

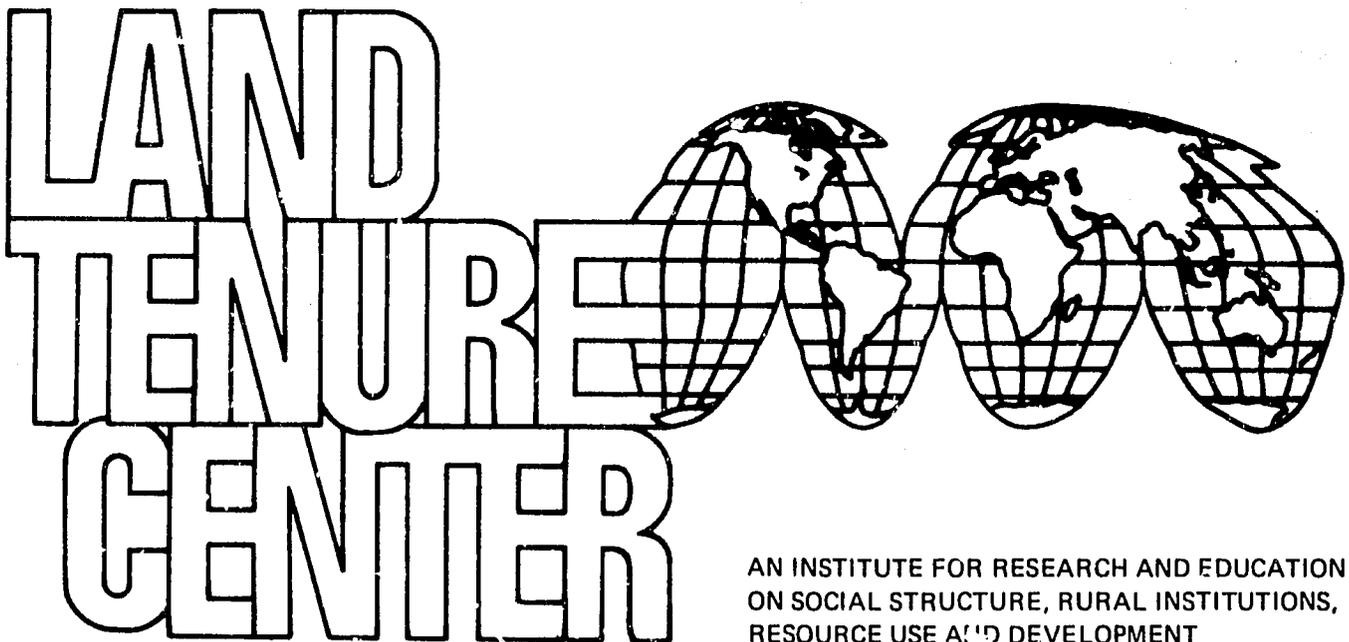
PN-AAT-660
41825

A RESEARCH PAPER

Number 74
September 1981

INTERVENTIONS IN LAND MARKETS
TO BENEFIT THE RURAL POOR

by
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U.S. ISSN 0084-0815

AN INSTITUTE FOR RESEARCH AND EDUCATION
ON SOCIAL STRUCTURE, RURAL INSTITUTIONS,
RESOURCE USE AND DEVELOPMENT

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September 1981

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PN AAT-660
R.P. No. 74
U.S. ISSN 0084-0815

INTERVENTIONS IN LAND MARKETS TO BENEFIT THE RURAL POOR*

by

Peter Dorner and Bonnie Saliba**

Madison, April 1981

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* Prepared as a Special Study under the terms of a Cooperative Agreement (AID/DSAN-CA-0183) between AID and the University of Wisconsin-Madison. Presented to a Conference on Land Tenure and Economic Development in the Eastern Caribbean, 26-31 May 1981, St. Lucia. All views, interpretations, recommendations, and conclusions expressed in this paper are those of the authors and not necessarily of the supporting or cooperating agencies.

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ABSTRACT

Although not a substitute for directly redistributive land reforms, a large number and variety of measures for creating more active and flexible land markets for the benefit of the rural poor have been tried. These measures include land taxation, land registration, improved instruments of credit financing, and several means of direct state acquisition and disposition. Examples are drawn from the states in Latin America, the Eastern Caribbean, the United States, Canada, Australia, and Japan. While the various measures analyzed or illustrated by case studies provide lessons for countries the world over, the greatest relevance is perhaps for the countries of Latin America and the Caribbean.

In the concluding pages of this paper, the form of organization to be established on lands acquired by the government is discussed. The requirements of a successful family farm system as well as various levels of integration in cooperative farming and their needs are outlined. While state planners must be sensitive to these differences, it is concluded that a particular form of organization should not be imposed on a farming community. Participation by people most directly interested in a land disposition program is essential.

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INTRODUCTION

Where private property in land prevails, a market for land is potentially feasible, but for such a market to function there must be many willing buyers and willing sellers, adequate financing, reasonable consistency in the size of farm plots offered by sellers and wanted by buyers, means of identifying and verifying ownership rights, etc. In many countries these conditions do not prevail and there is no effective land market. Land is often kept in large units through inheritance and when such units do come on the market, they are beyond the financial reach of all but the wealthiest individuals. Even small units may be bought by people with large landholdings because other potential buyers, though they may be many, do not meet conventional banking standards of creditworthiness. At other times mortgage monies for land purchases are in short supply for all potential borrowers. Where these conditions persist, governments sometimes attempt to stimulate land markets as one way of making land more accessible to the rural poor. Several measures that have been or could be applied to achieve this objective are discussed in this paper.

It is important to emphasize that this strategy, which might best be thought of in terms of prompting or priming land markets, is not an effective substitute for classic redistributive land reforms. The instruments discussed here will not, separately or in combination, bring about a major land redistribution and a more egalitarian structure of opportunities and rewards in agriculture. They should be seen as supplementary devices--a foot in the door, perhaps--in cases of concentrated landownership. They are most effectively applied in other situations where redistribution via expropriation and tenure reform has already proceeded; where a relatively egalitarian landholding structure already exists; where the land market can be made, with the aid of these lesser instruments, to work more efficiently in the interests of both productivity and equality.

Governments that are either unwilling or unable to intervene directly through a process of land expropriation and redistribution, even where landownership is very highly concentrated, may indeed be interested in providing more opportunities for the rural poor while simultaneously developing a progressive agriculture. They can and do experiment with measures less drastic than direct land expropriation.

Several such measures and strategies will be explored here: taxation, land registration and titling, credit instruments, state acquisition and disposition of land, and (when the state must decide what kind of farming schemes to establish on newly acquired lands) alternative forms of land tenure. Two or more of these measures will often be required to achieve the desired results. Raising land taxes, or taxing larger units at higher rates, setting progressive estate taxes, or limiting the amount of land that can be inherited will probably not expand

land markets unless credit is also made available for land purchases. Land registration and titling might facilitate land transactions and provide greater incentive for more intensive land use, but in the absence of other measures to control concentration of ownership, such programs could work to the disadvantage of the landless. Credit for land purchases will serve no purpose if land units of appropriate size are not offered for sale. And the state itself may need to be active in land acquisition and disposition if other measures are to be effective.

Intervention in land markets to help achieve a more progressive and productive agriculture as well as a more just and equitable distribution requires a combination of policy measures, and the specific policy measures must be geared to physical and institutional conditions. Because of this necessary specificity in policy at the national (and often local) level, this paper cannot treat these issues on a global basis. In any event, the measures discussed here have very little relevance to large parts of tropical Africa where individual private property in land is not the prevailing form of tenure. Although some experiences in other world regions will on occasion be used for illustrative purposes, the focus here will be the potential for furthering development by adjusting land markets in several South and Central American countries and in some of the island states of the Eastern Caribbean.

TAXATION

Taxation of agricultural land has been a common practice since ancient times. Although revenue has usually been the prime objective, land taxation has also been employed to promote redistribution of rural land and income. As a redistributive tool, it has several unique features. Taxation alone can create developmentally favorable incentives within the agricultural sector while simultaneously increasing that sector's contribution to public revenues (Bird 1971:19). Taxation of agricultural lands can reach nonmonetized forms of wealth that escape other forms of taxation. In countries with highly concentrated landownership patterns, a large percentage of the land can be taxed by assessing the property of a small percentage of owners; it is estimated that more than 70 percent of the farmland in Central America could be taxed by levies on the larger holdings (35+ hectares) owned by 5.8 percent of the population (Best 1976:58). With strong political will and sound tax designs, landownership patterns and income distribution can be moved in the direction of greater equitability. Taxation can also be employed to promote more nearly optimal use of land, water, and other resources by affecting the intensity of resource use and the output mix.

Land taxation is a flexible instrument: severity and gradation of the tax rate, basis and method of assessment, exemptions, special penalties, and types of payment accepted are all features which lie at the

discretion of planners. All these features can be modified to build a tax that is designed to achieve any or all of the three frequent objectives of property taxation: (1) revenue; (2) incentives for increased productivity; and (3) incentives for redistribution of income and land. Although the redistributive objective is the focus of this paper, the revenue and productivity functions of property taxes will also be discussed because they are often related to distributional issues.

Issues: Revenue

In agriculturally based economies, land is the most significant form of wealth and thus a potentially bountiful source of revenue, but land taxes are currently an insignificant source of public funds in most developing countries. The primary and nearly universal reasons for low revenue yields from land taxation are insignificant tax rates, low assessments eroded by inflation, and lack of rigorous enforcement. These problems can be corrected. The currently low revenue yields in Latin America do not indicate that land taxation has little potential; rather, they illustrate the lack of a strong commitment to taxation objectives, improved tax design, and effective enforcement of tax laws.

In addition to substantial amounts of revenue, land tax reforms can provide more flexible revenue flows. Land tax yields are characteristically inelastic because rates are rigid and assessments are not adjusted to changes in productivity or inflation rates. Rates are rigid because land taxation is politically controversial. Government officials and legislators are understandably reluctant to raise the issue. One way to avoid the need for continually reopening the debate might be to build flexibility into tax laws, giving the agency administering taxes the authority to institute limited periodic rate changes. Assessed values could be updated by adjusting them annually in accordance with changing general price indices or with indices of property value related to productivity increases.

When land taxation has multiple objectives, such as revenue and land redistribution, the relative priority of those objectives should be made explicit. In some cases the pursuit of distributional and productivity goals can decrease revenue yields. Complicated exemptions and special penalties may prompt widespread noncompliance and court battles, reduce revenue, and increase administrative expenses. In Australia, revenues from a steeply progressive land tax based on land value fell rapidly as large properties were subdivided to escape the higher tax rates. The redistributive goals of the tax were being met, but eventually the low revenue yields were used by tax opponents to justify repeal of the tax (Garland 1934:161). When priorities are clearly understood, land taxes can be designed so that revenue functions and other goals complement one another.

Issues: Improved Productivity and Resource Use

Assuming that producers seek to maximize returns from the land, effects of taxation on productivity per unit of land, on factor use, and on output mix will vary with the type of taxation. Here the basis of assessment is important. For example, a levy based on actual productivity might destroy incentives for intensive land use while one based on potential productivity might be expected to preserve such incentives. A tax base that includes improvements may discourage investment in irrigation facilities and other equipment, whereas a tax on the unimproved value of land probably would not. In general, accepted microeconomic theory indicates that a tax which is a fixed cost, unrelated to actual productivity, will influence decisions to enter or leave particular types of production and decisions to discontinue farming altogether. If the tax is a substantial fixed cost, it may affect the final composition of agricultural output and in turn affect levels of agricultural exports and domestic market surpluses for urban areas. Taxes which increase as production increases become marginal costs to the producer and, depending on the severity of the rate, may have disincentive effects. However, there is little quantitative evidence on this point from Latin America because taxes have traditionally been an insignificant expense for most of the region's agricultural producers.

Taxes can encourage intensive use of high quality agricultural land. A fixed tax cost based on land values in optimal use encourages either higher productivity or sale and lease of land for more intensive uses. Tax exemptions or credits for productivity-related improvements also encourage more intensive land use, but several cautions are necessary. First, it is important to differentiate between land suitable for intensive cultivation and land suitable only for pastoral use. Initial assessments should make this distinction. In many regions population pressures have already forced cultivation of steep hillsides or desert areas and severely damaged both current and future productivity. Taxation can be used to help reverse this trend--to encourage cultivation on high quality lands now used for pasture and to discourage further overexploitation of low-quality lands. Second, fixed tax costs do not in themselves encourage optimal land use; instead, they promote greater income per hectare. An increase in production of crops of high income value--often export crops or crops that yield luxury goods--is not necessarily consistent with development objectives of increasing supplies and lowering prices of basic foods.

In arid regions and areas with seasonal rainfall patterns, taxes can be used to encourage efficient use of water as well as land. Water is usually allocated on the basis of traditional inherited rights, without regard to efficiency. Grazing land is often irrigated while small nearby parcels of cultivated land must rely on sporadic rainfall because owners of large, extensively operated holdings control all available irrigation water. Those who have historical rights in water often treat it as a free good when in fact alternative uses of water have very high

opportunity costs (Gregory 1962:13). Although measures of efficient water use are difficult to develop, they can, once established, be coordinated with a land tax in several ways. Water rights should certainly be included in assessments of potential land value. In addition, a progressive tax based on volume of water used would suppress the demand for water on the part of any given landowner because the marginal productivity of water declines after a point. When, because of the tax, water has a marginal cost, there is incentive to use it more efficiently and perhaps even to sell water to neighbors who do not have established rights. More efficient use of water complements optimal land use. A land tax could be expected to promote grazing on hilly rain-fed land and intensive cultivation of flat irrigated land.

Issues: Redistribution of Land and Income Opportunities

Land taxation can encourage redistribution of income and access to income-earning opportunities in several ways:

- A significant tax burden encourages landowners either to use their land more productively or to sell or lease it to people who will.
- A tax with progressively higher rates as land value and/or parcel size increase may precipitate the sale of parts of large parcels in order to escape the higher tax rates.
- Land taxation requires records on landownership and some indications of productive potential based on soil quality, topography, and access to water. These records, if made public, increase the information available to potential buyers of land.
- Revenue from taxation can be used to finance loans to prospective buyers and to underwrite developmental infrastructure. The unpopularity of the tax may be slightly diminished if it is apparent to taxpayers that the revenues benefit them in some tangible ways.
- Special penalties can single out particularly undesirable forms of tenure (absentee ownership) for heavier tax burdens while exempting farms of more desirable size or character (family farms). However, exceptions to a general tax can easily be counterproductive. Small farmers lack information and/or legal counsel needed to take advantage of the exemption, while large owners may find ways to avoid penalties, especially if the category of property to be penalized cannot be precisely defined and identified.

If voluntary sales or leases of property are to be encouraged by progressive tax rates or a heavy fixed-cost tax burden, certain measures

may be necessary to regulate those sales and leases. Prices are an important consideration. One way to avoid unfair prices is to regulate them on the basis of assessed value for tax purposes. Other regulations may be necessary to ensure that tenants and farm workers are not out-bid by wealthier urban-based buyers, especially when the latter are not likely to become owner-operators. Land parcels, once sold, should be operated as separate units to guard against "paper subdivision" of large estates. If leases are to improve upon pre-tax tenure arrangements, their terms should be standardized to ensure just settlements for both lessees and lessors.

With little quantitative evidence on the volume of sales from large estates that might be expected to result from taxation, the most certain benefit is increased revenue which could be used to help willing and qualified buyers to purchase land. Perhaps provision of public funds is the most straightforward way in which land taxation can promote redistribution through land markets.

Implementing Taxation: Common Problems

The initial and most difficult hurdle which all taxation proposals must overcome is political opposition from those likely to be taxed most heavily. Many well-formulated proposals have failed because of weak attempts, or none at all, to induce the cooperation of the ruling coalition and the compliance of large landholders (Hirschman 1963:120). A consistent feature of the few land tax programs that have had significant redistributive effects is strong popular and legislative support. Such support is necessary throughout the life of the tax program to ensure consistent enforcement and to neutralize efforts to repeal or weaken the initial legislation.

A second and nearly universal problem in land taxation is lack of funds and trained personnel to administer the tax. These shortages are especially apparent in the task of identifying and assessing rural property. Land records should include location, size, owner, long-term lease and rental arrangements, special easements, soil quality, water availability, actual use and yields, and optimal potential use for each parcel of agricultural land. Few nations are fortunate enough to have such complete information, but comprehensive land records are a goal, not a prerequisite, for successful taxation. Most of the specific taxation proposals discussed here are designed to function despite low administrative budgets and inadequate information.

Another common problem is tax evasion. Penalties for noncompliance and means to identify tax evaders must be specified in the design of the tax program. Because potential tax evaders consider the probability of being detected and the severity of the penalty in determining whether to pay the full amount of their tax liability (Ali 1976:173), penalties must be standardized and related to the difference between the tax paid

(which may be zero) and the tax liability. To encourage prompt payment, all delinquent taxes and additional penalties should be set in terms of purchasing power of the period in which the taxes were originally due. This requirement has been effective in collecting back taxes in parts of Brazil (Strasma 1966a:13). If banks are government controlled, tax-delinquent producers can be made ineligible for credit. Properties reaching a high degree of tax debt can also be subject to forced sale or government acquisition. Whatever measures are adopted, promptness in implementing penalties is essential.

A fourth area of concern in tax design is the effect of the tax on incentives for investment in new technology and other property improvements that increase productivity. Two facets of tax design are relevant here. One is the basis--improved or unimproved land value--on which the tax is assessed. The second is the marginal tax rate--the rate at which the last increment of production, income, or land value is taxed (Wald 1959:142). Taxing the total value of property greatly increases the taxable base and potential revenue, but owners will consider the expected increase in tax liability as they weigh the costs and benefits of installing improvements. One way to preserve incentives for investment is to grant exemptions or credits for new and desirable improvements such as wells and irrigations works. However, in some regions where government investment in infrastructure may be preferable to private investment for reasons of equity, a tax on improvements will discourage private construction while providing funds for government projects.

Marginal tax rates are determined both by the legal rate schedule and by the efficiency of tax administration, and levies intended to tax additional production and increases in land value actually have a zero marginal rate because of failure to update tax assessments on a regular basis. In this case, the effect of the tax is similar to that of a fixed annual charge, which leaves the income from additional production undiminished by taxation. Latin American data indicating the extent to which a steep marginal tax rate affects productivity and investment are not available. However, there are many cases in which nations, citing adverse effects on production, changed from a tax on improved property to one on unimproved land value, or from taxes based on actual productivity to taxes based on potential productivity (Heller 1954:224-25).

A final pitfall of many tax programs is lack of clarity. Taxes with complicated rate schedules or complex exemptions and penalties are easy to evade and costly to administer. Landowners must be able to anticipate the tax liability they will incur under alternate courses of action if the tax is to have the intended incentive effects. Taxes are most likely to be effective when they are designed to fulfill one or two objectives, when they have simple rate structures, and when their exemptions are few and well-defined (Bird 1971:40).

Options in Tax Design

Policy-makers designing a tax program are faced with a number of questions:

- What should be taxed (assessment base)?
- How should taxable value be determined (assessment process)?
- How much burden should the tax impose (severity of rates)?
- How should that burden be distributed among the various categories of taxpayers (structure of rates)?

Many options in tax design affect each of these questions.

Assessment Base. The ideal assessment is market value derived from selling price in a fully functioning land market with many willing buyers, frequent sales, and good information about prices of comparable land in similar uses. However, such a market is usually a goal of land taxation rather than an existing fact. Therefore, assessments often must be based on other data.

Assessments based on characteristics of the property may value land alone, land plus production-related improvements, or land and all fixed improvements. The monetary value placed on the property may be estimated by examining actual income value from rent and sale of produce, or by estimating net income receivable from the optimal use of the property (optimal use may be defined by regional planners to be consistent with overall development objectives).

A simpler assessment might divide land into two or three broad categories based on soil type, topography, availability of water, and distance from major markets. An estimate of value per hectare can be made for each category so that any parcel can be assessed by simply calculating the number of hectares in each land-value category. An even simpler method may be appropriate for regions where land quality and water availability are relatively homogeneous. In these areas, taxes can be levied on the basis of number of acres owned rather than on land value.

Assessment Process. Whatever base is used, assessments must be kept current. The most sophisticated and costly methods are annual inspection by trained assessors, or on the basis of aerial photographs showing crops produced, added improvements and other relevant changes. Alternative methods adjust assessments annually to changes in regional agricultural input and product prices. The simplest procedure ties assessments automatically to the national price index. This method, while ignoring regional differences, will at least ensure that revenues keep up with inflation.

Simple but up-to-date government assessment can have immediate beneficial effects. In Guatemala, 15,000 rural properties were assessed in 17 months. In a sample of 20 large holdings, owner-reported values averaged just 8.8 percent of the government-assessed value, and overall property value under the reassessment increased by almost 100 percent. Although the new valuations were probably low, the assessment doubled the taxable base on these 15,000 properties (Best 1976:58). In Colombia, the threat of a new assessment program (with forced sale to the land reform agency at current valuations included as a possible consequence) compelled owners of more than 12,000 rural properties, all 100 hectares or larger in size, to increase the previous valuation on their properties by an average of 99 percent. Although it is impossible to determine how close the new values are to market values, the higher figures took effect immediately for both the property tax and a tax on net wealth, and added much-needed funds to the public coffers (Strasma 1966a:6).

There are several options in carrying out the assessment process. Personal inspection is costly and time consuming. Aerial photography is quicker but also costly, and it requires persons knowledgeable in methods of estimating property value from photographs. Two simpler and much less costly methods will be discussed here: presumptive income assessment, and self-assessment. It should be noted that these proposals are based more on theory than on practice, and are as yet largely untried in developing countries.

Presumptive income assessment fits a situation in which the goal is to impose a fixed-cost tax on the basis of some predetermined level of land use. The method requires information about quality and size of each parcel. Presumed income per hectare will depend on the desired effects of the tax. One proposal involving presumptive income recommends setting minimum acceptable levels of income per hectare for land of each specific quality; farmers producing more than this amount would not be taxed at all, while farmers producing less than the acceptable minimum would be taxed severely. Small, intensively cultivated farms would pay no tax while large, underutilized holdings would be heavily taxed to encourage more effective use (Cline 1974:24-5). This method would also discourage underreporting of agricultural income and might thus increase revenues collected by the general income tax (provision would have to be made to protect farmers who produce for their own consumption and for that reason show a little monetary income). However, income from agriculture is difficult to verify unless commodity sales take place in government-administered markets. Moreover, some farmers may wish to sell their land instead of using it more productively; if credit is not available for would-be purchasers these farmers may rent their underutilized land to tenants, and in the absence of fair rental regulations these arrangements may produce conditions more inequitable than those before the tax.

Another type of tax based on presumed income exists (or existed in the past) in Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, and

Peru, where presumed income from agriculture is rated at 10-15 percent of officially recorded land value and all farmers are taxed regardless of their productivity. In theory, this type of tax should have the beneficial incentive effects associated with a fixed-cost type of tax. In reality, the tax is generally ineffective because of unrealistically low recorded land values from which presumed income is calculated (Gandhi 1972:19).

In 1968, Uruguay enacted a more severe version of the presumptive tax. Cadastral survey data were used to estimate maximum productive capacity for various landholdings. All holdings were then taxed on income receivable from maximum production, whether or not such production standards were attempted or achieved. The tax rates were high (25-50 percent of income receivable from maximum production), but credits were granted for investment and for export tax payments. The effectiveness of such a tax depends on the existence of room for improvement in current production levels, and on the availability of technology to achieve desired production levels. Implementation would also become very difficult where land quality, crops produced, and feasible technology differed widely from area to area (ibid.:20).

In general, the presumptive income method is most appropriate under the following conditions: (a) when presumed income can be calculated from reliable land quality information or derived as a percentage of up-to-date land values; (b) when significant amounts of high quality land are underutilized; (c) when the creation of smaller farms is desirable for distributional or efficiency reasons; (d) when credit is available to finance land purchases and when rental arrangements can be standardized and made equitable; (e) when land quality and expected yields do not vary widely within a taxing region; and (f) when agricultural income is not taxed effectively by other means (Berry 1975:423). The presumptive income tax is thought to have more desirable incentive effects than a traditional income tax. Owners have the options of achieving the production standards assumed by the tax, renting or selling land to pay the tax, or accepting a reduced standard of living. Any additional income above the assumed income level is not diminished by taxation. To save administrative expense, the presumed income from agriculture could be added to general income and collected through those channels. Although no certain prediction of tax effects can be made, a rise in government revenues is certain and improved land use and breakup of large, underutilized estates is likely (ibid.:433).

Self-assessment of property value by landowners can be successful, provided there are a strong incentives to counterbalance the tendency of owners to undervalue their properties for tax purposes. Self-assessment has the potential for substantial cost savings over other forms of assessment and for rapid revaluation of a large amount of property. However, actual experience with self-assessment is limited. There is much uncertainty about the quality of assessment that could be expected, and numerous problems with the practical details of administration and

enforcement should be anticipated. Literacy of the majority of landowners and a dependable postal delivery system are prerequisites for self-assessment. A legal system permitting government expropriation and forced sale of land may be critical.

The most essential elements of a landowner assessment program are instruments to prevent and detect underassessment. The higher the probability of detection and the more costly the consequences, the greater is the incentive to declare the true value of land (Ali 1976:175). A basic provision is to make the owner-declared value the amount which the government must pay in case the land is expropriated for public purposes such as road or reservoir construction or land reform. This provision by itself is far from adequate to ensure true declarations of value because of the limited budgets for government projects likely to take private lands. Another tactic of self-assessment strategies, in Brazil, limits rents to 15 percent of the reported tax value; if such rent ceilings can be enforced, they provide some deterrent to underassessment (Strasma 1965:13). In a Guatemalan program of self-assessment, mortgage loans could not exceed 50 percent of the officially recorded value of the property. This provision apparently discouraged underassessments, particularly in rural areas where credit was frequently needed to sustain farm operations until harvest (Wald 1959:29).

The strongest incentive for accurate self-assessments would be a requirement that owners be willing to sell their lands at the declared value or pay heavy fines and face higher valuations for tax purposes in the future. To make these inducements functional, substantial resources must be available to bid for and purchase land.

Several variants of the self-assessment scheme have been suggested. Under one proposal, the government arbitrarily updates all property valuations. Landowners are given a specific time in which to appeal government figures by submitting their own assessments. All owners not responding within the required period are assumed to have accepted government valuations and are then taxed on that basis (Strasma 1966b:103). Those owners who do appeal must authorize a public auction of their properties with declared values as the opening bid. If no bids are forthcoming an owner's declaration becomes the official valuation for tax purposes. If there are bona fide higher bids, the owner must either sell the property, or accept the bid value as the value for tax purposes and pay an underassessment penalty (Strasma 1966a:5).

A similar proposal suggests that all owner-assessed values be made part of the public record. Any party interested in the land, government or private, may submit a formal bid in excess of the declared value. If the owner rejects the bid, the property is deemed to be worth at least that amount to the current owner and the amount bid becomes the new tax base for that property; a penalty could be added to make underassessment even less desirable.

These schemes give rise to several questions:

- From where will the resources to bid on large numbers of undervalued properties come? When both government and private agents are eligible to bid, the strain on regional credit sources could be heavy, and the probability of any one property being challenged might not be high enough to discourage underassessment.

- Who would bid? It is easy to imagine large landowners quietly agreeing not to bid on one another's properties while buying up small parcels surrounding them. In the absence of credit opportunities for other prospective buyers and protective statutes or exemptions for small properties, concentration of landownership would increase (Holland and Vaughn 1969:87). If local landowners boycott the bidding process, outside investors may be discouraged as well for fear they could not resell the land (ibid.:85).

- What constitutes a bona fide bid? Landowners must be protected from vindictive neighbors who might bid to raise tax liabilities without intent to purchase; as a safeguard, bids should perhaps be accompanied by a deposit of 5 percent of the offer (Strasma 1965:20). Some authors recommend incentives to encourage lively bidding and suggest that fines collected from owners unwilling to sell could compensate frustrated bidders for their efforts (Holland and Vaughn 1969:94). Despite such potential problems, the option of public auction would seem to offer a kind of appeals procedure to all landowners who dispute government valuations.

- How would self-assessment schemes affect incentives for improving property? Some uncertainty is surely created when all properties are continually vulnerable to bids and fines (ibid.:110). However, an option to refuse bids should reduce uncertainty and minimize disincentives to long-term property improvement.

In general, self-assessment methods seem most useful for governments preparing to revise assessments outdated by changes in purchasing power. Public auction, the quick and inexpensive route-of-appeal under self-assessment proposals, will not bring backlogs in the courts and is in fact likely to substantially increase the taxable worth of undervalued properties.

Severity of Rates. The desirable rate of taxation will vary with the objectives of the tax. To accomplish incentive and redistributive purposes, the tax must constitute a cost large enough to influence landowners' behavior, and some notion of effective tax rates may be deduced by examining the amount of other land-related costs that affect productivity and land transfer decisions. In general, political expediency dictates the upper limit of tax rates, so that tax planners are usually concerned with obtaining the highest feasible rates. Low rates are the primary reason for the failure of land taxes to produce significant revenue or real redistributive incentives.

Structure of Rates. Rates may be either a flat or a variable percentage of the tax base, and these options carry different implications for the effect of the tax on land use and land sales. Progressive rates impose a proportionately higher tax burden as assessed values increase and provide incentives to sell land to escape higher taxes. However, under a progressive rate structure, policies must be designed to prevent "paper subdivision" of properties that continue to be operated as single units. This type of evasion is very difficult to detect and penalize. A progressive rate structure also requires far more complex initial assessments and involves much greater complexity in implementation and enforcement. For these reasons, flat rates may be the best choice. The flat rate seems more equitable and should thus encounter less political opposition. As a fixed cost, a flat tax rate (at significant levels) will serve to encourage productivity and redistributive changes.

Other Tax Options. Land taxation has been the focus of this discussion because it is directly applicable to effecting changes in land use and tenure patterns. However, taxes on livestock, marketed produce, exported produce, inheritance and transfer of real estate, and consumption of scarce inputs (water, fertilizer, etc.) can complement taxes on land. The development of community services also provides an opportunity to levy user taxes and to introduce a form of taxes associated with tangible local benefits. This approach may help reduce the opposition to land taxation.

Case Studies in Land Taxation

Despite the potential for promoting more effective land markets and furthering redistributive and productivity objectives, national experiences with land taxation have been disappointing, usually because of low rates and ineffective implementation. Case studies of Australia, Jamaica, and Japan highlight some difficulties as well as some moderate successes.

Australia. In Australia, land taxation was an important part of the national strategy to break up large estates and eliminate absentee ownership. Australia's 70-year experience with land taxation indicates that taxation can be an effective instrument for land redistribution.

Land tax legislation was first proposed in 1877. The Commonwealth Land Tax Act and the Land Tax Assessment Act were both enacted in 1910. The tax was discontinued in the 1950s when its objectives were no longer relevant to Australia's needs. The aims of Australia's land taxation program were: (a) to free land from large stock ranches and transform it into cultivated cropland in order to provide habitation and a secure livelihood for a larger number of people; (b) to combine intensive utilization of resources with broadly based ownership of those resources; (c) to supply government revenue; and (d) to meet an ideological commitment to retain unearned increments of land value for the good of society

(Garland 1934:32, 104). Large landowners organized to oppose land taxation but were unable to prevail against a populace wanting land, employment, and agricultural development.

The Commonwealth Land Tax was levied on the unimproved market value of land. Tax rates were progressive and owner-operators of properties of less than £5,000 in value were exempted. Absentee owners were not. All land held under freehold tenure or leased from the government on a long-term basis was taxable. By 1928, tax revenue under this act represented approximately one-fourth of the total unimproved value of Australian land. It provided a steady yield of about 5 percent of total Commonwealth tax revenue from 1914 onward. Each of the Australian states and many municipalities also taxed land, but, unlike the Commonwealth, these entities were primarily interested in revenues and there was great diversity in rates. In general, these state and local programs added to the tax burden imposed by the Commonwealth, but they had little effect on land distribution.

Some favorable results of the Australian land tax scheme have been cited by Garland (ibid.:159-83):

- 1) A significant breakup of large rural estates did occur, particularly in the early years of the tax.
- 2) Land that was subdivided was generally the land most suitable for operation in smaller parcels.
- 3) The number and the wealth of absentee owners decreased by more than 50 percent during the first decade of the tax. Large numbers of absentees departed in anticipation of the tax.

However, drawbacks and problems with the tax have also been pointed out:

- 1) The £5,000 exemption made it possible for holders of large estates to transfer title of small parcels to family members and elude taxation while continuing to operate the estate as a single unit (Brown 1955:4).
- 2) The £5,000 exemption and the high tax rates on nonexempt land put heavy upward pressure on the price of all land suitable for cultivation in parcels of exempt size. The increasing market value of such lands caused hardship in two ways: it made the initial purchase price of a small homestead prohibitive for low-income families; and it pushed formerly exempt homesteads above the £5,000 limit of value and into the taxable realm (ibid.). This effect could have been avoided by raising the exemption periodically to keep socially desirable "family-sized" homesteads below the limit.

- 3) The tax was administratively complex, and when combined with state and local land taxes and the Commonwealth income tax, comprised a contorted web of inequitable tax burdens.
- 4) The complexity of the tax schedule and of the land assessment and valuation procedures evoked endless rounds of litigation. Owners contested both the validity of the tax laws and the justice of the government valuations (Heaton 1925:424-33).

Several social, economic, and physical factors seem to have contributed to the relative success of Australia's land taxation scheme.

First, the tax movement was broad based. It appealed to citizens who were politically conservative in all other respects (Groves 1949: 28) but who were willing to work with progressive groups to counter the opposition of large landowners.

Second, economic conditions during the period of tax legislation were conducive to the shift from pastoral to cultivated agriculture. Product prices were high and were expected to remain so as domestic and foreign markets expanded. Cultivation technology was improving rapidly.

Third, there was an abundance of new immigrants eager and able to purchase land. Many of them had already developed farm management skills in their home countries.

Fourth, Australia is divided into distinct climatic zones, some with adequate rainfall for cultivation and others that are unsuitable for cultivation. This natural division worked along with the structure of the land tax to ensure that land subdivided into tax-exempt parcels could be economically and ecologically farmed in small units. The large stretches of arid land, meanwhile, continued to provide meat, wool, and hides, the pillars of the export economy.

Fifth, Australia was sparsely populated and wanted to increase the numbers of rural settlers. This desire was a prime motivation behind the land tax.

Finally, Australia began its redistribution program with a clear land titling and survey system well established.

Few, if any, of these six conditions prevail in developing countries today. Accordingly, considerable caution would be called for in applying the Australian model. It is also well to point out that Australia did not choose land taxation over direct land expropriation because taxation was thought to be "more effective" or "politically feasible." The political climate would probably have supported direct land reform measures. However, the Australian Constitution gave the federal parliament no power to legislate issues of land tenure. Taxation seemed the "next-best" measure for accomplishing redistribution, and the Australian experience should not be interpreted as lending support for taxation over direct tenure reform when both are viable options (Heaton

1925:423). With that in mind, and in spite of major differences between Australia's position at the turn of the century and that of developing nations in the 1980s, some valuable lessons can be drawn from Australia's experience with land taxation:

- 1) A land tax works best when it is designed to have different effects in the markets for cultivable land and noncultivable land. The tax should be sufficiently severe and progressive to encourage new buyers to purchase land in parcels of tax-exempt size. The differential impact of the tax on the prices of the various classes of land should be anticipated. Measures (such as adjusting exemption ceilings) should be taken to alleviate hardships caused by rising market values for high-quality, cultivable land.
- 2) Active enforcement is required to avoid purely nominal disintegration of large estates and to achieve real redistribution. Only painstaking investigations into suspicious land transfers can expose the innumerable methods of evading the intent of the law. Where land transfer records are accessible to the public, concerned citizens' groups can assume some of these investigatory tasks.
- 3) A land tax should be coordinated with other taxes in order to provide complementary redistributive effects and to avoid unjust cumulative tax burdens.
- 4) Valuation and assessment procedures should be clearly spelled out and designed to minimize court challenges by landowners. Some challenges will take place regardless of all precautions and channels for resolving such disputes should be clearly specified.
- 5) If the tax is successful in redistributing land, it will eventually wither as a revenue source as more and more high-value properties are divided into tax-exempt parcels. Land left in large units will generally be low-quality land of low taxable value. It should therefore be made clear in the initial tax legislation that revenue is not one of the primary objectives of the tax. Otherwise, opponents of the tax can easily point to diminishing revenue yields as justification for eliminating the tax.

Jamaica. In the late 1950s Jamaica began a property tax revision that provides another case study in land taxation. The distinguishing characteristic of the Jamaican system was its reliance on the unimproved site value of property as the basis of assessment despite the significant value of existing improvements on agricultural land. Jamaica, an island nation with a rapidly growing population, hoped through the revised tax to encourage more efficient land use. Although all of its results are not yet clear, some interesting observations on land tax design and implementation do emerge from the Jamaican experience.

Jamaica's Land Valuation Law, passed in 1956, defines unimproved site value as the market value of the land without improvements. However, removal of timber and other plant growth is not considered an improvement; the value (or drawbacks) of original vegetation is not considered (Holland 1969:246). Three taxes are levied on property: (1) a national property tax at steeply progressive rates with an average rate of 3 percent and exemptions for properties valued at less than £1,000; (2) a local tax at slightly progressive rates which vary according to the locality, with no exemptions; and (3) service taxes for specific local services such as fire and police protection and utilities. The national and local taxes are progressive with respect to individual operating units regardless of the number of owners of a unit or the amount of land in separate units that any one person may own (Bird 1971:10). The local tax, because it lacks exemptions, produces more revenue than the national tax. Only 2 percent of all holdings (but well over 50 percent of land value) are greater than £1,000 in value and are thus subject to the national tax (ibid.).

The Jamaican experiment shows that unimproved site valuation is feasible. Proponents of the tax claim that this method is not only possible but also easier than valuation of land plus improvements: land surveys are quicker and less detailed, record-keeping is simpler, and evaluation is more equitable (Holland 1969:249). Aerial photography was used, and a small technical staff was able to carry out the revaluation.

However, Jamaica's main reason for excluding improvements was not to reduce administrative burdens and costs, but rather to encourage more efficient land use while preserving incentives for investment. In this regard consultants to the Jamaican government were divided on the desirability of temporary versus permanent exemptions for new improvements. Jamaica opted for temporary exemptions. This allows for flexible judgments about the kinds of improvements to exempt and for how long and provides a basis for higher revenues in the future. Of course the temporary exemptions apply only to prospective improvements, not existing ones. However, Jamaica's special exemptions for some future improvements have encouraged two types of political pressure--"me too" and "give me more": special interest groups lobby for wider exemptions covering more kinds and greater values of improvements for a longer time (ibid.:284). Proponents of permanent unimproved site valuation argue that it is comparatively more evenhanded and less vulnerable to tampering. It also has potential for increased revenue through higher tax rates on unimproved value rather than lower rates on larger assessed values.

Unimproved valuation nevertheless presents difficulties of its own. It is difficult to gain political support for increased tax rates. Revenues increase as the tax base expands, but these increases in the unimproved base are not commensurate with development, even if all sites are revalued regularly (ibid.:269). Slow growth of revenues produces problems for local governments that rely heavily on the tax. Another difficulty involves investments that give properties high income value.

Such highly developed parcels would have a low property tax burden relative to income. This can become a serious problem unless income from property is taxed through other channels. In any case, unimproved valuation appears to be more appropriate for agricultural land than for urban land (ibid.:277).

Jamaica demonstrates the manner in which all levels of government can benefit from one set of assessments. Both national and local governments rely on revenues from the property tax and save substantially because they share valuation records and administrative expenses. In addition, both levels of government have complementary advantages in tax enforcement: the local government is responsible for a small area and can more easily detect evasions; the national government has access to comprehensive land records and is not so likely to be swayed by a few locally influential landowners.

The successful implementation of a property tax in Jamaica has been credited to simplicity of administration and the choice of practical rather than theoretically correct methodologies (Bird 1971:9). Instead of pursuing a full legal cadaster, Jamaica conducted a simple land survey. Exempting holdings of less than £1,000 in value further simplified the valuation task. The decision to make the tax progressive with respect to parcel value rather than the value of the scattered total holdings of particular owners was not attractive in terms of theory, but it greatly simplified the process of setting rates. Jamaican planners set simple objectives of a steady revenue supply and more efficient land use. They did not complicate the scheme by including numerous exemptions and penalties. All of these factors increased the government's ability to identify and value property, and to determine tax liabilities with a very small professional staff, in a relatively short time.

Evidence about the breakup of large estates after the imposition of the tax is not conclusive. In general it is believed that the redistributive effects of the tax have been greatest on large and valuable properties, but that the tax rates were too low to induce substantial land transfers. However, some specific cases of land sales and changes in land use attributable to the tax have been documented (Holland 1969: 263).

In summary, the Jamaican experience demonstrates the feasibility of implementing a land tax with a low budget and a small administrative staff. It provides an opportunity to study the workings of unimproved site taxation and to appreciate the importance of simplicity and practicality to successful tax administration.

Japan. A third case in land taxation, the tax instituted by the Meiji government of Japan in the late 1800s, is often proposed as a model because of the rising agricultural productivity and rapid industrial development that occurred in Japan during and following that period. Close examination of the historical facts reveals that much of the progress attributed to the tax is due to a complex combination of

factors. Nonetheless, there is something to be gained from studying this Japanese experience with land taxation.

The Meiji tax must be evaluated in the context of several preceding centuries of taxation of agricultural land. During those centuries, peasants had become accustomed to paying approximately 40 percent of their annual rice harvest to local feudal governments (Choi 1975:411). A comprehensive cadastral survey of most regions had been carried out in the late 1500s and this provided a basis for levying and enforcing the tax. The land tax was collectible because the ruling class had gradually been transformed from landowners to salaried government officials. As landowning became less prestigious, the political difficulties involved in imposing a harsh land tax decreased. During the years before the Meiji government rose to power, substantial investments in rural infrastructure had been made. Flood control, irrigation, drainage, and market access systems were all well developed (Bird 1974:120). By the time the Meiji government took over in 1868, the rural population was accustomed to being heavily taxed, the agricultural infrastructure was adequate, and the ruling class was favorably inclined toward land taxation.

One of the acts of the new government was to reform the ancient tax system. The prime objective was to correct traditional injustices and win the support of the peasantry by rearranging the tax burden in an equitable way while maintaining revenue yields. Specific reforms phased out in-kind payments, levied taxes on individual producers instead of entire villages, and imposed a uniform tax rate based on the capitalized value of net farm income in an average production year. In addition, a new and elaborate nationwide cadastral survey was undertaken. It required eight years to complete and cost the equivalent of one year's entire land tax revenue (ibid.:117). The tax continued to be the chief revenue source until the beginning of the twentieth century (Choi 1975: 417).

The successful Japanese land tax depended on favorable conditions that do not prevail in the third world. Even so, some aspects of the experience may be relevant to developing countries.

- 1) The maxim that "an old tax is the best tax" appears to have held true. The Meiji government chose to rely on a tax to which the people were accustomed. Instead of trying to create new bases of revenue, they improved an old one, making it more stable and more equitable (ibid.:418).
- 2) The Meiji experience provides an example of a successful and complete nationwide cadastral survey, and gives some idea how much such a survey can cost--in this case, one year's tax revenue.
- 3) The Meiji reforms illustrate the importance of involving local governments and traditional community structures in tax programs. The new central government claimed the power of taxation

for itself and levied taxes on individual producers instead of village communities, but primary responsibility to report production levels and title changes continued to rest with village officials. This design took advantage of a long-respected authority structure to enforce the tax.

- 4) The tax was regressive, falling mainly on medium and low income peasants because the ruling classes no longer owned rural land. This regressivity made the tax politically acceptable to those in power (ibid.:420).

"The lesson from history is that there is no one lesson, either from Japan or elsewhere, which is readily applicable to developing countries in general" (Bird 1971:29).

LAND REGISTRATION AND TITLING

Rights of access to land are not self-defining; all societies establish special methods to define and to facilitate transfer of possession and use rights. These issues are particularly important in the early stages of development when land is usually the most important productive resource and capital is scarce. Where land is treated as community or tribal common property, customary rules and procedures have been worked out for the determination and transfer of use rights, both within and between generations. The discussions that follow refer to systems where private property in land prevails.*

Functions of Land Registration

A land registration system is an organized set of principles and legal provisions intended to govern the functioning of the registry institution in a particular country, and it should pursue three main functions (Franco-García 1970):

- 1) Security. To protect the rights of the legal owner against interference by third persons, land registration must provide owners with undisputable evidence of title. Rights protected include the rights to use, manage, and develop the land owned, and to transfer them by inheritance, grant, or sale (King 1979).

* Rudolf Sollanek, former research assistant in the Land Tenure Center and student in the Department of Agricultural Economics, University of Wisconsin-Madison, assisted in the preparation of this section on registration and titling.

- 2) **Publicity.** Land registration must openly and legally inform the public about the prevailing state of landownership.
- 3) **Transfer.** Land registration must provide ways to accommodate changes in and/or limits on property rights in real estate.

By providing a clear identification of land and its owner, and by stating the owner's rights as well as encumbrances, registration improves the process of transferring and marketing land. The guarantee of an owner's rights encourages productive use, and improved marketability can bring about a more efficient allocation. Increased marketability of land may also help to raise productivity by allowing consolidation of farm units and/or better access to land for small farmers or small-farmer cooperatives. If registration provides security and the information is publicly available, land titles may have many uses and applications; one of the foremost, perhaps, is providing a basis for extending credit, so that landowners are able to acquire additional resources to make their land more productive.

Legal provisions, important as they may be, are not the only needs of an efficient land registration system. Adherence to legal principles can lead to a complicated titling system, but simplicity of the registration procedure is also a critical concern. Simplicity is essential if the title system is to be readily understood by those who will become owners of land. Otherwise, it is unlikely that the titling program will earn the confidence of the operators of small farms who lack legal title, or of landless workers who want to acquire land. Legislative and administrative requirements should be readily intelligible and preferably translated into the vernacular language; legalisms--including overzealous professionalism on the part of registry employees--can be counterproductive (West 1972).

Closely linked to the need for simplicity is a need for an inexpensive process of registration, a system affordable to small farmers. If the administrative steps are few and simple, the fees to be paid by owners can be reduced accordingly, as can the costs of travel to towns where registry offices are located.

Another way to make titles more affordable is to fix fees for legal advice and notaries at rates linked to the value of the parcel to be titled. Such rates should of course be well publicized and uniformly applied.

Another factor, closely related to simplicity, is timeliness. The registration procedure, whether first inscription of title or transfer of an existing title, should be accomplishable quickly, so that owners are able to plan and invest with greater security. Sometimes, in practice, titling has taken far too long. Following the land reform in Bolivia, a decade passed before many beneficiaries received legal title (Thome 1970). In Costa Rica, title requests made in 1950 were still

pending in 1969. Such delays create insecurity for farmers as well as social unrest and conflict in rural areas. In Bolivia, peasant farmers desperate to secure their rights bought bogus titles from their former landlords. These worthless titles did nothing to increase security. As reform beneficiaries died or moved, heirs or neighbors occupied their land. Parcels originally received by the beneficiaries were divided, and when legal titles were finally issued, they and their corresponding register entries were obsolete (Clark 1969).

Protection of Tenant-Tillers

A land titling system should protect those who work the land and thus encourage the productive use of agricultural resources. A registration system should therefore try to extend its benefits not only to holders of "superior interests"--landlords--but also to holders of "derivative interests"--tenants. Measures should be taken to improve the security of tenants and help to integrate them into a market economy. Tenancy boundaries could "be demarcated and surveyed and a memorial of each tenancy . . . entered as an encumbrance on the title of the superior interest holders" (West 1972). To stimulate investment and land improvement, leases between landowners and tenants should run for six to ten years, and regulations about compensation due tenants for investment and land improvement should be clear and enforced.

A land registration system does not prevent the economically or politically powerful from maintaining or even acquiring unequal access to land, particularly when land registration is left to the voluntary initiative of the individual holder (King 1979). Unlike small-scale farmers, prosperous landholders can afford the expense and time required to secure title. A striking example of a land registration system that did not provide fair and equal access to land for those who worked it was an irrigation project undertaken in Guatemala during the early 1960s. This project was planned, financed, and implemented by the Guatemalan government. A great part of the land in this semi-arid area was cultivated by peasant farmers, most of whom lacked full, legal titles. The Guatemalan Ministry of Agriculture apparently was unconcerned about existing tenure problems in the project region when it carried out feasibility studies, technical design, and implementation. As news about the project spread, wealthy individuals began buying up land. Smallholders were denied rights to use irrigation water under the project unless they could show legal title to the land they worked. Credit to cover expenses of the lengthy and costly titling procedure was unavailable. Small farmers of course became subject to pressure from powerful neighbors; without definite title they were easily persuaded to sell their land. This concentration of property could have been avoided if the Ministry had followed a land titling program, before the beginning of the irrigation project, to secure the interests of the small farmers who had worked the land for decades or generations.

Land Titling, Credit, and Land Use

Quite often a land title is mandatory for farmers seeking bank credit. Usually land titles must be recorded in the public register before the owner can mortgage his land, although in some Latin American countries this is really a customary practice (in Costa Rica, for example, the Civil Code does not require that land be titled before it can be mortgaged). There is also, in many Latin American countries, no requirement that mortgages be recorded in the registry.

Farmers without full title to their lands must seek credit from informal lenders: friends, relatives, shopkeepers, and moneylenders. Security for this kind of credit is generally a promissory note co-signed by several personal sureties (Salas et al. 1970). Substantial amounts of credit can also be secured, at times, by mortgages on farmers' livestock (mainly cattle) or crops.

In Costa Rica, for instance, credit by cattle mortgage can be obtained fairly rapidly and inexpensively. As a consequence, many small farmers in Costa Rica--including many who do not have title to their land--have shifted from crop production to cattle ranching.

This sort of banking credit may well have harmful effects on agricultural development and rational land use. If a small farmer, particularly one without title to land, finds that his only access to credit is cattle, he will tend to concentrate on cattle even though the land is better suited to rice or beans. Grain and other crop producers must compete with cattle producers for credit, and as the volume of credit for cattle operations rises (at least in the Costa Rican experience) the amount of credit available for producing basic food crops declines. In Costa Rica the National Council of Production officially guarantees bank credit to small- and medium-scale farmers for agricultural production, particularly food crops, but in practice the Council does not guarantee loans that are not backed by land titles (ibid.).

Although the farmer without land title may have access to credit, a full title can provide the farmer wider, quicker, and often cheaper access to credit, with more freedom to choose among credit sources. Furthermore, full title to the land--and with it long-term security of expectations--may encourage the farmer to seek credit for increasing agricultural production through long-term investments.

Research assessing the impact of title security on farmer performance was carried out by Salas et al. (1970), who studied two Costa Rican farming areas, one settled in the early 1900s and another settled between 1940 and 1960. These studies showed a significant positive relationship between greater tenure security and the level of income per farm. Two simple regression models employed nine degrees of tenure security, with illegal squatters categorized as least secure and farmers holding a legally recognized and registered land title classed as most

secure. The dependent variables in the models were income and investment, per farm and per hectare. Among various factors positively correlated with increased agricultural output, full title to the land was the most important.

As instruments of land market intervention, land registration and titling are perhaps of secondary importance in most cases, in terms of providing wider access to land for the rural poor. Nevertheless, many small-scale, low-income farmers are working land for which they have no clear title, or on which they subsist as tenants with insecure status. Increasing tenure security for these farmers through titling and tenancy-rights measures could provide substantial benefits.

FINANCING LAND TRANSFERS: CREDIT INSTRUMENTS

Providing the appropriate credit instruments and institutions to serve a land market and to facilitate land transactions is a long-standing and well recognized problem. Short-term credit for six to twelve months is usually sufficient for the financing of trade in commodities, and three- to five-year loans may be adequate for financing machinery or livestock. But land is a perpetual resource and returns on investments in land are generally quite low. Because land is immobile and because its productive capacity is durable and renewable, banks and other lending agencies will provide longer-term loans secured by mortgages on landed property. Although lenders do not as a matter of policy relish the thought of foreclosure when mortgage payments are in default, their legal right to foreclose and take the property is inherent in the mortgage contract.

Mortgage credit for relatively large commercial farms is usually available from special mortgage-credit institutions or government banks as well as from some private commercial banks. In mortgage loans to such large enterprises, the lender's basic security is not reliance on the legal provisions of the mortgage. Rather, the lender relies upon evidence of entrepreneurial and managerial capacities of the borrower, upon the productive potential of the land, upon the availability of markets for inputs needed and commodities produced, upon the infrastructural backdrop of production services and transport, etc. A productive piece of land, high quality management, markets, and the necessary infrastructure for providing services are the essential ingredients of a productive and profitable enterprise. It is obviously conceivable that a catastrophic depression, a long and severe drought, or some other calamity could force even the most productive of large agricultural enterprises into bankruptcy, and in such mostly unforeseeable circumstances the mortgage does indeed provide protection for the lender, but, in general, the credit-worthiness of large, well-managed commercial farms is relatively easy for lenders to appraise.

Yet how does a lender go about evaluating the credit-worthiness of the many farmers whose managerial capacities are not well known, or the productive potential of the many small tracts of land scattered throughout a nation? How can market access to inputs and for products be evaluated? Are these scattered small-scale farmers (when they want a mortgage) able to get the necessary services from cooperatives, private firms, or government agencies? The sheer number, distance, paperwork, and uncertainties involved in trying to provide mortgage credit to large numbers of small farmers present obstacles that do not arise in evaluating and providing mortgage credit for a relatively few large commercial farms. Because of these obstacles, existing credit institutions might be unwilling or unable to provide mortgage credit of the kinds and amounts needed.

Land Sales: Guaranteeing the Seller

To overcome some of these difficulties in serving the credit needs of small farmers in developing countries, the U.S. Agency for International Development (USAID) has introduced the concept of a land sale guaranty (USAID 1975b). A Land Sale Guaranty Fund, part of a USAID loan to Ecuador in 1970, had the basic function of guaranteeing private sales by large landowners to cooperatives formed by tenant farmers in the Guayas River Basin. This was to be a pilot project (there was no precedent in Latin America or perhaps elsewhere with this sort of program) and it was thought to be feasible only in limited parts of Ecuador. The main requirements for a workable guaranty scheme are, of course, current landowners willing to sell and large numbers of potential landowners willing to buy. In the Ecuadorean case, these conditions seemed to hold. Large landowners seemed willing to sell; indeed, at the end of the 1960s, some were already subdividing and selling off parcels in fear that the 1964 land reform law might be enforced. That law promised an end to all rental arrangements by 1972. Tenants, however, were getting increasingly impatient with the slowness of the agrarian reform machinery, and land invasions by tenants reached a peak in 1968-69. "Even the more efficient farming operations," wrote one analyst, "were plagued by such conflicts. For example, tenants on the largest and reputedly most modern hacienda on the coast (a diversified, foreign-owned enterprise utilizing only 52 percent of its land) were reported to have refused payment of the required rent for 3 years Part of the hacienda, in fact, had been invaded, whereupon its administrators offered to sell the occupied land to the tenants, 'provided that such a transaction be guaranteed by the National Development Bank'" (Zuvekas 1976, citing CIDA 1965).

These circumstances--especially the lack of progress in land redistribution under the 1964 law and subsequent legislation and the willingness of at least some landowners to sell--prompted the design of a program to guarantee private land-sale transactions and to provide credit and technical assistance to small farmers acquiring their own land. The

program was financed by a USAID loan of \$3.6 million, accepted by Ecuador in late 1970, and implemented through a newly created trust fund in the Central Bank of Ecuador (Zuvekas 1976). Groups of farmers were to be organized by various institutions that would promote cooperatives. A land purchase agreement and farm plan were to be developed in each case in which a sale guaranty was sought; all agreements and plans had to be approved by representatives of the Central Bank Trust Fund, the Ministry of Agriculture, and the participating financial institutions (including the government's agricultural development bank as well as several private banks). Land was to be purchased under a three-party agreement: the seller would pass title to the cooperative; the cooperative would amortize the loan over a period of five-ten years as determined by the farm plan; and the cooperative would make payments directly to the participating financial institutions, which in turn would pay the seller over the same period. If the cooperative failed to pay, the participating financial institution had to pay the seller but could then begin foreclosure procedures against the cooperative or, if it chose, make a claim against the guaranty fund in the Central Bank. Agricultural credit for the cooperative was to be handled by the participating financial institution as a normal ongoing credit operation, with defaults again backed by the Central Bank guaranties (ibid.; see also Blankstein and Zuvekas 1973, and Casals 1973). As a result of new laws and changes in government, however, more direct measures of land redistribution have since been adopted. The guaranty mechanism was never used and its prospects as an agrarian reform technique cannot be ascertained from the Ecuadorean experience.

Other land-sale guaranty mechanisms were recently introduced on a small scale in Costa Rica and, in legislative form at least, in Nicaragua (Robert R. Nathan 1978); the technique is also being considered by some other countries in the Central American and Caribbean region. The Land Sale Guaranty Fund in Costa Rica was part of a project that also included land titling, and the implementing agency in this case was the National Institute for Lands and Colonization (ITCO). ITCO would establish and administer the means to provide guarantees to landowners to encourage them to sell their lands to campesino groups on reasonable terms. Under provisions that were a modification of the Ecuadorean plan (in fact the Costa Rican Loan Agreement was signed in August 1970, three months before Ecuador's), there would be: (1) a land purchase agreement among the buyer, the seller, and ITCO (the guarantor); (2) an ITCO regulation governing the application of the land sale guaranty fund; (3) an agreement between one of the commercial banks and the buyer about the provision of agricultural production credit; and (4) an agreement between the buyer and the Ministry of Agriculture about the provision of technical assistance (USAID 1975b). ITCO would also prepare a farm plan for each buyer with the concurrence of the participating bank and extension officer. If the buyer were unable to pay, ITCO would draw on the guaranty fund to pay the seller. If the buyer at a later date "caught up" on the payments, a new guaranty fund would be built up. It was anticipated that the fund would grow to the point of providing the backing for continued guaranty activity beyond the life of the initial project.

The plans certainly recognize the critical need for good coordination among ITCO, the Ministry of Agriculture, and the national banking system in providing their respective services.

For several reasons, the Costa Rican land sale guaranty had resulted (as of 1975) in loans to only five small cooperatives. Chief among these reasons was the buyers' lack of funds for down payments. Also important has been Costa Rica's high inflation rate, which has encouraged present owners to hold their lands as a hedge against inflation. Because of that inflation, too, down payments as high as 66 percent of the total purchase price have been asked, and those paid have been 40 percent on the average. The few new owners have had problems getting established, especially in their first year; all five of the cooperatives have used the guaranty at least once to make payments.

However, in a separate effort ITCO formed seven additional cooperatives that also purchased land. In these seven cases, landowners accepted ITCO bonds for the down payment for the land; in the five cooperatives formed under the land sale guaranty mechanism, landowners had required cash down payments. An internal USAID memorandum of 8 August 1973 suggests that irregularities in the ways in which the lands had been acquired made these seven properties ineligible for land sale guaranties under standard procedures: the seven farms had been expropriated by ITCO, invaded by small farmers, or repossessed by ITCO.

According to USAID (ibid.), several factors determine whether and on what terms a landowner will participate in a land sale guaranty program. These conclusions do pertain, in a strict sense, to the Costa Rican case, but most of them are certainly significant for other developing countries as well:

- 1) If a country has a high inflation rate, land may be one of the safest ways of protecting capital and landowners may be reluctant to sell with or without guaranties.
- 2) If campesinos are invading or threatening to invade landowners' holdings, or if the government looks likely to expropriate the land in the near future, it may seem prudent to landowners to participate in a land sale program.
- 3) If the courts or other government agencies have shown an unwillingness to allow foreclosure upon default in payment, landowners may well be unwilling to participate in a program of "guaranteed" sales.
- 4) If bonds offered in payment for properties are discounted heavily by the market and/or have a low yield, landowners may seek a greatly inflated down payment before selling.
- 5) On the other hand, if bonds offered in payment for one property are accepted at face value by the government for payment of

taxes on other properties, landowners may be inclined to accept the bonds in lieu of high down payments.

- 6) If loans are backed by a "guaranty" to ensure payment, landowners will probably find more assurance when guaranty funds are held in trust rather than simply promised by the government.
- 7) If taxes are high on uncultivated land--and if those taxes are actually collected--landowners may find another incentive to sell.

A USAID report (1975b) compared the Costa Rican and Ecuadorean experiences, and drew a number of conclusions:

- The programs had limited impact, but did benefit some small farmers who otherwise might not have been reached.
- In Ecuador, the loan probably acted as a catalyst for drawing the Central Bank into the field of development finance.
- Land sale guaranty programs are complex in design and require a range of services which may seriously overburden host government capabilities.
- The premise that owners would be willing to sell if payment were guaranteed was not tested in Ecuador (where other government policies made the guaranty largely irrelevant) and did not hold in Costa Rica (where sellers demanded very high down payments in addition to the guaranties).
- The premise that small farmers have a strong desire to own land held true in both countries, but "desire" did not translate into "effective demand." Lack of money for down payments was probably the single most significant factor limiting the Costa Rican program.
- An AID requirement preventing disbursement of guaranty funds until there was an actual default caused difficulties in both countries, as did the contradiction posed by the necessarily permanent nature of the fund, on the one hand, and the relatively limited disbursement period of the AID loan funds on the other.

The USAID report (1975b) also offered specific recommendations for future proposals:

- 1) Land sale guaranty programs should be considered only where there is strong host-government support for agrarian reform, and where AID projects will not duplicate national programs.

- 2) Willingness to sell (supply) and ability to buy (effective demand) should be verified rather than presumed, and prices should be made consistent with appropriate standards as verified by soil classifications, a land use survey, or other means.
- 3) To achieve economically viable size, most land sale guaranty programs will have to deal with organizations of small farmers holding title as a group.
- 4) Successful implementation requires careful coordination of several government agencies which have not only technical know-how in agronomy, accounting, extension work, etc., but also the ability to provide these services to campesinos.
- 5) The guaranty concept and AID policy may need to be revised (e.g., to allow partial disbursement in advance of default claims) to provide for greater flexibility in the use of the guaranty fund and for continuity of the fund beyond the initial AID disbursement period.

Mortgage Credit: Guaranteeing the Lender

The land sale guaranty is not the only possible way of utilizing credit instruments to make a land market more flexible. The direct guarantee by government of loans by local credit agencies, which lend directly to farmer-buyers, is another possibility. In the United States, for example, the Farmers' Home Administration (FHA) operates in approximately this fashion. FHA is one of the institutional developments that grew out of the deep depression of the 1930s (Brown 1962). It was established to provide credit for tenants to buy the land they worked, and to provide credit for farmer-borrowers who might not be judged credit-worthy by ordinary bank standards. It was basically intended to make credit accessible to lower income people who lacked resources and the ability to make a substantial down payment. FHA loans, under financing provided directly by the government, could be made for 100 percent of the purchase price of a farm. FHA still provides loans for farmland purchases and for farm improvements by farmers without other credit resources; it also makes credit available to small rural towns for such projects as construction of water and sewage facilities.

A feature added to the design of the FHA since the 1930s allows it to guarantee loans made by commercial banks or other lending institutions to farmers meeting FHA criteria. This guarantee provides private lending institutions the assurance they need to enter into high-risk transactions. The risks are borne largely by the FHA, which also provides an interest rate subsidy to reduce borrowers' costs.

A program with some of these features was proposed for the Central American Bank for Economic Integration (CABEI), a multinational public

development bank headquartered in Tegucigalpa, Honduras. According to USAID documents (1975a), it was proposed that USAID provide a \$10 million loan and that CABEI provide a \$2.5 million contribution to a program in which primary lenders would be using as much as \$4.2 million of their own funds, giving program funds totaling \$16.7 million. That is, about 25 percent of the contribution would come from primary lenders or individual banks within the five member countries of CABEI.

The loans were to be made to small farmers or to landless farm workers to assist rural farm families in buying and owning sufficient land to improve their standard of living. It was assumed that the secondary mortgage markets to be created would not produce inflationary pressures by putting too much money in the hands of land sellers. It was also assumed that private investment capital would continue to be available for long-term, fixed-rate investments. Assumptions about the lack of inflationary impact were based on the calculation that the \$16.7 million mobilized by the project would finance approximately 41,750 hectares of land purchases or about 8,350 farms. This volume represents less than 3 percent of the 1,550,000 hectares of land rented annually by some 267,000 small farmers in Central America; therefore the project funds would not exceed demand for land purchases and the project would demonstrate to the private sector the value of increasing local financial participation in land-sale mortgage financing.

The program was intended for small farmers who did not own the land they farmed, or who did not own enough land to utilize family labor and earn a reasonable family income. These potential beneficiaries were believed to be mostly in a transitional phase on their way to becoming modern commercial producers. That is, they were aware of the benefits of modern cultivation practices, improved seed, fertilization, and production credit, and had the potential to produce a marketable surplus above their family's needs. However, they lacked the long-term financing needed to buy land. Although they demonstrated the willingness and the capacity to pay for their land, they lacked credit geared to that capacity. As a result, a large share of what they produced was diverted from the needs of food, shelter, health, and education to perpetual payment of land rent.

The proposed \$10 million USAID loan plus the \$2.5 million CABEI contribution would provide the initial capital for financing the purchase of farmlands by small farmers in predetermined pilot areas. CABEI would buy small farm mortgages from local mortgage institutions--rural credit institutions, savings and loan associations, commercial banks, etc.--which had extended (or would extend) loans to small farmers for purchases of farmlands. (In countries where government land credit banks existed, or could be created, CABEI could buy mortgages from such banks.) Loans would be secured by mortgages on the land at prevailing interest rates; repayment of the mortgages would be guaranteed by an acceptable third party. Repayment provisions would provide for annual or seasonal amortization schemes dovetailing with agricultural income cycles. The plan also called for variable payment schedules commensurate with each farmer's capacity to repay.

After the pilot project had demonstrated its profitability, it was hoped, commercial capital would become available both to CABEI and to commercial banks to expand the scheme. Third-party mortgage guarantors would probably charge a fee, as does the FHA, to cover their risks. Their costs of administration would be defrayed by the interest spread offered by CABEI. It was also assumed that the program could be continued and replicated if CABEI or its participating institutions were able to issue guaranteed mortgage notes or mortgage-backed bonds to the general public at interest rates sufficient to attract investment capital. CABEI would utilize the \$12.5 million in initial financing to purchase up to 75 percent of the primary loans. Primary lenders would invest the remaining 25 percent, as noted earlier. In this way, the primary lender could discount 75 percent of its loans through the National Agricultural Credit Banks or directly through CABEI, thereby replenishing its resources and enabling it to extend additional financing to small farmers. The 25 percent participation by the primary lender was estimated as the amount of resources that could be mobilized from the private banking sector, an important feature of the program. The proposed program was never carried out, however, and there is no experience with its practical advantages or drawbacks.

The FHA is not the only program in the United States designed to help beginning farmers get established. Other such programs are worth mentioning, though it must be remembered that they were implemented in a context that is quite different from that of Latin America and other developing countries.

The cost of farming in the United States has become so high that it is very difficult, except through inheritance, to acquire a farm big enough and productive enough to generate a reasonable income. Besides the loan program of the FHA (which provides an initial interest rate of 3 percent to qualifying farmers, who graduate to higher interest rates as their financial conditions improve), efforts to help beginning farmers deal with their cash-flow problems include the Minnesota Farm Security program and the North Dakota Beginning Farmer Assistance Laws (see Dobson et al. 1979). The Minnesota program guarantees 90 percent of a farm real estate loan obtained by a beginning farmer from private lenders and defers a portion of the interest payment. This deferral provision calls for the State of Minnesota to pay an interest adjustment of 4 percent of the outstanding loan balance for the first ten years, with provision for renewal for up to ten more years; participants ultimately repay all interest adjustments.

The North Dakota Beginning Farmer Assistance Laws provide tax incentives to land sellers. State income taxes are not charged on interest received on contracts for land sales to beginning farmers provided the contracts run for at least fifteen years with an interest rate not exceeding 6 percent. The laws also allow a landowner who sells to beginning farmers to deduct half the income received from the sale (up to \$50,000), after capital gains treatment, when computing state income tax obligations. Finally, the laws allow a landowner who leases land to a

beginning farmer to deduct half the rent received (up to \$25,000) from income taxable by the state. The North Dakota programs have attracted attention because they encourage private lenders to finance beginning farmers, require no direct outlays from governmental treasuries, and are presumably inexpensive to administer.

STATE ACQUISITION AND DISPOSITION

Governmental intervention in land markets can take the form of purchase programs that simulate some of the conditions required in a competitively functioning land market.

The Saskatchewan Land Bank

Popular movements for saving farmland from urban and other developments, for preserving the family farm, and for giving young people more chances to get started in farming have recently arisen in strength in Saskatchewan, Canada. These movements date back to the province's socialist reforms of the 1930s. In 1972 provincial legislation aimed at these goals established the Saskatchewan Land Bank Commission and the rules by which the commission would operate to carry out the purposes of the Act.*

The Saskatchewan Land Bank buys land in the open market by making what it considers to be competitive bids; the seller is free to sell land to the Land Bank or to sell it on the open market. As of 1979, about 50 percent of the bank's bids had been accepted (although the bank did not of course bid on every piece of land that became available) and it had acquired approximately 1 million acres at a total cost of about \$120 million.

The bank leases land to an eligible young farmer. Leases can continue until the farmer reaches 65 years of age, but after five years the lessee has the option to buy the land at the prevailing market price, which is likely to be higher than the price paid by the bank because of continuing inflation. Upon purchase, the farmer must pay for any capital land improvements (such as clearing or drainage) financed by the Land Bank during the period of the lease. Until the time of purchase, costs of such major improvements are paid by the Land Bank, which acts as owner-landlord.

* Much of the material in this section is derived from discussions with G.H. Wesson, chairman of the Saskatchewan Land Bank Commission, in October 1979. Other sources of information on the province's program are SLBC (1973-78).

The Land Bank currently receives about six applications for each tract offered for lease. The average age of successful applicants has been 32 years. Sellers average about 57 years of age. Frequently they are farmers without children or whose children have no interest in farming. To be eligible for a lease, an applicant must: (1) be a Canadian citizen or a landed alien; (2) reside continuously in Saskatchewan; (3) have a net worth of not more than \$120,000; (4) have an average net income of not more than \$20,000 for the three years immediately preceding application; (5) provide evidence of his or her ability to farm efficiently.

Lease payments on these lands run about 17 to 23 percent of gross product. In calculating the lease payment, a 15-year average yield on the land is used along with the previous year's product price. This calculation does not present major problems because yield data are very good in the province. The bank estimates that its lessees pay about half as much as it would cost them to rent comparable land on the open market.

Farmers who offer to sell land to the Land Bank may request a lease-back; in fact, the seller has the first option to lease if he or she meets all eligibility requirements. This device is apparently used by farmers who find themselves with too much debt and cannot refinance. An owner can also offer to sell to the Land Bank and specify the young farmer--a child or an unrelated person--to whom he wishes the land to be leased. This request is usually honored if the specified individual meets all eligibility requirements. In the early days of the program, about 70 percent of the farms purchased by the Land Bank were outright sales, in which cases the bank then advertised the land for lease. In recent years, about 70 percent have been leased back to the seller or to a member of the seller's family. Thus the program has increasingly been used as a device for land transfers within families. Farmers and their children may prefer to use the Land Bank as an intermediary for family transfers because parents can acquire needed cash without burdening children with large mortgages. The bank's program may also be attractive when children lack down payments or other qualifications for regular mortgages required in private transfers.

When the Land Bank purchases very large farms, it may break them up and lease parcels to several individuals. It attempts to establish farms of about 800 acres (320 hectares), although this size varies with land quality and type of farming. The program can also be used to enlarge a farm, up to that limit, when an existing farm is too small to provide enough work and income for a family.

The 1979 market value of the bank's 1 million acres was estimated at roughly \$250 million, more than double the purchase price. The magnitude of the program can also be judged by the following figures. The province has about 65 million acres (26 million hectares) of cropland or mixed crop-livestock land, of which the bank holds less than 2 percent. (The bank does not deal in pure livestock and pasture operations.) In 1979 there were about 2,600 Land Bank lessees out of a

total of 68,000 farmers in the province, or about 4 percent. These percentages indicate that lessees of the Land Bank work smaller units, on the average, than other farmers in the province. On the other hand, because the land in these leased farms is devoted largely to grain, the effective agricultural business unit is probably not too much smaller than average for the province.

The Land Bank Commission does not believe it has put any great pressure on land prices in Saskatchewan because it does not outbid private buyers, but rather bids only on land that is offered to it. It is estimated that once the bank has about 2 million acres in the program, it will be able to maintain the entry of young family farmers into Saskatchewan's agriculture by balancing the needs of young people entering agriculture against those of older people leaving farming (or at least meeting the needs of entrants who could not begin farming without help of this kind). There has been no great rush of young farmers to buy after leasing the land for 5 years. As of late 1979, only 70 had purchased, although many of the 2,600 total lessees have yet to complete 5 years on the land.

The Saskatchewan program offers interesting lessons and some insights into ways by which the state can intervene in the land market. It has been able to acquire land, and dispose of it, while keeping it in operation by families who have the qualifications but not the immediate finances for farming. Programs like the Saskatchewan Land Bank also provide a means to prevent an increasing concentration of land into ever fewer hands.

Other Means of Land Acquisition and Disposition

Direct and outright purchase programs like that of the Saskatchewan Land Bank place strict limits on the size of such efforts, especially for most developing nations where there simply is too little capital and too little taxing power to buy a great deal of land and hold it in this manner. And any land acquisition program should be coordinated with land tax policy. As noted earlier, there are many difficulties in trying to administer a progressive tax with a higher tax rate for larger units, but in many countries the land tax is now so low or so easily evaded that much could be done to improve the functioning of the land market and increase the state's leverage for acquiring land by instituting a land tax geared to raise revenue yet simple enough to be strictly enforced and collected. Such a tax will provide additional public revenue and it should lead to increased agricultural output. It should also make additional land available on the market. The question then arises as to who could and who would buy this land and by what means of payment.

An appropriate agency of the government working in close collaboration with landless farm workers or renters, or with farmers owning very

small units, could be given first priority for purchase of lands brought onto the market by higher (or more effective) taxes. Several instruments could be made available for small farmers' acquisition of such land. Mortgage credit might be made available for the purchase of smaller tracts. Obviously, however, a relatively low limit at which landowners could receive full payment via mortgage credit would have to be set because most countries do not have the means to finance many large land transactions without running the danger of inducing major inflationary pressures. Also, in a large-scale program, there is the danger that land sellers will convert payments into hard currency and take it out of the country; the government might then have to introduce currency exchange controls.

Land sale guarantee programs of the kind discussed earlier offer another possible instrument for acquiring land. Here again, however, landowners must agree to wait for payment over the years of amortization, and land bonds are often unattractive to sellers of land. Perhaps such bonds could be made more attractive in order to provide greater leverage for acquiring land. First, bonds could be and probably should be protected against inflation. The value of bonds could be tied to a price index of several basic commodities, as in the land reform in Taiwan, where bond values were linked to the price of rice and sweet potatoes. This technique was also used in Chile for some classes of bonds, with their value tied to the price of wheat. Tying bond values to certain commodity prices might also have an additional positive effect on agriculture by providing a countermeasure to a cheap food policy, increasing agricultural incentives, and boosting agricultural output. Bondholders would find it in their interest to have the prices of the particular commodities to which their bonds' values are tied remain fairly stable and high.

Another way to make bonds more attractive would be to create a class of bonds exchangeable for stocks in public enterprises (if such enterprises exist and if they have equity positions that make such stocks attractive). This measure was also used in the Taiwan reforms, and it is available to governments if they wish to share ownership of certain public enterprises with the private sector. It might also be a means of leading landholders into the industrial and commercial sectors and thereby providing additional incentives to bondholders. Furthermore, bonds (or some of them) could be made eligible to serve as collateral for loans from government banks for certain investment purposes. The government could define eligible investments--labor-intensive manufacturing using local raw materials and other resources, for example. They might also be made eligible for the payment of taxes on other lands of the bondholders. Again, certain cautions and limits must be established to avoid major inflationary pressures, but such pressures are less likely if there is a rapid growth in the food supply. These forces and counterforces of inflation point up the intricate interrelationships within the entire economic system: any measures to create industrial and commercial incentives for accepting land-sale bonds must be coupled with measures to increase agricultural output and, at the same time, to improve distribution and to accelerate overall development.

Another potential means of government acquisition of farmland--one that may raise constitutional questions in some contexts--calls for the state to stand ready as the buyer of farms that are greater than a certain number of hectares in size. This size limit would of course have to be determined within each country, and for regions within a country, with regard to existing land-man ratios, soil quality, etc. The same limits could be applied to inherited land. Farms of lesser sizes could be bought or sold or passed through inheritance by ordinary market criteria, but units above the size limit would have to be offered to the state, either in their entirety or, perhaps more feasibly, that part exceeding the specified limit. The state could offer the land for resale or rental to those new farmers who meet certain criteria. Mortgage credit, a land sale guarantee, or bonds with incentive provisions could be used as instruments for transferring such lands from current to new operators.

It should be pointed out that some of these measures of prompting sales and acquiring land, especially the imposition of a fairly high land tax, would also require some tenancy protection measures to prevent landlords from passing on the tax increase or other burdens to their tenants. A good tenancy protection plan could provide more security for both tenant and landlord. Proven violations might be made prosecutable grounds for expropriation, but enforcement of tenancy laws has usually been heavily dependent on strong farmer-tenant organizations. In fact, for all of the above measures, but perhaps especially for any kind of tenancy regulation, government agencies must enlist the participation of the peasants as partners of the government and not as adversaries. Most successful land reforms or other programs to modify land markets have relied on the rural people, the beneficiaries, for their implementation.

Governments must also consider some other issues of land acquisition, land disposition, and farm operation. Governments can choose to rent land to peasants rather than to turn it over to them under some form of cooperative or individual ownership. However, experience with government land rentals has not been good. In a number of Caribbean nations where governments have acquired substantial land and rented it to individual family farmers, rents have not been paid. Individuals quite often want to own land rather than rent it from the state (UWI 1978).

If the government does sell acquired land to small-scale farmers, the means of payment become a question. A land tax that is more than a token, if strictly enforced, could be one way to collect land payments. If the new owners have gained just enough new land or extra land to provide for a family's subsistence needs, as is often the case, it seems unreasonable to expect them to pay both a tax and a land amortization payment. They may simply not have enough income to make both payments. Exempting new owners from a land tax until their lands are amortized could create problems and false expectations--if they need not pay a tax now, why should they have to pay it later?

It may be a much more necessary measure for the future to get every property holder to accept and pay a land tax than to try to collect land amortization payments. The land tax should be strictly enforced and nonpayment should be grounds, except under unusual circumstances, for foreclosure. If a tax for the agricultural sector as a whole (rates could be calculated using simulation analysis) were set to cover the government's obligation for land purchases, bond redemptions, etc., then the costs of collecting and keeping amortization records could be eliminated. A land tax would raise government revenue not only from the beneficiaries but from all farmers, large and small. Sidestepping amortization problems would also permit immediate issuance of clear titles without the additional step of provisional titles, frequently considered inadequate security for medium and long-term loans by credit agencies. The government could still provide some protection for itself as well as for new owners by putting restrictions, for some years, on the resale of lands received under these kinds of measures.

Any intervention in land markets by an agency of government, especially direct acquisition, also raises one more important issue: what form of organization will be established on the lands when the government puts them back into farming or disposes of them in one way or another? This is an extremely critical matter that must be faced by every country implementing a land reform. Countries contemplating land reforms or lesser interventions in land markets must also think carefully about this question.

Problems that arise when governments try to retain ownership and rent the land to individual farmers have already been mentioned. Evictions for unpaid rents are usually so unpopular and so difficult that problems of this sort are ignored. There are, however, several alternatives that might be considered when a government acquires land and faces the need to decide upon the type of farm operation and management it will establish on this land.

In Saskatchewan's previously discussed land bank program, the provincial government leases or resells the land it acquires to family farmers, and Canada's tradition of family-scale farming is fostered and retained on those lands acquired by the government. Family farming as a form of agricultural organization is a highly productive system in the United States, Canada, Europe, Japan, and elsewhere, but high levels of productivity in a family-farm system require an elaborate service structure that ensures farmers' access to credit, inputs, product markets, technological information, etc. These services can be provided by private firms, cooperatives, government agencies, or (most likely) a combination of these suppliers, but the services must be available if agriculture is to be highly productive. Providing these services to a family-scale system in which many farms are spread throughout the countryside demands many years of infrastructural development, and for this reason, among others, governments have at times turned to some form of group farming that will, it's assumed, be easier to service.

Leasing or selling government-acquired lands to "family farmers" in Saskatchewan's fashion is a much more complicated option in developing countries, where small, semi-commercial farms must usually be established in any land redistribution program, especially when the man-land ratio is very high. Rental rates in the Saskatchewan case are relatively modest, probably no more than half of what commercial rates in the province would be, but during the time that farmers are leasing they must also pay land taxes to the provincial government; it can and will foreclose, evict tenants, and establish new people on the land if rent and taxes are not paid. Under the circumstances, in a highly commercialized and highly monetized economy with a long-standing tradition of property taxes that are indeed enforced, rental and tax collections are no problem. In other circumstances with a very uneven distribution of property, many landless farm workers, and no long-standing habit of imposing and paying taxes--circumstances that prevail in whole or in part in many developing countries--governments will have a more difficult time in enforcing either taxes or land rental payments.

Under land sale guaranty programs so far designed for Latin American countries, the proposed form of agricultural organization has been a group of farmers joined in a cooperative venture for acquiring (and in some cases operating) land. Land can of course be farmed individually even though title is held by the cooperative and public services such as credit and marketing as well as loan repayments are collectively organized. Discussion of cooperative farming must recognize the broad spectrum defined by different levels of cooperative integration. One typology of agricultural collectivism (Reed 1977, 1978) notes differences in function as one moves from the least to the most integrated forms of agricultural cooperation:

- 1) Joint operations: A group cooperates in a single operation or task. Land and capital may be privately owned but are pooled for a specific task and paid according to the amount of labor and capital provided.
- 2) Joint farming: Much the same as joint operations except that pooling of resources and joint operations center on at least one farm enterprise operated in common.
- 3) Cooperative farming: A more integrated form that includes collective operation of most enterprises. Land and capital are cooperatively owned, although individuals may have reversion rights. Payments are made to labor according to the amount of work performed, and payments to land and capital are made in accordance with the amounts that individuals contributed to the cooperative farming venture.
- 4) Collective farming: All enterprises are operated collectively. Land and capital are owned collectively, ordinarily without reversion rights. Payments are made for labor contributions only, with no payment for land or capital which individual members may have contributed.

- 5) Commune: All enterprises are operated collectively. All productive land and capital as well as housing is held communally. Distribution is according to need with a high level of collective consumption.

It is evident that agricultural cooperativism includes a diverse set of possible arrangements. There are major differences not only among different forms, but also within the same form in different social, cultural, political, and economic contexts. The key dimensions in which these differences seem to exist are ownership of resources (in some cases the government rather than individuals or the cooperative owns the land); socialization of work, including both physical labor and management; access of members to decision-making processes and the means by which the managers are chosen; distribution of output; and degree of socialization of consumption.

The cooperative form of organization in agriculture is very complex. Even with supportive efforts by government agencies, problems of effective internal organization and of member commitment and morale will arise in group farming. It is a delusion to expect that group farms have such obvious benefits to members, or such decisive economic advantages, that organizational problems are easily overcome. These organizational problems appear largely because of ambiguities in roles of both managers and members of group farms. Members are supposed to be both workers and participants in policy-making; managers are supposed to supervise the workers and at the same time be responsible to them. A common outcome of this dilemma is ineffective management on the one hand and poor work discipline and absence of effective participation in policy-making by the members on the other. This result has been called a we-they system, in which there is mutual suspicion between members and managers, and in which members have little or no identification with or control over the organization (Dorner and Kanel 1977).

Despite complexities, however, many developing countries are experimenting with various forms of group, collective, or cooperative farming. In most cases, economies of scale or production efficiency on these larger group farms are not crucial issues because experience has shown that small family farms can be highly productive if they have access to adequate credit, marketing, and technological services. In certain situations, however, large-scale group enterprises may have other advantages. For example, when large estates are expropriated in the course of a land reform, the existing infrastructure is geared to large-scale operations; major capital losses could result from subdivision into small family units. Also, where there is great diversity in land quality, a large collective unit can perhaps be more flexible than a small farm in adapting its land-use patterns to variations in soil or topography. This adaptability may become increasingly important as population pressures on the land shorten the cultivation cycle in tropical areas and force more farmers to seek a subsistence living through cultivation of steep slopes subject to soil erosion. Likewise, a single large unit may have an advantage over smaller ones in certain types of

infrastructural investments--for example, a drainage system. Many of these functions can of course be fulfilled by partial integration rather than complete collectivization.

In experiences with cooperative farming, it seems that the economic rationale for a system of group farming is likely to be based on the possibilities of effectively mobilizing labor, combining agro-industrial development with farming, making it easier for governments to serve and to control the agricultural sector, promoting a more egalitarian distribution of the benefits of economic growth, and providing a more rational system of land use and conservation. In contrast, the prospect for more efficient farm production seldom seems to be an important rationale. The primary problems of group farming will in any event remain those of effective governmental support and of internal organization that enlists member commitment and fosters high member morale.

A final form of organization that might be chosen to organize farming under various land acquisition programs is the state farm, an enterprise in which the state owns all land and capital and in which farm workers are employees as in any other state-owned or privately owned enterprise. Workers do not generally share in farm management decisions, and they work for predetermined wages. The state is the employer and the workers will likely have the same legal job security and wage-scales as other state employees. The state farm is a simpler form of organization than the cooperative. It has simpler lines of authority. A manager is hired by the state to run the operation and workers are employed under contract with certain specifications about jobs to be done, rates of pay for different types of work, etc.

Although the state farm is a simpler form of enterprise to operate and to manage, the state assumes all the risks of the enterprise. In the cooperative form of enterprise, as in the case of individual farming, the farmers themselves assume the risks of weather, price, etc. They are in effect the residual claimants of income produced by the farm enterprise. In the case of a state farm, workers as well as managers have wages or salaries guaranteed by the state. They are employees. They might be laid off or fired (layoffs are probably more difficult here than in private enterprise), but as employees they are guaranteed their income. The state is the residual claimant and any losses are born by the state.

It is impossible to generalize about the most effective or the most appropriate type of organization to establish in farming when governments acquire land. Much will depend on the existing circumstances. The managerial and decision-making experience of the people who are to be the new farmers, the ability of the government or cooperating agencies or private firms to provide necessary services, the social and political context within which farms are organized, the historical pattern of settlement--all these and many more must be understood before such decisions can be made. It is only as the people themselves--those who

will be involved as the new farmers--have a voice in deciding this question that it can be effectively answered. It is very difficult (and indeed dangerous) for "outsiders" to impose a particular form of organization on a farming community. Participation by the people most directly affected by the land disposition is absolutely essential.

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