respect to rent paid, security of tenure and labor objectives, without transferring ownership rights to them. Here, the problem is to promote more efficient types of tenancy, with contracts having well-defined incentives and deterrents. The expert consensus is that fixed cash-rent contracts are superior to the more common crop-share contracts, since the whole income in excess of the fixed rent accrues to the actual cultivator. Sharecroppers, however, often have a preference for crop sharing because it provides risk insurance. Crop sharing can be made more efficient and equitable if it is considered with cost sharing. There is growing evidence from the Philippines, for example, that since the seed-fertilizer technology began to spread, landlords and sharecroppers have spontaneously begun trying to combine cost sharing with crop sharing because the combination is profitable to both.

Tenurial reforms, whether through the distribution of the land to those working it or the provision of greater security of tenure and

improved rental contracts, have an effect on development. Such reforms improve income distribution by shifting income away from the landlords to small-scale producers, often those among the lowest income groups. The more secure producers tend to invest part of their higher earnings in their holdings—thus raising the level of investment in agricultural production—whereas absentee landlords frequently invest in off-farm activities. Finally, greater security enables tenants to benefit from appropriate technological changes, instead of being displaced when landlords find it to their advantage to adopt a different technology. The financial returns to the landlord from using machines and hired labor may be high, but the returns to the economy are usually higher from labor-intensive operations undertaken by smallholders.

Implementation Issues

If reforms are to generate the benefits expected of them, several important considerations must be taken into account. Firstly, since agriculture is a private sector activity in most countries, production and investment decisions are made by millions of individuals operating in their own interests. Very often the greater part of national output comes from medium-scale farmers. These farmers, like prudent investors, weigh the risks as they perceive them before making on-farm investments—the major component of total investment in agriculture. Sustained uncertainty about a government's intentions with regard to the distribution of land adds to the risk of investment and can hamper capital formation and production. In some instances, continued uncertainty has led to disinvestment in agriculture by owner-operators and a flight of capital from the country. It follows that the more specific the plans and the more clearly defined the policies regarding land reform, the less likely the acceleration of disinvestment by landowners and, so, the lower the "cost" of the reform.

Logistical Support

Secondly, the introduction of a major land reform program usually disrupts the system of logistical support from the commercial sector to the farmers. In most countries in the world, there is a well-established link between commercial bankers and suppliers in the private sector and the larger agricultural producers. This linkage is based on mutual interests and, often, on long-standing business association. The redistribution of land frequently leads to a breakdown of this system. Often, there is a long interval before the public sector can

undertake the role previously filled by the private sector, or before the private sector adjusts to the new situation. Without an appropriate organization for the provision of inputs, productivity will decline and output will fall. Thus, the reduction of the costs of a land reform program—in terms of production forgone—depends on the rapid reorganization of the input supply system.

Nature of Organizations

Thirdly, the nature of the organizations providing for both the supply of necessary inputs and the marketing of production surpluses is crucial in a post-reform period. There are many different forms of organization: cooperatives, agricultural development banks, special credit institutions, marketing authorities, and the like. Whatever the organizations that prevail, it is essential that they be designed specifically to assist the beneficiaries of reform. In many instances, the institutions that have provided services in a post-reform period have continued with a bias in favor of larger-size operations. Part of the reason is that these institutions have not been able to adapt their methods of operation to the needs of large numbers of small farmers. Unless this is done, the beneficiaries of the reform may not be in a position to increase their output. Indeed, the appropriate organization of supplies and the evolution of a low-cost delivery system to reach small-scale producers is a *sine qua non* for a sustained increase in productivity.

Adaptation

Fourthly, under certain conditions land reform programs might need adaptation if they are to fulfill the objectives of development. When land is fully utilized and yields are already high, the impact of redistribution of land on productivity and employment may be in question. In this context, it is important to determine the reasons for high yields. In much of agriculture, most of the inputs are "divisible," thus reducing the importance of scale of operations as a factor in raising productivity. In some situations, high yields and efficient operations may be directly associated with a system organized to function on a large scale (as in certain types of sugar plantations). The breaking up of such holdings may well reduce yields and lower output. A more realistic approach to obtaining widespread benefits would be to leave such operations intact and redistribute the profits from the enterprise. This can be done through taxation, by raising the wages of the workers, or—as in Peru—converting the operation into

a worker-owned corporation and distributing dividends, out of profits, to the participating stockholders.

Structural Change

Finally, land reform leads to structural changes within the agricultural sector. The post-reform structure will depend on the ideology of the government. In some instances, the number of small-scale owner operations will increase; in others, producer cooperatives or communes or large-scale state farms will emerge. The pattern that evolves may also be tailored to fit the economic environment: the organization might be based on a system which can use surplus labor for direct capital formation; other organizations (such as large-scale state farms) might be intended to save labor. Experience has indicated, however, that:

1. Government reorganization can generate enthusiasm and provide opportunities for mobilizing workers, but raising output depends on more than land and labor. There must be an appropriate supply of other inputs.

2. No matter what the structure, an appropriate system of management is necessary which enables the managers of land to make decisions in a timely fashion—a most important condition in agriculture and one that is dependent on weather. This is a condition, however, that is often unfulfilled in rigidly controlled societies.

3. There must be an adequate system of incentives and rewards if productivity in agriculture is to be increased. This applies both to the agricultural sector as a whole and to the units in which beneficiaries of reforms are organized. Many communes, producer cooperatives and other units of production have floundered in developing a system that reflects both equity and incentives. The creation of adequate incentives is particularly important in a situation where labor is the major input.

Land reform, although equity oriented, can be consistent with all the goals of economic development: raising productivity, increasing employment and providing wider equity. In the long run, land reform need not lead to a reduction in marketed output or savings. Tenancy reforms can redistribute incomes and, by providing security of tenure, can encourage increased on-farm investment. However, sustained increases in output depend on complementary investments and policies. The most important of these concern the organization and provision of an adequate supply of inputs for the beneficiaries and the creation of incentives to use these inputs to raise production.

Chapter 3: THE WORLD BANK AND LAND REFORM

Changing Concerns

The position of the World Bank in regard to land reform has changed over the past decade, reflecting a reconsideration of the objectives of development and the most appropriate strategies for attaining those objectives. The objectives are now generally accepted to be increased productivity and employment, and social justice. Land reform can be consistent with these objectives and, in some situations, may well be a necessary condition for their realization.

In the early years of the Bank's operations, the focus was on providing adequate infrastructure for increasing agricultural production. In the early 1960s, the approach to agricultural development was widened to include the provision of rural credit and on-farm inputs. Problems of tenure were seen to have an indirect bearing on production, mainly because they influenced on-farm investment decisions and determined the efficiency of resource use, especially irrigation water. By the end of the 1960s, however, concern was growing about distribution of income in the rural areas and the relationship between land distribution and income distribution. This was reflected in the Agriculture Sector Working Paper of June 1972, which recognized a relationship between land distribution and equity. The paper stated:

> "In developing countries, land represents a much higher proportion of total wealth than in developed countries, and inegalitarian patterns of landownership are a major source of income inequality. Furthermore, the owners of land usually possess political and economic power which can be exercised in ways that harm the interests of the bulk of the rural people."

The paper went on to affirm that:

> "It is clear that agricultural development cannot do all it might to improve rural life if the distribution of landownership is highly skewed."

This concern has been reflected both in the technical assistance offered to governments (especially in sector survey and economic reports) and in the types and components of projects in the lending program.

Technical Assistance

The Bank has been concerned with problems associated with land distribution and land reform since the beginning of its operations. One of the first major economic surveys undertaken was that of Colombia in 1955. The mission identified the patterns of land use and

land distribution by size of holding to be major obstacles to accelerating agricultural development. Large stretches of fertile land were held by large-scale producers for livestock raising, while intensive agriculture was practiced by "minifundios" on land that was less suited for crop production. The mission recommended to the government that it introduce a graduated land tax as a means of intensifying land use. A subsequent agriculture sector mission in 1956 confirmed that the systems of land tenure and land use were barriers to increasing output. This mission recommended that the government adopt a presumptive income tax to encourage the more productive use of land.

The two missions to Colombia were concerned with increasing productivity and intensifying land use. The missions were not concerned with the redistribution of land as a means of encouraging greater equity, nor did they consider redistribution as a means of intensifying production. Rather, they took the view that the distribution of land was a matter of national policy and internal politics, and that the Bank—as an external lending agency—should adhere to the existing policy and not advocate a rapid redistribution of land. It did, however, recommend a vigorous policy of settlement on reclaimed and cleared land.

Since that time, missions and sector surveys have been conducted in almost all the countries served by the Bank. Many of these have pointed to patterns of land control and insecurity of tenure as obstacles to raising agricultural productivity. More recently, there has been a growing emphasis on the problems of distribution of land and the rights to land as factors that influence equity as well as productivity. Thus, missions to Ethiopia and Morocco have drawn attention to the relationship between the land tenure situation and the distribution of benefits from growth. In Morocco, the mission emphasized the possibility of redistributing land as a means of increasing both output and equity. In Ethiopia, the problem was seen as one of uneven land distribution and insecurity of tenure; security of tenure was considered to be especially significant in the light of the distribution of potential gains from new technology being introduced into the country. Landlords were finding it increasingly profitable to displace their tenants as machine technology provided higher returns.

Despite this trend, many reports do not give appropriate emphasis to issues related to land reform and development. The Bank needs to be better informed about conditions governing rights to land and related institutions in member countries. More needs to be known about the distribution of land, conditions governing tenancy, and the policies and programs instituted to influence the distribution of land and rural incomes. It is only through a thorough analysis of conditions

within member countries that the Bank will be in a position to discuss policy options with member governments. At present, many reports still do not address these problems; however, new guidelines are being developed which can form a basis for discussing the issues in a systematic way in sector and economic reports.

Lending Operations

The Bank's lending for agricultural development has increased very rapidly in recent years. Loans and credits have been made to countries with widely differing social and political structures. These have included socialist countries, such as Yugoslavia and Tanzania, as well as countries that follow capitalism, such as Argentina and Thailand. Loans and credits have been made for agriculture operating under different forms of tenure—for kombinats in Yugoslavia, kibbutzes in Israel, individual holdings in India, cooperative production units in Tunisia and group farmers in Kenya. Funds have also been provided for large-scale livestock producers, large-scale plantations and small-scale producers; these have benefited absentee landlords, large landowners, small landowners, tenants and farm workers. On the other hand, the Bank has not been totally indifferent to structural and income distribution aspects, and the record shows an increasing awareness of the implications reflected in more frequent use of measures to improve them.

Nevertheless, few projects have supported land reform as such. In general, external financing, whether multilateral or bilateral, has played a minor role in the financing of land reform programs. One reason is that the process of reform in itself may only require relatively small outlays of public funds, as expenditures for a redistributive reform depend mostly on the levels and forms of compensation that are set for the former landowners. Public discussion of land reform financing is generally dominated by this issue. When land is confiscated as part of a revolutionary process—as it was in Mexico and Bolivia—clearly little, if any, public expenditure is involved. The compensation issue tends to be more important in such countries as Colombia and Venezuela where land is purchased. Even so, the actual amounts involved are not substantial, especially where, as is usually the case, payment is mostly in bonds. It is estimated that, in the Latin American countries which followed nonconfiscatory reforms, only some 9% to 15% of total reform-related cash budgets went for landowner compensation—though in other cases the figure could be much higher.

Compensation paid for land is a "transfer payment" from the pub-

lic sector to the landholding groups. Without doubt, compensation can have serious implications for income distribution, consumption and investment—but it does not of itself create any new productive capabilities in the country. Partly because of this, international lending institutions have refrained from using their resources for financing land purchases. It has been suggested that the international agencies might guarantee bonds issued to compensate landlords. If financing were to be through international maintenance-of-value guarantees of bonds and for compensation, this would have the paradoxical effect of giving land bonds greater stability than that enjoyed by the currencies of issuing countries.

The Bank has provided general support for at least one far-reaching land reform program. This was in Tunisia where the Bank provided a loan of $18 million intended to back a major agrarian reform relating to former French-owned estates, which occupied the most fertile land in that country. The nationalized land was to be converted into "units of production" which were to be farmed on a cooperative basis; each unit of production was to be self-financing and, *inter alia*, was to pay a guaranteed minimum cash wage to the workers out of the farm profits. However, the scarcity of trained manpower and the rapid pace adopted in establishing new cooperatives made it difficult for the production units to start on a sound basis and generate a large enough cash flow to meet their objectives. In addition, the system had built-in disincentives because wages were not paid according to work. The Bank successfully pressed for substantial improvements in the conception, design and implementation of the agrarian reform. It was unable, however, to influence the major political decision either to take all the land in Tunisia under state management or to put it all under the control of cooperatives. The extension of reform strained the limited administrative capacity, and the reform program collapsed. Smallholders opted for private farming and were supported by landowners who resisted the takeover of their lands. The Bank subsequently canceled half of the loan.

The problems encountered in financing the Tunisian program underscore some of the difficulties in lending for reform-related projects. The financial viability of these projects depends to a great extent on the managerial capacity of the beneficiaries of the reform and the development of an efficient service system for them. Very often the managerial capacity of the beneficiaries may be untried; the agencies created to deliver the inputs are usually new, have limited technical capacity and are of questionable financial viability. Furthermore, these institutions often provide inputs that were formerly provided by the private sector, and the whole delivery system changes

from one based on the profit motive to one based in the first instance on social consideration. This directly affects their financial viability, especially in that cash flows generated by reform projects tend to be less immediate than in other projects, and many investments in social overhead are not self-liquidating in the short run.

Another Bank project provided direct financial assistance to facilitate the implementation of land reform as part of the Lilongwe development scheme in Malawi. It was recognized during the preparation of the Lilongwe project that there was an opportunity to change the existing land tenure pattern of customary right of usufruct. The need for change to a more secure and lasting tenure system was evident as almost all uncultivated land had been taken up; individual holdings were of the order of about five acres per family, and fragmentation of holdings had occurred on a substantial scale. Five acres was deemed to be the minimum holding size capable of providing a family with subsistence at present levels of technology.

As a consequence, the Malawi Government introduced three Acts of Parliament which provided for the allocation, consolidation and registration of holdings, and the issuance of either family or individual freehold titles. These Acts also provided for the regulation of the subsequent sale, mortgage or transfer of registered land through the establishment of Land Boards. To date, some 200,000 acres have been allocated and titles issued on 60,000 acres. IDA credits are being used for the land survey (both topographical and cadastral), the provision of allocation and registration staff, vehicles, equipment, and the construction of housing and land registry. The amount involved will be approximately US$1 million by the end of the second phase. The Lilongwe project indicates that Bank assistance can play a role in assisting governments in the "mechanics" of land reform and in the drafting of legislation.

A number of other projects have been financed by the Bank involving some change in distribution of land or in tenurial rights within the area encompassed by the project. These include projects for land settlement, outgrower schemes, irrigation, and rural credit.

Land Settlement

The Bank has financed a number of settlement projects in which infrastructure was made available together with other services for families settled in the project area. Table 3 gives information on ten projects located in Brazil, Colombia, Ethiopia, Kenya, Malawi and Malaysia. Seven of the projects were established on public land and so did not involve any change in the size distribution of existing

Table 3

Costs of Selected Settlement Projects Assisted by the World Bank

Country	Project	Total project costs (US$ millions)	Bank or IDA finance			Number of families[1] to be settled	Estimated project costs per family[2] (US$)	Average farm size (hectares)	Settlement on
			Amount (US$ millions)	Loan or credit	Date				
Brazil	Alto Turi Land Settlement Project	12.6	6.7	loan	1972	5,200	2,423[3]	40.0	Public land
Colombia	Atlantico No. 3 Irrigation	15.7	9.0	loan	1967	2,500	6,280[4]	4.0[5]	INCORA land (involved appropriation of private land)
	Second Atlantico Development	9.7	5.0	loan	1972	1,800	5,389	11.0	
	Caqueta Land Colonization	21.6	8.1	loan	1971	6,300[6]	3,429	n.a.[7]	
Ethiopia	Wolamo Agricultural Project	2.3[8]	3.5	credit	1969	1,050	2,214	6.0	Public land
Kenya	Land Settlement and Development	6.9	3.9	credit	1969	5,200	1,327	14.3	European-owned land
Malawi	Karonga Rural Development	7.8	6.6	credit	1972	2,830	2,756	6.0	Public land
Malaysia	Jengka Triangle	29.1	14.0	loan	1968	2,770	10,505	4.8	Public land
	Second Jengka Triangle	41.0	13.0	loan	1970	3,000	13,667	4.3	Public land
	Third Jengka Triangle	43.3	25.0	loan	1973	4,000	10,825	4.5	Public land

Source: World Bank and IDA appraisal reports.

(1) Except for Kenya, figures represent goals rather than actual state of settlement.
(2) Project costs, as estimated in the appraisal reports, do not necessarily reflect total economic costs of settlement.
(3) The cost to the government is $1,700 per family settled. This excludes expenditures on health, education, research and related studies. These cost expenditures are being reviewed and are expected to be considerably higher than originally expected.
(4) The cost per small farmer settled is estimated to be $17,000, whereas the cost per middle-size farmer remaining in the project area is $100,000.
(5) The original goal was to settle 2,500 landless peasants and develop 9,900 hectares. The project is behind schedule.
(6) Includes 2,800 new settlers and 3,500 partially established settlers.
(7) Although 2,800 new settler families are scheduled to be settled on some 280,000 hectares, no data on the farm size of 3,500 partially established settlers are given.
(8) Excludes $2.73 million used for agricultural development on the highlands.

holdings. Thus, settlers were allocated holdings of from three or four hectares in Malaysia to 40 hectares in Brazil. Each holding was deemed adequate to provide a livelihood and full employment for the settler and his family.

There are severe limitations on settlement as a means of reaching large numbers of landless people or relieving pressures on the land. Although the costs per family in a settlement project can be misleading, the data in Table 3 indicate the limitations on settlement projects —as presently conceived. The ten projects were intended to settle no more than 35,000 families; the total cost was expected to be $190 million, the Bank's contributions being almost half that amount. The capital requirement of more than $5,000 per family limits the prospects of the approach. Clearly, the whole approach to capital-intensive settlement requires reexamination considering the magnitude of the problem outlined in Annex 1 of this paper.

Outgrower Schemes

The problems of distributing the gains from plantation development were mentioned earlier. It was suggested that the benefits be distributed through the raising of wages and the payment of dividends to the workers. In this area, the Bank has made a substantial contribution toward a novel form of tenure through the development of "outgrower" schemes. These schemes involve the production of tree crops on smallholdings rather than on large-scale plantations. The smallholdings are established around the nucleus of either a processing plant or a plantation. The central unit provides technical assistance, inputs and marketing services for the outgrowers who, in turn, sell their products through the central organization.

The Bank has participated in nine such projects costing $125 million, of which the Bank has contributed $68 million and affecting some 120,000 families. These have included tea projects in Indonesia, Kenya, Mauritius and Uganda, rubber in Indonesia and Malaysia, cocoa in the Ivory Coast, and oil palm in Nigeria. The average holding in each project has ranged from 10 hectares in Senegal to one acre in Kenya. In the main, the size of holdings for outgrowers is small, although large enough, under labor-intensive cropping systems, to employ a family and produce enough of a high unit value commodity to yield an income well in excess of that earned by producers of staple commodities who have holdings of a similar size. While this system has made a valuable contribution toward establishing viable smallholders, it is only effective when there is a commodity that can be handled through a central processing system.

Irrigation

The Bank has invested about $1,450 million in irrigation, flood control and drainage projects. While these projects covered many facets of water storage and distribution, most were intended to improve the use of water and bring more land under intensive cultivation. To this end, the Bank has worked with various governments in determining the most appropriate size of holding for the beneficiaries of each project. For example, 11 projects costing $342 million (incorporating a Bank investment of $190 million) are expected to improve 810,000 hectares and benefit more than 500,000 families. The average size of holdings in the irrigated areas ranges from 10 hectares in Iraq to one hectare in Korea, Pakistan and Sri Lanka, or an average of 1.6 hectares per family over all the projects.

In many instances, irrigation projects are subject to special regulations or laws regarding the size of holding that can be held by the beneficiary. Thus, in Mexico the Bank-supported projects have conformed to the law which limits the size of irrigated holdings to a maximum of 10 hectares. Elsewhere, problems have arisen because there is no legal provision regarding size of holding or because the law has been ignored. In some instances, the Bank has insisted on special legislation giving tenants security of tenure. But, in practice, this has been difficult to enforce.

Rural Credit

While in itself farm credit is an important instrument for reaching groups of a particular size in agriculture, access can be restricted by tenurial arrangements if lending criteria specify that registered land titles be used as collateral for borrowing. Bank-assisted projects have provided more than $1,000 million for rural credit. Most of these resources have aided larger commercial producers, although in recent years there has been a pronounced trend toward lending for smaller producers. By the end of 1973, an estimated $250 million had been allocated for small farmers.

In some instances, the Bank has made loans on the condition that the recipient government takes steps to ensure that the intended beneficiaries do indeed gain from the investment. However, in several instances, the governments concerned have not fulfilled obligations regarding the provision of security for tenants or the allocation of land to low-income groups. In other instances, governments have failed to implement conditions provided for by existing legislation on rights to land; or they have failed to introduce legislation which would have met the conditions specified in the loans. This highlights

one of the major dilemmas confronting an international lending agency concerned with promotion of land reform as an instrument of economic development. That is, to what extent can the Bank influence the course of events regarding distribution of land, and income from the land, in the sovereign states that are members of the Bank?

Major Policy Options

The Bank has to recognize that its leverage is limited as it seeks to redefine its position with regard to land reform. Using Bank finance to gain a developmental impact through land reform involves highly complex issues at the project level, while the potential for using the Bank's influence to press or even force the issue of structural reform on member countries is severely circumscribed. Such political decisions are not amenable to ready negotiation with governments in the same way as are other institutional questions—such as, for instance, the setting of public utility rates.

The Bank would seem to be left with only two options. Firstly, in countries that are interested in pursuing land reform the Bank can give support in the form of technical assistance and finance for reform-related projects. It should give overt priority in lending to those countries and projects which meet land reform criteria. Secondly, in countries where governments are not interested in land reform the Bank should:

(1) study the situation in all cases;

(2) call the attention of the governments to the problems associated with the existing tenure system, and enter into a dialogue on the subject;

(3) support land reform proposals when they are made officially; and

(4) not lend for projects if tenurial arrangements are so bad that they frustrate the achievement of the Bank's objectives.

These options are reflected in the policy guidelines provided in this paper.

ANNEXES

THE CONTEXT OF LAND REFORM

Ratios of Population to Land

The total land area of the globe is about 13,393 million hectares, made up of 1,456 million hectares of cropland, defined as arable land and land under permanent crops (10.8%); 2,987 million hectares under permanent pasturage (22.8%); and 4,041 million hectares under other uses (36.4%). Of the arable land, approximately 32% is in Asia; 19% in North and Central America; 16% in the USSR; 15% in Africa; 10% in Europe; 6% in South America; and 3% in Oceania.

The world's population was estimated at approximately 3,617 million in the early 1970s. This represents an average of 3.7 hectares of land, or close to 0.40 hectare of cropland, per person. The world's agricultural population—defined as population depending on agriculture for its livelihood—is estimated at 1,851 million, or 51% of the total population. On the basis of these global figures, there is an average of 0.78 hectare of cropland per person in agriculture.

The relationship between population and land in all major regions and for 52 selected countries is shown in Annex Tables 1:1 and 1:2, respectively. Among other things, the tables show that:

1. More than 70% of all rural people live in Asia, which has approximately 32% of the world's cropland. The ratio of cropland to agricultural population is the lowest in Asia among all the major regions, averaging 0.35 hectare per person. Together, the People's Republic

Table 1:1

Regional Distribution of Land, Cropland, Agricultural Population and Area per Person in Agriculture

Region	Land area (million hectares)	Cropland		Rural population		Agricultural population as percentage of total population	Cropland area per rural person (hectares)
		(million hectares)	Distribution (%)	(millions)	Distribution (%)		
Europe	493	145	10.0	89	4.8	17	1.63
USSR	2,240	232	15.9	77	4.2	32	3.01
North and Central America	2,242	271	18.6	54	2.9	17	5.02
South America	1,783	84	5.8	74	4.0	39	1.14
Asia	2,753	463	31.8	1,314	71.0	64	0.35
Africa	3,031	214	14.7	239	12.9	67	0.90
Oceania	851	47	3.2	4	0.2	4	11.75
Total	13,393	1,456	100.0	1,851	100.0	51	0.78

Source: FAO. *Production Yearbook 1972.*

Annex 1
Table 1:2

Cropland in Relation to Population, by Country

Country	Cropland (000 hectares)	Total population (000)	Agricultural population (000)	Hectares of cropland per person of: Total population	Agricultural population
Africa					
Angola	900	5,501	3,568	0.16	0.25
Ghana	2,835	8,832	4,840	0.29	0.59
Ivory Coast	8,859	4,916	3,986	1.80	2.22
Nigeria	21,795	76,795	45,423	0.32	0.48
Rwanda	704	3,609	3,277	0.20	0.21
Uganda	4,888	8,549	7,342	0.57	0.67
Zaire	7,200	17,493	13,701	0.41	0.53
Asia					
Bangladesh	9,500	71,000	60,000	0.13	0.16
Burma	18,941	27,584	17,570	0.69	1.08
China, People's Republic of	110,300	850,406	568,921	0.13	0.19
China, Republic of	867	14,520	6,171	0.06	0.14
India	164,610	550,376	372,605	0.30	0.44
Indonesia	18,000	119,913	83,230	0.15	0.22
Japan	5,510	103,540	21,329	0.05	0.26
Korea, Democratic Republic of	1,894	13,674	7,275	0.14	0.26
Korea, Republic of	2,311	32,422	17,300	0.07	0.13
Malaysia	3,524	10,931	6,176	0.32	0.57
Nepal	2,090	11,040	10,112	0.19	0.21
Pakistan	24,000	60,000	35,000	0.40	0.69
Philippines	8,977	38,493	26,752	0.23	0.34
Thailand	11,415	35,814	27,398	0.32	0.42
Viet-Nam, Democratic Republic of	2,018	20,757	16,108	0.10	0.13
Viet-Nam, Republic of	2,918	18,332	13,620	0.16	0.21
Europe					
Denmark	2,678	4,921	595	0.54	4.50
German Democratic Republic	4,806	17,257	2,133	0.28	2.25
Germany, Federal Republic of	8,075	61,682	3,514	0.13	2.30
Hungary	5,594	10,310	2,484	0.54	2.25
Italy	14,930	53,667	9,735	0.28	1.53
Poland	15,326	32,805	9,940	0.47	1.54
Portugal	4,370	9,630	3,523	0.45	1.24
Romania	10,512	20,253	10,503	0.52	1.00
Spain	20,601	33,290	11,222	0.62	1.84
Sweden	3,053	8,046	754	0.38	4.05
United Kingdom	7,261	55,711	1,540	0.13	4.71
USSR	232,809	242,768	77,322	0.96	3.01
Yugoslavia	8,205	20,527	9,651	0.40	0.85
Latin America					
Argentina	26,028	24,353	3,704	1.07	7.03
Bolivia	3,091	4,931	2,873	0.63	1.08
Brazil	29,760	93,565	40,869	0.32	0.73
Chile	4,632	9,780	2,484	0.47	1.86
Colombia	5,258	21,117	9,541	0.25	0.55
Cuba	3,585	8,407	2,755	0.43	1.30
Guatemala	1,498	5,180	3,246	0.29	0.46
Haiti	370	4,867	3,754	0.08	0.10
Mexico	23,817	50,670	23,617	0.47	1.01
Peru	2,843	13,586	6,189	0.21	0.46
Puerto Rico	236	2,784	387	0.09	0.61
Uruguay	1,947	2,886	482	0.67	4.04
Venezuela	5,214	10,997	2,887	0.47	1.81
North America					
Canada	43,404	21,406	1,712	2.03	25.4
United States	176,440	205,395	8,216	0.86	21.5
Oceania					
Australia	44,610	12,552	1,049	3.55	42.53

Source: Dovring, Folke. *Land Reform: Ends and Means.* A Background Study prepared for the World Bank.

of China and India have an agricultural population of close to 1,000 million, while Indonesia, Bangladesh and Pakistan have a further 178 million. Of the Asian countries, in terms of hectares per person, Burma has the most favorable ratio of cropland to rural population (1.08), followed by Pakistan (0.69), Malaysia (0.57) and India (0.44), compared with Indonesia (0.22), the People's Republic of China (0.19) and Bangladesh (0.16). The least favorable ratio is in the Republic of Korea and the Democratic Republic of Viet-Nam (each with an estimated 0.13). It is notable that the Republic of China (Taiwan) and Japan have ratios of 0.14 and 0.26 arable hectares per person in agriculture. Japan is the only developed country with such a low ratio—well below the 1.63 of Europe and 5.02 of North and Central America.

2. South America accounts for 4% of the world's agricultural population and 5.8% of the world's cropland. Although 13% of the land area of the world is in South America, almost half of that area is in forests and woodlands, 20% is in pastureland and only 5% or 6% is in cropland. However, as only 39% of the population is in agriculture, there is an average of 1.14 hectares of arable land per rural person. Argentina and Uruguay have high ratios of agricultural land to rural population, the most favorable in the developing world (7.03 and 4.04, respectively). Venezuela, Chile, Bolivia, Mexico and Cuba have ratios of more than 1 hectare per person in agriculture; Brazil, Colombia, Peru and the crowded Central American republics have ratios of less than 1 hectare per rural person. Haiti with 0.10 hectare per person in agriculture appears to have the most unfavorable ratio in the world.

3. Africa has 13% of the world's rural population and close to 15% of the world's cropland, with an average of 0.90 hectare of cropland per person in agriculture; 67% of the population depends on agriculture, a higher proportion than in any other region. The most favorable ratio in tropical Africa appears to be in the Ivory Coast, with 2.22 hectares per person in agriculture. Uganda, Ghana, Nigeria and Zaire have between 0.50 hectare and 0.70 hectare per person in agriculture. Rwanda, with 0.21 hectare per person in agriculture, is one of the few countries in tropical Africa where the pressure on land resources is greater than the average in Asia.

This brief summary indicates the wide range of population densities in rural areas in different regions and countries of the developing world. The data show that, by and large, countries with a high proportion of population in agriculture have less favorable ratios of population to land. They are also among the poorest countries. Further, they are the countries in which population is increasing rapidly and where it is particularly difficult to raise agricultural output.

Population and Production

The population in the rural areas of developing countries, while declining relative to total population, is increasing in absolute numbers. Despite rapid migration out of agriculture, and despite the explosive growth of population in certain areas, the rate of growth of the rural population has increased in all regions of the world other than Africa. Table 1:3 shows the trends in rates of growth between 1950-60 and 1960-70, with overall growth rates rising from 1.9% to 2.1%, and the largest regional rate of increase being the one from 1.8% to 2.1% in East Asia (where population density is already great in rural areas).

Table 1:3

Rural Population Growth, by Region

	Annual percentage rate	
	1950-60	1960-70
Latin America	1.4	1.5
East Asia	1.8	2.1
Middle East	1.8	1.8
Africa	2.4	2.2
Total all regions	1.9	2.1

Source: Davis, Kingsley. *World Urbanization, 1950-70*, Vol. I, 1969.

The larger number of people has added to the pressure of population on the land. Historically, this pressure has been relieved through the expansion of acreage along a frontier of cultivation. Indeed, it was the expansion of the frontier in the new lands of North America, Argentina, South Africa and Australia that helped relieve population pressures in the first period of generalized population growth in the late eighteenth century. In these areas, population growth was accelerated by an influx of migrants to rates comparable to those found today in many of the poorer countries. However, since the frontier is fast disappearing in most of the poorer countries, so are the opportunities for low-cost expansion of acreage under cultivation. The changing situation is difficult to document at an aggregate level, but Table 1:4 gives some perspectives on trends in the expansion of cropped areas and production.

The rate of expansion in acreage fell, in the aggregate, in the 1950s and the 1960s. The only exception is Latin America where the acreage under cultivation grew from a rate of 1.8% to 2.5% per year. In all other areas, the expansion of acreage slowed down, halving in the

Annex 1
Table 1:4

Cropped Area and Production Trends, by Region

	Average annual growth rate			
	1953-55 to 1962-63		1961-63 to 1969-71	
	Production	Area	Production	Area
Latin America	3.1	1.8	2.9	2.5
East Asia	2.5	1.9	2.8	1.1
Middle East	3.8	2.2	2.7	1.1
Africa	3.0	1.7	2.6	1.2
All regions	2.8	1.9	2.8	1.4

Source: FAO. *Report on the 1960 World Census of Agriculture.* Rome: 1971.

Middle East from 2.2% per year to 1.1%. When the rates of population growth are compared with rates of increase in acreage under cultivation, it appears that the rural population increased at about the same rate as the cropped area during the 1950s, but increased more than one-and-a-half times as fast as the cropped area during the 1960s.

As shown in Table 1:4, production increased at the same rate during the 1950s as during the 1960s. A rate of increase in output consistent with an increase in rural population indicates a decline in the rate of growth of output and incomes from 0.9% per year in the 1950s to 0.7% per year in the 1960s. At the same time, as average per capita income was increasing at a declining rate, yields per acre rose very moderately—in this instance, an increase of around 0.4% a year in the 1950s and 1960s.

The increase in population and slow expansion of the area under cultivation have caused a deterioration in man-land ratios. This deterioration, arising from constraints on the low-cost expansion of acreage under cultivation, makes it increasingly difficult to accelerate growth rates of output and income in agriculture. This is because raising yields requires a higher level of technology and management as compared to increasing output or expanding acreage under cultivation. It is only in recent years that a concerted effort has been made to develop technologies to raise yields of staple crops grown in the developing areas. Hitherto, these efforts have been confined to a handful of crops, and the successes attained have been limited to a relatively small area of the developing world. In some fortunate countries, such as Nigeria, some land resources are still available for future development through an expansion of acreage under cultivation. But many other countries have little or no unused land, so the

situation is correspondingly worse. The emphasis in the latter countries will have to be placed more and more on raising yields per hectare.

The increasing pressure of population on the land highlights the issue of absorptive capacity in agriculture. Most developing countries have considerable opportunities for increasing employment and production in this sector. This applies to the more densely populated regions as well as to others. Table 1:5 shows the startling differences in input of agricultural labor and output per hectare in developing countries of Asia on the one hand, and in Japan on the other. Japan

Table 1:5

Agricultural Labor Force and Production in Selected Asian Countries, 1970

Country	Agricultural workers per 100 hectares	Indices Japan = 100	Net agricultural production per hectare (US$)	Indices Japan = 100	Output per worker (US$)	Indices Japan = 100
Burma	48	25	71	9	148	37
India	92	48	115	15	150	38
Indonesia	224	117	283	37	126	32
Khmer Republic	75	39	146	19	194	49
Korea, Republic of	261	136	440	58	169	43
Laos	153	80	119	16	75	19
Malaysia	74	39	366	48	492	124
Nepal	229	119	220	29	96	24
Pakistan	101	53	218	29	215	54
Philippines	113	59	178	23	158	40
Sri Lanka	107	56	286	38	266	67
Thailand	119	62	179	23	150	38
Viet-Nam, Republic of	242	126	241	32	100	25
Japan	192	100	762	100	397	100

Sources: Column 1: International Labour Office. *Labour Force Projections.* Pt. 1-V. Geneva: 1971.
Columns 3 and 5: FAO. *The State of Food and Agriculture,* p. 99. Rome: 1972.

is a country of small holdings and has approximately two workers per hectare with an average output of $397 per worker and $762 per hectare. Several other countries have a higher ratio of workers to the land than Japan, while one country, Malaysia, has a higher output per worker in agriculture than Japan. However, the point to be emphasized is that if the level of labor intensity of two workers per hectare prevailing in Japan could be attained in countries such as Pakistan

and India, the agricultural sector in these two countries could absorb all the labor force expected by 1985. This kind of labor intensity is not likely to be reached, however, because of the small size of the irrigated areas in Pakistan and India and other constraints related to technology, resource base, land tenure and capital formation.

It is reasonably clear that whatever is done will only partially satisfy the ever-rising demand for work and income in the many developing countries that are faced with the general problems of high population growth, low incomes and increasing unemployment. With very few exceptions, the poverty and unemployment problems of the developing countries are unlikely to have any long-term solutions that would not include a reduction in population growth, urban as well as rural. Nonetheless, even if effective birth control could be introduced overnight, special and possibly extraordinary measures would have to be taken to satisfy the expanding demand for work and income from today's children. Such measures include those related to land reform.

Distribution of Land

The ratio of population to land tells us nothing about the distribution of land among the rural population: countries with dense rural populations may have a more even distribution of land than countries with sparse populations. The most recent data on distribution of holdings by size is given in the worldwide census of agriculture held in the early 1960s. This covered 83 countries, including all of the larger countries that are members of the Bank, except Afghanistan, Bolivia, Ecuador, Nigeria and Romania.

The census provides a breakdown of distribution by size of 138.3 million holdings in the 83 countries. There is also a breakdown of the distribution of land and cropland by size of holding for 64 countries (which account for all but 9% of the land in the 83 countries covered in the census). Table 1:6 combines the two sets of information to give an indication of the distribution of land and cropland by size of holding. It shows that:

1. About 53.9 million holdings, or 39% of the total number, are under 1 hectare in size. If the pattern in the 83 countries is the same as in the 64 countries for which there are data on distribution of size and distribution of land, then these holdings occupy 1.1% of the land area and 3.4% of the cropland.

2. About 109 million holdings, or 78.8% of the total number, are less than 5 hectares in size. Based on the same assumption as above, these holdings account for approximately 6.8% of the total land area and 20.7% of the cropland.

Annex 1
Table 1:6

Distribution of Holdings by Size and Percentage of Total Holdings: Distribution of Holdings by Percentage of Land and Cropland

Size distribution (hectares)	Number of holdings (millions)	Number of holdings Percentage distribution	All farmland in holding (%)	Cropland in holding (%)
Under 1	53.90	38.90	1.10	3.40
1- 2	26.55	19.20	1.70	5.30
2- 5	28.73	20.70	4.00	12.00
5- 10	13.24	9.60	4.20	11.50
10- 20	7.27	5.20	4.40	10.70
20- 50	4.40	3.20	5.80	11.80
50- 100	1.97	1.40	5.80	9.80
100- 200	1.40	1.00	6.60	11.00
200- 500	0.67	0.48	8.60	11.50
500-1,000	0.23	0.16	6.50	5.90
1,000 and over	0.23	0.16	51.30	7.10
Total	138.59	100.00	100.00	100.00

Source: FAO. *Report on the 1960 World Census of Agriculture*, pp. 34-36. Rome: 1971.

3. One million holdings of 200 hectares or more represent less than 0.8% of all holdings in the 83 countries. In the 64 countries surveyed, farms of this size group account for 66% of the total land area and nearly 25% of all cropland.

These data confirm that, when viewed in the aggregate, the distribution of land and cropland is highly skewed. If the distribution of holdings by size in 83 countries represents a global picture, and if the distribution of 91% of the land reflects the pattern of distribution of all the land, then holdings above 50 hectares in size, which represent 3.2% of all holdings, account for 78.8% of the total farmland area and 45.3% of all the cropland. That is, roughly 3% of all holdings (in the aggregate) account for slightly less than half of the arable land and land under permanent crops, and more than three-quarters of all farmland. Conversely, 97% of all holdings account for less than one-quarter of all farmland and slightly more than half of the area under crops.

The information on distribution of holdings by size refers to the 83 countries, both developed and developing, covered by the census. There were an estimated 16 million holdings of less than 5 hectares in the developed world: 6 million in Japan and 10 million in Europe. Thus, of 122 million holdings in the developing countries, 92 million were less than 5 hectares in size; approximately half of these holdings

were less than 1 hectare and the remainder were between 1 and 5 hectares in size.

It is safe to conclude that well in excess of 100 million holdings are less than 5 hectares in size in the developing world at the present time. This conclusion is derived as follows: The 1960 census indicated that there were approximately 92 million smallholders in developing countries, excluding those in Nigeria, Afghanistan, Ecuador and Bolivia. Together, at the time of the census, these countries had an agricultural population estimated to be close to 50 million people, or 10 million families, most of whom were farming on units of less than 5 hectares in size. Thus, it is highly likely that close to 100 million holdings of less than 5 hectares existed in 1960. Between 1960 and 1970, the agricultural population in the developing countries increased by a reported 190 million persons, or by more than an estimated 35 million farm families. Preliminary indications are that the fragmentation of holdings has increased in many of the more densely populated countries as well as in countries where the distribution of land is skewed. Consequently, it is safe to assume that the census forthcoming in the 1970s will reveal that there are well in excess of 100 million smallholders in the developing world; in all probability, more than half of their holdings are less than 1 hectare in size.

The 1960 census data also provided information on holdings by size and land area for different regions and countries. The most comprehensive regional and national analysis for the 83 countries deals with holdings of 1 hectare or more in size and pertains to 84.4 million holdings covering 2,242 million hectares. Obviously, this is not a complete coverage, since it excludes holdings of less than 1 hectare. However, it does provide an insight into the patterns of distribution of holdings within the major regions. The results are summarized in Table 1:7.

Table 1:7

Distribution of Holdings above One Hectare, by Size and Area

	1-5 hectares		5-50 hectares		50 hectares	
	% holdings	% area	% holdings	% area	% holdings	% area
Europe	50.0	13.0	47.4	52.3	2.4	34.7
North and Central America	23.4	0.5	39.4	8.0	37.2	91.5
South America	36.4	1.0	45.5	8.5	17.8	90.5
Asia	78.2	40.7	21.6	50.2	0.2	9.1
Africa	73.2	3.7	23.7	6.3	3.1	90.0
Oceania	5.5	—	27.7	0.5	66.0	99.5

Source: FAO. *Report on the 1960 World Census of Agriculture.* Rome: 1971.

The analysis indicates the vast differences in patterns of land-holding and land distribution between Asia and the other regions. The contrast between Asia and the Americas is highlighted by the fact that 78% of the holdings larger than 1 hectare in Asia are less than 5 hectares in size and occupy 40.7% of the land. The 36.4% of holdings in South America and 23.4% in North and Central America that are less than 5 hectares in size occupy only 1% and 0.5%, respectively, of the area under farms. Only 9% of the area in Asia is in holdings of more than 50 hectares. As much as 34.7% in Europe, and more than 90% in North and Central America, South America and Oceania, is in farms of more than 50 hectares in size.

The data for Africa, as presented in the census, are misleading. This is because coverage of that continent in the 1960 census was poor, with the data on the distribution of holdings by size and acreage for the 18 countries surveyed heavily weighted by the results in South Africa and Southern Rhodesia, while the sampling in Zambia was confined to European holdings and in Tanzania to commercial holdings. If these are excluded from the sample, then the land held by smallholders owning under 5 hectares is much more than 50% of all land.

The analysis of the distribution of holdings by size on a regional basis points to the highly skewed distribution in the Americas; the pattern of holdings in the eight major countries in Latin America, as shown in Table 1:8, helps explain this. The information confirms that a very high proportion of all land—ranging from 86% to 97.5%—in the eight countries is in holdings of more than 50 hectares in size. At the other end of the spectrum, only 5% of the land in the eight

Table 1:8

Distribution of Holdings above One Hectare, by Size and Area, in Selected South American Countries

	1-5 hectares		5-50 hectares		50 hectares	
	% holdings	% area	% holdings	% area	% holdings	% area
Argentina	14.9	0.1	38.5	2.4	46.6	97.5
Brazil	28.1	1.0	52.6	12.8	20.3	86.2
Chile	37.7	0.7	30.3	5.2	32.0	94.1
Colombia	50.3	4.1	40.6	10.1	9.1	85.8
Paraguay	43.5	1.1	51.0	6.6	6.5	92.3
Peru	73.8	4.2	22.9	8.0	3.3	87.8
Uruguay	14.7	0.2	49.2	4.6	36.1	95.2
Venezuela	36.3	1.3	42.9	6.7	20.8	92.0

Source: FAO. *Report on the 1960 World Census of Agriculture*, Rome: 1971.

countries is in holdings of less than 5 hectares (even though these holdings constitute between 14% and 74% of all holdings).

A further partial measure of concentration of holdings is given by the Gini coefficient—an index of concentration based on the departure of an existing pattern of holdings from an even distribution, as revealed by a Lorenz curve. The Gini coefficient has been estimated for 30 countries which have been grouped into three categories, as shown in Table 1:9. As can be seen, the Gini coefficient indicates a high concentration in six South American countries included in the sample. On the other hand, countries such as the Republic of China (Taiwan), Canada, Japan and Sweden have a low concentration of holdings. Clearly, the distribution of holdings by size varies widely in different parts of the world. The most skewed distribution appears to be in Latin America where the density of population is relatively low in rural areas. At the same time, the distribution of land appears to be much less skewed in many areas with a very high density of population, notably Asia and Europe. It is of special interest that two of the countries with a high density of population and very little concentration of landholdings are Japan and Taiwan.

The distribution of land by size of holdings is "a geographical phenomenon" and must be interpreted with caution in a socio-economic context. It may indicate little about the international distribution of wealth or income—5 hectares of irrigated land in Japan would certainly yield an income well in excess of that yielded by

Table 1:9

Concentration of Land Ownership in Selected Countries

High concentration	Medium concentration	Low concentration
Argentina	Austria	Belgium
Brazil	Egypt, Arab Republic of	Canada
Colombia	India	China, Republic of
Iraq	Iran	Denmark
Peru	Ireland	Germany, Federal Republic of
Spain	Italy	Greece
Uruguay	Netherlands	Japan
Venezuela	Norway	Philippines
	Pakistan	Sweden
	Turkey	Yugoslavia
	United Kingdom	
	United States	

Sources: FAO. *Land-Tenure: World Agricultural Structure*, Study No. 2. Rome: 1961. Other data provided by FAO. US Department of Agriculture, Economic Research Service: *Changes in Agriculture in 26 Developing Nations, 1948 to 1963*, p. 36. Washington: 1965.

100,000 acres in parts of Northern Australia. Similarly, within countries, the pattern of distribution of land may not reflect the prevailing pattern of distribution of wealth or the socioeconomic conditions —2 hectares of irrigated land in the Medjerda Valley of Tunisia, producing tomatoes, yield a far greater income than do 1,000 hectares of land used for sharecropping in the semiarid parts of Tunisia's central area.

The caveats on quality of land and ecological conditions governing land-use patterns must be borne in mind. The evidence presented here (and elsewhere) indicates, however, that most of the agricultural land and cropland is concentrated in a relatively few holdings. It also indicates that the greatest skewness in distribution is in the Americas, and that this skewness is by no means confined to Latin America.

Tenants and Farm Laborers

The distribution of holdings by size and population densities gives no indication of the status of those who hold the land or the numbers of the landless. Only limited data on these are available. Table 1:10 gives some information on the number of renters and sharecroppers in 15 countries, and the percentage of farms and areas of farmland they occupy. Table 1:11 indicates the number of landless farm workers in 12 countries.

This limited sample indicates that renting and sharecropping are widespread in all the major regions of the world. In such countries as the Republic of Viet-Nam, Iran and Egypt, more than two-thirds of the farms, occupying much more than half of the land, are farmed by tenants or sharecroppers. However, in other countries, such as Guatemala and Tunisia, this is true of less than one-quarter of the farms. All in all, in the 15 countries, out of 82 million holdings, close to 29 million are worked by renters and sharecroppers.

Renting or sharecropping of land is a common practice in both developed and developing countries. In some parts of the world, the rights of those who rent land are protected by law or custom, and renters enjoy the same working conditions as owners of land. In other areas, however, renters and sharecroppers are in a very tenuous position when it comes to negotiating arrangements with the landlord, and they commonly give as much as half their output in return for the use of land and services provided by him.

The conditions that govern rental agreements and crop-sharing arrangements differ throughout the world. In most developing countries, where tenancy is widespread, there is heavy dependence on the landlord—usually an absentee landowner—for the provision of pur-

Tenancy and Sharecropping in Selected Countries[1]

	Renting and sharecropping as percentage of total		
	Number of farms[2] (%)	Farmland (%)	Number of renters and sharecroppers[2] (000)
Asia			
India	27.3	n.a.	13,350
Indonesia	35.9	25.9	4,392
Malaysia[3]	31.2	15.7	141
Pakistan[4]	43.4	57.0	5,271
Philippines	54.3	40.4	1,176
Viet-Nam, Republic of	70.3	70.0	1,334
Total	33.0	45.7[5]	25,664
Middle East and North Africa			
Egypt	62.1	57.2	1,020
Iran	66.7	73.4	1,253
Tunisia	23.3	32.0	76
Total	61.1	62.6	2,349
Latin America and Caribbean			
Chile	49.3	24.4	128
Colombia	31.5	13.5	381
Dominican Republic	28.9	n.a.	129
Guatemala	22.4	16.6	93
Nicaragua	26.3	n.a.	27
Trinidad and Tobago	49.5	32.8	18
Total	31.4	19.2[5]	776

(1) Data refer to latest available year in 1960s and, therefore, do not reflect land reform action on the one hand and changes in the work force on the other.

(2) Includes holdings operated under more than one tenure form (21.8%).

(3) 1960 estimates are for former Federation of Malaya.

(4) Includes both Pakistan and Bangladesh.

(5) Dominican Republic, India and Nicaragua are excluded, due to lack of data.

Source: FAO. *Report on the 1960 World Census of Agriculture*, Vol. 5, pp. 92-97. Rome: 1971.

chased inputs. Another widespread characteristic is the absence of written registered agreements governing the conditions of tenancy and the rights of tenants (even though there may be laws stipulating what these should be). Tenants and sharecroppers typically operate under conditions of great insecurity and are in a weak bargaining position vis-à-vis the landlord. Frequently, the tenants are among the lowest income groups in agriculture. The insecurity of tenants has been highlighted by their displacement on short notice when technological change has made it more profitable for landowners to mechanize their operations—as has happened in Ethiopia, India and Pakistan.

Landless Workers

The number of landless farm workers in developing countries is increasing. Approximately 100 million persons are farm wage workers

Table 1:11

Landless Farm Workers in Selected Countries[1]

	Number of landless workers (000)	Landless workers as % of active population in agriculture (%)	Active agricultural population as % of total active population (%)
Asia			
India[2]	47,300	32	68
Indonesia	5,673	20	70
Pakistan[3]	8,013	29	70
Total	60,986	30	68
Middle East and North Africa			
Algeria	1,099	60	56
Egypt, Arab Republic of	1,865	38	55
Iran	903	25	46
Morocco	484	19	61
Tunisia	210	20	46
Total	4,561	33	58
Latin America and Caribbean			
Argentina	694	51	15
Brazil	3,237	26	44
Chile (1971)	378	66	28
Colombia	1,158	42	45
Costa Rica	122	53	45
Dominican Republic	179	25	61
Ecuador	391	39	54
Honduras	138	27	67
Jamaica	72	41	27
Mexico (1970)	2,499	49	39
Nicaragua (1971)	101	43	47
Peru	557	30	46
Uruguay	99	55	17
Venezuela	287	33	26
Total	9,912	35	39

(1) Except for India, data presented here are estimated from ILO, *Year Book of Labour Statistics 1971*, pp. 43-294, and *1972*, pp. 44-301. Unless otherwise indicated, data refer to latest year available in 1960s and, thus, do not reflect recent reform actions on the one hand and changes in the work force, on the other.

(2) Agricultural laborers as shown in India: Ministry of Agriculture, Directorate of Economics and Statistics. *Indian Agriculture in Brief* (11th ed., 1971), p. 14.

(3) Includes population now belonging to Bangladesh.

(including family members and heads of families with very small landholdings) in the 22 countries for which data are provided in Table 1:11. This figure includes an estimated 47 million in India alone—about 32% of the active population in agriculture. There are about 10 million such workers in Latin America. Even in Argentina and Uruguay (with only 15% of the active population depending on agriculture), more than half of the workers are essentially landless. In the remaining countries of the region, the proportion ranges from a minimum of about one-fourth in Brazil and Honduras to a maximum of approximately two-thirds in Chile.

Almost no reliable estimates exist of the number of unemployed in rural areas. It is usually assumed that the labor force subsists off a holding and joins in some arrangement with the extended family whereby it shares work and output. The emergence of a landless wage-earning class confirms that a growing rural labor force has to rely on work outside the traditional sectors for its livelihood. This group is increasing in size, and the provision of employment for what is already a large rural proletariat may well be one of the greatest challenges facing national governments in the future.

There is a vast amount of underemployment in the rural areas of most countries of the world. The nature of this phenomenon has been discussed elsewhere. At this juncture, it should be pointed out that the redistribution of idle land can provide added employment, but that the prospect is limited for redistribution of land providing full employment for all the present and prospective populations in the rural areas of densely populated countries. Structural changes within agriculture can help alleviate underemployment and open unemployment, but the problems of reducing nationwide unemployment have to be seen in a national rather than a sectoral context.

EXPERIENCES WITH LAND REFORM

The following summaries illustrate selected country experience in land reform over the last three decades. Their inclusion in this paper should not be taken as indicative of Bank judgment on what does or does not constitute land reform, nor should the statements be regarded as definitive. Land reform is a complex process in which several socioeconomic variables are changed more or less simultaneously. In most cases, the evidence is inadequate to allow identification of causal relationships between reform measures on the one hand and production, income and social effects on the other, even though it is often feasible to trace correlations, such as that between land distribution and a rise in productivity.

Republic of China

Taiwan's land reform program was implemented in three steps. A reduction of rents, in 1949, was followed by the sale of public lands. A land-to-the-tiller program completed the reform in 1953. The proportion of cultivated land under tenancy leases was reduced from 41% to 16%, while the proportion of farm families owning all land under their cultivation increased from 33% to 59%. On the land remaining under tenancy cultivation, written and secure leases were arranged at much reduced rental rates.

Following the reform, the productivity of agriculture has increased, income distribution has become more even, and rural and social stability have been enhanced. Land productivity is highest on holdings below 0.5 hectare. The share of total agricultural income that is consumed has increased only moderately, leaving intact enough income to achieve a fairly high agricultural savings rate.

The smooth implementation of the reform program in Taiwan was due to a stable sociopolitical climate and the many complementary development measures taken before and during the reform. The existence of a thorough cadastral survey, good agricultural research and extension services, a vast expansion of publicly sponsored farm credit during the reform period, and a gradually increasing involvement of tenant farmers in the administration of the program, all contributed to the success.

Republic of Korea

Land reform in South Korea after the Second World War consisted of: (1) a reduction of farm rents from 40-60% of production to 33%

in 1945; (2) a redistribution, in 1948, of Japanese property confiscated by the military authorities; and (3) a redistribution between 1950 and 1953 of land in excess of a ceiling of 3 hectares on Korean holdings. The terms of sale were similarly generous toward the buyer in both cases. Some 1.4 million acres (25% of the total farmland) were distributed to 1.6 million farmers (approximately 70% of all farmers).

It has been estimated that, before the reform, 19% of the farmers owned 90% of the land and more than 50% of the farmers were landless tenants. Afterward, 69% of the farmers owned all the land on which they worked and 24% were part-owners, while only 7% were tenants. Considerable sociopolitical stability has been achieved, together with income redistribution in favor of the poorer rural families. Yields did not fall as a consequence of the reform; by the 1960s, yields had far surpassed prereform levels. Labor productivity and rural employment increased. But the small size of most farms has now become a constraint on farm income.

Japan

The first Japanese land reform program, in 1868, laid the groundwork for Japan's social and economic transformation. The peasantry was freed from bondage, the power of the feudal lords to collect taxes from landowners was broken, and private landownership was reinforced for the purpose of cash taxation by the central government. Supplementary programs for infrastructure improvement, training and extension, credit services, and promotion of farm chemicals and new crop varieties were pushed on a large scale. Labor intensity and land productivity rose quickly, with the result that the agricultural sector could provide savings, cheap food and surplus labor to the industrial sector. The first reform did little, however, to distribute property ownership or reduce income inequality—rather it strengthened the landowner class.

Subsequent to the first reform, the tenancy problem grew gradually worse. Large numbers of smallholders lost their property in the agricultural depression at the turn of the century, partly because of heavy land taxes. In the late 1940s, a second land reform program was executed. Owners had to sell all land in excess of about one hectare to the government at confiscatory prices. The former tenants were given property rights at an extremely low real cost, which resulted in a thorough restructuring of rural society.

The second reform resulted in greater equity, and may also have removed a constraint on the growth of Japanese agriculture. The economic effects were not as enormous as those associated with the

first reform. Land productivity did increase after 1947, but some observers regard this as essentially a continuation of a long-term trend (1895-1939) started by the first reform.

The second reform worsened, however, the problems of fragmentation and undersized farms. At the time of the reform, the tenancy problem had already been relieved through a reduction of excess rural population by the war and absorption into industry. The landlords who were forced to sell excess property were mostly smallholders themselves. Two-thirds of the owners were required to sell less than one hectare and only 6% more than five hectares. Although the reform increased income equality among farmers, it hampered equalization of rural and urban incomes. Part-time work outside the farm is an outlet, but the farmers concerned are often limited to low-skilled work. Rural incomes have, therefore, lagged behind, price supports notwithstanding. An attempt to create larger farming units through cooperatives has had little effect. Agricultural policy is now aimed at, among other objectives, an increase of farm income through diversification into horticulture and animal husbandry.

India

Land reform in India, pursued since 1950-51, is largely recommended and coordinated by the Central Government and the Planning Commission and executed by the individual state governments, with the result that policy implementation varies widely. The four major types of reform have been: (1) the abolition of the zamindari[1] system; (2) tenancy reform designed to fix maximum rents, to improve security of tenure and to give the right of purchase to the tenant; (3) ceilings on landownership and distribution of surplus; and (4) consolidation of fragmented holdings.

By 1961, the intermediary rent and tax collectors, most important of whom were the zamindars, had been abolished. Since tenants continue to pay revenue directly to the government, their economic position has not been greatly improved. The abolition of the zamindari system involved 173 million acres, more than half of the area occupied by holdings. A total of Rs. 4,350 million was paid in compensation, mainly in the form of bonds.

Under the tenancy reforms, 3 million tenants, subtenants and sharecroppers had, by 1961, acquired ownership under purchase agreements of 7 million acres. Security of tenure appears in general to have worsened, however. Actual rents have not come down; in

[1] *The zamindars were revenue collectors during the Moghul period. Under the British, they gradually turned into powerful landlords.*

some states they have even increased. Landowners have been permitted to resume land above legal ceilings for personal cultivation, which has allowed them to escape the reforms. Unreported casual tenancy and share agreements have multiplied.

Under the ceilings legislation, approximately 2 million acres have been taken over by the government in order to settle tenants and landless laborers. A further 4.2 million acres were formally pledged to the Bhoodan (gift) movement, but most of the donated parcels are still in the hands of the donors. Only about 1 million acres out of all gifted land have actually been given to landless laborers.

Consolidation of land parcels has been more successful and has resulted in a rationalization of holdings covering 69 million acres. It appears to have contributed to a growth in productivity in the northern states of Punjab, Uttar Pradesh and Haryana.

It is well recognized in India that the reform measures dealing with security of tenure and acreage ceilings are only partially enforced, and that many of the state legislatures are not anxious to have such radical land reform. Even if a ceiling is imposed, the land acquired is sufficient to give minimal holdings either to the minifarmers or the landless—but not both. There appears to be scope for some distribution which will also assist agricultural production because the yield per acre in India is higher on small farms. As long as population pressure continues, it will be unrealistic to try to abolish tenancy in the short run. Therefore, it will be better to legalize some forms of tenancy which exist on a large scale, and to promote more efficient types of tenancy contracts. All kinds of tenants should also be registered and given access to credit and inputs. A large extension of credit at reasonable terms, together with accessible marketing channels to small farms in general, and particularly to tenants with secure leases, is required. Provision of these facilities is as essential as further land distribution for attaining the income equity and productivity objectives of India's land reform, and is likely to present fewer problems.

Iran

Iran's land reform started in 1962. Before the reform, 56% of the holdings, covering 62% of the area under cultivation, were rented. Tenants were rotated annually, a practice which hampered agricultural investment and caused exploitative use of the soil. The largest estates occupied relatively more fertile lands, and owners were often absentee landlords who contributed little to agricultural production.

Former landowners were partly compensated upon expropriation by cash payments ranging from 10% to 20% of the estimated value

of their holdings, with the balance paid in bonds in annual installments. The beneficiaries were to repay the government the expropriation price plus 10% to cover administrative charges. As these payments fell behind, the Central Bank funded the difference. The costs to the Government were limited to those incurred in carrying over the acquisition costs to the time of final reimbursement.

During the first stage of the reform, landownership was limited to a maximum of one village per owner. Excess land was expropriated and distributed to the tenants. In the second stage, the limit of one village was reduced further to plots of 20-100 hectares (depending on the nature and location of the land). The landlord had five options for the area in excess of the maximum allowed to him, to wit: (1) leasing to the tenants for 30 years; (2) selling to the tenants; (3) purchasing the tenants' rights; (4) dividing the land with the tenants in the same ratio as the customary crop sharing; and (5) forming an agricultural unit for joint operation by the owner and the tenants.

The third and final stage of the reform, which was practically completed in 1971, aimed at conversion of all 30-year leases into smallholdings. Virtually all of Iran's 50,000 villages have undergone land reform and more than 3 million families have received land.

Although agricultural output increased by a total of 18% in the first five years of the reforms, it is believed that the land reform program on balance had adverse short-run effects on output. It created uncertainty which discouraged investment in improvements; there was also considerable interference with the normal flow of irrigation water from streams and storage places still controlled by landlords.

The reform favored tenants and sharecroppers insofar as it conferred ownership on them or enhanced their security of tenure. Because they were based on the existing distribution of holdings, the reforms did not assist those who were landless. Continuation of the existing inequities of land distribution was regarded as one of the costs of ensuring a speedy enactment of the reform.

The ownership and tenancy reforms have been complemented by rural cooperatives, credit and extension services, and increased supply of quality seeds and fertilizers. Many measures were set up in a somewhat improvised fashion. The early accomplishments of the credit program were striking; total lending by the Agricultural Bank tripled between 1960 and 1965, but this growth leveled off after 1966.

Morocco

The Moroccan Government has undertaken a series of measures aimed at land reform since independence in 1956. The objective of these measures is to facilitate an increase in agricultural production

and to improve the distribution of rural incomes. Legislation passed in 1962, 1966 and 1972 provides for land consolidation and distribution of land to smallholders and landless families throughout the country. The Agricultural Investment Code, published in 1969, is aimed at facilitating the development of irrigated agriculture in well-defined development zones. It provides for the restriction of inheritance rights to limit fragmentation, an improvement in the tenure position of members of traditional collectives, and the adoption of modern cultivation techniques.

Land distribution is so far based mainly on former foreign-owned land, although some other state-owned land and traditional collective land is involved. At the time of independence in 1956, about 900,000 hectares were foreign-owned; of this area, about 300,000 hectares were sold privately to Moroccans, mainly before 1963, when legislation was introduced subjecting such transfers to Government approval. Thirty-one thousand hectares which were mainly used by foreigners for research purposes were recovered by 1960, and a further 220,000 hectares of "official colonization" lands were taken over by the Government between 1963 and 1965.

Distribution so far has been limited to land under field crops, while land under tree crops (mainly orange groves) remained under Government control and ownership. Distribution to smallholders and landless families was slow until 1967 and then gathered momentum up to 1972. By the end of 1972, 181,000 hectares (3% of the cultivated area) had been distributed to over 11,000 families. However, the impact of land distribution alone on the problem of rural poverty has been small; the number of beneficiaries so far is only about 1% of farm families with less than 2 hectares.

Through the establishment of cooperatives, intensified extension support and the provision of modern inputs, the beneficiaries of land reform have generally quickly achieved high yields and acceptable incomes. Land consolidation has also been successful and has so far benefited almost 200,000 hectares. The main constraint on the program has been the unavoidable complexity of supervising its implementation considering the Government's manpower resources. The Government's main priority now is to accelerate land distribution, while maintaining high technical standards of management on the distributed land. Remaining foreign-owned land, amounting to about 370,000 hectares, was recovered by the Government in 1973. The target for the third Five-Year Plan is to distribute 395,000 hectares of land under field crops, mainly formerly foreign-owned, between 1974 and 1977, and to seek a suitable formula for distributing land under tree crops. The achievement of the distribution target for land

under field crops alone would, by the end of the plan, enable the program to cover 9% of cultivated area and 5% of farm families with less than 2 hectares.

Yugoslavia

The first land reform in Yugoslavia was undertaken in 1919. In the south and west, bondage was abolished, and the tenants of the Turkish landowners received ownership rights. In the north, the size of the large estates was reduced, but the former landowners were allowed to retain rather large holdings. The implementation took two decades, and resulted in a transfer of ownership of almost 25% of the farmland to more than 33% of the peasants.

The second land reform started in 1945, when all large estates, all land in excess of 25-35 hectares per farm, and the farm property of Germans and other aliens, were expropriated. Half of the seized land was distributed to the poor and landless, while the other half was retained as state property. The state and collective farms created in the late 1940s along Soviet lines expanded to approximately 25% of the total cropland. Collective farms were allowed to disband after 1952, however, and by 1956 accounted for only about 10% of all land under cultivation.

Aside from the socialist sector, the private sector of individual owners who cultivate their own land remains important, and vast tracts of mountain pastures are still under traditional, collective forms of usage. In 1953, a ceiling of 10 hectares of arable land or its equivalent was imposed on private holdings. The average holding in the private sector is now only 3.9 hectares. The socialist sector includes state farms, producer cooperatives and general cooperatives. The kombinats, which resemble the worker-managed industrial firms, form the largest and fastest-growing socialist element, whereas the producer cooperatives have declined. The general cooperatives are mainly associations for joint input purchases, equipment use and output sales, and have expanded to about 40% of all smallholdings.

The socialist sector is reportedly the most productive. This is related to the location of holdings on the better soils and its priority treatment in the allocation of inputs such as fertilizers, machinery and expertise. However, the bulk of agricultural output still originates from the large group of small farms, consisting of both the cooperatives and the farms outside the socialist sector. The reforms have resulted in a sizable redistribution of rural income and an increase in peasant participation in rural decision making, particularly since the mid-1950s.

Kenya

Land reform was initiated in Kenya by the colonial administration in 1954 and expanded by the Government after independence in 1963. The reform aimed at solving several problems at the same time. These included: (1) adjudication and consolidation of holdings under cultivation by African farmers; (2) resettlement of African farmers on the large farms previously owned by Europeans; (3) promotion of cash cropping and dairying, and increased production for the market; and (4) diversification of export output. More than 1 million acres of land formerly cultivated by Europeans were opened up to Kenyan smallholders, and the rights to about 7 million acres were adjudicated and consolidated.

The implementation and results of the reforms have been quite successful, notwithstanding political friction and a lack of qualified personnel. An active extension program has enabled smallholders to increase the production of coffee, pyrethrum, maize, wheat, dairy products and beef. The economic benefits of the adjudication and consolidation of holdings seem to have been greater than those of resettlement on large farms. Socially, the reforms have created a class of prosperous smallholders. In particular, those that were already relatively well-to-do have profited, while the poorest smallholders and nomads have benefited much less from the reform. It was estimated in 1973 that approximately 25% of all smallholdings were less than one hectare and about 50% less than two hectares, occupying altogether less than 4% of total arable land. The landless amount to approximately 16% of the rural population.

Mexico

Having its roots in the revolution of 1910-15, the agrarian reform in Mexico created village groups (ejidos) with usufruct rights to land. Most of the ejidos were formed in the late 1930s and have been operated on an individual rather than collective basis by the ejidatarios. Close to 90 million hectares have been distributed between 1915 and 1972 to about three million ejidatarios. These primary beneficiaries of the reform represented 53% of all farmers and 26% of the rural labor force. Some three million landless rural workers remain and, despite the considerable concentration of ownership that persists in the private sector, 1976 has been planned as a terminal year for land reform.

Total production by the ejidos grew very slowly during the first decade of their establishment. Since then, the ejidos have increased output about as fast as has the private sector. Incomes of the ejidatarios are almost certainly better than would have been the case without reform, but substantial regional differences persist in natural

resource endowment and in the extent of public investment in complementary infrastructure. More such investment and a mechanism for selective consolidation of small farms will be required to ensure that the impact of the reform is maximized.

Following the land redistribution during the 1930s, the concentration of landownership increased again between 1940 and 1960. Since then, the concentration may have fallen back as a result of the distribution of another 35 million hectares during the last decade. Rural income distribution is still skewed. In 1967-68, 50% of the farmers earned only 20% of all farm income (including personal income from sources other than agriculture). Among ejidatarios, however, income was more evenly distributed. While the top 20% of private farmers received 60% of all private farm income, the top 20% of the ejidatarios accounted for only 45% of all ejido income.

Peru

Between the start of land reform in 1963 and 1972, a total of 4.7 million hectares has been expropriated. Over 100,000 families have been settled on 2.8 million hectares of this area. Expropriated lands that have not yet been resettled continue to be operated under direct government supervision until a cooperative or SAIS (Sociedad Agrícola de Interés Social) farm organization has been formed, to which the land title is then transferred. Despite the priority given by the government, implementation is well behind schedule. The target for the current Five-Year Plan is to expropriate 26,200 farm units containing 12 million hectares, and to redistribute these to 500,000 families. In 1972, about three-quarters of the target area still remained to be expropriated and reallocated before the end of 1975.

The agrarian reform law of 1964 concentrated on redistribution of inefficiently managed latifundia (large landed estates) in the Sierra. Well managed productive units were exempted. The more fundamental reform law of 1969 was the basis for the expropriation of the large, productive and profitable sugar complexes of the north coast. A limit was established on the size of holdings (150 hectares on the coast). The government bonds given to the former owners can be used for investment in industry to supplement their other resources.

Four different categories of farm organizations can receive redistributed land, but the bulk has been placed in the hands of worker-owned cooperatives. Only a small number of individual farms has been assigned to former tenants, while in a few cases land has been added to the holdings of Indian communities.

The SAIS is a unique form of farm organization, and is the basic unit of agricultural reform in the Sierra. The SAIS represents an attempt to

solve the problem of providing agricultural and social development opportunities to the members of the traditional Indian communities without jeopardizing the relatively high production and economies of scale attainable on expropriated haciendas. Hacienda production is almost entirely based on extensive grazing of mountain pastures, and early experiences of land distribution in the Sierra indicated a high risk to production if haciendas were taken over as community land or subdivided into small sheep ranches.

In any attempt to meet social needs through redistributing land and income in the Sierra, therefore, the government is faced with problems of maintaining or raising productivity levels attainable only through exploitation of scale economies. The SAIS, the proposed solution to this dilemma, accounted in 1972 for 10% of the families benefiting from the agrarian reform program. It can be regarded as a second-degree cooperative whose members are social bodies instead of individuals. Membership of each SAIS unit consists of the cooperative of the production unit and of the communities surrounding it. Each group contributes to the capital of the enterprise on the basis of resources, population and economic potential; the share of each group is determined by the land reform agency. Management of the SAIS is in the hands of professional employees. Profits are allocated to each member community in relation to its share in the SAIS, and are to be used in community development projects involving schools, roads, power reticulation and housing. In this manner, surplus manpower is given employment, and the rather meager profits can be used in developing badly needed physical infrastructure.

The debt assumed by each SAIS unit is to be repaid from profits in 20 years following a five-year grace period. Debt repayment may become an onerous burden on those units whose profit potential is limited by their physical capacity to expand livestock numbers and by the need to employ high-quality technical services. Legally, the full market value of expropriated livestock has to be paid in cash while fixed capital is to be paid for largely in agrarian bonds.

The land reform program alone will not be able to solve the rural unemployment problem. Even if the optimistic targets for 1975 are met, employment opportunities in agriculture will increase only from 1.32 million to 1.6 million, while the number seeking work in agriculture will rise from 1.9 million to 2.1 million. Nearly 800,000 families with insufficient land to provide adequate subsistence are eligible to benefit through the land reform program. Even if all land which can be expropriated is redistributed, about 500,000 families, mostly in the Sierra, will still lack a minimum subsistence landholding. However, agrarian reform is providing the basis for social and economic change.

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