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THE LAND TENURE CENTER RESEARCH AND TRAINING PROGRAM, 1962-69*

Peter Dorner**

Introduction

In this paper I shall present some conclusions from our research and training efforts, but the very nature of our research subject matter makes generalization difficult. Measuring the landownership, tenure, and other rural institutional patterns and the economic, social, and political consequences of existing and changing patterns is not so simple as measuring a crop's responsiveness to fertilizer. The issues are of a different kind. Nevertheless, we have confidence in the warrantability of the generalizations presented here. But before I report on them, I wish to present some data on staff participation, our training program, library and publications, and other activities.

Training, Technical Assistance, and Related Work

1. Development of professional competence at the Madison campus.

The University of Wisconsin has a long tradition of working on institutional, public policy issues. There is also a tradition of interdisciplinary, interdepartmental work, both in research and public service.

*Paper presented at AID/Washington, February 17, 1969.

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The Land Tenure Center was built on these traditions with the financial assistance of AID, foundations, and substantial support from the University.

Work under our contract with AID has focussed on Latin America, and a large number of university staff members, from Wisconsin and elsewhere, have participated in this program. Approximately 50 faculty and other senior researchers have been active in the program and have received some support during part of the period 1962-69. About half of these are among the present faculty of the University of Wisconsin, Madison. These staff members represent the following disciplines: agricultural economics, rural sociology, general economics and sociology, agricultural journalism and mass communications, anthropology, law, political science, and geography.

Work by individual staff members associated with the program has, of course, not been confined to Latin America. A number of key staff people who have been closely associated with the work of the Center have wide experience in the Middle East, Africa, and Asia. Thus, while the work under our AID contract has dealt primarily with rural institutional issues in the Latin American context, many staff members working with the Center have studied these issues in other areas of the world as well.

In addition to the Land Tenure Center (and in large part as a result of its interdisciplinary activities) three other international social science programs have been organized--in law, in the sociology of development, and in international communications. The Land Tenure Center and these three programs cooperate closely, both on campus and overseas.

2. The training program.

A major contribution of the Center has been the training of new professionals, both Latin American and North American, in graduate programs through participation in research projects, and in special courses of study built around the research problems emphasized by the Center. We estimate that about 250 students have been associated with the Center's programs for varying periods of time. Slightly over 200 have been or are now enrolled for degree work on the Madison campus. The others are Latin American students who worked on research projects in Latin America but who never came to Wisconsin for graduate work. Slightly over 100 have received some financial support for graduate study under this contract. Actually, annual research assistantship support on campus for pre-dissertation students has accounted for less than 10 percent of the financing received under the contract. Most student support has come from other sources: foundations, country AID missions, international organizations, NDEA, country governmental agencies, the Midwest Universities Consortium, the Ibero-American program, and the University of Wisconsin.

Of the 103 students completing advanced degrees in these past seven years, 56 are now with academic institutions, 27 with governmental agencies, 15 with international organizations, and 5 with private industry. Latin American students are more heavily concentrated in governmental agencies and international organizations than are North American students, although a good number of the former are with academic institutions in their home countries. Of the 103 who have received advanced degrees, 54 are Latin Americans and 49 are North Americans. With only one or two exceptions,

Latin American students who have finished their degree work have all returned to Latin America.

3. Land Tenure Center Library and films.

The Land Tenure Center Library specializes in the collection of materials dealing with agrarian reform, social change, and economic development in Latin America. In addition to material on Latin America, the library has 500-600 items dealing with Africa and Asia. The library has over 4,000 books and over 10,000 soft-bound items (pamphlets, unpublished research reports, governmental reports), has 1,500 items in a reference section (census reports, national bank reports, statistical abstracts), and receives currently about 200 newspapers and periodicals by subscription or exchange with other institutions. Many library materials are in Spanish and Portuguese.

Each week an average of 125 people visit the library to study and check out materials. More than 150 items are circulated on campus each week, and an additional 5-10 mail requests are received and answered weekly.

The Center has 12 films documenting land tenure, land use conditions, colonization, and reform projects in Colombia, Bolivia, and Chile. The Chile films have been reproduced with both English and Spanish sound tracks. In the past year, the University of Wisconsin Bureau of Audio Visual Instruction has lent these films to more than 200 users at more than 80 universities, Peace Corps training centers, and others.

4. Technical assistance and consultation.

More than 80 professional research and administrative personnel visited the Center during 1968 for consultation with Center staff. The Center has provided staff for specific short-term consulting missions requested by AID, country governments or international agencies in the Dominican Republic, Chile, Bolivia, Venezuela, and Peru. Additional requests which could not be met because of time and staff limitations came for work in Ecuador, Brazil, Colombia, and Central America.

The field centers in Bolivia, Chile, and Colombia also provide a variety of services. Small libraries are maintained and numerous professional people from Latin American governmental agencies, U. S. and Latin American universities seek information from personnel at the field centers.

In all cases, field research in Latin America is conducted in cooperation with professionals at host universities, research institutes, or governmental agencies. Likewise, we have cooperated closely with international agencies, especially the Food and Agriculture Organization of the United Nations (FAO), the Interamerican Institute for Agricultural Sciences (IICA), the Inter-American Committee for Agricultural Development (CIDA), and the Institute for Research and Training in Agrarian Reform (ICIRA) sponsored by the United Nation's Special Fund and the Government of Chile.

5. Research publications.

A primary goal of the Land Tenure Center is to make its research results widely available to other researchers, policy makers, and

administrators in the United States and abroad. The Center presently has publications organized in six series (monographs, research papers, LTC papers, LTC journal reprints, discussion papers, and training and methods series) and a periodic newsletter. About 300 libraries, researchers, and agencies receive all our publications. About 2,700 copies of our most recent available publications list were distributed, and approximately 450 requests for publications were received and filled in the four months following its distribution. The following publications (many in more than one language) have been issued, and a large number are in process: journal reprints 51; monographs 7; research papers 31; LTC papers 59; discussion papers 5; and training and methods series 7 (for a complete listing, including Ph.D. and Master's theses and a large number of non-series publications, see Appendix II of the Land Tenure Center 1968 Annual Report, dated January 1969).

Basic Issues in Development and the Rationale for the
Research Focus of the Land Tenure Center

Some universal requirements of economic development are the creation of economic opportunities, the upgrading of human skills and capacities needed to exploit these opportunities, and a system of legal-socioeconomic institutions sufficiently flexible to permit social and economic mobility for large numbers of people. In the United States we are becoming painfully aware of these requirements as we try to come to grips with the problems of rural and urban poverty. It is only in the past few years, however, that we have begun counting our poor and accepting the idea of their improved welfare and their access to economic opportunities as significant measures of progress.

In the United States, perhaps close to 80 percent of the people are firmly attached to the growing points of the economy. As the gross national product rises, these people find their incomes rising and their opportunities expanding. The remaining 20 percent are less securely attached to the growth process. The rapid rate of growth of the gross national product of the United States in the past six years has not very greatly extended the opportunities of this 20 percent. We have learned that special programs are required to create opportunities for these people who are left behind. We also know that special efforts for improving their skills and their capabilities are required. And finally, we realize now, better than several years ago, that in order to accomplish these objectives certain institutional changes are required.

But the U. S. is a rich country and in a sense we have treated this 20 percent as somewhat of a fringe problem. How different the situation is in most of the developing countries, where the proportions in the population are likely to be reversed. That is, perhaps only 20 or 25 percent of the people have any firm connections with the commercialized growing sectors of the economy while 75 to 80 percent are left behind. Consequently, the emphasis of economic policies must be different from that in the U. S. The degree of control achievable through macro fiscal-monetary policies is much less, and major emphasis must be placed on special programs for creating opportunities and enhancing the skills and the capabilities of the mass of the people.

The overwhelming tendency of the U. S. academic community is to view development as an investment process for achieving increased production. This is obviously a necessary and valid emphasis. But an additional focus

is also needed. Too much economic analysis of the development process assumes a passive role on the part of the mass of people. It is extremely doubtful, however, that significant growth and development can be furthered without active participation on the part of a very large portion of the population. Wide participation and consequent sharing in the fruits of development is not an automatic by-product of increases in production. In fact, the manner in which increased production is achieved may be more important to over-all development than the increased production itself. This issue is crucial not only for humanitarian reasons, but also for practical political reasons. It largely determines whether or not a government gets a chance to deal with technical issues. It also has immediate implications for productivity. Significant increases in production are not likely to occur while most of the population remains at the margin of the commercial economy.

In rural areas land constitutes the basic resource out of which new opportunities may be created, and land must be viewed as a vehicle for human development as well as a resource for food production. Given the rapid rate of population increase and the slow growth in available industrial jobs, it is vital to create new on-the-farm opportunities for more rural people to participate actively in the production process. Without this, all our efforts at aiding developing countries may fail.

It was with this formulation of the development task in mind that the Land Tenure Center organized its program of research and training. Five basic research areas have been emphasized, with individual projects formulated to test out specific hypotheses within each area. These five

research areas are:

1) Studies of the effects of the present land tenure system on agricultural development and modernization. This includes building a comprehensive body of knowledge dealing with landownership, land and water tenure, and agrarian structure in the countries of Latin America, and generating comparative studies between communities and countries.

2) Studies of new tenure experiments such as colonization, parcelization, and new land settlement. This includes analyzing land development schemes and new land settlement projects as specific case studies with respect to their comparative costs and the impact on agricultural development of differing methods of farm organization. These studies deal with economic, social, political, and administrative factors.

3) Studies of means of providing effective extension, technical information, market and credit services at the lowest possible cost. This includes the effect these services might have on individual farm management decisions and the adaptation current institutions will have to undergo to supply these services to small scale farmers or recent beneficiaries of agrarian reform.

4) Studies of social, economic, and political changes resulting from agrarian reform efforts. This includes an investigation of the nature and extent of change in local government organization and voluntary associations necessary to effectively draw more people into the mainstream of development.

5) Studies of the legal framework which regulate economic and social activities in the rural sector. This includes describing and evaluating the legal and administrative machinery for planning and carrying through agrarian reform programs and making comparative analyses of various structures.

Some Research Conclusions and Generalizations

I wish now to turn to some substantive research results that have emerged from the Land Tenure Center's program. The research reported in the many publications noted above will be pulled together, integrated, and interpreted for policy generalization purposes during the next 18 months.

1. Over-all land tenure patterns and relations in Latin America.

In our initial phases of research we cooperated closely with the first phase CIDA studies carried out in seven Latin American countries. These studies helped to establish, in a descriptive and analytical way, the general features of the Latin American systems of land tenure. It is always difficult but necessary to characterize the organization of agriculture and the tenure patterns. In the United States we speak of having a family farm system with a relatively small permanent work force, a larger temporary or seasonal work force, and substantial numbers of migratory workers. Of course, wide differences exist in the farm size patterns of the United States, nevertheless the system can be generally characterized, even today, as a family farm system.

In Latin America one has to recognize several dualities in the system of land tenure patterns. First of all in many countries there is the duality of a relatively small, frequently modernized and intensive export producing sector, especially in certain crops--sugar, bananas, cotton--with the domestic sector frequently much less modern, and containing the small farm sector. The export sector furthermore is characterized, at least in several key crops, by major influences of foreign capital and sometimes foreign ownership of land.

Another duality lies in the latifundia-minifundia system. This is certainly the common characterization of Latin American agriculture found in the literature, and yet it is an oversimplification because there are many tenants, sharecroppers, and family farms in certain areas of all Latin American countries.

An additional duality appears in the manner in which land rights are obtained--there is the official route of formal titles and legally recognized property rights, and the customary claims or squatters rights to ownership established by users of the land. The latter system frequently leads to tensions and conflicts over title.

Another complicating feature is the diversity of economic and social circumstances on farms. The latifundio is often portrayed as a social and economic unit where economic criteria and productivity are, at best, of secondary concern and where workers are badly treated. This indeed is a relevant description of some large farms in most Latin American countries, but fits some countries much more closely than others. In all countries where the major part of the land area is held in large units

there are deviations. It is true that low productivity and extreme poverty among workers is common, but it is not unheard of to find a very large farm with low productivity but reasonably good working and living conditions for the laborers. One can also find large farms (with hundreds or even thousands of hectares of land in cultivation) with very good technical management and high productivity, and a range of living and salary conditions for workers as great as on the low producing farms. The whole matter of reform and institutional change is thus complicated by such diversity.

In like manner, minifundia do not fit a uniform category. There are the dependent minifundia described in much of the literature, on which family labor is employed largely on latifundia in the area. But there are also independent minifundia, not closely tied to the organizational features and labor requirements of the latifundia, where family labor is used for subsistence production. And there are commercial minifundia in some areas of specialized production (tobacco, coffee, truck crops) where production decisions are tied quite closely to market criteria.

Any land reform program which involves combining small units or splitting up large ones must recognize these differences. But trying to accommodate all the differences can complicate procedures so that reform programs bog down. Three general approaches seem possible: (1) Recognize all these diversities and treat farms under a reform program case by case. This approach will be cumbersome and will not achieve very much in a short time. (2) Proceed with reform on a large scale, ignoring individual differences. This approach may get the most "structural change" in the shortest time, but it may also be very disruptive to productivity, result

in injustices that could be avoided, and set an undesirable precedent with respect to the government's relation to private property. (3) Proceed as in (2), but recognize differences through flexibility in the policy of compensation for land and in the quantity of resources left to the owner. Procedures would be the same for all, but the differences would be recognized in the judicial judgment concerning compensation and land reserved to the owner.

Generally, a certain pattern emerges with modernization of the large farms--a decline in the permanent work force, the rise of a more highly skilled but smaller labor force working in an increasingly mechanized agriculture, and a greater dependence on seasonal labor. The permanent work force of the traditional hacienda, where permanent workers attached to the large farms receive certain privileges of land use, a house, and sometimes a school, a church, and other services provided by the owner of the large farm, is declining as modernization, with its greater use of capital and machinery and its need for greater labor skills, is taking place.

There are also major migratory flows in all countries. Some migratory workers have a stable home base and may own land in another part of the country, but migrate to areas where seasonal labor is in demand. Other migratory labor flows consist of permanent migratory workers who have no particular home base.

One key feature of Latin American agriculture is the concentration of landownership and also operatorship. There is still a large proportion of the land owned and operated in large units. Along with this large farm

pattern and this concentrated landownership goes a highly skewed pattern of income distribution. At the same time, most Latin American countries, with the exception of Chile and Argentina, have 40 percent or more of their population living and working in agriculture, and in some countries the percentage ranges as high as 60 or 70. Given all historical experience to date, the absolute number of people dependent on agriculture for a living will almost certainly continue to grow. The proportional decline of the agricultural population in all countries has been a very slow process. It depends on the rate of total population growth and on the rate at which nonfarm opportunities are created. In the United States, for example, the absolute numbers in farming reached a peak about the time of the first world war. A major absolute decline did not occur until after 1940. In fact, from 1900-1940 the U. S. farm population varied within the narrow range of 30 to 32.5 million people.

In most Latin American countries the rate of increase in manufacturing employment has been relatively slow and the proportionate share of the population employed in manufacturing has been almost constant for many years. Only about 7.5 percent of the active population in Latin America was engaged in factory work in 1965, a gain of only 0.7 percent since 1950. Even when we include those engaged in various artisan crafts and so-called cottage industries, the manufacturing sector as a whole employed less than 14 percent of the work force in 1965--a slight decline from the proportion so employed in 1950. (In contrast, in the United States this figure has been double and triple this recent Latin American rate since at least 1870.)

Given high annual population growth rates of nearly 3 percent, the urban population is increasing rapidly (4.6 percent annually since 1950) because of the migration from farms to the cities, but the absolute numbers in farming also continue to grow. For example, in Colombia the number of rural people increased by one-quarter million adults (persons 15 years and older) in the 13-year period 1938-1951, and increased again by one-half million adults in the next 13-year period 1951-1964.

2. Efforts to change land tenure patterns.

Almost all the Latin American countries have passed agrarian reform laws. They have also set up agrarian reform agencies. To date most agency efforts have been directed toward colonization in new land areas, or colonization of state owned lands or state farms. There has been some work on title clarification and some steps in providing more credit and extension services for small producers. With the exception of Mexico and Bolivia, who have had revolutionary reforms (and also Cuba, about which we are not well informed) none of the Latin American countries have made much progress in changing land tenure patterns. Venezuela and Chile have made some progress in trying to restructure their agricultural systems by orderly means, but the results have not been so dramatic as in Bolivia and Cuba. Yet progress here is immensely greater than in most Alliance nations; Venezuela has created more than 60,000 new farm owners since 1960; Chile in the past four years under the Frei administration has settled approximately 12,000 new farmers on land previously held in large farms but expropriated because the land was either unused or producing very little.

3. A key issue--size of farm and productivity.

There is a widespread belief that the large farm is a more efficient farm, that it produces more. In a curious turn of events--all the political conservatives become Marxists when they look at this question. After all, Marx argued over 100 years ago that the economies of scale in farming were similar to those in industry and, therefore, the advantages of large scale farming were so evident that the small peasant farmer had to be eliminated. Toward the end of the 19th century and in the early years of the 20th, the Marxists argued long and hard over this question, bent the statistics wherever needed to try to prove their point, but experienced major difficulties with the peasants of Eastern Europe and Russia who did not wish to be collectivized; but additionally, there simply was no strong evidence to support the scale economy argument.

The issue continues alive even today. If we consider differences between labor saving technology and land saving technology we see that economies of scale are primarily related to labor saving techniques. Land saving technologies such as improved seed varieties, fertilizer, insecticides, and improved weeding, can usually be applied equally well and efficiently on smaller farms. Under conditions of abundant rural labor and continuous rapid population growth, and with increased numbers in the rural sectors all but certain, productivity per unit of land is the most relevant measure for policy purposes over the next 10 to 20 years. Of course there is merit to the argument that output can be increased by use of tractors and tillage equipment (for more timely operations and better tillage), but this issue has been resolved in many

countries by either small scale equipment or cooperative use of these machines. Obviously labor productivity needs to rise if the standard of living is to be increased, but right now modernization, as it is taking place--and it is taking place throughout Latin America--increases the rate of growth in agricultural output in a very selective way. It does not apply to all commodities and to all regions, and it is occurring as a result of mechanization and elimination of employment opportunities in the agricultural sector.

Size of farm and economies of scale are false issues if these are argued on the basis of productivity per hectare. A large number of studies of our own as well as those conducted by others in Latin America have found no evidence that the productivity per unit of land is higher on the large farms; quite the reverse. Studies have consistently shown that output per unit of land, and in those studies where this was measured even the amount marketed per unit of land, is inversely related to farm size. This conclusion holds not only for Latin America, but is also supported by a large number of studies from other nations around the world. We have recently pulled together the evidence on these matters and it is presented in Appendix III of our 1968 Annual Report.

Now it might be argued that the larger productivity per unit of land on existing smaller farms is no real evidence that new units to be created by splitting up large farms would likewise show such increased production per unit of land. For example, perhaps the entrepreneurial capacity is not available for operating many new farms at the same managerial level at which existing small farms are operated. However, here again we have looked at a number of cases of post-reform experience--in Mexico, Bolivia,

Chile, Japan, Taiwan, Egypt, Yugoslavia--and in all cases the evidence shows that average productivity per unit of land increased rather substantially after the reform--the reforms which in all cases involved a reduction in size of farm units.

Our Bolivian studies, based on samples in many areas of the country, show that output has increased on at least 50 percent of the holdings--in some cases a severalfold increase due to a shift to more intensive enterprises. The performance of the ejido in Mexico, as reported in the 1960 census of agriculture (which became available in 1965) proved much better than had been supposed from the evidence of the 1950 census. The ejidos actually doubled their production from 1940 to 1960 while their labor force rose much less and their use of capital and other externally generated factors of production remained at a low level. The expenditures for external inputs per unit of output was much lower for the ejidos than for the larger farms in the private sector. Since the private farms also receive more of the benefits of public expenditures, the ejido production is, in fact, much cheaper in a social-account opportunity-cost sense than the production from the large scale private farms.

Of course the size of farm issue in the Latin American setting is complex. The problem includes prevention of subdivision into additional minifundia and consolidation of these very small units into larger holdings or cooperative farming units. These, however, are not urgent matters so long as the population presses on the land resources and there are insufficient opportunities elsewhere. Little action can be taken on this question at the present time.

A second problem is the size of units to establish in colonization of new land areas or in land reform projects. These units are sometimes too large, resulting in a perpetuation of the absentee landlord system operating with hired labor.

However, the key issue, it would seem, is the subdivision of the larger, traditionally farmed haciendas, and/or efforts at their modernization. Modernization, as mentioned earlier, is occurring and will continue to occur with relatively capital intensive techniques if land remains in large ownership and operating units, or with relatively labor intensive techniques if the land is subdivided.

Key factors in this situation are population growth and the need for employment and income. Latin American development needs increases in total agricultural output, increased employment, and increased productivity per farm worker. The combination of all three is more likely to be obtained by subdivision of the traditional hacienda, while their modernization as large units will give increases in total agricultural output and in productivity per farm worker, but will reduce employment opportunities and consequently throw the burden of providing such employment on the minifundia sector, on colonization areas, and on the city slums. For example, one study of colonization projects in Chile (all established for 12 years or more) revealed that 25 parcels, originally assigned to as many families, are now supporting 99 families who earn the major part of their income from these parcels.

The capital intensive development route is quite natural. It is much more difficult to supervise unskilled labor in new and more intensive

farming operations working with machines and improved livestock than it is to work within the well established, low cash expense, low risk, traditional routines. The capital intensive route can be enhanced, and frequently is, by government import policies and by a combination of inflation and credit policies--with credit being available for machinery and for livestock, and inflation making bank interest rates negative--subsidized by the government. This combination concentrates the benefits of development among the large owners with a minimum of trickle down impact on employment and wages.

Pushing development via mechanization and modernization by the large farm sector increases the problems of unemployment and the disparities in the distribution of development benefits. Given the large numbers of people in the rural sector with very low incomes, this maldistribution of benefits restricts demand and consequently restricts growth in the lagging manufacturing sector.

4. Colonization as an alternative to land redistribution and reform.

There is, of course, the hope that sufficient opportunities can be provided through colonization in new areas, so as to reap the benefits of both modernization in the large farm sector as well as employment in productive opportunities for those presently unable to benefit from this modernization. A great deal of emphasis has been placed on colonization in Latin America in the past 10 years, but government efforts have been no more than pilot projects. Colonization guided by government agencies has created very few opportunities. The cost is so high--4, 5, 6 thousand dollars and more per settler--that funds are insufficient to

make any impact whatsoever. It is of great significance to note in this regard that there are major economies of scale for a colonization or reform agency. For instance, in Chile in 1965, with approximately 2,000 new families established under the Frei reform, administrative and staff service costs approached \$2,000 per family. By 1967, with over 8,000 beneficiaries, the cost fell to less than \$1,000 per family. Estimates for 1968 place the cost for 12,000 families at under \$600 per family.

Substantial numbers of people are involved in spontaneous settlement in new areas with a minimum of government help. There is a widespread notion that there is a lot of good quality, empty land around for people to settle on. Studies in Nicaragua, the Dominican Republic, Peru, and Costa Rica show that this is something of a myth. People have been moving into these areas for many years. In our Nicaraguan study, it became apparent early in the study that the presumption of empty land was not accurate. The area under study, designated by the government as a major new colonization area, was in fact almost filled with incoming settlers and natives of the region. Where unused land does exist it is usually tropical forest land about which agronomic knowledge is rather meager, or it is land so poor that it cannot support cultivation, or it can be made profitable only by major investments in either infrastructure or in land improvements. Nevertheless, in spite of hardships, people who have moved on their own have usually been more successful than people on the scattered, expensive colonies established by governments. The government colonies often remain as islands without any spread effects, since they continue to operate within a system of institutions not designed to meet their special needs.

Taxation has often been proposed as a vehicle for getting private subdivision of farms. In several studies we have found that private subdivision of large haciendas resulted in the establishment of rather large units, and in almost no case was the land purchased by small renters or landless laborers. Privately subdivided land is usually sold to people who have the means for immediate or very short term payment. Most of these private subdivisions, although they resulted in smaller farms, have continued to operate under a system of absentee landlords using hired labor. In most cases these new farms were purchased by middle class people from the city. Even government colonies have been of this nature. Although the system is now completely changed and much more successful in getting farm laborers established on the land, beneficiaries of early colonization projects in Chile (pre-1960) were largely middle class city dwellers. In one large survey, we found only 82 of a total of 524 colonists who had been landless laborers before becoming parcel holders.

5. Supervised credit programs.

Another effort involves the expansion of supervised credit programs for small farmers. Several of our studies indicate that relatively small numbers of farmers are reached. For example, a study made several years ago in Colombia concluded that about 5,000 of the more than one-half million small farms with less than 3 hectares of land received such credit. The people who receive the credit are usually the ones who previously borrowed money from other institutions, and who substitute the new source of credit because it is more convenient and usually carries a lower interest rate. Certainly the bulk of the credit allocation to the

agricultural sector from the cases we have studied in Colombia and in Chile, continues to go to the larger farmers.

Nevertheless, some important differences in country programs in the area of supervised credit should be mentioned. In Chile, where a substantial land redistribution program is in progress, much more has been achieved through special credit programs for small farmers. Since 1965, over 60,000 small holders, tenants, and even resident laborers on large farms have received special credit from INDAP, the government agency dealing specifically with small farmers.

6. Land titles, conflicts, costs, and procedures.

A number of our studies have focussed on these issues. In most Latin American countries today many farmers lack a secure title to the land they farm; exactly how many is unknown. We do know, however, that in Bolivia all titles had to be established anew after the agrarian reform of 1953. Furthermore, in Bolivia less than half of the farmers have a clear title to the land which is their rightful possession (including many former large landowners whose present titles are unclear). But in other countries, and especially in Central America, Colombia, and Brazil, many farmers work under these insecure, unsettled conditions. The conflicts that arise in these situations are many--conflicts to the point of shooting and murder over the possession of the land.

Clarifying land titles is certainly a worthwhile activity for governments to undertake. Tremendous uncertainties are involved for farmers operating under these conditions and in most cases they are ineligible for credit from regular sources. A related problem, which we studied in

Bolivia, Colombia, and Venezuela, is the legal and administrative procedures in getting land registered, or in getting a title transferred to another person. Because of the very slow, cumbersome, costly procedures involved, these registrations simply do not take place and consequently confusion and uncertainty over land titles multiplies.

Several countries are making substantial efforts, especially Colombia and Bolivia, to speed up this process. Title security could reduce greatly the conflict and the uncertainty in the countryside and would help to increase the output in the agricultural sector. In one study in Costa Rica, for example, we found that the incomes of those with the most insecure and precarious forms of tenure were approximately equal to incomes earned by farm workers, while other groups with secure title earned substantially higher incomes.

7. Farmer organizations.

We have studied farmer organizations, especially in Venezuela but also in Bolivia and in Chile. It is frequently reported in agricultural development literature that farmer organizations have a role and function only as development programs are implemented and as farmers organize into economic interest groups to better avail themselves of the benefits from development programs. However, in the cases here reported the initial organization of farmers was for political purposes. Groups are formed to affect the policy making machinery of government. These organizations have played a vital role in several countries in getting public policy shaped to benefit farmers. Possibly strong organizations of this kind may help develop more viable systems of local government, now almost nonexistent

throughout Latin America. Indeed, some of these organizations now carry out many of the functions that we ordinarily attribute to a local government--infrastructure construction and maintenance, especially schools, roads, and irrigation works.

Some of the most successful farmer cooperatives have also been established where strong farmer organizations existed. Furthermore, we have found that in communities where there are active voluntary farmer associations, confidence in the central government is also higher. This may be the result of learning that government is also a group or collective affair which can be influenced much like their own smaller association.

In viewing the role and function of farmer organizations in Latin America, it is well to recall those early battles that our U. S. farmers fought over free access to and security on the land. With the increasing commercialization of farming following the Civil War, competition intensified and our farmers addressed themselves to issues of speculators in the commodity markets, high railroad freight rates, shortage of credit and high interest rates, and monopoly power of the railroads and the other industrial firms with which they had to deal. The initial push toward action in these areas grew out of activities sponsored by farm organizations. A series of laws, still referred to as the Granger Laws (named after the farm organization, the Grange, started in 1867) resulted from this pressure by farmers. Later, rural leaders were in the forefront in getting additional antimonopoly legislation enacted and in the establishment of railroad regulatory bodies. A major outcome of these farmer movements was a rapid growth in farmer cooperative buying and selling. Although many of these earlier efforts at performing the function of the middleman failed, they nevertheless paved the way for the cooperative movement of later years.

Then again, in the catastrophic depression of the 1930's, the action of farm groups was important. At this time, the collective action of farmers became more militant, resulting in strikes, violent resistance to farm foreclosure sales, marches on state capitals, and farmer holidays. Thus, if we have anything to offer farmers and governments now undertaking this difficult task of agricultural development, it is perhaps the experience that many of the development efforts in this country were led by farmers, pressuring governments at various levels for changes that would benefit farmers. Later, as bureaucracies were formed to organize and systematize these achievements, farmers retained an active role in keeping the bureaucracy responsive to farmers' demands and requests.

8. Post-reform issues and potentials.

In our studies in Bolivia especially, but also in Chile and Venezuela although their experience is much more recent, it is abundantly clear that massive land redistribution programs alone offer no panacea. And Mexico indeed illustrates this equally well. The job is far from done after the land is decreed to have been reallocated. In Bolivia, as already mentioned, the land title situation must be clarified because of the severe conflicts between peasants, and between peasants and former landowners. But perhaps even more importantly, additional support in the form of modern inputs and credit and marketing facilities needs to be established. The small farm sector in Mexico has received relatively little help, but even so has performed remarkably well. The same kind of issues arise in Chile and Venezuela with their more modest scale reforms--the need for follow-up with substantial technical assistance for the new landowners, along with supplies

of new inputs and the provision of new marketing channels. Chile is doing quite well in making these provisions--one of the reasons that the number of new farmers established is much lower than the goal set four years ago. Because a substantial amount of the redistributed land is farmed in smaller units, the type of farming changes and different kinds of products are grown. Consequently new types of markets must be sought.

It is impressive, given the little help the peasants received from the government after the reform, to see the substantial improvements that Bolivian peasants themselves have made in reconstructing marketing channels when former markets were completely disrupted as a result of the landlords moving out of the countryside. But new markets were established and are functioning, and the peasants today in Bolivia are much more closely integrated with the commercial activities of the country than they were before the reform. The quantity of goods bartered, as shown by our studies, is now slightly lower than in pre-reform times (only about 5 percent of the value of all transactions) while regular participation of peasants in the money economy is over four times pre-reform levels.

It is also clear from the studies in Venezuela and Chile, and from some comparisons of large farms on the Bolivian and Peruvian altiplano, that the reformed situation provides substantially more employment than the non-reformed situation. This is also very clear in the Mexican case. The church reform projects in Chile, for example, indicate an increase of about 23 percent in the number of families productively employed on the same land after the reform. The Bolivian-Peruvian comparisons show a decrease in employment on Peruvian haciendas since 1953, while the number

of people employed on the Bolivian ex-haciendas has increased since the reform. One of our studies suggests that there is consequently less rural-urban migration in Bolivia than in any other Latin American country.

9. A brief mention of other areas of research.

The above does not represent an exhaustive review of Land Tenure Center research. It does give a few highlights in some of the key areas. We have prepared two documents which present more details: (1) "Interpretive Synthesis and Policy Implications of Land Tenure Center and Related Research," appearing as an appendix to our 1966 Annual Report, and (2) Survey of the Alliance for Progress: Problems of Agriculture, a document prepared in 1967 for the U. S. Senate Foreign Relations Committee. Both documents are available on request.

Other major areas of our research include the following (in some cases results have been published, but in many other cases results will be available in published form within the next year):

a) Legal research on titles and registry procedures, water law and regulation of its use, and the effect of reform legislation in the interpretation of the concept of private property.

b) Extension services, communication and improved practice adoption by new landowners; the administrative structuring of extension services; the extension function as performed by public agencies and through contract farming by agribusiness firms.

c) Land and other agricultural taxation, and the feasibility of using the local property tax for development purposes.

d) Migration, rural to rural and rural to urban; origin of migrants and their problems and successes in adapting to new areas; the nature of the rural-urban migration and resulting urban problems.

e) Local governments and rural service barriers to development; size of local governmental units, tax bases, investment policies, and community development; rural service costs and availabilities--both public services and the privately marketed services and inputs used in farming.

f) A measure of entrepreneurship among large and small farmers to determine the relative profitability of high level entrepreneurship vs. traditional operations.

g) Policy making, political pressure groups in getting reform legislation enacted, and institutional innovations at the central governmental level for economic development purposes.

10. Research and policy--some examples of integration.

We have attempted to do research that would be relevant for policy makers--for questions of public policy rather than private action. We have also tried our best to avoid ideological identification in this process. This has not always been easy, especially given the nature of the very sensitive questions investigated. We have been accused of being communists and leftists, but we have also been told that we are part and parcel of U. S. imperialism. Such criticism notwithstanding, much of our research has found a direct use and had some impact on policy. I wish to cite just a few examples. But in citing these, it should be clear that this research did not result solely from work done by scholars from the

University of Wisconsin. Had this been the case, the direct influence on policy would likely have been much less. These studies were all joint products of staff and students from Wisconsin and from the Latin American universities and agencies.

a) In Bolivia, the confused title situation and the resultant critical conflicts became evident in the early phases of our research. The AID mission and the Bolivian government were kept informed of the study's progress, and they developed an interest in pursuing action in this titling area. Special studies were conducted on speeding up the legal and administrative procedures for clearing land titles. This research recommended a mobile unit program whereby topographers, agricultural technicians, and agrarian lawyers and judges would travel to the field to facilitate and speed up this process. Through joint financing by the Bolivian government and the AID mission, this policy was implemented in April 1968, when three mobile units began this work in the department of La Paz. Another unit was added later. Since that time, these units have done the work necessary for distributing more land titles than were distributed in the preceding five years.

b) Two of our research undertakings in Chile led to certain modifications in the Frei sponsored land reform legislation. One study concerned the results and potentials of profit sharing arrangements on some large farms; the other dealt with the consequences of private parcelization. The participating Chilean scholars later helped draft some sections of the legislation, and profit sharing was among the provisions introduced in the law which, if followed by a large landowner, permits him to retain

more land in expropriation proceedings. The findings from the private parcelization study provided the evidence for including restrictions in the law on such private subdivision in the future. The profit sharing study had, we believe, another consequence. That study included a suggestion for evolving from the profit sharing phase to a corporate phase, whereby farm laborers would become share-owners in the enterprise. It was gratifying to hear a large landowner in a recent public debate on land reform in Chile advance this idea as a desired route for large farmers to follow.

c) Our research on water law and its implementation has also received some attention in the formulation of new legislation, in both Colombia and Chile. Of course in a number of instances, research was specifically requested, and in some cases partially financed, by local agencies or country AID missions: supervised credit study in Colombia; colonization study in Nicaragua; internal migration and colonization studies in Brazil; local government and services in Colombia; marketing and supply response studies related to reform policies in Chile; and others.

Concluding Comments

I would like to conclude by presenting a number of policy implications growing out of this research. These are given in more detail in our Senate Document, Survey of the Alliance for Progress.

1. Issues for Latin American Governments

(a) Progressively managed large farms

These farms provide much of the agricultural produce for the cities and for export earnings. Current policy impetus seems to focus largely on promoting such farms and stimulating greater productivity through the application of new technology.

A land reform program that converted productive large farms into small peasant holdings would help satisfy the need for increased employment and participation by rural people, but probably not without fairly heavy shortrun decreases in innovativeness and productivity.

It is defensible to argue that many well-managed large commercial farms should be preserved (as they would be under the provisions of existing agrarian reform laws in most Alliance countries). Modernization policies should neither destroy nor concentrate exclusively on this commercial sector. Instead, they should encourage as much employment and income security as possible on these farms without creating disincentives for management.

They should encourage increasing intensification; that is, a larger proportion of land in high-income crops through shifts in enterprise combinations, and higher output per acre through use of yield-increasing (as opposed to labor-saving) technology.

(b) Traditionally managed large farms

Traditional large-scale farming contributes little to needed increases in production. Some observers have suggested that Latin America's traditional haciendas can and should be transformed quickly

into productive commercial farms. Early Alliance for Progress emphasis on redistribution of these lands has been largely replaced by a new emphasis on technical modernization without structural reform.

In the light of past performance, there is little reason to hope that increased investment within this traditional sector would result in commensurate increases in agricultural production. But even if it did, rural employment would likely decrease and the gap between rich and poor would almost certainly widen. Given the present land tenure system, as productivity increases, the incomes of the resource owners rise much faster than those of the rural majority. The workers have little or no bargaining power, and hence, increases that accrue to the agricultural sector as a whole do not "trickle down." In fact, most of the current pressures toward modernity on existing large farms are also pressures toward decreased employment. Some import and credit policies encourage mechanization, which more often than not is used to decrease employment rather than to increase output per acre. Social legislation and labor unrest encourage landowners to keep fewer workers. Changes in farm technology are sometimes easier if machines replace men. Supervision and handling of costly machinery, equipment and livestock is easier if a few skilled workers replace the large numbers of traditional resident laborers, for whom the hacienda has provided a secure (if decreasingly adequate) subsistence.

These traditional farms also have irrigation systems, central buildings and storage facilities, and integrated use of cropland and pasture that cannot be adapted to the needs of individual peasant farmers

quickly or without some cost. Still, there is little to lose in the way of production and much to gain the way of increased participation and employment of rural people by transforming this underutilized and poorly managed land into new peasant farms. Reform is not simple or costless; it does appear necessary in the face of mounting pressures on the existing system.

(c) Existing small farms

This sector can probably continue to absorb some population increase until development-created employment begins to catch up with population growth. Self-employed small farmers are generally willing to work for lower labor incomes than they would accept as hired workers on large farms or outside of agriculture. If in addition, technology can be adapted to their needs and if markets and credit can be made available to them, small farms can employ even more people and contribute more to marketable surplus. Public investments (especially in service institutions) and incentive policies might be able to transform the upper third or half of this sector into small- and medium-sized commercial farms.

(d) New peasant farms created by land reform

Outside Mexico, Bolivia, and Venezuela there are not many new farms of this kind. Those that do exist--and those that come into existence as reforms are put into effect--are in many respects similar to minifundia, except that they are larger, since the man-land ratio is usually higher on minifundia than on the traditional large farms from which the new farms are created. Land reforms always run the risk that after some time population increase will make the new peasant farms resemble existing minifundia.

As with existing small farms, attempts should be made to move reform-created farms as rapidly as possible toward commercial agriculture with limited mechanization and increased use of fertilizers, improved seeds, and protective chemicals.

Programs to provide secure and legal titles for present occupants are less controversial than abrupt changes in landowning patterns, and of great importance in some areas. In most Latin American countries, many so-called squatters live on public lands. When titles are not secure the more economically powerful move in and claim ownership. Bitter conflicts develop over such disputes, and outbreaks of violence are not uncommon (as in the early settlement of our West). There are perhaps several hundred thousand farmers without title in all of Latin America. This situation does not offer the security required for long-term investments in agriculture.

In summary, agricultural policies of the Latin American nations should emphasize increasing production at low cost through yield-increasing technology, along with maximum employment and employment security. It is not yet clear that this combination can be achieved on any one type of farm. Protecting the existing commercial farms will hedge against decreases in production and marketed supplies. Assisting minifundia farmers and creating new peasant farms will help protect against increasing unemployment and decreasing employment security.

2. Issues for the United States

However general the agreement that land reform is absolutely essential to agricultural modernization in Latin American countries, the question remains--what can and what should the United States do about it?

The United States cannot, of course, carry out land reforms in Latin America. The most controversial land tenure policy proposals, such as land redistribution, can be put into effect only by the national governments concerned. Still, what the United States does vis-à-vis Latin American governments and other political forces in these countries can have an impact either in support of or in opposition to reform efforts.

In the original charter of the Alliance for Progress the United States clearly committed itself to encourage ". . . programs of comprehensive agrarian reform . . . with the help of timely and adequate credit, technical assistance, and facilities for marketing and distribution of products" Again in 1967 at Punta del Este the Presidents of the Americas pledged that ". . . the living conditions of the rural workers and farmers in Latin America will be transformed to guarantee their full participation in economic and social progress."

In spite of this apparently categorical support for reform, many aspects of the general U. S. posture in Latin America tend to deter reform efforts. We display a growing tendency to respond primarily to shortrun pressures brought on by balance-of-payments deficits and urban population growth, and to pay much less attention to the potentially explosive political tensions of rural Latin America.

There are other and subtler antireform factors. For example, U. S. officials and representatives of private companies tend to find themselves, in many countries of Latin America, in a close and continuing association with conservative elements in national politics. This relationship is not, as Latin American leftists are wont to charge, the result of a sinister

reactionary plot. It is the natural consequence of living and working in highly stratified and class conscious societies where things are accomplished by knowing the right people. If a U. S. company is to operate in Latin America at all, it has little choice but to identify with and accept the working rules followed by the people who have power and who can get things done. For the same reason U. S. Embassy and USAID staffs often have to work with elite groups, almost inevitably the most conservative. Consequently, the U. S. Government tends to be cut off from meaningful contact with popular movements in Latin America. One result is that reformist elements find themselves seeking ideas and support from groups which are ideologically opposed to the United States; thus hatred and antagonism toward the ruling national elite is automatically transferred to the closely allied U. S. private investor and public official.

There is, in addition, some lack of enthusiasm about land reform on the part of many Americans working in Latin America because they see in it a danger to orderly procedures and the rights of private property. At its extreme, this view represents the exporting of an almost absolutist philosophy that ignores the extent to which private property is regulated in the United States itself.

Land reform means, among other things, a wider distribution of the rights that accompany the ownership of land. Thus land reform always implies some basic restructuring of the rules of the game that govern the role of property in the society. This may sometimes extend to nonfarm sectors--both foreign and domestic. We need to face the fact that if we encourage a government strong enough to carry out meaningful reforms, we will be encouraging one that derives much of its power from popular movements

not initially very friendly to U. S. Government personnel and representatives of U. S. private enterprise. If we actually wish to see reform brought about, we will have no choice but to support governments that on occasion embarrass U. S. officials. The real test of our intent will come if, as may occur, such a government chooses to nationalize some land or other property owned by U. S. companies as part of a program of internal reform. If we are serious about encouraging the reforms essential to modernization of Latin American agriculture, we must be ready to study each such case objectively and debate the consequences of alternative responses in terms of over-all foreign policy, rather than on the basis of a rigid criterion universally applied.

Advocating and supporting reform in Latin America may mean dealing with governments that are not always friendly, that may at times embarrass us, and that may on occasion require us to swallow some pride. Yet, to withhold support from truly reformist governments will merely heighten the pressures that lead to violent eruptions and eventually to more radically anti-American governments.

Supporting land reform as a part of our efforts to modernize Latin American agriculture will require different policies in different countries. In several Alliance countries, land redistribution continues to be the object of controversy and national debate but there is a strong official commitment to reform and already some record of accomplishment. In these countries the United States should provide direct financial and moral support for programs of land redistribution, in many cases accompanied by research on alternative procedures and evaluative followup studies.

This kind of U. S. support could be decisive in countries where there is still major opposition to the reforms which must accompany modernization of agriculture.

In two countries, Mexico and Bolivia, land redistribution is not a current policy issue but an accomplished fact. To a lesser extent the same is true of Venezuela. The issues that confront U. S. policies in these countries are not related directly to redistribution projects but to the matter of how best to increase employment and productivity on the newly created peasant units and the progressive medium and large farms that were preserved in populated areas or established in areas of new settlement. In these countries, as well as those with lesser accomplishments in reform, the United States should: (a) provide technical assistance and financial aid for land titling in reform areas; (b) provide loans and assistance in implementing credit and information programs for new landowners and existing commercial farms; (c) help finance road construction and other social overhead to provide access to new settlement areas in those cases that offer promise; (d) support local efforts in training and research related to land reform and agricultural development.

There is, of course, a third group of Latin American countries with little or no commitment or intent to carry out meaningful reforms. In these countries we can do little beyond:

(a) Assisting in titling procedures for squatters who are settling the frontier;

(b) Aiding efforts to incorporate existing small farms into the commercial sector through extension, credit, and marketing programs (where

feasible, such programs should be provided on a package basis that integrates these services around a few high value commodities or crops);

(c) Supporting policies that make it easier for peasants and agricultural workers to organize themselves into effective bargaining units;

(d) Encouraging better administration of taxes on land.

It will be well for us to recognize the limitations on our ability to determine the scope and pattern of reform. There is no U. S. recipe which we can or should try to impose. The most important step we can take is to review regularly our policies and programs, making sure we do not inadvertently delay or block legitimate reform efforts. The United States cannot force an unwilling government to undertake a reorganization of its agriculture. But we should be careful that we do not provide such a government with the kind of support that enables it to ignore or repress legitimate internal pressures for reform.