

July 1978

U.S. ISSN 0084-0793

LTC No. 117

THE LAND TENURE CENTER
310 King Hall
University of Wisconsin
Madison, Wisconsin 53706

LAND TENURE CENTER
Author File

LAND TENURE AND AGRICULTURAL DEVELOPMENT*

by

Ralph W. Cummings, Jr.**

and Staff Members of the Land Tenure Center,
University of Wisconsin

*Parts of this paper have contributed to a chapter in To Feed This World: The Challenge and the Strategy by Sterling Wortman and Ralph W. Cummings, Jr. (Baltimore, Md.: Johns Hopkins, 1978).

**Program Officer of the International Agricultural Development Service.

All views, interpretations, recommendations, and conclusions expressed in this paper are those of the authors and not necessarily those of the supporting or cooperating agencies.

HEAVY
MISD
WTF

SECRET

TABLE OF CONTENTS

	<u>Page</u>
Introduction	1
The Issue	3
A Typology of Tenure Systems	5
Criteria for Evaluating Land Tenure Systems	7
Net Value of Production	7
Marketed Surplus	9
Capital Investment	10
Participation in the Economy	10
Policy Implications	12
Qualifications	12
Difficulties in Generalizing	13
Land Reform	14
Tenancy Reform	15
Government Commitment	17
Evolving an Administrative Organization	18
Elements Facilitating Implementation of Land Redistribution	19
Land Records	19
Clear and Simple Criteria for Taking Land	19
Simple Methods for Evaluating Land	19
Quick Taking Procedure	20
Compensation	21
Influence of Former Owners	21
Distribution to New Owners	21
Beneficiary Organization	22
Services	22
Redistribution to Former Estate Workers	22
Nature of Post-Reform System	23
Group Farming	24
Strategy Choices	26
Sequencing	26
Alliance Between Central Administration and Peasantry	27
Moral, Morale, and Cultural Aspects	28
Alternatives to Land Reform	29
Concluding Comments	31
Notes	33
 Fig. 1: A Typology of Tenure Systems	 5

LAND TENURE AND AGRICULTURAL DEVELOPMENT*

by

Ralph W. Cummings, Jr.**

and Staff Members of the Land Tenure Center,
University of Wisconsin

It is not the fault of new technology that the credit service does not serve those for whom it was originally intended; that the extension services are not living up to expectations; that the panchayats are political rather than developmental bodies; that security of tenure is a luxury of the few; that rents are exorbitant; that ceilings on agricultural land are notional; that for the greater part tenurial legislation is deliberately miscarried; or that wage scales are hardly sufficient to keep body and soul together.

These are man-made institutional inequities. Correcting all of them within the foreseeable future is out of the question. On the other hand, even if only some of them are dealt with--security of tenure, reasonable rent and credit to sustain production needs--a measure of economic and social justice could be fused with economic necessity, thereby adding another dimension to the green revolution.¹

Introduction

Policy-makers are often caught between conflicting arguments on the subject of land tenure and agricultural development. One position holds that traditional landholding systems are primary obstacles to increasing the economic

*This paper borrows heavily, sometimes directly, from published writings as well as comments of Edward P. Reed, Peter Dorner, Don Kanel, and Bryant Kears of the Land Tenure Center of the University of Wisconsin-Madison. Improvements have also been suggested by John D. Montgomery, Philip M. Raup, and Dale Adams. None of these contributors should be held responsible for errors of either omission or commission. In a substantially modified form it will appear as a chapter in a book by Sterling Wortman and Ralph W. Cummings, Jr., entitled To Feed This World: The Challenge and the Strategy. Baltimore, Md.: Johns Hopkins, 1978.

**Program Officer of the International Agricultural Development Service.

and social performance of the rural sector; remove these obstacles by means of a thorough-going land reform and not only will the major barriers to development be overcome but a surge of energy will be released for transforming the countryside.² Others strongly assert that the tenure system seldom creates serious obstacles to development since once new economically profitable opportunities appear, the participants will adapt institutions to take advantage of the new opportunities;³ direct intervention to alter tenure institutions may be a waste of time and resources and actually result in a drop in overall agricultural production. To make matters more difficult, discussion of land reform tends to become polarized and often highly emotional because of the close relationship of land tenure to the basic political and social fabric of a society.

Nevertheless, the issue of land tenure is obviously of great importance in most less developed countries, as is indicated by the frequency with which it is raised and the very emotions attending it. In many, if not most, of these countries, changes in land tenure are inevitable: the question is only whether it will be orderly or disorderly.⁴ The purpose of this paper is to review the major issues involved and to answer questions likely to be raised by policy-makers: Are there situations in which the land tenure system presents such serious obstacles to the attainment of agricultural development goals that land reform must be considered as a prerequisite to development programs? What are those situations and what alternative strategies can a government consider in attempting to create a land tenure structure which is more supportive of its development objectives?

*Some people argue that the term agrarian transformation, which has a politically more neutral connotation, should be used interchangeably with agrarian reform, the key component of which is land reform.

The Issue

Given the rapidly increasing populations in low-income countries and the inability of nonagricultural employment opportunities to expand at a sufficient pace to absorb all the new job seekers, the population engaged in agriculture will continue to grow for the foreseeable future. Rapid population growth provides an abundant supply of labor, thus depressing wages. Most national policymakers and international development agencies are consequently prepared to declare that alleviating poverty, providing productive employment, and more widely distributing the benefits of development among masses of landless, land-poor, and tenants in rural areas of the world must receive high priority in development planning.

The land tenure system defines the formal and customary arrangements which determine access to and control over resources and opportunities in rural areas. Use of these productive resources is the single most important basis on which social, political, and cultural as well as economic relations rest. Land tenure shapes the distribution of employment opportunities and income in the agricultural sector. For example, the owner of a farm can choose to work his land with his family, sharecroppers, wage workers, or machinery. His decision will clearly affect income returns and employment of those without control over the land. But the influence of the land tenure system goes well beyond income opportunities alone:

. . . ownership of land carries with it ownership of government--the right to tax, the right to enact and enforce police regulations, and the right to judge. In addition, decisions on investment in social capital--education, transportation, hospitals, power projects--appear to be the prerogative of land ownership.

So . . . the ownership of land is both the symbolic and the real source of a new kind of life. It gives (the owner) food to stay alive, but it also gives him the right to build his own house in which to raise his family. It gives him, too, the right to tax

himself to build a school. Is it any wonder then that land reform assumes major importance to those people who are still living under vestiges of feudalism, or at least outside of the market economy?⁵

In "traditional" social settings, characterized by underdeveloped product markets and imperfect factor markets, tenure arrangements are pervasive in their influence. Mutual obligations exist. No party has the clear right to abolish one set of relationships and substitute another (e.g., for a tenant to switch landlords, or a landlord to dismiss tenants and hire laborers). Though the relationship between classes is often exploitative, it is not always despotic since political and economic interdependence may give rise to mutually beneficial patron-client relations.

When a society begins to modernize, these customary social and economic relationships are fundamentally changed. New technology alters the structure of opportunities by making land valuable in itself, i.e., having money value. Those who are in a better position to take advantage of these opportunities will strengthen their position, attempt to shed customary social obligations to their clients, take on the role of capitalists, and seek the influence of the government to secure property and contract rights. What benefits modernization brings are then likely to be concentrated disproportionately in a limited number of people--people who in many cases have contributed only indirectly to the agricultural production process. If this situation persists, the gap widens between landowners and others in the rural sector. Such a tendency is not only politically destabilizing but, in turn, can be detrimental to production itself. Even when institutions supportive of output growth appear to be functioning successfully, the achievement of the broader development goals may be significantly hindered in the process.

Though this generalized description may not completely fit any particular country's experience, it serves to highlight the pressures and tendencies which usually arise in the modernization process in rural areas and to indicate the multidimensional role of land tenure in most societies.

A Typology of Tenure Systems

Most persons bring narrow viewpoints to discussions of land tenure. Particular tenure systems have emerged from a combination of historical, cultural, political, and economic factors which vary widely from country to country and even within countries. In order to simplify analysis of tenure systems, it is desirable to group them into a limited number of broad categories based on two factors: distribution of landownership and average size of farming operation. Designating three modes of ownership distribution (concentrated, dispersed, and collective) and three modes of operational size (small, dualistic, and large), eight categories can be identified (Figure 1):

FIGURE 1
A Typology of Tenure Systems

Ownership/ Distribution	Small	Dualistic	Large
Concentrated	(a) landlord-tenant system	(b) latifundia minifundia (c) plantations small holdings	(d) plantation, hacienda, state farm
Dispersed	(e) family farm system		(f) family farm system
Collective	(g) traditional communal ownership with individual operation		(h) group farming systems

- (a) The landlord-tenant system. While landownership may be concentrated among a few individuals, the managerial and labor functions are decentralized among a large number of tenants on small, often subdivided, plots. There is great variation within this system. The role of the landlord in providing managerial and supply services, the security and rent arrangements of the tenant, and the quantity of land owned by a single landlord all may differ greatly among and within countries. This situation is prevalent in much of Asia.
- (b) A dualistic farm structure is predominant in Latin America. A subsector of large estates (latifundia) farmed by resident workers with plots and several hired workers may or may not be commercially oriented. Alongside are a large number of small, near-subsistence farms (minifundia) on which most of the agricultural population work either as owner-cultivators or as tenants of estate owners.
- (c) A dualistic farm structure also occurs in parts of Asia and Africa. Plantations are often devoted to the production of export crops. Food crops are grown on nearby small holdings, often farmed on a subsistence basis.
- (d) The plantation type. Large commercially (usually export) oriented farms operated by a hired labor force and professional managers may be owned in whole or part by foreign interests. Haciendas also fall into this category as do state farms.
- (e) The small family farm system. Landownership is widely and relatively equally divided among a large number of families who provide the primary farm labor force. There are few large holdings, little tenancy, and cultivation is highly labor intensive. These can include subsistence farms as well as commercial units (as in Japan and Taiwan).
- (f) The North American-type family farm system. Capital-intensive, large, commercially oriented family farms which use a minimum of nonfamily labor. Private ownership of land is widespread, but a variety of tenancy contracts are also used to gain access to land.
- (g) The traditional communal type found widely in sub-Saharan Africa and some other tribal societies. Landownership (right of land alienation) is vested in a collective body while individual families have usufructuary

rights. A wide variety of types of arrangements exists.⁶ The system may be characterized by shifting or reasonably permanent cultivation.

- (h) Group farming system. Cooperative or collective farms. Property rights are held by the group or state. The bulk of the farmland, producing most of the output, is held and farmed in common; there is a commitment in principle to participation by members in management and policy decisions; and payment is based chiefly on labor input. Small plots for family use may or may not be allotted. The communes of China, collective farms of Russia, and the kibbutzim of Israel fit into this category.⁷

Obviously there are intermediate cases between each of these categories.

Different types might dominate in different regions of the same country.

Nomadic patterns, in which herds graze public lands seasonally, and slash-and-burn or swidden cultivation fall outside these eight categories.

Criteria for Evaluating Land Tenure Systems

The appropriateness of any system of land tenure can be evaluated--with weights assigned differently to each situation--according to four main criteria:

Net Value of Production*

Evidence is mixed, but there is much to support the argument that yields on small holdings can be as high as those on medium-sized holdings and are

*Net value of production is the difference between returns and costs. Merely increasing gross value of production by high-cost methods does not contribute positively to a country's development objectives. Fossil fuel, used to produce nitrogen fertilizer, power machinery, and dry crops, is becoming an increasingly scarce resource. It is nonreproducible. Even though prices have risen significantly in the past few years, current petroleum prices probably still do not reflect long-term scarcity values. Irrigation water, also becoming an increasingly scarce production factor, frequently is subsidized. Undervalued foreign exchange rates and concessional interest rates often permit import and purchase of machinery at subsidized prices. Evaluation of net value of production therefore is more complicated than mere comparison of yields, adoption of new technologies, or land utilization.

generally higher than those on large holdings.⁸ The economies of size in agriculture are achieved at relatively low hectarages. Small farmers may be uneducated but they are seldom unintelligent. They use factors of production in different combinations to achieve the same yield levels as larger farmers. For example, weeding by hand may replace herbicides; use of animal manure or crop residues may replace chemical fertilizers. Relatively few farm enterprises require substantial size in order to efficiently incorporate high-yield technology. Improvements in varieties and in cultivation practices and increased fertilizer applications can be accomplished on small farms as well as on large farms. Other functions which require large outlays, such as research to develop new technology, credit, land shaping, input supplies, or marketing, can be organized in a variety of ways, including public institutions, group action, and machine hiring. Land is a scarce factor to the small farmer, and he attempts to maximize his return to it.

Small farmers are well represented among initial adopters of improved technologies.⁹ Contrary to popular belief, larger farmers are sometimes more conservative because they have more to lose or are absentee landlords. However, once the improved technology is demonstrated to be profitable and relatively secure, the large farmers participate in large numbers because the agricultural service organizations give them favored treatment; they then swamp the smaller farmers who have to wait their turn for limited supplies of seed, fertilizer, and credit, and who therefore often receive these only after production has increased and prices have fallen. Where nonadoption occurs for either small or large farmers, the farmer is generally acting in his own best interest given the institutional structure, incentive system, and his ability to respond.¹⁰ A restructured land tenure system can provide new incentives to develop technology and institutions specifically designed for small farm units.

Productive land sometimes lies idle. Highly productive land often could be cultivated more intensively with multiple-cropping, i.e., more than one crop per year. Higher value crops, e.g., shift from millets to maize or from cereals to vegetables, often can be grown. Underutilization of land resources is more frequent on large holdings. This can result from several causes. Some owners hold land for speculative purposes. Absentee ownership is often accompanied by a lack of close supervision. Some large landowners have outside interests which hold greater economic or social importance for them than farming. Underutilization of land is an obvious waste of resources and difficult to tolerate in a situation where both food is in short supply and there is much unemployed labor.

Marketed Surplus

In order to feed those who do not grow food, particularly those in urban areas, food must come from domestic production or be imported. Unless offset by exports, the former is preferable.

Marketed surplus is a difficult objective to measure accurately. Under a system of small farms, more people tend to be employed on farms. High on-farm consumption may result in a decrease in the marketed surplus even though overall agricultural production increases. This cannot be viewed as undesirable in terms of welfare. Not only is improved nutrition and health in rural areas a development goal, but the outcome may be a more productive agricultural labor force. Nevertheless, the government must be prepared to adjust and compensate in urban areas for such a result. This underlines the importance of an efficient infrastructure to supply the new technology and other services necessary to boost output after reform. In some cases a short-term increase in food imports might be anticipated when larger numbers of small farms are created.

Capital Investment

In order to increase future productive capacity, soil fertility must be maintained, land leveled, erosion controlled, and irrigation channels built. Capital investment is responsive to profitable opportunities. The investor must have security of tenure in order to be able to realize the returns to these investments, many of which pay off only after a lag of several years. If small farm agriculture can be made profitable--and evidence demonstrates that it can--then adequate capital investment can be forthcoming to improve the future productive capacity of agriculture under a system of small family operated farms.¹¹ The capital investment on small farms may be largely labor-intensive types of land-leveling, bund construction, etc., but this can be just as effective as such projects carried out by machines.

Participation in the Economy

Economic participation through income streams operates in agriculture through returns to production factors. Those who own or control scarce factors of production command more income than those who control few or abundant factors. Political and social participation is almost always related to economic status. In agriculture in many poor countries, where land and capital are scarce and labor is abundant, the owners of land and capital (including credit sources, water rights, etc.) receive a greater income stream than those who possess their own labor only. Therefore, tenure institutions which regulate control over productive resources in agriculture largely determine income and opportunity distribution.

Because of real or imagined costs of hiring and managing a labor force, there often is a tendency to substitute machinery for labor on large farms. It is true that abundant labor is not always cheap labor. Minimum wage laws

and a variety of welfare laws may make the price of labor higher than it would be in their absence. A large unskilled labor force can be difficult to manage on labor-intensive enterprises. A large unskilled labor force also increases the risk in using expensive machinery, improved livestock, and modern production practices which require constant use of judgment on the part of laborers. Machinery does provide certain advantages in moving water, leveling land, and permitting more timely operations. However, by and large, it is difficult to make a strong argument that, compared to human labor, mechanized operations will result in higher yields per hectare.

In low-income countries, land must be viewed not merely as a resource to be efficiently combined with scarce capital so as to maximize agricultural output, but also as a vehicle for employing people and developing their skills and experiences. A transfer of certain types of capital and technology which are appropriate for large-sized holdings into a system characterized by wide disparities in access to and security of rights in the use of land and other resources tends to increase the polarization of economic opportunity, and frequently leads to displacement of the small farmers from their already insecure position as tenants. One of the distressing consequences of rising agricultural productivity is the old squeeze whereby tenants are reduced to sharecroppers and eventually to landless laborers as more of the bigger owners adopt new technologies. There are generally too few jobs in the cities to employ the population and therefore every effort must be utilized to use labor productively in the countryside. A reliance on tax and welfare policy to achieve equity considerations is often unrealistic in the presence of the strong interplay of economic and political institutions which characterizes most low-income countries. Under these circumstances land reform to small farmers offers the prospect of a more uniform opportunity structure in agriculture. The effect

of the land tenure system on the quality of the people produced is often its most important "product."

Policy Implications

Two of the eight tenure systems appear to best satisfy the four criteria for evaluation. Both small family farms, category (e), and group farms, category (h), are owned and operated by large numbers of participants, thereby providing incentives for high productivity and a multiplier effect for increased income generation.

Qualifications

Several qualifications must be made in this discussion. First, land quality differs considerably from one location to another so mere farm size is not the only pertinent factor. For example, other things being equal, a hectare of irrigated land has many times the productive potential of a hectare of dry land. The former might be utilized for such high-value crops as sugar, vegetables, or rice and be cropped two or three different times a year while the latter might be usable only for grazing.

Second, there are minimum sizes below which it is not possible to support a family from the output of the land alone. Furthermore, there are minimum sizes below which the additional expected returns from changes are just too small to encourage the farmer to adopt new practices.

Third, the conditions under which the land is owned or rented have an important influence on behavior, including the farmer's ability to gain access to production inputs. For example, a tenant whose lease is not secure will not make needed improvements to maintain the productivity of the land. Some undertakings involve numerous incremental additions or are slowly maturing so that the results are realized only over many production cycles. A system of

tenure which makes the rewards specific to the investor is necessary for capital formation. A tenant who must give up a large proportion of his extra production will calculate that the marginal returns he gets from his own labor and expenditures are not adequate to stimulate much extra effort on his part. Furthermore, credit is often secured on the basis of real property as collateral. A person who has no land of his own often has less access to production inputs than a landowner. It also follows that a smaller landowner often has less access to production inputs as compared to a larger landowner. This disadvantage is not so much a function of small size per se, as a reflection on the practices of the agricultural service institutions--practices which can be changed.

Difficulties in Generalizing*

It becomes even more difficult to generalize as one moves from a consideration of land tenure to the specifics of what to do about it, i.e., agrarian reform, which of necessity is intimately involved with institutions unique to particular countries. Land tenure institutions have many unique features growing out of historical patterns of settlement and/or conquest which are tied to value systems grounded in religious, social, political, and cultural antecedents. Changes in a system that work well in one setting may not succeed in another.

Second, an institution is not defined by its name but by the functions, procedures, rights, duties, and privileges associated with it. A farm

*This section borrows freely from Peter Dorner, "The Experience of Other Countries in Land Reform: Lessons for the Philippines," Paper presented at a Seminar Sponsored by the Rural Development Panel of the Southeast Asia Development Advisory Group (SEADAG) of the Asia Society, Baguio City, Philippines, 24-26 April 1976.

corporation in Iran is not necessarily comparable to a farm corporation in southern California. A tenant farmer in the corn-soybean areas of central Illinois has more in common with a farm owner-operator in that same area than he does with a tenant farmer producing maize in central Luzon. Tenants, sharecroppers, owner-operators, partnerships, corporations, production cooperatives, etc., in various parts of the world (or even within the same country) are not comparable just because they are called by the same name.

Third, land tenure institutions do not exist in isolation. The dimensions and future security of opportunities of rural people are influenced by labor, capital, and product markets. Thus, land tenure institutions interrelate with a wide range of other institutions.

Fourth and finally, a country cannot be judged to have carried out a land reform just because it has so declared, has legislation on the books, or has created a new organization for that stated purpose.

Despite these caveats, there are lessons to be learned from the experience of countries which have attempted reforms. The qualifications and reservations noted must be kept in mind and incorporated in making recommendations.

Land Reform

Land reform involves the restructuring of formal and informal rules and procedures governing control over and access to productive resources and opportunities on the land. The range of specific measures can include: increasing security and expectations by regulation of tenancy conditions; issuance of land titles to tillers; abolition of tenancy by converting tenants into owners; expropriation of large holdings and the distribution of land among the tillers, either for individual ownership and operation or for collective use; or transformation of tribal and other traditional forms of tenure in the interests of

productivity and equity. None of these approaches is inherently superior to others nor are there any simple answers as to the sizes to take and reassign and the methods and amounts of remuneration. The final answer in each case depends on the particular conditions existing including the political structure.

Tenancy Reform

In some countries attempts have been made to overcome some of the production inefficiencies and equity problems rooted in the tenure system by reforming aspects of the formal and informal rules regulating resource use without changing landownership patterns. This approach is probably more applicable in Asian countries where tenancy with decentralized management is widespread and the man-land ratio is high. It can also be an important provision in redistributive land reform when tenancy is expected to continue.

Tenancy reforms might include setting maximum share or cash rents, shifting completely to cash rent, requiring all lease agreements to be written and registered, or establishing security of tenure by regulating the length of leases and circumstances under which tenants can be dismissed. These steps are aimed principally at overcoming the disincentives to efficient input use and long-term investment on the land. When accompanied by measures to facilitate access to credit and services as well, positive results might be expected. However, certain difficulties are associated with this approach.

(a) No general prescription as to which form of tenancy is most supportive of proper incentives can be made in the abstract. For example, cash rental is theoretically considered to be more efficient, but sharecropping is often preferred by tenants for the risk insurance it provides. Therefore, unless the underlying risk problem can be directly addressed, it may be preferable to allow share tenancy with proper regulation. The landlord could be required to

share costs in the same proportion as products and to compensate outgoing tenants for enduring improvements; and security of tenure could be safeguarded for a specific term with strong preference given to the tenant for renewal.

(b) Rent control and/or tenancy protection legislation in the absence of land redistribution is usually unenforceable and often ends up working against the interests of tenants (leading to their displacement, or conversion to hired labor).

(c) Specific attention must be given to the allocation of credit and access to services and technology. With proper regulation and incentive structures landlords may provide a network for distribution of technology and inputs; however, in all cases separate credit institutions (e.g., cooperatives) are preferable in order to avoid the economic and social distortions that inevitably arise when a tenant becomes indebted to his landlord.

(d) A well-enforced and effective tenancy reform may be just as difficult to achieve as a redistributive land reform. Landlords may react to attempts at regulation by dismissing tenants and personally taking over managerial functions perhaps with some hired labor. Or, under threat of dismissal, tenants may be forced to acquiesce in the continuation of harsh terms in disguised forms.

Power is the central issue. In the case of tenure reform, the aim is to limit and regulate the power of the land and resource owners without totally neutralizing it. Therefore, tenants and rural laborers must have their own power base to confront that of the landlords', and this can only be achieved through strong peasant or tenant organizations sanctioned and safeguarded by the central political power. This dilemma of attempting to stalemate power based on landownership without actually disturbing ownership patterns has

usually made tenancy reforms in the absence of land redistribution unenforceable and often detrimental to the tenants themselves.

Government Commitment

This highlights the fact that, without question, the foremost of the necessary conditions for carrying out an agrarian reform program is a firm commitment at the highest levels of government. Unless the peasantry can, in effect, carry out a land reform itself, no administrative structures and strategies will successfully implement land reform and agrarian reform in the absence of firm central political commitment to the reforms. The sincerity of the top leadership in their desire for effective land reform is often not in doubt. But the degree to which the top political leadership is willing to take large political risks and to incur costs that might compete with other favorite programs is a more complex issue.¹²

A second obvious prerequisite of effective reform administration is the central government's possession of sufficient centralized power to prevent enemies of land reform from overthrowing the government and to minimize landlord sabotage of the reform program. Except in those cases where a revolutionary peasantry was strong enough to succeed in taking land reform into its own hands, centralized power and commitment have proved essential components of land reform programs. It is not surprising that those land reforms which have been considered relatively successful were carried out in circumstances where the normal political process was suspended either by direct intervention of outside political and/or military power (e.g., Japan, Taiwan, South Korea), by a strong monarch or military ruler (e.g., Iran, Peru), by a thorough socialist revolution, or by the explosion of peasant unrest which threatened the political and social order (e.g., Bolivia, Mexico).

Evolving an Administrative Organization

The actual results of a reform program are greatly influenced by the administrative means by which it is carried out. Successful reforms have been characterized by an approach which combines the administrative coordination and support at the center with direct and substantive involvement of beneficiaries in local level decision-making and implementation.¹³ The precise strategy depends upon the respective strengths of central administrative structure, elite power, and peasant.

Dividing and coordinating responsibility, power, and skills among peasants and the central government can result in mutually supporting complementarity. Local nongovernmental organizations can relieve the bureaucracy of the overwhelming weight of routine administrative decisions. In turn, the central bureaucracy will have access to the detailed local knowledge of land boundaries, land productivities, and ownership histories--a knowledge superior to that obtainable by high technology surveys and compilation of legal documents. Local administrative involvement can greatly enhance communication both within communities and between communities and the central administration. Assignment of responsibility and authority to local organizations of private citizens can stimulate widespread enthusiasm and enhance the development of peasant political power to offset the usually overwhelming influence of local landholding elites.

The decision on devolution, or more broadly upon the distribution of power and functions, represents only the first layer of administrative decisions in a reform program. Unsuccessful land reform programs generally display no lack of decrees, or of sophisticated organization charts staffed out with layer upon layer of bureaucrats. Such programs do not officially die; they just fade away

into an administrative miasma of conflicting considerations and technical obstacles. Successful land reform programs are therefore built upon speed and decisiveness.

Elements Facilitating Implementation of Land Redistribution

A number of operational elements are of key importance in the implementation of extensive land reforms:¹⁴

Land Records: The land to be affected by the reform must be clearly identifiable. Land records on size of ownership in various regions as well as clear demarcations of public lands are most useful. Lack of such records does not make a reform impossible where a government has the will and determination, but their availability certainly facilitates the process. A number of people at the local levels will have a good unwritten record in their minds. This is one aspect in which it becomes particularly important to involve local people in the process rather than to rely entirely on the government's agents.

Clear and Simple Criteria for Taking Land: Clear and simple criteria are needed for determining the specific land subject to expropriation. In most cases, size of ownership unit is a relatively clear and objective criterion. Making the level of management or present use relative to potential use a criterion for expropriation is neither clear nor simple. Even size may not be a simple determinant given the fact that soils vary in quality. In countries or regions with wide climatic and soil differences, the size criteria will have to vary accordingly. In some cases it may be sufficient to distinguish between only two classes of land--irrigated and nonirrigated. Land use and soil classification maps would be most desirable, based on aerial photo maps, if possible.

Simple Methods for Evaluating Land: A relatively simple method for evaluating the land must be established. In cases where one dominant crop is

involved, and especially if the land rent previously was based on a share of that crop, the simplest procedure is to base the value of the land on a certain multiple of the annual average harvest of that crop.* Where general cropping or mixed farming prevails, other means of land evaluation must be used.

Exactly what the multiples should be will depend on many factors. However, the reform will be unable to meet redistributive (and perhaps also productivity) objectives if the new owners must pay the full market price for the land. As a matter of fact, most extensive land reforms of the past have been substantially confiscatory.

Quick Taking Procedure: There is need for a quick taking procedure which enables the reform agency to obtain possession of the land in the shortest time possible. Landowners can be provided legal remedies which could result in added or more favorable compensation if the appeal processes sustain their case. However, the appeal processes should not be able to reverse the decision of the reform agency or prevent the taking of land in the first place provided it is subject to be taken under the criteria established. To the extent that expropriation provisions and criteria are unclear or their application is delayed or haphazard, incentives for on-farm investments are weakened and productivity may suffer. This result can be minimized if the law is well-formulated, the government makes its intentions clear, and the government moves swiftly to carry out the reform.

Landowners must pay the full market price for the land.

*One hazard of using a "principal crop" as the basis for land valuation is that in some cases a goal of land reform is to shift land use from a traditional crop to a mixture of crops. This often involves a shift from an export or nonfood crop to different types of locally consumed crops. Strict adherence to a "principal crop" standard may distort the land valuation or work against the goals of land reform by giving undue emphasis to past cropping practices.

Landowners can be provided legal remedies which could result in added or more favorable compensation if the appeal processes sustain their case. However, the appeal processes should not be able to reverse the decision

of the reform agency or prevent the taking of land in the first place provided

it is subject to be taken under the criteria established. To the extent that

expropriation provisions and criteria are unclear or their application is de-

Compensation: A compensation scheme must be established. This may involve a partial cash payment with the bulk of it in the form of government bonds to be redeemed in future years. The cash payment must be relatively modest if the government is to have the financial resources to mount a large land expropriation effort. Bonds can be of varying maturity dates and carry differential rates of interest to provide (along with varied cash payments) the necessary flexibility for differential treatment of various types of land and/or landowners. Combinations of bonds and cash (and bonds adjusted for inflation and varying maturities) provide a great deal of flexibility and can be used to counter some of the opposition to the reform.

Influence of Former Owners: If former owners are allowed to keep a portion of their land, it is critical that they not be permitted to exercise continued political and economic influence to obstruct the long-term intent of the reform. If landlords are allowed to select their reserves, they will undoubtedly keep the more improved, fertile, and capital-endowed areas, thus putting them in a position to gradually reacquire resources from less-endowed competitors in the post-reform period.

Distribution to New Owners: When large estates in a dualistic context are divided into small family farms, a key decision is whether to limit beneficiaries to resident laborers or to include off-farm wage and migrant workers as well.

In the reform of a small-scale tenant system, priority is usually given to the cultivator being able to retain land in amounts up to the ceiling regulations. It is often desirable to realign fields and combine scattered plots in such cases. However, to effect rapid and smooth land transferral, it may be necessary to delay such efforts until after redistribution.

If payment is to be made by the new owner, it is important that payments be spread out and sufficient safeguards against crop failure enacted so that the total of land payment plus taxes and other charges does not approach the rental costs previously borne by beneficiaries and the payment schedule is easily met within present production levels.

Beneficiary Organization: Reform beneficiaries should be encouraged to form cooperative organizations (ideally flowing from participation in the reform process itself) in the post-reform period in order to retain and strengthen the redistributive and productivity benefits. Both the power and the resources of new small owners tend to be dispersed. If former landlords are compensated, they may reassert a rural power base by shifting assets into financial or marketing areas and set in motion a reconcentration of resources. Group participation in credit provision, marketing, and input purchase can counteract this tendency. Farmer cooperative action may be necessary for gaining access to indivisible inputs and can also serve as a basis for rapid restructuring of the service infrastructure in the post-reform period.

Services: The necessary restructuring of the input and marketing service system should be neither ignored nor delayed, for if not in line with the requirements of the majority of the reform beneficiaries, overall production may fall. Land redistribution may lead to a breakdown of the previous service structure, especially the credit system, operating informally and formally. To avoid disruption of service flow, planning for a new system (whether cooperatives, agricultural banks, credit institutions, or marketing agencies) must be an integral part of the entire reform program and timed to begin functioning immediately.

Redistribution to Former Estate Workers: In the case of a dualistic system, the lack of managerial skill on the part of previous estate wage workers

to receive small private plots may create a production problem. (In the reform of a predominantly family-sized tenant farm system, beneficiaries have been farm managers all along and the problem is much less serious.) There is no easy answer to this problem. Good extension agents can be helpful, but rapid expansion of high quality extension service and personnel in a reform situation is usually difficult. This is one factor that argues for some form of cooperative arrangement among farmers (whether in group farming or some less collective format) to more easily and swiftly disseminate new skills, ideas, and techniques.

Nature of Post-Reform System: The post-reform system of organization must be clearly spelled out in the reform legislation or administrative decrees. This is a matter about which it is impossible to generalize. Post-reform land tenure patterns and the economic and social organization of the agricultural sector vary widely. Such reorganization is not simply a matter of short-run efficiency conditions or of economically optimum size units (however that is measured). A number of strategic variables bear on the question of the post-reform system of land tenure to be established:

- (a) The nature of the pre-reform system. A large estate system poses different problems and presents different opportunities than a tenancy system where farming is already carried out in small units.
- (b) Population density, rate of population growth, the size and proportion of the farm population in relation to the total population.
- (c) Cultural, historical, and ethnic differences.
- (d) Production potentials of the land--rainfed vs. irrigated, annual vs. perennial crops, crop farming vs. livestock and/or mixed farming.
- (e) Availability of nonfarm jobs or of market opportunities for rural employment on the farm in producing nonfarm products.

(f) The financial resources available to government, the level of technical education, the number of trained professionals.

(g) Ideological and political factors.

Group Farming

Interest in group farming in developing countries as a reform institution for directly attacking many of the critical economic and social problems of the agricultural sector is increasing recently among policy-makers.¹⁵ Group farming refers to arrangements where ultimate ownership rights are held in common by a group of farmers and management and operation are carried out jointly. State farms, where ownership is held by the state and workers are paid wages, is a special case about which little will be said here though some of the following issues are relevant to such cases.

Four kinds of situations can be distinguished in which a form of group farming may be desirable:

(a) In land reform applied to estate or plantation agriculture group farming makes it possible to preserve the existing infrastructure (e.g., irrigation systems, service buildings, product-processing facilities, large-scale machinery). The costs involved in dividing up a highly capitalized large farm into individual parcels might be great. Likewise, group farming in this situation offsets the initial problem of limited managerial-entrepreneurial experience of estate wage laborers.

(b) Group farming has been initiated to employ landless laborers who work seasonally on large farms and who are usually excluded from the benefits of reforms in the estate sector. They join in renting or buying land which is farmed cooperatively. Access to services and markets may be enhanced and limited managerial skills accommodated. However, such an approach is applicable only where land scarcity is not acute.

(c) As an adjustment after redistributive reforms, small numbers of individual cultivators have pooled land, labor, and capital to jointly cultivate and manage farmland. This approach has been limited for the most part to countries with expanding off-farm employment opportunities and a decreasing agricultural labor supply, such as Japan.

(d) Group farming has been initiated in some traditional communal settings (e.g., Tanzania) where cultivation had been by individual families. Here the primary reason has been to prevent the rise of inequalities, dualistic development, and communal disintegration that is likely to occur in the context of individualization of ownership.

Experience in a number of cases has shown that instituting group farming in the mixed economic context of most developing countries presents a number of unique problems:

(a) Integrating what is essentially a socialist sector into a generally nonsocialist economic and political system raises issues related to allocation of government services and attention between the group farm sector and the private farm sector. Special consideration must be given to structuring services and markets in such a way that the proper incentives are generated and allocations made for both groups.

(b) The management and decision-making process becomes a critical area where the ideal of participation and the requirements of time and expertise can conflict. Special efforts must be made to avoid the emergence of a "we-they" relationship between group farm members and managers which can cripple member commitment and morale.

(c) Organization of labor and a system of remuneration must be coordinated in such a way as to create incentives supportive of productive and efficient

collective work. The key here is to link directly quantity and quality of work performed to personal returns.

(d) Private plots for family use are usually allowed and problems can arise in the allocation of resources and time between private and collective activities. It is necessary to acknowledge the substantial contribution of private production to the overall success of the farm and to provide incentives that support rational division of resources between the two sectors.

No simple formula for successfully establishing group farms exists which can be applied in every case. As with any fundamental change in the agricultural sector, a balance of strong and sensitive support by the central authorities with the active involvement of those most directly affected by the change can provide a basis for working out over time solutions peculiarly suited to each particular situation.

Strategy Choices

Unfortunately no magic wand exists. Production losses occur during land reform primarily because of uncertainty. It is desirable to lay down clear criteria and to implement quickly to minimize this uncertainty. However, the task is complex. Special machinery often must be created. If initiation of action is delayed until all preparations are completed, the program may never start. Valuable lessons to improve results can be learned as the reform proceeds. At stake is a balance between the danger of immobility and the danger of provoking destabilizing social conflict and perhaps derailing the whole reform program. Several dilemmas may have to be faced.¹⁶

Sequencing: One strategic choice may be that of sequencing the land reform. The following options are available: (a) largest, foreign, or absentee landlords first; (b) regions of most severe inequality first; (c) regions of

most likely success first; (d) everybody first; (e) most backward crops first. The advantage of the big-fish-first strategy is its political impact and its immediate disarming of the most powerful opponents of land reform. The disadvantages include incentives for the large landlords to break up their properties; the complications of land mapping, politics, and administration involved in returning repeatedly to the same area for successive levels of reform; and the provision of time for powerful smallholder opposition to reform. The advantage of giving initial attention to areas of the most severe inequality include disarming potential dissidents and emphasizing the value of social equity; the principal disadvantage is that the areas of most severe inequality frequently, but not always, are regions where success is most difficult to achieve. The advantages of a strategy of pursuing the easiest successes consist of building administrative experience and morale, of creating a demonstration effect which makes successes elsewhere easier, and of stimulating peasant enthusiasm through such demonstration effects. The principal advantage of trying land reform everywhere simultaneously is the tremendous, positive political effect of such a strategy; the disadvantages are the possibility of shocking into existence an overwhelming political opposition and the possibility that administrative overextension will create a vicious circle in which failure induces more failure. The advantage of proceeding through land reform according to crop and to degree of modernization is that productivity considerations can be balanced against equity; modernized sectors can be protected, and political opposition can be minimized. The disadvantages include incentives to change crops, a series of administrative ambiguities wherever multiple-cropping occurs, and an apparent lack of concern for equity.

Alliance Between Central Administration and Peasantry: A second strategic choice concerns the terms of the alliance between the central administration

and the peasantry. An administration can build on existing peasant capabilities if they are adequate, or it can use the central bureaucracy to create and control a local infrastructure, or it can devolve responsibilities to local groups on the assumption that responsibility will induce sufficiently rapid learning. It can employ these polar strategies in various combinations or in various sequences. The key principle enunciated by students of comparative land reform is that local organizations must be responsive largely to local peasants rather than to local elites or to the national government. But the local organizations must be able to rely on central power to disperse opposition and to back up local administrative decisions.

Moral, Morale, and Cultural Aspects: The final and most amorphous of the strategic political questions concerns the moral, morale, and cultural aspects of enthusiasm for land reform and resistance to it, e.g., whether it is possible to have a conservative land reform, whether strong peasant organization is possible without radical changes of perspective, and whether the detailed administrative calculations are relevant when the basic psychology of the country is that of dominator and dominated.

Based on experience, the more delays there are and the more exclusions, the more difficult it is to enforce and carry through a land reform and the more difficult it is to gain support for such a policy. Slippages, diversions, redefinitions, and regrouping of forces opposed to the reform--all these are favored by lack of clarity, uncertainties, delays, and piecemeal efforts. The central problem is to create a self-reinforcing process by which whatever organizational capacities are available are exploited to initiate a land reform process, and the land reform process itself then generates peasant enthusiasm, peasant organization, and an educational process--factors which strengthen the capacities of the system to carry out further land reform. The best way to

stimulate development of such administrative infrastructure is to begin the reform. On the other hand, nothing fails like failure, so it is important to design some early success into the program, for instance, by picking easy initial targets. But again, much depends on a government's willingness and ability to make land reform a top priority and to appropriate the necessary funds and to allocate the necessary manpower to get the job done.

Alternatives to Land Reform

Land reform was attempted over a range of conditions in a wave of consciousness during the 1940s and 1950s, and to a lesser degree since then. Many of the more obvious possibilities for land reform have been tried; the amount of unutilized land in large estates is now relatively limited. Pressures continue for more equitable income distribution, yet the reality of the distribution of political power often rules against significant increases in the income shares of peasants in either industry or agriculture. As a result, alternatives are often considered.*

Progressive land taxation is one alternative.¹⁷ Land taxes, in general, can help force the agricultural sector into greater interaction with the market economy, i.e., the owner must obtain money from some source, sales of farm products being one option, to pay his taxes. Basing taxes on land potential rather than actual use or output could provide incentives for more productive use of land. Progression of rates by size of holding could reduce incentives for large holdings and thereby be complementary to land reform efforts. However, the administrative problems of land taxation are similar to those of land reform. The political problems are also similar. If anything, land

*Tenancy reform was discussed on pp. 15-17.

taxation is less visible than land reform and therefore the opportunities to resist pressures for change are greater. Progressive land taxation has been a meaningful reform measure in few countries.

A second alternative approach is land settlement, e.g., establishing people in agriculture in newly opened areas.¹⁸ There have been some partial successes, e.g., FLDA in Malaysia. However, by and large, results have been disappointing. New land is often expensive to open. Even minimum systems of roads, schools, health facilities, and other amenities are costly. Productive agricultural technology often has not been developed and tested for these new environments. Cultural adjustments are often difficult for the participants. In most cases an equal expenditure, if applied to a comprehensive development program, could give a much higher return on land which is already being cultivated.

The alternative receiving major attention in the 1970s is rural development, i.e., increasing production and income within the subsistence sector via technological change and improved agricultural infrastructure including services which are more responsive to the needs of small farmers. A range of approaches has been attempted. The Comilla Project, initiated in 1959 in what was then East Pakistan, studied and taught ways to promote rural development emphasizing local initiative, rural works, irrigation and drainage, and cooperatives.¹⁹ The Puebla Project, initiated in 1967 in Mexico, developed an efficient methodology for promoting adoption of new technology leading to rapid increases in maize yields and trained leaders for maize production programs in Mexico and other Latin American countries.²⁰ The Chilalo Agricultural Development Unit (CADU) initiated in 1967, the Wolamo Agricultural Development Unit (WADU) initiated in 1970, and the Ada District Development Project (ADDP) initiated in 1972, all in Ethiopia, were three intensive "package" projects which

provided experience to that country in devising a minimum package program for its future rural development efforts.^{21*} Principles for implementation are being identified which can be applied over a range of conditions.²²

In situations where further land reform is not feasible and where the service institutions can be made responsive to local needs, rural development programs can contribute to improved welfare, e.g., the Puebla Project in Mexico. Land settlement programs may be economically successful in certain cases. Progressive land taxation may be desirable. Yet the possibility for doing very much in the way of improving relative incomes of rural residents in these programs is dependent on the underlying rural structure.²³ Failure to do much about the underlying conditions of resource control can lead to little or no improvement in living standards of the wider population.

Concluding Comments

Land tenure is central in determining who benefits from the increases in productivity. Land is the essential ingredient in rural life. It influences the amount of a farmer's production. It also influences his status in the

*For review of other projects in Africa and Latin America see Uma J. Lele, The Design of Rural Development: Lessons from Africa (Published for the World Bank by the Johns Hopkins Press, Baltimore and London, 1975), an evaluation of 17 rural development projects and programs involving the participation of a number of multilateral, bilateral, and national agencies in 7 sub-Saharan countries; Elliot R. Morss, John K. Hatch, Donald R. Mickelwait, and Charles T. Sweet, Strategies for Small Farmer Development: An Empirical Study of Rural Development Projects in the Gambia, Ghana, Kenya, Lesotho, Nigeria, Bolivia, Colombia, Mexico, Paraguay, and Peru (Boulder, Colo.: Westview Press, Inc., 1976), statistical and econometric analysis of 36 projects in 11 countries of Africa and Latin America to identify the level and type of small farmer activity required to maximize the increase in small farmer welfare and productivity so as to become self-sustaining; Michael Nelson, The Development of Tropical Lands, an analysis of 24 tropical highway and colonization ventures to identify the economic, social, and institutional factors that contributed to success or failure of each venture and the relationship between projected benefits and actual results.

community. Together, wealth and status go a long way to establishing his contribution to as well as claims on society. As Solon Barraclough so accurately states: "Farm size is a crucial development issue not because of economies or dis-economies of scale but because land ownership in traditional societies is practically synonymous with control of labor, wealth, social prestige, and political power in the classical Weberian sense of the ability to make others do one's will."²⁴ Philip Raup also states the issue succinctly as follows: "Land tenure institutions define a farmer's status. They create the framework of expectations within which hopes and fears motivate him to economic activity. They specify the carrot and the stick."²⁵ Evidence across nations in the past and even today suggests that rising agricultural productivity may be possible under a variety of land tenure conditions.²⁶ However, a relatively equitable land tenure system is a prerequisite to insuring broad participation by the rural population in the economic and political process of a country.

Where decreases in productivity or capital formation have occurred with land reform programs, this usually has been the result of a failure to also reform the service institutions which provide credit, fertilizer, technical information, and marketing.²⁷ There are substantially different requirements for these organizations to effectively support many small producers as compared to a few large farmers. Land reform--narrowly conceived as the transfer of landownership from large holders to small holders, or from nontilling landlords to the actual tillers of the soil--by itself offers most rural societies no guarantee of subsistence, equity, growth, or progress toward modernity. In order to achieve any of these values, land reform must be accompanied by agrarian reform, defined as the creation of the physical and institutional infrastructure necessary for small holders to maintain themselves. This infrastructure includes irrigation, transport, communications, credit facilities,

education, markets and access to markets, access to fertilizer and seeds, and the like. In a broader perspective, even successful land reform and agrarian reform will fail to achieve their target values unless these reforms are integrated into a larger program of modernization of the entire economy.

Notes

1. Wolf Ladejinsky, "The Green Revolution in Bihar--The Kosi Area: A Field Trip," Economic and Political Weekly 4 (27 September 1969).
2. Alain de Janvry, "The Political Economy of Rural Development in Latin America: An Interpretation," American Journal of Agricultural Economics (August 1975): 490-99.
3. Yujiro Hayami and Vernon W. Ruttan, Agricultural Development: An International Perspective (Baltimore and London: The Johns Hopkins Press, 1971).
4. Peter Dorner, "An Open Letter to Chilean Landowners," Land Tenure Center Newsletter, No. 21 (August-October 1965).
5. Raymond J. Penn, "Public Interest in Private Property (Land)," Land Economics 37 (May 1961): 99-104. Also available as Land Tenure Center Reprint No. 14.
6. Peter Dorner, "Selected Land Reform Experiences: Problems of Implementation," LTC/UW, June 1976. Draft of unpublished ms.
7. Peter Dorner, ed., Cooperative and Commune: Group Farming in the Economic Development of Agriculture (Madison: The University of Wisconsin Press, 1977).
8. Peter Dorner, Land Reform and Economic Development (Baltimore: Penguin Books, Ltd., 1972); Kenneth L. Bachman and Raymond P. Christiansen, "The Economics of Farm Size," in Agricultural Development and Economic Growth, ed. H. M. Southworth and B. F. Johnston (Ithaca, N.Y.: Cornell University Press, 1967), pp. 234-57.
9. Frank Cancian, Change and Uncertainty in a Peasant Economy - The Maya Corn Farmers of Zenacatan (Stanford, Calif.: Stanford University Press, 1972); "Stratification and Risk-Taking: A Theory Tested on Agricultural Innovation," American Sociological Review 32 (1967): 912-27.

10. Donald Winkelmann, ed., CIMMYT Studies in the Adoption of New Agricultural Technology (Mexico: International Maize and Wheat Improvement Center). Studies in Colombia (maize), El Salvador (maize), Turkey (wheat), Tunis (wheat), Kenya (maize), India (wheat), and Mexico (maize). International Rice Research Institute, Changes in Rice Farming in Selected Areas of Asia (Los Baños, Philippines: IRRI, 1975).
11. Dale W. Adams, "Mobilizing Financial Savings Among Rural Poor," Mimeo., 21 March 1975.
12. Hung Chao-tai, Land Reform and Politics: A Comparative Analysis (Berkeley: University of California Press, 1974).
13. John D. Montgomery, "Allocation of Authority in Land Reform Programs: A Comparative Study of Administrative Processes and Outputs," Administrative Science Quarterly 17 (March 1972): 62-75.
14. Dorner, "Selected Land Reform Experiences."
15. Dorner, Cooperative and Commune.
16. William Overholt (rapporteur), "Rural Development Panel Seminar on Land Reform in the Philippines," SEADAG Conference, 24-26 April 1975, Baguio, Philippines.
17. Stephen R. Lewis, Jr., "Agricultural Taxation in a Developing Economy." in Agricultural Development and Economic Growth, ed. Southworth and Johnston, pp. 453-92.
18. Michael Nelson, The Development of Tropical Lands: Policy Issues in Latin America (Published for Resources for the Future, Inc., by The Johns Hopkins Press, Baltimore and London, 1972).
19. Akhter Hameed Khan, "Reflections on the Comilla Rural Development Projects," Paper No. 3, Washington, D.C., Overseas Liaison Committee, March 1974.
20. The Puebla Project Staff, The Puebla Project: Seven Years of Experience (1967-1973): Analysis of a Program to Assist Small Subsistence Farmers to Increase Crop Production in a Rainfed Area of Mexico (Mexico: CIMMYT, 1975).
21. Tesfai Teclé, "The Evolution of Alternative Rural Development Strategies in Ethiopia: Implications for Employment and Income Distribution," African Rural Employment Paper No. 12, African Rural Employment Research Network, Department of Agricultural Economics, Michigan State University, East Lansing, Michigan, 1975.
22. Ralph W. Cummings, Jr., "Defined-Area Campaigns: Principles Underlying Implementation," Fourth Draft, 28 March 1977 - and references cited therein.
23. Alain de Janvry and Carlos Benito, "Rural Development in Latin America: Three Projects Observed," 1977. Unpublished manuscript.

24. Solon L. Barraclough, "Comment on the Economics of Farm Size by Bachman and Christiansen," in Agricultural Development and Economic Growth, ed. Southworth and Johnston, pp. 263-66.

25. Philip Raup, "Land Reform and Agricultural Development," *ibid.*, pp. 267-314.

26. Dorner, Land Reform and Economic Development.

27. Don Kanel, "Creating Opportunities for Small Farmers: The Role of Land Tenure and Service Institutions," in Problems of Rural Development, edited by Lawrence J. Brainard and Raymond E. Dumett (Leiden, Netherlands: E. J. Brill, 1975); AID, Spring Review of Land Reform, June 2-4, 1970: Findings and Implications for A.I.D., Agency for International Development, Department of State, Washington, D.C., No. AID-SR-LR-70-13 (this volume summarizes the findings of a comprehensive study which is reported in 12 companion volumes); Dale W. Adams, "The Economics of Land Reform," Food Research Institute Studies 12 (1973): 133-38.