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THE LAND TENURE CENTER ANNUAL REPORT 1967

A cooperative research and training program of the American Nations, the Agency for International Development, and the University of Wisconsin.

Submitted January, 1968 By The Land Tenure Center

310 KING HALL
UNIVERSITY OF WISCONSIN
MADISON, WISCONSIN

LAND TENURE CENTER

310 King Hall
University of Wisconsin
Madison, Wisconsin 53706

January 1968

John M. Curran, Chief
Contract Services Division
Agency for International Development
Washington, D.C. 20523

Re: AID/repas-3
University of Wisconsin

Dear Mr. Curran:

I enclose copies of the Land Tenure Center's annual program report for calendar year 1967. This is in accordance with procedures outlined in Amendment No. 3 of the Wisconsin contract.

Sincerely yours,

Don Kanel

Don Kanel
Director

encl: 2 copies of Report

cc: Dr. Douglas Caton, Chief, Agriculture and Rural Development Service, Office of the War on Hunger, AID Washington

Dr. Robert McMillan, ARDS/WOH, Contract Monitor (with 30 copies of Report)

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PREFACE

In his 1967 State of the Union Message, President Johnson said, "Next to the pursuit of peace, the really greatest challenge to the human family is the race between food supply and population increase. That race tonight is being lost . . . . The time for concerted action is here and we must get on with the job."

Complementing this statement, Dr. Herbert J. Waters, Assistant Administrator for the War on Hunger, U.S. Agency for International Development, has asserted, "There is no simple or easy solution. We know from experience in our own country the complexities of modernizing agriculture. It took us a span of almost a century. There is not that much time to spare in getting the job done in the rest of the world. The challenge is to speed up this modernization process--whatever it takes to get it done."

This sense of urgency has pervaded all informed discussion of the world food problem during 1967. The research of the Land Tenure Center has been designed to assist in this effort in several of the Latin American republics for, as a recent University of Wisconsin report on international programs claimed, "A great University cannot stand apart from one of the major efforts of its time."

The overriding concern of the staff and fellows of the Land Tenure Center--a concern which has emerged from research to date--is that the issues of increasing agricultural production and the distribution of the fruits of that production must be viewed as parts of the same problem. The Alliance for Progress or any U.S. policy must not cope with one of these issues to the exclusion of the other.

There has been some evidence, throughout 1967, that the policy goal of increasing marketable surplus from farms in Latin America has gained such pre-eminence that the issue of distribution has tended to be shortchanged in U.S. policy. Yet, ample evidence shows that how increased production is apportioned in Latin America and elsewhere in the world is crucial.

The President's Science Advisory Committee has claimed, "The world's increasingly serious nutritional problem arises from the uneven distribution of the food supply among countries, within countries, and among families with different levels of income. Global statistical surveys, based upon total food produced per person, suggest that there is no world-wide shortage of food in terms of quantity (calories) or quality (protein) at the moment." This seems to reaffirm President Kennedy's

statement, " . . . unless social reforms are freely made--unless the great mass of Americans share in increasing productivity--then our Alliance, our revolution, and our dream will have failed."

Most of Latin America is still characterized by extreme concentration of landownership. The majority of active agricultural population--wage workers, small owners, sharecroppers--either have no land or too little to support their families. A development policy which holds out incentives only to owners of large farms does little to enhance the economic participation of the Latin American peasant. Because of structural rigidities, it does not permit the campesino to play a more effective part in production. It does not protect him from the disparities and disequilibria that come with change.

The gap between the rich and poor in Latin America widens each year. This situation places severe strains on existing rural institutions as disadvantaged groups demand change. Policy makers must know what is happening when peasants move from subsistence to market participation, as their problems are articulated by political leaders, and as they demand a larger share of the country's income. Public development agencies must know which methods are successful with different strata of farmers and what responses to expect. They must devise programs for small owners who are relatively neglected. They need to know how uneven participation in development affects demand. Does it stimulate imports or domestic production? Does it determine the kinds of products demanded? Does it circumscribe the proportion of total population participating in development?

The development planner must know how the rural working class lives and how rural people affect and are affected by the forces for change. And from "islands of change"--or from countries which have radically changed their land tenure structure--lessons must be drawn which will help policy makers to deal intelligently with future broader reforms, or modify current reforms in such a way as to enhance the productive capacity of agriculture.

In dealing with these issues the Land Tenure Center underwrites and encourages:

1. Studies of the effects of the present land tenure system on agricultural development and modernization.

2. Studies of new tenure experiments such as colonization, parcelization, and new land settlement.

3. Studies of means of achieving effective extension, technical information, market and credit services, and

the effect these services might have on individual farm management decisions.

4. Studies of social, economic, and political changes resulting from agrarian reform efforts.

5. Studies of the legal framework which regulates economic and social activities in the rural sector.

I

SUMMARY OF LAND TENURE CENTER RESEARCH

SUMMARY OF LAND TENURE CENTER RESEARCH

The research program of the Land Tenure Center focuses upon social structure and institutional change and the impact of government programs on rural communities of Latin America.

Vast changes are occurring within Latin American societies. Rapid population growth and migration to cities are general in all countries. Less widespread but locally important are colonization of new areas, introduction of new agricultural technology and programs of land reform. These changes give rise to unrest and new attitudes and expectations to which governments must respond. Programs of agricultural development become more than questions of technical research, supply of inputs and price incentives; governments face development-created dislocations in the amount of agricultural employment and the terms on which it is available. They must try to resolve the question "Who has access to the benefits of development?"

In consequence, development programs have to be devised so that they can reach different types of rural people. In some cases this development effort calls for some direct government intervention to change the land tenure system.

Issues of land tenure reform arise in contexts that differ from country to country and from one time period to another. Rarely is the question one of implementing an ideal land tenure system. Conditions for a controlled, wholesale transformation of a tenure system can be established only by a violent disruption of the existing social structure and elimination of vested interests, combined with totalitarian control by a small, unified new group in power. These conditions almost never exist. In real life, unrest or revolution may result in occupation of land by the peasants, with governments exercising only limited control over the course of events. In less revolutionary situations, pressures for land tenure reform compete with cross pressures from other politically effective groups, and policy decisions are constrained by a diversity of group interests and by the financial capacities of the country. In addition, land tenure systems are subject to continuous change whether or not they are being modified by deliberate land reform programs. These latter changes also give rise to policy issues, especially in areas such as title distribution, credit programs, collective bargaining by farm workers, etc. As a result the policy issues and relevant research questions are intimately related to the context in which the problems arise.

The research projects of the Land Tenure Center reflect the diversity of tenure problems in Latin America. In Bolivia, for example, the 1953 land reform was initiated by peasants seizing land. The present land tenure system is primarily due to peasant initiative and government aid in organizing peasant sindicatos rather than top-down government application of land reform legislation. Thus, many crucial and researchable issues arise out of the discrepancy between legislation and the actual situation. In this context, Land Tenure Center research has helped to identify titling as one bottleneck in the Bolivian reform. Further consultation has made it possible for LTC researchers to suggest more rapid procedures for title distribution. Other studies have shown that numerous conflicts have arisen between peasants and former landlords, particularly those legally allowed to retain some land. In some cases strong peasant unions prevented landlords from using land to which they were entitled. In other cases landlords still wield considerable influence over the peasants and have used it to circumvent land reform provisions. The Bolivian experience suggests that, in similar circumstances, it may be better to purchase the landlords' reserve entirely (regardless of size of farm), or at least to provide simple provisions by which the government or the peasants could buy out the landlord's interest.

Another important area of concern in Bolivia has been the impact of the reform on the flow of goods to urban markets. One LTC study indicates that the apparent drop in production which followed the reform may have been due in large part to a disruption of traditional market mechanisms, which diverted goods into new channels where they did not as easily or as accurately enter into statistical series. Similar disruptions and changes can probably be expected in any rapid and extensive transformation of rural economies in which landowners perform important marketing functions.

In Chile, land reform has not been as rapid or as spontaneous but has become a major part of the overall development program of the Christian Democratic government. Its design is being shaped by the ordinary political processes. The Frei government is more strongly committed to land reform than any previous Chilean government, or any other Latin American country with the exception of Mexico, Bolivia, Cuba, and Venezuela. The government of Chile proceeded as far as possible under existing laws and pressed vigorously for new legislation. The new law and the action program are compromises resulting from some division of opinion within the governing party and agreements that had to be made with other sectors of public opinion. Underlying these compromises are pressures from various interest groups and severe economic restraints which limit the government's ability to act.

In these circumstances research issues have been quite different from those which have arisen in Bolivia. Needed are studies on: (1) legislative and administrative alternatives and (2) results of new programs--how they have changed rural life and what pressures they have unleashed that will require further policy decisions in the future. Land Tenure Center research of the first type includes projects on: (1) irrigation law, water administration, and resolution of conflicts over water rights; (2) the difficulties of increasing production and shifting to more intensive crops (an example is the current plan to produce fruit for export on farms administered by the land reform agency); (3) private efforts such as profit-sharing and subdivision of land which are sometimes designed to avoid expropriation.

The second type of research includes studies of unionization and peasant attitudes, local administration of land reform projects, and the economic results of the nascent reform. The Frei givernment has encouraged formation of peasant unions, and the result has been rapid unionization, competition for peasant allegiance, and increased strife not only between peasants and landowners but also between peasants and government agencies. Attempts to organize peasants are being made by a Socialist-Communist oriented union, and by two large and several small organizations with Christian Democratic leanings. Two government agencies, CORA (land reform) and INDAP (supervised credit) also sponsor organizations of workers and farmers in their projects. The Chilean land reform provides for a transitional period of three to five years during which the expropriated farm is administered as a unit before parcelization into individual holdings. This interim period features individual family farming of garden plots, daily cash advances to peasants (a continuation of traditional arrangements on large farms), and management by the reform agency of large scale enterprises on the rest of the farm. Some of the expropriated farms in Chile have strong union organizations, since labor strife is one factor in deciding which farms are to be incorporated into the reform program. After expropriation the reform agency attempts to organize the peasants to work with its program; in this context, the role of the existing union is unclear. Also, because of the managerial role of the reform agency in the transitional arrangement, issues involving recourse of grievances and bargaining which are characteristic of all employer-employee relations can be expected to arise between the peasants and the reform agency. Coupled with the peasant allegiance to the union created during previous labor strife under the private landowner, this enhances the orientation of peasants to a focus on benefits to be won from the reform agency rather than on opportunities achievable by self-management of farm work.

The need for caution against premature division of land into small farms under the existing production structure of Chilean agriculture (large farms laid out to take advantage of irrigation) has been documented by previous Land Tenure Center research on the private land reform of INPROA (conducted by the Catholic Church on its land) and early efforts at colonization by the government. Nevertheless, the very orderliness of the Chilean land reform--in contrast to peasant take-overs as in Mexico and Bolivia--may make it more difficult to establish an agriculture of independent peasant entrepreneurs.

The research carried on in Chile by the Land Tenure Center is an illustration of the manner in which policy issues arise and relevant research questions are best formulated. Land reform in Chile, designed as a major effort to restructure social relations, unleashes stresses which no government can fully anticipate and control. Here, peasant organization is a good example. Research is needed on campesino response to reform. What government adjustments can and must be made to accommodate these unanticipated changes? Can effective control over change be exercised? Is it desirable to do so? Results of such policy-oriented research in Chile can be useful to the country itself and some are--or will be--relevant to other countries.

In Colombia, Central America, and Brazil, land tenure problems and changes are primarily the result of population growth, migration, colonization, alterations in cropping patterns and livestock enterprise combinations, and the types of agricultural technology used. Unionization and government activities in directing a conscious change in land tenure arrangements are minor. Consequently, major concerns in Land Tenure Center research in these countries focus on such matters as: absorption of population growth, colonization and migrant adjustment, local government taxation and services, marketing of inputs and farm products, flow of information to farmers, and performance of farmers and entrepreneurs. Some of these issues are relevant to land reform beneficiaries and other small farmers in Bolivia and Chile and are being studied in these countries as well.

A major issue for agricultural development in Latin America which can be studied in most countries is the degree to which small peasant farms can participate in the technical advance necessary for agricultural development. The experience thus far has not been encouraging. A recently initiated Land Tenure Center project in Guatemala is directed toward studying family-sized farms which are capable of producing adequate family incomes. In Colombia one research effort focuses on the environment facing smaller farmers: local

government services and taxation, supply of inputs, education, and flow of technical information, as well as managerial behavior of farmers. These studies show that the inadequate financial resources of local governments, the lack of institutional devices to enable local people to organize and spend more for roads, schools and other local services, and the resulting absence of infrastructure are important impediments to greater production of marketable surplus. Peasants are not unresponsive to technology and markets but are extremely cautious. Land Tenure Center research also shows that even among larger farmers only a minority are successful entrepreneurs. The majority are traditional landowners who obtain large family incomes (but low returns per unit of land) from routinely and extensively managed farms requiring little supervision. There are also unsuccessful entrepreneurs who, without adequate experience and information and without sufficient support from input markets, have been making costly and unproductive innovations.

Another major issue throughout Latin America is the lack of enough productive employment. The industrial sector is growing slowly in Latin America. Existing small farms which often do not even provide adequate subsistence are absorbing more people and are being subdivided further. Colonization is pushing subsistence agriculture into frontier regions (particularly in Central America), but this is a temporary safety valve which may not last beyond another decade. Meanwhile on some existing large farms and exploitation of new regions by large farms, modernization of agriculture is generating high productivity per worker and low possibilities for employment, which are out of line with the underemployment and land hunger in the country as a whole. Legislation to increase security of employment and the exemption of progressively managed farms under land reform may worsen this situation, since mechanization is used by employers to decrease obligations to workers and to demonstrate progressive farming which they hope will exempt them from expropriation. One study of the Peruvian and Bolivian sides of the Lake Titicaca region (not conducted by LTC)* shows a decrease in employment on Peruvian haciendas since 1953, while the number of people employed on Bolivian ex-haciendas has increased since the land reform. A Land Tenure Center study suggests that there is consequently less rural-urban migration in Bolivia than in any other Latin American country. The data indicate that La Paz is probably the only Latin American capital where population is not growing relatively faster than it is in rural areas.

The traditional land reform issue in Latin America, e.g., in Mexico and Bolivia, concerns peasant grievances against exploitation on inactively managed large farms.

* Melvin Burke, "An Analysis of the Bolivian Land Reform by Means of a Comparison between Peruvian Haciendas and Bolivian Ex-haciendas," thesis submitted for the degree of Doctor of Philosophy in Social Sciences, University of Pittsburgh, University Microfilms, Inc., Ann Arbor, Michigan, 1967.

The opportunity to satisfy these pressures with the least risk to production is to increase the number of peasant farms (and eventually create more prosperous family farms) by dividing up these traditionally run farms. In some cases such farms are now coming into more active hands as owners sell out or attempt to modernize in the face of threatened expropriation. Such changes may create considerable unrest by decreasing both the number of rural jobs and security of employment. A very different type of agriculture might also be created in the process, with bitter employer-employee conflict and with greater risk of disruptions to production. Changes created by modernization of traditional large farms is a very important area for further research.

One project in a small farm area in Brazil studied the tenure status and land acquisition by farmers. The data clearly indicates progressive subdivision and smaller size of farm in the present than in the previous generation. But the owners in the current generation acquired less than half of their land by inheritance and the rest by purchasing out coheirs and other sellers. This suggests that if outside employment opportunities were much greater than now, it would be very likely that inheritance and purchases would achieve stabilization and even increase in the average size of farms. These conclusions seem applicable to other minifundia areas in Latin America.

These, then, are the major research concerns of the Land Tenure Center. A more thorough general discussion of some of them can be seen in the Senate Committee paper which was recently prepared by members of the LTC staff and which is included in this report as an appendix. The remainder of the present report describes specific projects and activities addressed to these general issues.

II

ACTIVITIES AND SERVICES

ACTIVITIES AND SERVICES

The Land Tenure Center was established in May 1962 under a research and training contract between AID Washington and the University of Wisconsin. Although research on various dimensions of land tenure and related problems of agricultural development in Latin America is the major focus of this program, other activities and service functions of this Center have become increasingly important. This, we believe, is a desirable and inevitable evolution inherent in the very concept of "centers of competence" which are built around major problem areas.

The Land Tenure Center is not a curriculum or department. It is a coordinating and service facility that aids the University in carrying on an integrated program of research and training. All staff appointments are made within academic departments, and no formal courses are offered by the Center outside regular departments.

This Center's program provides an important vehicle with which individual staff members from several University departments can associate and thus continue to build their knowledge and skills in the study of land tenure and agricultural development in Latin America. Without such an institutions as the Center, a professor, after spending several years in a developing country, may again on his return become fully involved in domestic issues and find it difficult to use and to build upon his work abroad. Over the past five years, more than fifty staff members have actively participated in this program. About half of these were senior staff members from the University of Wisconsin; some were from other U.S. universities or from universities in Latin America.

The experience gained is not confined to the staff. A major contribution of the Center has been training new professionals, both Latin American and from the United States, through the participation of students in research projects. This is an important function. Study of land tenure institutions and their relation to development has not been emphasized in Latin America until very recent years. Yet it is the professionals from the countries in Latin America who must develop the competence to formulate and guide policies of their governments in this area. In addition to the concrete research results available, the experience gained by Wisconsin staff greatly strengthens the teaching program at Madison for the many students interested in this area of work. The active participation of students, both Latin

and U.S., working with professors on research, has added to the trained manpower available.

It is not a simple matter to provide estimates of numbers because of the varying degrees and intensity of participation by students. We would estimate that about 250 students have been associated with the Center for various periods of time. This would include U.S. and Latin students who have studied in Madison, participated in field research, or both. A conservative estimate is that more than 60 students have had extensive field research experience including design of projects, data gathering, analysis, and report writing.

Many of these participants now hold posts with government agencies, with Latin American or U.S. universities, with AID missions, with international agencies, etc. The Land Tenure Center receives numerous requests for trained personnel to fill positions in the above-mentioned agencies. The professional competence in this area of work has been greatly expanded, and it is expected that the present shortage of professional personnel will be alleviated as this program continues.

The ability of the Center to muster a competent and growing professional staff with a strong research base has attracted the interest of directors of development programs, not only in Latin America but also in other regions of the world. There have been many requests to increase the number of field centers in Latin America and to expand the work of this Center to Asia and Africa.

Not all of the Land Tenure Center program has been financed by AID. Training expenditures, as well as the cost of some of the service functions described below have been borne by the University of Wisconsin. In addition, the University has made certain of its facilities available to the Center. Major contributions have been made by the University's College of Agriculture, its Graduate School, and the Ibero-American Area Studies Program. Financial and other support has been received from the Midwest Universities Consortium for International Activities, foundations, local AID missions, Latin American universities and government agencies, and other cooperating organizations. In fiscal 1966, approximately 70 percent of the financing was provided by the contract and 30 percent from other sources. Since financing is on a short-term basis, one of the major problems has been and continues to be that of creating new staff positions.

The Land Tenure Center is widely recognized by U.S. and Latin American professionals working in the field of agricultural development. This recognition reflects both the research program and results as well as the supporting services, functions, and activities. Such functions are an important part of the overall

program, and can be developed only through the institutional arrangement represented by the "center" concept.

Advisory Committee. The program of the Land Tenure Center is under the general direction of the Research Program Advisory Committee, which is appointed by the Chancellor of the Madison Campus. The Advisory Committee reviews current programs in agricultural development, research plans, and priorities of the Center. Projects are selected by the Director of the Land Tenure Center with the advice of the Committee on the basis of how well they fit into the overall objectives of the Center. In order to see that these goals are met, the director:

1. Invites projects of professors and graduate students from the University of Wisconsin and other universities who have competence in areas in which research is needed.

2. Guides selected graduate students to the point of submitting proposals of interest to the Land Tenure Center.

3. Encourages staff members who have done research for the Land Tenure Center to continue and expand these interests, if the project is of continuing interest to the Land Tenure Center.

4. Selects from among unsolicited projects submitted to the Center those which relate to the Center's objectives and considers them for inclusion in the research program.

Selected projects are submitted by the director to the Advisory Committee for its criticism and judgments.

All projects are also submitted to AID for information and suggestions. The director is careful, on one hand, to select projects which fit into the framework of research interests of the Center and of geographical areas in which it works; on the other hand, he must be equally careful to protect and insulate the Land Tenure Center from a natural tendency on the part of the donor agency to regard the projects as technical assistance.

The Committee is currently made up of faculty members from the University of Wisconsin, faculty members from other universities, an official of a Latin American regional organization, and AID members. Members of the Committee are:

Castillo, Dr. Carlos M.
Secretario General
Tratado General de Integración Económica
Centroamericana (SIECA)
Guatemala City, Guatemala

Caton, Dr. Douglas D., Director
Agriculture and Rural Development Service
Office of the War on Hunger (ex officio)
Agency for International Development

Fals Borda, Orlando
Profesor de Sociología and
Coordinador de Estudios para Graduados
Facultad de Ciencias Humanas
Universidad Nacional
Bogotá, Colombia

Flinn, William L.
Assistant Professor of Rural Sociology
Assistant to the Director,
International Studies and Programs

Hawkins, Everett D.
Professor of Economics

Kanel, Don
Associate Professor of Agricultural Economics
Director, Land Tenure Center

Kearl, Bryant
Professor of Agricultural Journalism
Vice Chancellor, Madison Campus

McMillan, Dr. Robert T.
Agriculture and Rural Development Service
Office of the War on Hunger
Agency for International Development
(ex officio - LTC Project Monitor)

Parsons, Kenneth H.
Professor of Agricultural Economics

Penn, Raymond J.
Professor of Agricultural Economics
Chairman, Advisory Committee

Powell, Dr. John D.
Center for Rural Development, and Center
for International Affairs
Harvard University, Cambridge, Massachusetts

Dorner, Peter
Professor of Agricultural Economics
(on leave with the President's Council
of Economic Advisers)

Schmidt, John R.
Professor and Chairman,
Agricultural Economics
(ex officio)

Thome, Joseph R.
Assistant Professor of Law

At a meeting of the Advisory Committee held on September 29 and 30, it was recommended:

1. That the Land Tenure Center program be planned as a continuing permanent activity.

2. That the integration of research and training be continued and reaffirmed.

3. That the policy of working in close partnership with respected Latin American scholars and academic institutions be reaffirmed, and that it include cooperation in training as well as in research.

4. That the Center continue to involve personnel and ideas from a number of relevant disciplines in attacking the problems with which it deals.

5. That basic program financing available through AID continue to be supplemented, wherever possible, from other sources, and that an effort be made to finance, through Section 211 (d)*, and possibly also through some University of Wisconsin resources, a basic core of continuing staff and services.

6. That the Center expand its efforts to offer information and counsel to policy makers and policy-making agencies concerned with land tenure problems, both here and abroad.

7. That steps be taken to increase the Center's capacity to make use of and learn from experience in other parts of the world beyond the Americas.

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*Section 211 (d), Title II, Foreign Assistant Act of 1967, which authorizes funds "to research and educational institutions in the United States for the purpose of strengthening their capacity to develop and carry out programs concerned with the economic and social development of less developed countries.".

3. That the program and structure of the Center express an interest in the whole area of rural and agricultural institutions, not simply those directly involved in questions of land tenure.

Field Centers. The field research work in Latin American countries is always conducted in cooperation with professionals at universities, research institutes, or government agencies in the host country. Virtually all projects supported by the Land Tenure Center take the research staff and assistants into the field for the collection of primary data. For many of the local students and professionals, as well as for those from the United States, this provides an opportunity to gain first-hand knowledge and insight into the working of rural institutions. In the United States, most professionals working in the agricultural and rural social sciences have a farm background or have been closely associated with rural people and institutions. This is not the case in Latin America. Consequently, this field research experience has great training value.

The three field centers with the most active programs are in Bolivia, Colombia, and Chile. Research has also been undertaken in Venezuela, Costa Rica, Honduras, Guatemala, Nicaragua, and Brazil.

Land Tenure Center research people have cooperated closely with international agencies, especially with the Interamerican Institute of Agricultural Sciences (IICA), the Interamerican Committee of Agricultural Development (CIDA), and the Food and Agricultural Organization of the United Nations (FAO). In the first-phase CIDA studies, the Land Tenure Center cooperated closely with the research and analysis in four of the seven country studies. In the second phase, many of the professionals involved received training and research experience under previous Land Tenure Center projects. Our closest cooperation in the current CIDA studies is in Bolivia, where a Land Tenure Center professor is director of the joint project supported by the Center, CIDA, Bolivian agencies, and the local AID mission. The Center is also participating with CIDA in the Venezuelan studies. Staff members from the Center continue to be involved in the planning and continuing evaluation of all the CIDA studies.

The field centers engage in other activities and services besides research. Small libraries are maintained, and numerous professionals from country agencies, U.S. universities, U.S. and Latin American newspaper correspondents, etc., seek information from personnel at the centers. The U.S. embassy, the AID mission, and the agricultural attaché seek information and judgments on specific issues. Likewise, representatives of European universities and embassies call on Center field personnel.

Training.

I. There are currently (first semester, 1967-68) 61 graduate students who are considered to be Land Tenure Center Fellows.

1. Of these, 35 are Latin Americans; the policy of maintaining approximately a 50-50 balance between Latin Americans and North Americans is being adhered to.

2. Of the 61, 40 are candidates for the Ph.D. degree.

3. Departmental affiliation of the 61 follows:

Agricultural Economics	-	27
Rural Sociology	-	10
Law	-	6
Political Science	-	3
Mass Communications	-	1
Economics	-	4
Anthropology	-	1
Geography	-	2
Agricultural and Extension Education	-	2
History	-	1
Sociology	-	4

II. Of the 61, eight are overseas participating in the Center's Latin American research effort.

1. Of these eight: two are Ph.D. candidates in Agricultural Economics; one is a Ph.D. candidate in Rural Sociology; one is a Ph.D. candidate in Political Science; three are Ph.D. candidates in Law; and one is a Ph.D. candidate in Mass Communications.

2. The countries in which they are doing their research are:

Bolivia (Marcelo Peinado)

Brazil (Helcio Saraiva)

Chile (Carlos Fletschner, Terry McCoy, Rubens Medina)

Colombia (Luis Arévalo, James Grunig)

Venezuela (José Franco)

3. Six of the above eight are Latin Americans who have returned to do research in Latin America after training at Wisconsin.

4. Of these eight: only one is supported entirely under contract funds; two more are partially supported by contract funds; five, then, are drawing outside funds to strengthen the research program of the Land Tenure Center.

III. There are, then, 53 remaining who are currently on the Madison campus.

1. Of the 53, 29 are Latin Americans.

2. Eight of these have completed gathering data and are back to analyze it and write their research papers. Three of these are Latin Americans. Five of these are currently being supported by contract funds.

3. Of the remaining 45, the Center currently supports 13, some of them only partially. Only ten receive their full support from the Center. These 13 are assigned to staff members who supervise their work obligation to the Center.

4. Every effort will be made to have as many students as possible supported by other-than-contract funds next year in order to free the fellowship budget for new students.

IV. To date, $35,316 has been committed out of a total budget of $40,000. (This does not include overseas students who are covered under country budgets.)

Two new assistantships have been offered for the second semester, and have been accepted. With a balance of $4,684, several more assistantships can be committed in the second semester. Currently, there are more applicants than funds for these positions.

V. Seminars are held from time to time to inform students of the on-going program of the Land Tenure Center. Agricultural Economics 923 is designed partially to keep students in touch with the Center's research program.

Publications, Films, Exhibits. A primary goal of the Land Tenure Center is making its research results and the knowledge it accumulates widely available to other researchers, policy makers, and administrators in the United States and abroad. The Center presently has about 70 available publications organized into five series (Research Papers, LTC Papers, LTC Reprints, Discussion Papers, and Training and Methods Series), along with motion pictures, photo exhibits, and a periodical newsletter. The main focus of these efforts has been to distribute, as quickly as possible, the

results of research and to make data, documents, and translations available to staff and students working with the Center. Demand for these materials from outside users is increasing at a rapid rate.

Publications are mailed in response to written requests, or personally handed to visitors. In addition, the Center maintains a number of mailing lists of persons to whom new publications are sent. These lists include more than 500 names broken down as follows:

(a) Twenty Latin American AID missions.

(b) A select group of 60 Washington AID offices.

(c) A group of about 100 research institutions and individuals in foreign countries who have a special interest in the work of the Center.

(d) A similar group of about 90 research organizations and individuals in the United States.

(e) A list of more than 95 U.S. and 80 foreign libraries interested in receiving all Center materials.

(f) A list of about 65 students and staff on the Madison campus who are involved in agrarian development studies and research in Latin America.

(g) An additional list of about 1,260 people who receive the newsletter and lists of available publications and who request publications occasionally.

The following publications were produced by the Land Tenure Center during 1967:

Research Papers

No. 21 Carlos Camacho Saá, "Minifundia, Productivity, and Land Reform in Cochabamba." December 1966.

No. 22 Lester Schmid, "The Role of Migratory Labor in the Economic Development of Guatemala." July 1967.

No. 23 E.A. Wilkening, João Bosco Pinto, and José Pastore, "The Role of the Extended Family in Migration and Adaptation in Brazil." August 1967.

No. 25 L. Harlan Davis, "Economics of the Property Tax in Rural Areas of Colombia." September 1967.

No. 26 John D. Powell, "The Role of the Federación Campesina in the Venezuelan Agrarian Reform Process." December 1967.

No. 27 Roger G. Johnson and Rueben C. Buse, "A Study of Farm Size and Economic Performance in Old Santa Rosa, Rio Grande do Sul." August 1967.

LTC Papers

No. 28 William C. Thiesenhusen, "Grassroots Economic Pressures in Chile: An Enigma for Development Planners." February 1967.

No. 29 William C. Thiesenhusen, "How Big Is the Brain Drain?" January 1967.

No. 30 Script for LTC film entitled "Chile's Experiments in Agrarian Reform." August 1967.

No. 33 Herman Felstehausen, "Economic Knowledge and Participation in Farm Decision Making in a Developed and an Underdeveloped Country." April 1967.

No. 34 Charles T. Nisbet, "A Model for Analyzing Some Effects of Discriminatory Credit in Chile." May 1967.

No. 35 Peter P. Lord, "The Peasantry as an Emerging Political Factor in Mexico, Bolivia, and Venezuela." May 1965.

No. 36 William C. Thiesenhusen, "Let's Pay for the Brain Drain." June 1967.

No. 37 Eugene A. Wilkening and Sugiyama Iutaka, "Sociological Aspects of Colonization as Viewed from Brazil." June 1967.

No. 39 Herman Felstehausen, "Fitting Agricultural Extension to Development Needs: The Colombian Problem." August 1967.

No. 40 Ronald James Clark, "Land Reform and Peasant Market Participation on the North Highlands of Bolivia." December 1967.

Ph.D. Theses

Russell Brannon, "The Role of the State in the Agricultural Stagnation of Uruguay."

Carlos Camacho, "Minifundia, Productivity, and Land Reform in Cochabamba."

Kenneth T. Cann, "Inter-Governmental Revenue Transfers in Brazilian Municipal Finance," Indiana University.

L. Harlan Davis, "Economics of the Property Tax in Rural Colombia."

Bernard Erven, "An Economic Analysis of Agricultural Credit and Policy Problems, Rio Grande do Sul, Brazil."

Leobardo Jiménez, "Agricultural Communications and Change in a Tropical Ejido in Vera Cruz, Mexico."

Charles T. Nisbet, "The Informal Credit Market in Rural Chile: Its Nature, Significance and Relationship to the Institutional Credit Market," University of Oregon.

Frank Osterhoudt, "An Economic Analysis of Wisconsin's Diversion Permit System for Agricultural Irrigation."

José Pastore, "Satisfaction Among Migrants to Brasilia, Brazil: A Sociological Interpretation."

João Bosco Guedes Pinto, "Social Factors Associated with Adjustment of Rural Migrants in Central Brazil."

Lester Schmid, "The Role of Migratory Labor in the Economic Development of Guatemala."

John T. Steele, "Land Tenure Processes in a Community in Minas Gerais, Brazil."

Daniel Stewart, "Aspects of Chilean Water Law in Action: A Case Study."

M.A. and M.S. Theses

Hernan Bernal, "Effectiveness of the Radio School of 'Accion Cultural Popular' of Colombia in Promoting the Adoption of Innovations." (Paper in lieu of M.S. thesis.)

Jorge Dandler-Hanhart, "Local Group, Community and Nation: A Study of Changing Structure in Ucureña, Bolivia (1935-1952)."

Jorge Lopera, "Lauchlin Currie's Breakthrough, and Other Approaches to Economic Development in Colombia." (Paper in lieu of M.S. thesis.)

Eduardo Oconotrillo, "Motivaciones Para Un Programa de Desarrollo Agropecuario de Mediano Plazo Centroamericano." (Paper in lieu of M.S. thesis.)

Steven Reinheimer, "A Socio-Economic Study of Two Ejidos in Hidalgo State, Mexico."

Reprints: 13

Publications Currently Available: 72

Library. The Land Tenure Center Library, which specializes in the collection of materials dealing with agrarian reform and social and economic development in Latin America, has expanded its staff and its holdings during the past year.

The library now collects nearly 2,000 new publications per year. Approximately one-fourth of these are books. The majority of the materials gathered are pamphlets, clippings, unpublished research reports, and other softbound items, which are classified by subject in vertical files. These non-book materials now fill fifteen legal-size file cabinets, and make the collection a unique one. The library currently receives about 200 periodicals by subscription or on an exchange basis from other institutions. Many of these are in Spanish and Portuguese.

Each year the use of the library has increased. At present, the library circulates a total of at least 150 publications per week to library patrons on the Madison campus. In addition to this, materials are circulated by mail to persons outside the campus.

The increase in the library staff to three full-time members has enabled the library to begin the work of cataloging the entire collection according to Anglo-American rules. The books are being classified according to the Library of Congress classification system. An average of five to ten subject headings is assigned to each item cataloged. The cataloging which has been done so far has already proven to be of great help to researchers using the library.

Land Tenure Center Staff (1967)

Madison

Don Kanel, Director and Associate Professor, Agricultural Economics
(Peter P. Dorner, Director and Professor, Agricultural Economics - on leave; returns in February 1968 as Director)
Fritz A. Albert, Associate Professor, Agricultural Journalism
Charles W. Anderson, Professor, Political Science
Marion R. Brown, Assistant Professor, Agricultural Journalism
David Chaplin, Assistant Professor, Sociology
William Flinn, Assistant Professor, Rural Sociology and Assistant to Dean, International Studies and Programs
(A. Eugene Havens, Assistant Professor, Rural Sociology - on military leave)
Victoria Junco de Meyer, Lecturer, Spanish
Charles T. Nisbet, Visiting Assistant Professor, Agricultural Economics
Kenneth H. Parsons, Professor, Agricultural Economics, directing Central American program
Richard W. Patch, Visiting Professor, Anthropology; American Universities Field Staff
Raymond J. Penn, Professor, Agricultural Economics
William C. Thiesenhusen, Assistant Professor, Agricultural Economics
Joseph R. Thome, Assistant Professor, Law
Eugene A. Wilkening, Professor, Rural Sociology, directing Brazil program

Latin America*

Bolivia

Ronald J. Clark, Assistant Professor, Agricultural Economics, directing Bolivia program
Marcelo Peinado, Agricultural Economics, Research Assistant

Colombia

Herman H. Felstehausen, Assistant Professor, Agricultural Journalism, directing Colombia program
Luis Arévalo, Law, Research Assistant
L. Harlan Davis, Agricultural Economics, Research Associate
James Grunig, Mass Communications, Research Assistant
Emil Haney, Agricultural Economics, Research Assistant
Wava Haney, Rural Sociology, Research Assistant

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*Of the LTC research assistants, this list includes only those University of Wisconsin graduate students who worked during this year full time, either overseas and/or on the Madison campus.

Chile

John D. Strasma, Associate Professor, Agricultural Economics and Economics, directing Chile program
Carlos Fletschner, Agricultural Economics, Research Assistant (and faculty, Instituto de Economía)
Terry McCoy, Political Science, Research Assistant
Rubens Medina, Law, Research Assistant
Daniel Stewart, Law, Research Assistant

Brazil

Theodore Hyman, Mass Communications, Research Assistant
José Pastore, Rural Sociology, Research Assistant
João Bosco Guedes Pinto, Rural Sociology, Research Assistant
John T. Steele, Agricultural Economics, Research Assistant
Johannes van Es, Research Assistant, and Acting Instructor, Rural Sociology

Central America

Costa Rica - Carlos Saénz, Agricultural Economics, Research Assistant, and Carlos Quirós, Agricultural Economics, Research Assistant

Honduras - Benjamín Villanueva, Agricultural Economics, Research Assistant

Nicaragua - James Taylor, Agricultural Economics, Research Assistant

Guatemala - Lester Schmid, Assistant Professor, Agricultural Economics

Venezuela - José Franco, Law, Research Assistant, and Jorge Schuster, Agricultural Economics, Research Assistant

III

CONSULTING SERVICES

CONSULTING SERVICES

There is growing involvement by Land Tenure Center staff in consulting services. Since a university is usually divided into research, teaching, and extension activities, consulting services may be regarded as one of the LTC's "extension" activities and must be thought of as an integral part of its program.

In the United States and abroad the Center receives an increasing number of requests for advice on a variety of problems, ranging from recommendations on policy problems to evaluation of a country's agricultural legislation.

Some requests received from government or private agencies relate to problems which can be dealt with by a single consultant. Other more complex problems may be dealt with by a team of consultants, usually drawn from several different disciplines.

The Land Tenure Center's mission to the Dominican Republic is an example of the team approach. In November 1966, at the invitation of USAID, Professors Peter Dorner and Raymond Penn of the Land Tenure Center staff visited the Dominican Republic for two weeks for the purpose of evaluating the agrarian reform program proposed by the Dominican government. During the summer of 1967 Joseph Thome, Assistant Professor of Law, made an evaluation of the legal aspects of the agrarian reform program in the Dominican Republic; and C.W. Loomer, Professor of Agricultural Economics, a fourth member of the team, prepared a preliminary report on procedures to determine and record land titles.

At the request of Chile's AID mission, Kenneth Parsons, Professor of Agricultural Economics, and Jacob Beuscher, Professor of Law, visited Chile for a two-week period in 1966 to evaluate provisions of the agrarian reform law, which had just been submitted to the Chilean Congress.

Joseph Thome spent three months in Bolivia, at the request of the AID Mission in La Paz and CIDA, during the summer of 1966. The purpose of his visit was to learn the reasons for a slow distribution of land titles under the Bolivian agrarian reform law.

Professor John Strasma travelled to La Paz from Santiago in July to consult on the FAO/Interamerican Development Bank study on financing agrarian reform and is now assisting in writing an early version of the final report.

Richard W. Patch, Visiting Professor of Anthropology in the Land Tenure Center, has served as a member of the Latin America Board of the National Academy of Sciences and of the Institute of

Current World Affairs. He has also been consulting with the Ford Motor Company on the social feasibility of a small hand tractor for use in Peruvian sierra agriculture.

William C. Thiesenhusen, Assistant Professor of Agricultural Economics, spent July in Venezuela assisting with the analysis of data collected for the CIDA study on land reform as a consultant for OAS. One result of this work and another month's work as an OAS consultant on the Madison campus is a forthcoming joint LTC/CIDA study: "Leonardo Ruiz Pineda: A Case Study of a Venezuelan Agrarian Reform Settlement."

Professors Peter Dorner, Ronald J. Clark, and William C. Thiesenhusen have all given papers at the Inter-American Development Bank's continuing Seminar on Land Reform and Economic Development, in Washington, D.C. Professor Marion R. Brown gave a paper at the student-staff seminar at the Center for Studies in Public Administration at Pennsylvania State University, University Park, and consulted with graduate students there who plan to execute research projects in Latin America.

A substantial amount of consultation is done at the Madison Center also. Eighty-two professionals visited the Center at Madison during 1967. These individuals came from AID and other government agencies and represented governments in Latin America, Africa, and Asia. International agencies such as the United Nations, the International Bank for Reconstruction and Development, and the Inter-American Development Bank were represented, as well as universities and research agencies from all over the world.

Visits ranged in time from an hour or less to a week or more, during which time the visitor reviewed materials in the LTC Library and visited LTC faculty members on campus. In addition, many faculty members of the University of Wisconsin and students from the Madison campus and other universities came to the Center seeking information and publications.

The number of off-campus visitors (excluding all students) from from various agencies is (to the extent recorded) as follows:

AID	5
Other U.S. government agencies	1
Foreign governments	12
U.S. universities	17

Foundations and other U.S. private agencies	6
International agencies and foreign agencies	41
Total	82

While the purpose of the Land Tenure Center contract is to generate an understanding of rural institutions in Latin America--a task which requires years of study and research--staff members have on many occasions been of service both to host countries and to the U.S. government. Such activities tend to increase as the Land Tenure Center accumulates more expertise. Following are some examples:

1. Land Tenure Center personnel in Bolivia have been maintaining contacts with USAID in La Paz, the Ministry of Agriculture and Rural Affairs, and the National Agrarian Reform Service pursuant to the proposed program of title distribution, rural land taxation, the creation of mobile units to resolve pending land ownership conflicts, and the reorganization of the National Agrarian Reform Service. (For a more detailed description of this work see the Bolivian Field Report.) In this respect the Center has built on its own research, which shows that lack of titles since the land reform of 1953 has been one of the major sources of insecurity in the agricultural sector. This work included drafting decrees aimed at shortening the titling process for presentation to the government of Bolivia. The Center also worked on a new manual of instructions which would guide agrarian judges and topographers in carrying out their work within the new organizational structure of the National Agrarian Reform Service and in the mobile field units. A compendium of these recommendations was given to the President of Bolivia on March 15 and was circulated in U.S. government agencies. Soon, the Land Tenure Center will be working with another Bolivian commission in an attempt to set up a rural land tax program. Professor John Strasma, LTC-Chile, whose major field of interest is fiscal policy, has travelled to La Paz during the year to give advice to Professor Clark, LTC-Bolivia country director, on tax matters.

2. As a result of Land Tenure Center studies on the quality and equity of rural property appraisals and administration of the land tax, the Center has provided the government of Colombia and AID with evidence on the tax and some guidelines for improving the cadastral program. The Colombian agency in charge of property appraisal requested assistance from the Center in the preparation of background information for a loan application to be submitted for program expansion and improvement.

3. At the request of the State (Departamento) of Antioquia, Land Tenure Center personnel are assisting in an inventory of the quality, availability, and financing for infrastructure in the state. This work will provide for a joint set of recommendations for improving the administration of local and state services and allocation of funds.

4. The AID mission in Bogotá has asked the Center to collect information that would be helpful to it in funding and policy making on the structure and functioning of local units of government, along with recommendations for improving rural services and local programs. Of course, this information will also be made available to the Government of Colombia.

5. The Subcommittee on American Republics Affairs of the Senate Foreign Relations Committee is currently sponsoring a series of studies, "Survey of the Alliance for Progress." Staff members of the Land Tenure Center were asked to prepare a document on pressing agricultural problems in Latin America to which the Alliance might respond. This study, entitled "Problems of Agriculture," was published on December 22, 1967 by the Senate Foreign Relations Committee and is appended to this report.

6. LTC-Colombia was asked to cooperate in the Peace Corps program by presenting information to it on the techniques of collecting and presenting background data in the communities in which volunteers serve.

7. LTC-Chile was asked to assist in evaluating the feasibility of an offer by a foreign agency to develop a line of agricultural machinery especially designed for the small farmer.

IV

STUDY OF RURAL INSTITUTIONS: RELATIONS BETWEEN THE LAND TENURE CENTER AND OTHER CAMPUS PROGRAMS

STUDY OF RURAL INSTITUTIONS: RELATIONS BETWEEN THE LAND TENURE CENTER AND OTHER CAMPUS PROGRAMS

The Land Tenure Center has been an important catalyst for the organization, development, and growth of other related programs on the University of Wisconsin campus such as the Center for International Communication Studies, the Sociology of Development Program, and the Latin American Law Program. These programs are autonomous, but they are linked through program emphasis to each other and to the Land Tenure Center.

1. The Center for International Communication Studies is concerned with processes and effects of communication in developing nations. Doctoral training is conducted within the interdisciplinary program in Mass Communications administered by the School of Journalism and the Department of Agricultural Journalism. The program currently involves approximately 10 faculty and 25 graduate students.

2. The Sociology of Development Program, although interdisciplinary, has its main focus within the departments of Rural Sociology and Sociology. It offers a graduate program leading to the Ph.D. in Sociology of Development. The program currently involves approximately eight faculty and 30 graduate students.

3. The Latin American Law Program is an interdisciplinary program administered by the Law School and offering several graduate degrees. The program is concerned with the Latin American legal systems and their impact on development.

The areas of concern which the three programs share include:

1. <u>Institutional structure of rural communities</u>. Law; voluntary organizations; local governments; and social, economic, and political relations with the larger society, including development agencies working in local communities.

2. <u>Causes and effects of institutional and societal processes</u>. Cultural and traditional barriers to change; pressures for change, including interrelations between population growth, migration, changing agricultural technology, adjustments in institutional structure, roles of modern development agencies and pressure groups, and impact of communication media and processes; and, effects of these elements on economic and social development of rural communities.

3. Creating mechanisms and institutions for change. Experiments and experiences through extension approaches, colonization schemes, land reforms, service agencies in credit and marketing, water law, and administration of water rights.

Approach. The four programs in communication, land tenure, sociology, and law, share a common interest in studying institutions of rural communities in developing countries. These programs are especially well developed in Latin America and are strengthening in Africa and Asia. A comparative or cross-cultural approach is common to all of them.

Staff. Staff members of the Land Tenure Center may also be staff members of these other programs. The process also works in reverse. The Land Tenure Center can draw upon a broader range of competencies because of the existence of these other programs. Faculty members of the three academic programs advise and review the LTC program. All three train graduate students and give them an emphasis in area study and development problems which prepares them for field research in the LTC program. On the other hand data accumulated from field research by the Land Tenure Center have been used for dissertation research conducted in Madison, particularly by students in the Master's programs of the various social sciences. Also data, research publications, and faculty experience have enriched course content in the three programs and in other social science departments.

Since the beginning of the contract with the Agency for International Development, the Land Tenure Center program has focused on Latin America. However, the related programs do research and training on problems in other parts of the world, including Africa and Southeast Asia. Current cooperation between the communications, law, and sociology programs provides the basis for the Land Tenure Center to undertake research and training in other areas of the world with the considerable experience available in the three other programs.

V

FIELD RESEARCH REPORTS

COLOMBIA

Herman Felstehausen
Assistant Professor, Agricultural Journalism

The Land Tenure Center in Colombia has concentrated its research during 1967 on studies of the organization and productivity of large and small farms, as well as on the structure and performance of agencies and institutions serving agriculture.

Studies of land tenure and land use have been incorporated into these broader institutional and structural studies. This approach seems to be more useful than direct studies of governmental land reform projects, since the major "reforms" in Colombian land patterns are the result of market processes, farm divisions due to population growth, and new occupation of public lands--not planned government projects.

While agricultural development research is the main activity of the Land Tenure Center, the program also emphasizes two other important aspects: (1) advanced training to prepare new staff to undertake rural development studies, and (2) collection, production, and distribution of rural development information about Colombia.

Stress is also placed on conducting local activities in cooperation with national or international agencies located in Colombia. The LTC is housed with the Centro Interamericano de Reforma Agraria (CIRA) located at the national university of Colombia. A cooperative assistance agreement is also maintained with the department of sociology at the national university. Individual projects are carried on with the collaboration of other national and state agencies in Bogotá, Medellín, and Cali.

USAID has, as a result of the LTC work on agricultural organizations and service structures, given added emphasis in its current agricultural sector loan proposal to farm-to-market roads and farm supply problems. The LTC staff has participated regularly with USAID rural development personnel in reviewing both LTC and rural development programs to assure complementary efforts.

Data have been supplied regularly to the National Planning Office.

The LTC has been called upon by the Instituto Colombiano Agropecuario (ICA) to help develop plans for a more effective extension service in Colombia.

A joint project is being undertaken with the Colombian Peace Corps to document specific aspects of community development work. This material will be used by the Peace Corps, the LTC, and others in training programs.

Herman Felstehausen serves as a visiting professor in the Department of Sociology of the National University and is responsible for a course on rural organizations and institutions in Colombia. Felstehausen is also thesis advisor to four students in agricultural economics at the National University in Medillín. These student projects are being aided by the Land Tenure Center and will result in additional information about farm-to-market roads and agricultural extension programs in the Department of Antioquia.

The LTC is assisting Colombia's agrarian reform agency (INCORA)* and CIRA in developing agricultural libraries using machine cards, a stream-lined filing system, and computerized catalog production.

Staff and Collaborators. Regular staff members who worked full or part-time with the Land Tenure Center - Colombia during 1967 are the following:

Herman Felstehausen	Assistant Professor and Country Director, LTC/Colombia (full-time)
L. Harlan Davis	Research Associate (full-time) Now with AID/Washington
Emil B. Haney, Jr	Research Assistant (full-time) rrently located at University Wisconsin, Madison
Wava G. Haney	Research Assistant (full-time) Currently located at University of Wisconsin, Madison
James E. Grunig	Research Assistant, LTC/Colombia (full-time)
Luis Arévalo	Research Assistant, LTC/Colombia (full-time)
Vicente Flórez	Local Research Assistant, LTC/ Colombia (full-time)
Jaime Mira	Local Research Assistant, LTC/ Colombia (full-time)

*Instituto Colombiano de la Reforma Agraria

Garland P. Wood	Consultant (one-half month) Professor of Agricultural Economics Michigan State University
Alvaro Ramírez	Local Research Assistant (six months), now senior economist with National Ministry of Agriculture, Bogotá
Moisés Alvárez	Local Research Assistant (six months), now regional head, information office, National Institute of Agriculture, Palmira
Olga de Muñoz	Head Secretary, LTC/Colombia (full-time)
Helena Barrios	Typist, LTC/Colombia (half-time)
Violeta de Rico	Typist (five months), now housewife

The following personnel have received some project support, or have cooperated directly with the Land Tenure Center - Colombia, but are not staff members:

Juan Villamarín	Graduate Student, Brandeis University, and also Professor of Anthropology, University of the Andes, Bogotá
Judith Villamarín	Graduate Student, Anthropology, Brandeis University
George Drake	Graduate Student, Sociology, University of Wisconsin; now Western Washington State College
Matthew Edel	Graduate Student, Economics, Yale University, now Assistant Professor, Economics, MIT
Reid Reading	Graduate Student, Political Science, University of Wisconsin
Ronald Schwarz	Graduate Student, Anthropology, Michigan State University
Jesús María Sierra Bernardo Mora Diego Jaramillo Jairo Yepes	Students, Department of Economics, National University, Medellín

Publications. The Land Tenure Center - Colombia reports through regular project outlines, memoranda on the progress of its work and final research publications. The local office serves as a distribution point for LTC materials originating in other countries.

Information activities are also carried on in cooperation with the CIRA communication section. A number of LTC publications were translated into Spanish this year with the assistance of the CIRA staff.

Research articles completed during the year include:

1. L. Harlan Davis, "Economics of the Property Tax in Rural Areas of Colombia," available as Ph.D. thesis, University of Wisconsin (1967) and reproduced in a condensed form as an LTC Research Paper.

2. Herman Felstehausen, "Economic Knowledge and Participation in Farmer Decision Making in a Developed and an Underdeveloped Country," LTC Paper Number 33 (April 1967) and being published by the International Journal of Agrarian Affairs, Oxford, England.

3. Herman Felstehausen, "Fitting Agricultural Extension to Development Needs: The Colombian Problem," LTC Paper Number 39 (August 1967), presented at the VII Reunión Latinomericana de Fitotecnia. To be submitted for publication.

4. Alvaro Ramírez, "La Parcelación de Tierras Agrícolas en Colombia 1820-1965," Economía, Bogotá Año 3, Vol. 5:13 (1967) 72-87.

5. Garland P. Wood, "Local Government: Millstone or Keystone?" Latin American Studies Center, Michigan State University (June 21, 1967). To be submitted for publication.

1. Proposal to Study The Organization and Availability of Rural Services in Colombia (Herman Feistehausen)

Focus. Productive agriculture requires that a wide range of inputs and services be made available simultaneously to a large number of producing farm units. Many of these inputs and services are physical in character and are needed in order to make farms produce. Examples are fertilizers, pesticides, improved seeds, and machinery. Others are of the organizational or structural type. These make country living and rural investment physically possible or otherwise competitive with alternative urban conditions so that enterprising managers and capitalists will choose agriculture and country life over other economic activities.

This study has three principal objectives:

1. To determine whether certain specified inputs and services are actually available in the local market places and commercial center of a mixed agricultural region of Colombia;

2. To determine from a sample of farmers in the area of study to what extent they are now using or actually consider "essential" the inputs and services being examined;

3. To study the organization and structure of input and service distribution in order to describe organizational devices which show promise; to understand why inputs and services are sometimes not used, and why the creation of new services is often difficult and slow.

A number of reports on Colombian agriculture indicate that agricultural productivity is about keeping pace with population growth. The main increases appear to be coming from new lands brought under cultivation.

There are persistent service problems on both new and established farms. Preliminary work for this study indicates that some areas are poorly serviced by commercial centers and that big improvements would be needed for any large percentage of established or new farms to increase their production and to successfully market the increase.

Methods and Observations. The field work will be carried out in a 31-municipio area of southeastern Antioquia, extending from outside Medellín to the Magdalena River and down to the Department of Caldas. This area comprises the main agricultural region in Antioquia and produces a variety of products, including coffee, fruits, cereals, horticultural crops, dairy, and beef. The area is made up of old established farms as well as frontier lands. It borders on Medellín, a main industrial city and population center, which should be a stimulus to service supply.

A sample of municipios in the area will be visited. These will be selected on the basis of location and transportation access. An inventory form has been developed to gather data on the existence and organization of the services selected for study.

In each municipio center, all of the main public and commercial establishments providing services and inputs to agriculture will be visited. Preliminary trials indicate that most market and population centers can be studied in two or three days. In addition to the visits to the commercial and public establishments, approximately 20 farmers will be interviewed in each sample municipio to learn more about special problems in obtaining and using inputs and services. These farmers will be purposefully selected to include:

1. A range in size of farms and farm ownership;

2. Variation in farm products produced;

3. Variation in distance and road access from village to farm;

4. Variation in progressiveness or traditionalism of the manager as judged by local citizens.

Responses from farmers, as well as the measured availability of physical inputs in relation to their recommended use levels and cost, will be used to develop criteria for determining whether a particular service or input is sufficiently available and adequately distributed.

Collaboration. This study is being carried out in collaboration with the departmental government of Antioquia, especially the Secretaría de Agricultura de Antioquia. Responsibility for the study rests with the Land Tenure Center, IICA-CIRA, Bogotá.

Preliminary Findings. Work is nearly completed on one of the sample municipios in this study. This municipio is characterized by small peasant farms on poor soils. It is close to Medellín and has good transportation facilities, so that supplies can be easily obtained from distributors.

Preliminary findings indicate two important service and supply problems. The first is a lack of balance in the availability of new technology. For example, fertilizers and fungicides are widely used, yet there are almost no new or improved seeds (which would be needed to produce big gains in production). The main crops in the area are potatoes, corn, beans, and the century plant for producing sisal hemp. Farmer adoption of new inputs does not appear to be a problem. All were using sprays; almost all were using some fertilizer,

although they have not had soil tests and so do not know the optimal amounts which should be applied.

While the municipio has a heavy concentration of minifundios, all farms purchased some commercial inputs. The study suggests that the concept of subsistence agriculture, so often used, may not be correct for Colombian minifundios. Market potential exists, and has already been developed to some extent.

The second problem is the lack of farmer assistance in dealing with service and supply agencies. Many of the farmers in the study said assistance in dealing with the "infrastructure" was more important than assistance with farm technology. The main problem mentioned was the quality and price of fertilizers.

Additional work on the organization and objectives of agricultural extension is being carried on.

II. The Possibilities for an Economic Reorganization of Minifundios in the Colombian Highlands (Emil B. Haney, Jr.)

Focus. The principal objectives of this study are to:

1. Describe the existing levels of technology and economic organization on the minifundios in the eastern part of Cundinamarca;

2. Examine the present agricultural service structure of the region and its limitations in meeting the needs of small farm operators;

3. Determine the various types and combinations of new agricultural inputs which will induce economic reorganization and increased levels of production and incomes on the minifundios;

4. Consider the alternatives available to the small farm operators for acquiring these new inputs and improving their linkage with the greater society.

Methods and Observations. The field work was carried out in Fómeque (Cundinamarca) and neighboring municipios between June 1966 and June 1967. The Haneys lived with a family in the village of Fómeque from September through February, during which time they conducted many informal interviews with village people and 211 structured interviews with peasant families in the municipio of Fómeque, and talked with peasants and community leaders in five other municipios in the eastern part of Cundinamarca. Most of the data have been analyzed and the results are being written up in two Ph.D. dissertations.

Findings.

1. Present levels of production could be increased substantially by extending the land-saving technology (fertilizers, improved seeds, pesticides, and simple irrigation schemes) employed on the better organized production units to other small farms.

2. While most of the small farm operators are responsive to new income opportunities, their behavior is extremely cautious. This reflects their precarious position with respect to natural calamities, price fluctuations, tenancy arrangements, and credit schemes. Such conservatism is manifest in their tendency to make traditional and "insurance" types of investments, such as land and livestock purchases, ceremonial funds, and (to an increasing extent) education of their children.

3. For various reasons, new income streams are not omnipresent in a peasant community. In many instances, information on new technology is lacking, or new inputs in pay-off combinations adapted to local conditions are simply not available.

4. Incentives for the small farm operators to adopt new technology and increase output are dampened by heavy liens against their production in the form of ceremonial funds, payments in kind to landlords, continual indebtedness to traditional moneylenders, and wide profit margins to middlemen.

5. Modern communication and transportation systems have created an increasing awareness of relative deprivation among the peasantry. This perception is heightened by the local population explosion, a rapidly dwindling natural resource base, and limited opportunities for uneducated and unskilled persons outside of subsistence agriculture. The result is continued fragmentation of properties and, in some cases, declining levels of living.

6. Although many of the small producers have ideas as to how institutions might be changed to their favor, they are effectively denied participation in policy-making decisions by the highly integrated social, economic, and political elites of the community and the greater society.

7. The net effect is an increasing frustration among the peasants as to how they can improve their position relative to other segments of society, or at least keep their condition from getting worse.

III. The Migration Process in a Minifundio Community of the Highland Region of Colombia (Wava G. Haney)

Focus. The general objective of this study is to examine rural-rural and rural-urban migration as an alternative for rural peasants. More specifically, the study examines:

1. The degree of out-migration and the extent to which the population pressure on the land has been reduced.

2. Characteristics of migrants, including age, sex, educational and occupation level, in comparison with the donor and recipient communities.

3. Family and community factors which affect educational opportunities of the residents of the minifundio community.

4. Residential, education, and occupational aspirations of the present residents of the minifundio community.

5. The kind and degree of reciprocal relations between migrants and the donor community.

Methods and Observations. In addition to the field work already noted in Emil Haney's report, interviews were conducted on a more limited scale in the Llanos Orientales and Bogotá. A brief questionnaire was administered to the students of the secondary and vocational schools in the village, and a census of the village population was completed by use of the informal method.

Preliminary Findings.

1. While movement out of the area has been substantial, population increase seems to have forced the community to continue to absorb increased numbers through further subdivision of the land and perhaps lower levels of subsistence.

2. Out-migration seems to be selective of those under 30 years of age, with limited difference with regard to sex.

3. Most hinterland migrants seem to have been absorbed at or near the bottom of the occupational hierarchy, while most village migrants seem to have been absorbed in middle category occupations.

4. The majority of the peasant families did not view migration as an alternative primarily because of the risk factor involved in movement and/or awareness that needed skills are lacking for urban employment. A substantial number of these families indicated a willingness to move to Bogotá or other industrial centers if they were

assured stable employment. There is a tendency for peasant families to perceive the Llanos Orientales as being unhealthy physically because of the tropical climate and to a lesser extent morally because of its comparatively distinct sub-cultural variations. Other important reasons for rejecting the Llanos Orientales were the lack of health, education, and transportation facilities, and good markets in the area where these peasant families could hope to obtain land. (Educational opportunities is one of the major felt needs of the peasant families.) Parents perceive employment opportunities for their children to be greater in the urban areas, providing they have completed primary education and preferably some secondary training. Youth in the secondary school system of the village overwhelmingly aspire to employment in the urban areas.

5. The direct cost of education--tuition, books, uniforms, school supplies, food, and lodging--plus indirect costs of replacing family labor with hired labor, tend to prevent the majority of small farm families from achieving one of their seemingly high priority goals. Those families who are exceptions tend to have one or more of the following characteristics: (a) child(ren) with one of the few scholarships awarded to local youth, (b) a father and/or mother engaged in a secondary and sometimes tertiary non-farm occupation, (c) small family size or a low proportion of the children receiving secondary education, (d) relatively large holdings, (e) a home near the village, or (f) informal linkage (palanca) with the local power structure.

6. There is a tendency for family or pseudo-family ties to play an important role in the migration process.

7. Most migrants seem to have some assurance of assistance in obtaining employment, housing, etc., from relatives and/or friends in the recipient community. There is a small flow of goods and services from migrants to family and friends in the donor community.

IV. The Effect of Information and Services on the Decision Making Processes of Colombian Latifundistas (James E. Grunig)

Focus. The general purpose of this study is to confront the issue of the latifundista in Colombian agricultural development. Is it possible, with government help, to make the latifundiasta a productive entrepreneur, or should the land be taken from him and distributed to others who might use it differently? The study seeks to learn how large landholders in Colombia are making decisions and whether these decision methods are consistent with Colombia's development needs.

Methods and Observations. The study is basically one of comparative case studies. About 45 landholders are being studied in each region. They are being chosen purposively to fit into three a priori types. The first type consists of cattlemen who have invested little in their farm and have displayed little entrepreneurship; the second are cattlemen who have invested in their livestock operations through improved pastures, better breeds, etc.; the third group consists of producers of the predominant crops in each area.

The data for the Cauca Valley portion of the study have been collected, and on this basis some preliminary conclusions can be drawn. These conclusions suggest that three types of large landholders exist. They can be described as follows:

1. The Traditionals. These are generally cattlemen, using very few modern practices, although some sugar cane growers also fit in this type. The two limiting resources for these latifundistas are the amount of management time they want to or can devote to the farm, and the amount of capital they want to invest. Most have extensive real estate investments or a profession which limits both their time and available capital. Others simply do not know enough about agriculture to invest capital wisely. Returns to land are very low.

Because they use few modern inputs, the variable costs of this type tend to be low and the percentage returns over variable costs high. All, however, are taking a fairly large loss over their fixed costs (mainly opportunity costs for land). Thus the returns to land are very low. However, since this type consists mainly of owners, the land provides a convenient savings bank. Inflation covers opportunity costs while returns over variable costs still provide an excellent standard of living for the owner and his family.

The traditional types tend to be older and to have sons content leaving conditions the way they are. One of the sources of change for this type, however, is sons who have studied agriculture in the United States or elsewhere and who, upon their return, want to change the farm.

Expropriation of this type if difficult because they can generally show that their lands are relatively poor--because of acidity, flooding, or drainage problems. When threatened, they will seed sugar cane to show that they are trying to use the land intensively. With investment, however, most of their land problems could be overcome. The problem facing the government is how to get land belonging to these traditional landholders into the hands of genuine entrepreneurs. What seems to be needed is a land tax to reduce the inflation benefit from holding land, coupled with a stiff set of inheritance and gift taxes to free the land when the traditional hacendados die.

2. The Unsuccessful Entrepreneurs. This type generally has invested in improved livestock or has made the switch from livestock to crops. A principle reason for lack of success seems to be the burden of costly investments which were made without the knowledge and information needed to make the investment productive. Most have very little agricultural knowledge. And the present information and technical assistance being provided is extremely poor.

Assistance is too abstract and simplistic and often given from behind an office desk without knowledge of actual farm conditions. Many in this group who realize the assistance is poor shy away from mechanization and rely on hand labor. But although labor is cheap, it is often more expensive than machinery and other new inputs. As a result, excessive labor costs is a principal reason for high variable costs.

To help these latifundistas, a number of changes are needed in the present information and technical assistance structure. Agrónomos need to have their formal training supplemented with practical farm experience. Extension might be more effective if programs were organized to visit the farms of successful entrepreneurs, so that practical experiences could be shared. Printed information on actual farm experiences with new techniques s more helpful than formal experimental results.

3. The Successful Entrepreneur. The primary difference between this type and the unsuccessful entrepreneurs is that they are knowledgeable in agriculture. Many have studied agriculture in another country or have farm experience in another country. Or, if they themselves do not have this knowledge, they have hired a competent agrónomo who works full time on the farm. Rice and cotton growers tend to be in this group because of the relatively good technical assistance given by the cotton and rice federations. A high percentage of this group tends to be renters and not land owners.

Others are successful out of a strong desire and intensive personal attention to improving the farm operation. The main problem facing this group seems to be a shortage of long-term credit.

These observations are preliminary and based only on the Cauca Valley part of the study. The data from Meta may change these conconclusions.

Cooperation. Office facilities and assistance have been provided by the Sociedad de Agricultores y Ganaderos del Valle de Cauca. Frequent contacts have also been made with the Universidad del Valle, the Facultad de Agronomia of the Universidad Nacional of

Palmira, and the Cauca Valley Corporation (CVC). Jaime Mira, Ingeniero Agrónomo, has been employed full time to assist James Grunig with the field work of this study.

V. Economics of the Property Tax in Rural Areas of Colombia (L. Harlan Davis)

Focus. Cadastral reassessments are being completed for a number of municipalities in rural areas of Colombia. The objective of this project was to study two municipalities--one where reassessment had taken place and one where it had not--to determine: (1) the extent to which revenues were increased as a result of reassessment and (2) the use made of the new revenues by local governments.

Findings. No significant economic effects were found in a sample of farmers whose tax burden had increased as a result of reassessment. This finding was attributed to: (1) low rates; (2) tax deliquency; and (3) inflation, which quickly erodes assessed land values. These problems must be solved before the property tax can be considered by policy makers as an effective tool to assist in the implementation of agrarian reform.

Cadastral reassessment can substantially increase property tax revenues of local governments in Colombia. However, equally important is the need to undertake reforms to insure that tax receipts are spent for the benefit of the local people.

Cooperation. The Instituto Geográfico Agustín Codazzi provided office facilities and some research assistance for this project.

VI. Legal Processes in Titling, Registering, and Transferring Agricultural Land in Colombia (Luis Arévalo S.)

Focus. The objectives of this study are:

1. To describe, step by step, the procedures used in obtaining, transferring, and registering a land title and its related documents. (Attention will be given to informal and locally developed procedures as well as formal legal requirements.)

2. To gather information on five major problem areas: title acquisition, transfer of property, registration, property without title, and personal contracts.

Methods and Observations. The case study method will be the main technique used. These case studies will include minor administrative or procedural studies of the role of each of the public agencies or public officials involved in the process of creating or legalizing property documents. Cases will be selected from the Departments of Cundinamarca and Boyacá because these areas are easily accessible.

VII. A Study of the Origin and Preservation of the Hacienda System in the Sabana de Bogotá, (Juan and Judith Villamarin)

Focus. This study is being prepared for Brandeis University. The Land Tenure Center is supporting part of the work because of the study's central concern with land tenure patterns.

The general objective of the project is to learn more about the hacienda system of land ownership on the Bogotá plateau. The first part of the study will trace the historical formation and preservation of hacienda holdings. The second part will be an attempt to partially describe the role of hacienda owners in the modern economic and political life of Bogotá and the surrounding area.

The historical phase will be completed soon. It traces the division of Indian lands into repartimientos or encomiendas after the Spanish conquest and the later resettlement of Indians in some locations onto reservations (resguardos). An encomendero responsible to the Crown was generally put in charge of each repartimiento of Indians. The possibility that haciendas developed from early repartimientos is being studied and described. It appears that most haciendas were formed during later periods and under different circumstances.

The Indian population increased very little during the seventeenth and eighteenth centuries, while the number of Spaniards and mixed groups increased greatly. Non-Indian people living next to Indians were called vecinos. While the Indians were not supposed to sell their lands to vecinos, the records show that when large numbers of Indians died--in epidemics for example--their land was often put up for sale by government officials. Also, during the eighteenth century the Indians were sometimes moved from one place to another, their vacated lands being sold to the vecinos. Eventually, many of the resguardos were dissolved.

Many haciendas are recent, having been formed since the establishment of the Republic. These haciendas have little or no connection with colonial times. In general, it appears that the creation and disappearance of haciendas on the Sabana de Bogotá occurred during almost all periods of Colombian history.

BOLIVIA

Ronald J. Clark
Assistant Professor, Agricultural Economics

The joint research program of the Land Tenure Center and the Inter-American Committee for Agricultural Development (CIDA) in Bolivia is carried on by an inter-disciplinary team under the direction of Professor Ronald Clark (team leader and primary researcher) and his Bolivian counterpart, Celso Reyes of the National Council of Agrarian Reform. The team, which began its work in September 1965, includes 11 economists and sociologists drawn from the United States, Bolivia, Colombia, Argentina, and Ecuador. Forty additional people have been involved in this effort as interviewers, tabulators, secretaries, and research assistants. Field work will be completed during the winter of 1967-68. During the first six months of 1968, the professional staff will analyze the remaining data and write the project report.

Focus. The project in Bolivia has three basic objectives:

1. Documenting those economic, social, and political changes resulting from the changes in tenure status which followed the Agrarian Reform Law of 1953.

2. Documenting the changes taking place since 1953 which are attributable to programs other than land reform (i.e., programs initiated by various international and private agencies).

3. Documenting land tenure and rural development problems, in order that these problems may be given due consideration in future government planning.

Methods and Observations. Studies relating to this project are being carried out in ten small study areas located in different parts of the country. In each area, three to five agricultural units are selected for intensive study. These may be former haciendas, free-holding communities (where title to land is in the name of the community), or owner-operated farms. Data are acquired by means of informal interviews, followed (after rapport has been achieved) with questionnaires. This intensive study of a few different tenure groups is supplemented by brief visits to other properties and communities in the same area.

Examples of individual studies that have been undertaken are:

1. A study of the upper and lower valleys of Cochabamba, with the purpose of investigating the types and quantities of investments that would have to be undertaken in order to improve existing irrigation facilities and flood control measures.

2. Case studies in the south (Potosí and Chuquisaca in particular) relating to an estimation of Bolivia's potential for becoming self-sufficient in wheat production. This involves documenting the tenure system which predominates in wheat-growing areas, market outlets, agricultural services, consumption of wheat by the peasants themselves, etc.

Findings. Regarding the changes which have occurred in Bolivian agriculture following the land reform of 1953, the studies undertaken reveal, among other things, that food which was marketed in pre-reform Bolivia came from the portion of the farm that was managed, usually in absentia, by the landlord. By requiring deliveries by peasants, this produce was transported from the farm to the warehouse that the landlord maintained at his place of residence in a major city. Thus, the land reform of 1953 immediately disrupted both production on the landlord's portion of land and its marketing. On some farms this land was idle until peasants and their local unions received assurance that they could farm this property. The full market flows to cities were resumed only after several years during which new market fairs emerged in the countryside and trucker-assemblers appeared in large enough numbers to replace the gap in the marketing system created by the elimination of the landlords. These disruptions, rather than subdivision of land among peasant families, were primarily responsible for minor declines in production and large decreases in the flow of food to the cities in the years immediately following the reform.

The consequences of slow distribution of titles to peasant families--another phase of the LTC/CIDA research in Bolivia--are evident from the data collected; only about half of the families that received land were granted titles between 1953 and the present. Ownership uncertainty has affected the relations between peasants and former landlords and the allocation of land to children who have married since the original distribution. For example, there are instances in which peasant unions have prevented landlords from using land which the law allows them to retain. In other cases, landlords have been able to "sell" rights to campesinos and give them a "title" to lands which were expropriated under the reform. Landlords have also hired peasants below the prevailing wage since in some areas peasants still fear the landlord's return to his former position of pre-eminent power. Within the campesino communities, subdivision of original assignments and encroachment of

other peasant families on land destined for common use have proceeded. Thus, conflict and uncertainty have been created by absence of secure titles, and some illegal transactions have taken place. Titles, when issued, will differ considerably from the situation that has developed since the reform.

Subsequent Developments. A report based on the land titles research project was presented to the President of Bolivia in March. This report, which recommends that the government speed up the distribution of land titles to the more than 55 percent of the rural population who have not yet received title to their land, was enthusiastically received by the government, as well as by the Bolivian AID Mission.

The report led directly to the establishment of a special commission to draw up recommendations for more rapid distribution of titles. This commission recommended that the National Agrarian Reform Service be reorganized and that AID Mission and the Bolivian Government work together to create mobile units of topographers and agrarian judges to speed up the process of title distribution. Also included in the recommendations were the necessary decrees which, in the interest of rapid title distribution, the President of Bolivia would have to sign to eliminate administrative and legal bottlenecks in the expropriation process.

The Bolivian government petitioned AID asking for assistance in the execution of a program of title distribution. In July 1967, the first three mobile titling units were dispatched; three more will be inaugurated in March 1968; 30 more are planned for at the end of 1968. This represents a total program of about $8,000,000 which has been committed as a direct result of the LTC/CIDA research in Bolivia.

As a sequel to the work on titling, team members have discussed with the Bolivian government and the AID Mission the possibility of instituting a land tax. At present, farmers who received land under land reform pay no land taxes. Once a program of titling is completed, taxation of land--combined with distribution of a large share of the proceeds to local communities--could be used as a major source of financial support to the fairly recent Bolivian program of community development.

The LTC/CIDA project in Bolivia has received greater cooperation from that country's AID Mission and more rapid incorporation of research results into governmental policies than has any of the Land Tenure Center's other projects in Latin America. An indication of the receptivity of this research has been the interest of the AID Mission in Bolivia in drawing up a proposed three-to-five year contract with the University of Wisconsin for further research and

technical assistance in the areas of local government and taxation, community development, and titling procedures.

LTC/CIDA Project Staff

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Celso Reyes	Co-Director Government of Bolivia
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Oscar Delgado (CIDA)	Sociologist
Gonzalo Gonzales (BID)	Sociologist
Marcelo Sangines	Sociologist
Marcelo Peinado	Economist (student)
Carlos Camacho (BID)	Economist
Eduardo Ballester	Economist
Guillermo Gallo Mendoza	Crop and Livestock Specialist
René Gonzales	Crop and Livestock Specialist
Evelyn Clark	Anthropologist
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Yolanda Kallmannsohn	Bilingual Secretary/Administrative Assistant
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Mauricio Mamani	Researcher
Ricardo Luján	Researcher
Victor Miranda	Researcher
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Francisco Sanchez	Researcher
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Carlos Salgueiro	Coder

Cooperating Agencies

National Agrarian Reform Service
Ministry of Planning, Government of Bolivia
Ministry of Agriculture, Government of Bolivia
Ministry of Rural Affairs, Government of Bolivia
Inter-American Committee for Agricultural Development (CIDA)
U.S. Agency for International Development (AID)

During the first year of the LTC project the AID Mission allotted $36,000 for project activities. This amount was increased to approximately $60,000 for the following year. Additional funds from the same source have been promised for project activities through June 1968. (These are funds generated by the sale of agricultural products from the United States.)

CHILE

John D. Strasma
Associate Professor, Agricultural Economics
and Economics

1. Problems and Prospects for Fruit Exports

Focus. This project seeks to explore some of the causes of Chile's inability to expand fruit exports rapidly. The land reform corporation, CORA,* is undertaking large new plantations, as well as cleaning up and improving the management of existing orchards on farms which were expropriated because they were abandoned or badly run. If the CORA plantations are to produce higher incomes and employment in labor-intensive enterprises appropriate for "communitarian" producer cooperatives, bottlenecks will have to be identified and overcome. This study is a first step in that direction, and the personnel trained are expected to continue working in the same area.

Methods and Observations. The project was carried out in the Aconcagua Valley and the Curicó area. Growers accounting for almost all of the export production of table grapes, plums, nectarines, peaches, apples, and pears, were interviewed in the field. The 92 question interview included cost, input and marketing data, as well as expectations, attitudes, and suggestions. The principal researchers are Hernán Mena and Mario Costa, employees of the Departamento de Defensa Agrícola of the Ministerio de Agricultura (export and import inspection service). The Ministry expects to undertake further research in related topics under the leadership of these two men, trained in the present project. Professors John Strasma and Sergio González have directed the project, with frequent meetings with the senior staff of the Departamento de Defensa Agrícola.)

Progress. The field work is completed and replies are being coded. A draft report is expected by the end of January 1968. Preliminary findings have been reported informally to the Chilean AID Mission and to the Departamento de Defensa Agrícola. Once tabulated and fully analyzed, they will be delivered to the Chilean AID Mission and to the Minister of Agriculture. Meanwhile, the principal immediate result is that the Departamento de Defensa Agrícola has changed its approach from that of severe, inflexible sanitary inspector to one of technical assistance and education for producers as to what the export standards are and how growers can best meet them.

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*Corporación de la Reforma Agraria.

Cooperation. Local cooperation includes the three principal cooperatives of fruit growers, the six Chilean government agencies controlling or intervening in the export process, the CORFO,* the Chile-California technical assistance personnel, and the Faculty of Economics of the University of Chile. The Ministry of Agriculture provided the use of two vehicles for field work and paid the salaries of the researchers. The University of Chile provided tabulating machines and practical instruction in coding questionnaires.

The general reaction of growers to the study was enthusiastic. Several stated that they want the Land Tenure Center to make sure the study reaches persons and agencies that can and will act upon it, rather than remain in file drawers, as have some earlier surveys. Given the great interest and active participation of the Ministry of Agriculture, no difficulty is expected in this regard. A zone director of CORA also expressed great interest in the study, and in the fact that the LTC was looking ahead to the marketing problems which may be faced by his settlements when their new plantations come into production.

It is also worth noting that this study was requested by an agency of the Government of Chile, rather than being proposed by a researcher of the University of Wisconsin, or by USAID. It was directed by Land Tenure Center personnel already in Chile, with a direct cost in contract funds of about $3,000 and a Chilean government contribution of about the same amount. While the Land Tenure Center regards it as one part of a general productivity study and a marketing study, the Chilean government agency considers it useful in and of itself. The LTC expenditure might also be regarded as training; the Chilean researchers have been appointed to permanent posts to carry out similar tasks on their own in the future.

II. Private Land Redistribution

Focus. Following up on an earlier study by Idiáquez (see LTC Annual Report, 1965, Part IV, pp. 11-14, and Newsletter No. 22), Juan Lyon conducted a new study of the merits, problems, and possibilities of private land division under present conditions. The earlier study had some influence in the drafting of a law designed to halt such division; the present one reveals, among other things, the ways in which Chilean land owners and would-be buyers get around that law.

The relevant law, whose provisions are substantially unchanged by the Frei land reform law of 1967, provides that farms over 80 hectares in size may not be divided, nor may owners sell any part of them without CORA permission. Thus far, CORA has not given such permission to any applicant. About a dozen applications are pending though many fail to meet the law's specifications. (A minimum of 40 percent of the farm must be sold to campesinos, in "economic units" at

*Corporación de Fomento de la Producción.

what CORA deems a fair price and on long-term payments. Many applications were rejected because the 40 percent to be sold to campesinos was the worst land on the farm; the good land was to be sold to buyers who could pay more, and on shorter terms.)

Methods and Observations. The new study was conducted in the vicinity of Pichedegua, near a CORA asentamiento and an INPROA colony. A large farm was divided privately into many small parcels about three years ago. A sample of these parceleros was interviewed to determine their farming practices, the success of their investment and their views on land division, private as well as public. Simultaneously, a sample of inquilinos on a nearby large fundo was interviewed to determine the degree of interest and ability to acquire and pay for parcels.

Progress. Field work has been completed, and the final report is being prepared.

Preliminary Findings. As in the Idiáquez study, those who bought parcels in the earlier land division bought on very short terms, selling their livestock to make a down payment and "mining" the soil through over-cultivation of fertility-exhausting crops, for which cash advances were provided by processors. Unlike the previous study most buyers were at least genuine farm workers. Their farming methods were (and still are) traditional, and their attitudes likewise.

The 1965 prohibition against private division has been evaded in two ways. First, Frei's land reform law orders joint owners to split up farms held in partnership (usually among heirs) within two years after the creation of such partnerships (Article 159). So several would-be buyers form a partnership, acquire the entire farm, and then comply with the law by splitting it up. Alternatively, the buyer goes to court and claims to be a squatter who has been occupying a given piece of land unmolested for 15 years. The landowner (seller) fails to defend his title when summoned to court, so the judge has no alternative but to issue a perfectly valid land title to the self-styled "squatter" for the parcel, which he has in fact bought.

While the second method requires false swearing, and is appropriate only for isolated sales of small parts of farms, the first method is fully legal and has proved a fairly effective way of splitting large properties among several buyers. Its main drawback for sellers is that all parts must be sold before title can be transferred for any. The seller can't afford to wait several years; hence he must settle for a lower price.

III. The Economics of Share Farming in Chile's Central Valley

Focus. Field work is now under way in a detailed study of the economic relations, experience, and expectations of landowners and share farmers (medieros). Problems of time and resources limit the main research work to the area around Limache. The bulk of Chile's tomatoes are grown here, almost entirely under a sharecropper form of tenure. The popular belief is that landowner and farmer share costs and profits 50-50. However, when proper allowance is made for the value of services provided by each party, and detailed accounting is made for discounts, interest, and other charges deducted by landowners in the year-end settlement, it appears that the actual sharing in costs and in profits is nowhere near 50-50. In addition, the ratio of costs is nowhere near the actual ratio of profits accruing to the two parties. The present study seeks to determine, among other things, the actual average shares of costs and profits.

The Frei land reform law states that the President is to issue a decree regulating share farming and land rental in the future. This study aims to provide factual support for policy decisions on the forms of share farming which are to be encouraged (or prohibited) in that decree.

Methods and Observations. The methodology is based on detailed interviews with samples of landowners and share farmers. Each is asked (with the aid of available records) to reconstruct all inputs and results. Figures given by the landowner are checked against those of the tenant. Differences are pointed out and classified, if possible. Other areas are being studied more superficially in order to identify probable differences with the practices in Limache, and with other crops.

The principal researcher is Arturo Urrutia, graduate economist of the University of Chile.

Progress. Field work is expected to be completed in January 1968, and a draft report is expected for March 1968.

Cooperation. Cooperating agencies include ICIRA* and INDAP,** as well as local authorities in Limache. The Ministry of Agriculture has expressed an intention to carry out further studies of cost and profit-sharing and rentals of all kinds in Chile. The principal researcher would be hired to direct this work.

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IV. Migrant Laborers

Gonzalo Falabella completed a thesis on the migrant laborer, based on techniques of the participant observer, as well as more traditional sociological research methods. The resulting study was accepted as a thesis by the Catholic University of Santiago. The author plans to shorten and revise the manuscript for LTC publication.

V. Tax Studies

The evaluation of the aerophotogrammetric survey is nearly completed. The remainder of the work on agricultural taxation has been virtually suspended since early 1967, due to the Chilean Internal Revenue Service's failure to provide data on tax returns, and also to the absence from Chile of José Gimeno, agricultural planner, who was supposed to be the Chilean government counterpart for the tax studies. Gimeno returned in Late November, and the studies are to resume in January 1968. The objective of the studies is to estimate the actual tax burden and its distribution in the agricultural sector, and to design alternatives for tax reform in that sector, taking into account progress made in land reform and improved information on Chile's land and water resources.

VI. Agricultural Labor Organization in Chile.

In the past four years there has been a marked increase in both the scope and the militancy of peasant labor unions in Chile. The number of recorded labor conflicts and the number of peasants involved in grievance petitions and strikes trebled in a single year after President Frei took office and relaxed enforcement of prohibitive agrarian labor laws. These laws restricted unions to single farm units, established a literacy requirement and fixed minimum membership at 25. The boundary restriction alone was sufficient to make effective unionization impossible.

President Frei proposed legislation to liberalize these laws, and in the meantime instructed his labor ministry to deal with the complaints of campesino groups whether or not they were legally constituted unions. The result was a sharp increase in the number and activity of such groups.

The contest for the political support of these emerging peasant power groups has been vigorous. Two national groups (UCC and ANOCH) have a definite Christian Democratic leaning, though this has not prevented some conflict between these unions and the Frei government. As of 1966 the UCC claimed to have 30,000 workers in its ranks.

A socialist-communist union--the Federación Campesina e Indígena--is probably somewhat smaller but has considerable strength, as was demonstrated in its 1966 Colchagua strike, which involved some 2,000 workers on 55 farms (LTC Newsletter No. 25, p. 12).

Independently of any of these existing regional and national unions, the government agrarian development agency (INDAP), has been fostering organization of pre-sindicatos (de facto unions), an activity that has brought criticism from some elements in the government (including CORA), as well as from the existing unions and opposition parties. This has been a major sore point between the government and the Christian unions.

Focus. The purpose of the present study, which was conducted by Marion Brown in collaboration with Maurice Zeitlin, is to describe in greater detail the nature and extent of the peasant organizations and to analyze their impact on:

1. Wages and other benefits.

2. The organization and management of large farms.

3. The balance of economic and political power in rural areas, including effects on local government.

4. Attitudes of campesinos toward:

   a. the traditional tenure system;

   b. traditional labor-management relationships and loyalties;

   c. their own relationship to the land and their role in the productive process (i.e., their desire to become independent farm owner-operators or as opposed to their desire to improve their bargaining position as workers).

These agrarian labor issues have important implications for Chile's present land reform effort. In large part, they have arisen because of that and related reform efforts, and it is reasonable to think that similar issues will emerge in the early stages of agrarian reform in most Latin American countries.

Methods and Observations. The study consists of interviews with some 220 campesinos on 16 large farms between Aconcagua and Nuble. Several interviews were conducted on each of the farms so as to maintain both farms and individuals as units of analysis.

Data on wages and other benefits come from field interviews, from union records, and from the Chilean Labor Ministry. The Labor Ministry records farm labor conflicts, listing the number of workers involved, location of farm, demands made, and settlements reached.

Findings. These data have not been fully analyzed, but it appears that the unions have been effective in increasing wages, somewhat less effective at maintaining job security, and even less effective in gaining other benefits such as improvements in housing. UCC officials say 60 percent of the farmers were paying the legal minimum by late 1966, whereas only about five percent were doing so in 1960. These figures are questionable, since UCC does not say how they were produced, but there is no doubt that compliance is more general than it has been traditionally. This is certainly true of the farms that have unions, and is often the case on surrounding farms.

Union strength in maintaining jobs was tested in April and May of 1966. UCC leaders claim that about 8,000 campesinos lost their jobs during the two month period. Of these, 4,000 were UCC members. The union retaliated with a threat of a general strike and suceeded, with some government mediation, in saving the jobs of most of their members. Their official figures show a reinstatement rate of about 80 percent.

The unions make no claims of having won improvements in housing. In fact they admit that housing conditions are deteriorating as farmers disinvest in anticipation of expropriation (Newsletter No. 24, p. 25).

The farms selected for the present study were previously surveyed by a research team from the Institute for Research and Training in Agrarian Reform. This study will provide contextual data (i.e., farm size, land use, number of workers, administrative organization, cropping patterns) useful for the analysis of the impact of the unions on farm management and organization.

The analysis of political power shifts will include union affiliations, individual party preference, and voting behavior. These data were gathered in the interviews but they have not been tabulated yet.

A major part of the study deals with campesino attitudes. A crude preliminary analysis indicates that there are probably three basic attitude types where traditional labor and tenure relationships are concerned:

1. Traditional--characterized by low level of class consciousness, intense loyalty to the patrón, preference for conservative parties, and little interest in unionization or reform. (Approximately 20 percent of the sample would seem to fall into this category.)

2. Reformist--characterized by moderate levels of class consciousness and union militancy, support of Frei's concept of "revolution in liberty," including especially extensive land reform (about 55 percent of the sample).

3. Revolutionary--characterized by strong class consciousness, including open and articulated resentment of existing land owning class, extreme union militancy, support for Socialist and Communist parties, and for more radical reforms--sometimes including abolition of private property (about 25 percent of the sample).

Demographic data and information on the life experiences of respondents will be analyzed in an attempt to discover correlates of each of these attitude types.

Several of the large farms that CORA has taken over for re-distribution have strong unions. This is true of the state-owned farms on which workers have been organized since the 1930's, and which were among the first to be re-settled by CORA. In addition, CORA has made a point of taking over farms experiencing severe labor unrest, and most of these have strong peasant organizations.

The relationship between CORA and the local unions has been uneasy and ambivalent. Union officials (both Christian and Leftist) accuse the government agency of deliberately trying to destroy the unions and set up puppet organizations. CORA argues that the new committees do not necessarily replace the unions, but that they perform a new management role for which the unions are not suited. There is undoubtedly some disagreement within CORA itself as to just what its relationship to the unions should be. Some argue that the union organizations have no role "now that the campesinos are their own bosses," and that they will gradually dissolve. Others favor some form of active competition or suppression. Still others insist that the unions can and should be preserved and encouraged to take on new functions in the post-reform situation.

There is some indication--at this point little more than an impression--that union experience focuses the campesino's attention increasingly on the cash wage and on his role as a laborer and less on land and other factors of production and his role as a producer. (Chilean resident workers have traditionally also been "producers" in that each family has the use of a small plot as part of its pay.) The present focus is almost exclusively on the

struggle with the patrón for better wages and conditions, not on acquisition and control of land and other elements of production.

If this is the case it could have serious implications for any attempt to establish independent reform-created units, whether cooperatively or individually owned. The land reform agency may find itself in the role of owner-manager and under growing pressure for welfare-type services to land reform beneficiaries.

It may prove advisable, for purposes of implementing the proposed reforms, for INDAP and for CORA to encourage peasant organizations to deal with production issues as well as wages in the pre-reform situation.

It is estimated that some 200,000 hectares of the nation's best lands are presently ceded by landowners to resident workers. As these workers become organized, the government may well be able to treat the unions as producer cooperatives providing seed and fertilizer loans, and marketing services. A minimal program of this kind could have an immediate impact on the campesino's independence from his traditional patrón, and his productivity and income. It could also have a long range effect on his inclination and capacity to cope with post-reform management responsibilities.

Such a program would not be a substitute for re-distributive reform, but a preparatory measure designed to increase productivity and ease the transition from a paternalistic to a pluralistic rural society.

VII. Agrarian Reform in Chile, 1962-1968: A Study of Politics and the Development Process

Focus. The primary purpose of this study by Terry McCoy is to analyze the political implications of a specific developmental process. It is based on the proposition that effective socio-economic change and political survival are interrelated and depend upon the maintenance of political communication between the state and relevant publics. According to this view, development is seen not as a series of isolated acts but as a dynamic process. Control of this process by the state depends upon its ability to comprehend and adjust to a constantly changing situation. The present study examines the working hypothesis that the success of agrarian reform in Chile, along with the political future of the Frei government, depends upon the latter's ability to move in the direction of a general goal while constantly adjusting to a changing situation which is in part structured by the reform process. The study attempts to discover what groups and individuals are involved in the agrarian reform process, the nature of their involvement, especially how the government attempts to deal with them, and the impact of both these political forces on the reform

process and of the process on them. Hopefully, the study will suggest the political relevance of Chile's agrarian reform experience to the rest of Latin America and to the developing world in general. Finally it is hoped that, in pursuing the above goals, the thesis will provide a general description of the agrarian reform process in Chile.

Chile's agrarian reform provides a good laboratory for a study of politics and development. First of all, agrarian reform, in general and as elaborated by the Frei government, encompasses not only growth but also redistribution. Agrarian reform proposes to increase agricultural production by redistributing land and influence in rural areas. Secondly, the Frei government has made explicit the political ramifications of the agrarian reform process by recognizing that not only is the state allocating a valued object of society--land--but at the same time it is also restructuring the decision-making system and society itself. This suggests that there exists a constant interplay between politics and the reform process in which politics affects reform which in turn influences political change. Thirdly, the agrarian reform process is currently in full swing in Chile. Finally, because of a democratic tradition unique in Latin America, Chile offers the greatest potential for free political participation in the development process. Although selecting such a case tends to predetermine the conclusion that politics is important to development, it does not assure that development will be successful, nor does it define, a priori, the role of politics.

Methodology and Data. The methodology employed in this exploratory analysis is that of examining the policy process at the national and local level through field research. The chief sources of data are in-depth, semi-structured interviews, supplemented with printed material. The study begins with the passage of the first modern agrarian reform law in 1962 and terminates in 1968 with the implementation of the new agrarian reform law passed in 1967. It is a study of agrarian reform in progress, not after the fact.

Interviews are being conducted on two levels: at the policy-making center in Santiago, and at the implementation level in the countryside. The Santiago interviews probe into the role of key individuals and groups in the agrarian reform process at the national level during the administrations of Presidents Alessandri and Frei. Although the study focuses on the current situation of the Frei administration, the reform process was initiated by Alessandri in 1962 with the passage of Ley 15.020, and Alessandri's experience in agrarian reform definitely set the stage for Frei who took office in 1964. For the first two and one-half years of his government, Frei had to rely upon the law passed by his predecessor. Naturally, the experience of working with the old law influenced the formation and

implementation of the new law passed in July 1967. Since changes in government are crucial to every reform process, the author decided to begin the analysis with the Alessandri administration.

A partial list of interviewees would include government officials from the Ministry of Agriculture, the Agrarian Reform Corporation (CORA), and the Institute of Agricultural Development (INDAP), peasant organization leaders, representatives of agricultural societies and, to a lesser extent, party leaders and congressmen.

The field work consists of five case studies in CORA's 11 administrative zones. In each zone interviews are conducted with CORA officials (Zonal Director, Director of Peasant Development, Area Chiefs, and Settlement Coordinators), relevant personnel from INDAP (i.e., Director of Peasant Organizations), peasant union leaders and organizers, leaders of agricultural societies, landholders, and peasants on CORA projects (especially elected leaders) Cases and interviewees were selected on the basis of several issues thought to be important to the reform. They include successful CORA projects and those with problems, settlements with unions and those without, prosperous landholders and those who have been expropriated. With the data from the interviews, the agrarian reform process within a given zone can be reconstructed and, when all zones are compared, common patterns can be discerned.

The sample tends to include a variety of situations found in the other six CORA zones. The First Zone (Tarapacá-Antofagasta) is characterized by isolation and special problems much as its southern-most counterpart, the Eleventh Zone (Aysén-Magallanes). The Second Zone (Atacama-Coquimbo) is important alone as the location of the first large scale reform project carried out by the Frei government. The Third Zone (Aconcagua-Valparaíso) features intensive, high quality agriculture, while the Fifth (O'Higgins-Colchagua) is located in the heart of the Central Valley. Both of these latter two zones are located near Santiago and are characterized by high interest and participation in agrarian reform. The Ninth Zone (Cautín-Valdivia-Osorno-Llanquihue) encompasses the extensive wheat farming areas of the south with a scattered Indian population.

VIII. Chile's Experiments in Agrarian Reform

The research on this topic conducted by William C. Thiesenhusen, Assistant Professor, Land Tenure Center, was included in his book, Chile's Experiments in Agrarian Reform (University of Wisconsin Press, 1966. The Spanish version is available from the Instituto de Economía, Santiago). William Thiesenhusen is continuing these studies, which focus on new landholders with a previous background

as landless campesinos. These studies are predicated on the idea that when a more inclusive agrarian reform comes to Latin America, technicians and planners will be aided by studies of how small-scale reform has worked.

An attempt is made to isolate factors which influence the success or failure of new landholders. Of special interest are methods of transmitting technical skills to landholders who have previously made few management decisions. Work to date has been of a benchmark nature. Re-studies were initiated in 1967 as a result of William Thiesenhusen's trip to Chile in August. These re-studies of colonies which the author investigated previously will be supplemented by other studies of selected asentamientos founded prior to the enactment of the Agrarian Reform Law in Chile (Law 16640--July 1967). Some details this work may be found in a paper prepared for delivery to Inter-American Bank Seminar on Land Reform and Economic Development entitled "The Usefulness of Small-scale Structural Reform Studies to the Analysis of Large-scale Programs" (October 11, 1967, IADB, Document 13/67). Work of this general topic has been expanded to Venezuela, where William Thiesenhusen carried out a study in July 1967 of the agrarian reform settlement, Ruiz Pineda.

IX. Market Structure of Selected Agricultural Projects

Carlos Fletschner began his field research for this study in Chile in 1967. The objective is to determine how the marketing system for agricultural products works, and to detect imperfections that prevent farmers under different land tenure systems and selling different products from obtaining higher levels of income from farm operation. Implications will be drawn for recipients of land under agrarian reform.

Three products in several areas each will be followed until they reach the consumption market, observing the strategic marketing characteristics. At each stage this will involve an analysis of price, value added, transportation, and transference costs, as well as differences in prices paid and barriers to access or other market imperfections that influence and condition the market structure. The results may shed some light on the truth of the traditional belief that middlemen are "exploiting" small producers. At the same time the study may indicate some bottlenecks that obstruct the efficiency of the existing marketing operation.

Project Staff

Staff members who worked full or part-time and received some financial support from the Land Tenure Center - Chile during 1967:

John D. Strasma	Associate Professor and Director
Daniel Stewart	Research Assistant
Terry McCoy	Research Assistant
Rubens Medina	Research Assistant
Carlos Fletschner	Research Assistant
Charles T. Nisbet	Research Assistant
Jeffrey Jacobs	Research Assistant
Felipe Paúl	Research Assistant
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Sonia Fuentes	Secretary
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Antonio Idiáquez	Consultant
Sergio Gonzalez	Consultant
Roberto Maldonado	Consultant
Ivan Yañez	Consultant
Samuel Mardones	Consultant
Carlos Clavel	Consultant
Mario Cortes	Consultant

CENTRAL AMERICA

Kenneth H. Parsons
Professor of Agricultural Economics

The individual research projects in Central America undertaken under the auspices of the Land Tenure Center and the cooperating national institutions have been designed to supplement each other and, collectively, to inquire into the basic problems of agricultural development in Central America.

Taking the region as a whole, all issues of public policy are deeply influenced by the creation of a Central American Common Market. One investigator, Rodolfo Quiros, is undertaking a study of the influence, and prospective influence, of the Common Market on the structure of agriculture in Central America, including the balance between export and domestic food crops, large and smaller farms, etc. This work, though closely related to the projects reported here, is financed by the Inter-American Institute of Agricultural Sciences, for which Mr. Quiros serves as agricultural economist.

The development of agriculture in the region confronts a number of common or similar problems at national levels. Settlement of agricultural land is now taking place rapidly in the Atlantic regions. Historically, this kind of frontier settlement has taken place under permissive policies of settlement and land occupancy--particularly of public domain lands. Everywhere modernization and permanent settlement so undertaken entail the achievement of precise, legally sanctioned titles. A push toward clear titles is everywhere a problem, since insecure titles are deterrents to investment and prevent the assimilation of land to the capital structure of the country. For such reasons, there is a general emphasis in Central American countries on planned settlements or planned development. Research has focused on this general problem in both Costa Rica (Sáenz and Quiros) and Nicaragua (Taylor).

Growth rates of population are high in Central America. Research projects have been designed to obtain data on various aspects of the consequences for agricultural development of these high growth rates. In Guatemala, a study which is nearing completion deals with the nature of the social and economic system which has developed in the Guatemalan Highlands, in which population growth has led to an economy of minifundias (Gollas is conducting this study, which is currently financed by Rockefeller Foundation rather than Land Tenure Center funds.) The study of migratory labor in Guatemala, completed by Lester Schmid, was directed to the question of how this labor resource is being used, and how it might be better utilized in the modern agricultural sector. Concern

about the consequences of high population growth rates in Costa Rica provides one of the objectives of the Carlos Sáenz study. One of the questions of concern is whether the continuing combination of land policy and population growth in Costa Rica is forcing a growing number of rural people into the poverty of traditional minifundia agriculture.

In all these projects there is an underlying concern about the institutional basis of agricultural development. In Honduras, this problem is being studied directly by means of an historical-analytical inquiry (Benjamín Villanueva) which attempts to rate both (1) the historical consequences of the policies and functions of government for the pattern of agricultural development, and (2) the role of and need for the various planning, development, and credit institutions which have been created in the past 20 years.

COSTA RICA

Carlos J. Sáenz
Research Assistant, Agricultural Economics

Purpose of the Project. It is intended to trace the development path followed by Costa Rica since its independence in 1821, and the policies--explicit or otherwise--which have been, at least in part, responsible for guiding the economy along that path. This historical analysis will, hopefully, help us to understand the nature of the problems which the Costa Rican economy is now facing.

One of the most pressing problems is that of providing employment opportunities for a rapidly growing labor force. In the past, providing employment opportunities was not a significant problem because of the availability of idle land and the attitude of the state toward the occupancy of that land. None of the development policies which have been followed up to the present have considered the expansion of employment opportunities as an important objective. But this situation is beginning to change; unemployment is expected to become a very important policy issue. In this study, therefore, we analyze the capacity of the Costa Rican economy to create employment opportunities, given its present structure and the changes taking place within that structure. We also explore possible solutions to the problem of providing employment opportunities for a rapidly growing labor force.

Present Stage. The field work has been completed. The data is in the process of tabulation and analysis.

Personnel.

Carlos J. Sáenz, Research Assistant

We have been helped with advice from the University of Costa Rica, which has also provided some office facilities. Informal discussion have been held with AID people.

GUATEMALA

Lester Schmid
Assistant Professor, Agricultural Economics

Purpose of the Study. The purpose of this study was:

1. To call attention to the precarious economic situation of the migratory workers, who constitute a sizable proportion of the rural people of Guatemala.

2. To suggest ways in which the present system of recruitment and employment of the migratory workers can be improved to the benefit of the workers themselves, their employers, and the economy of Guatemala.

3. To emphasize the importance of improving the subsistence agricultural sector.

4. To relate the contributions of migratory labor to the economic development of Guatemala.

Method of Study. Information of a general nature was acquired from government agencies, AID advisors, Maryknoll priests, farm owners, municipal moyors, and many other sources in Guatemala. More specific information was obtained from interviews with 120 migratory workers, 59 permanent workers, 42 administrators of farms which hired the workers, and 33 labor contractors.

Present Stage of the Project. The study of the migratory labor situation begun in September 1965 was completed during the past year. The results of this study were presented to the University of Wisconsin in July 1967 in the form of a thesis entitled, "The Role of Migratory Labor in the Economic Development of Guatemala." The Instituto de Investigaciones Económicas y Sociales (IIES) is employing a young anthropologist to translate the thesis (the Instituto de Transformación Agraria is contributing the half-time services of this translator). A 50-page summary of the study has been published by the Land Tenure Center as a Research Paper.

Personnel and Agencies.

Instituto de Investigaciones Económicas y Sociales
Leonard Rhodes, Economist, AID
Don Fiester, Rural Development Officer, AID
Ralph Vorhies, Fruit Specialist, AID

This study has been supervised principally by Professors Kenneth H. Parsons and Peter Dorner of the University of Wisconsin, and by Professor Rafael Piedra Santa Arandi of the University of San Carlos. Two Guatemalan economics students, Manuel Cordero and Julio Segura, have been involved in the planning and the completion of the study. Four other economics students, Haroldo Vallejo, Alfredo Morales, Adolfo de León, and Carlos Avendaño also assisted. Miss Velia Calderón was employed as a typist.

Purpose of Second Study. A second study was started in Guatemala about the first of August. The purpose of this study is to try and discover what factors have been important in the successes and failures of middle-sized (family-sized) farms and to analyze the possible role of this type of farm in economic development. For over 100 years the governments of Guatemala have, from time to time, tried to create this type of farm unit, yet Guatemala remains essentially a country of extremely small and extremely large farms.

In this study an attempt will be made to discover what characteristics of the people and of the land have resulted in successful farm enterprises, farms that have provided sufficient income for improvements, children's education, etc. (This excludes large farms which hire nearly all of their labor.) At present, it appears that there are three types of farm operations which may meet these criteria: (1) the extremely small farm which is cultivated exclusively with hand tools and which supports labor-intensive, high-value crops; (2) somewhat more extensive farm operations in which some type of non-human power is used; and (3) a combination of crop and livestock or poultry operations.

Several areas of the country have been visited and about 20 farmers interviewed on an informal basis. On the basis of these interviews and other information a questionnaire is being prepared to be administered in several communities.

HONDURAS

Benjamín Villanueva
Research Assistant, Agricultural Economics

This study aims at appraising the effectiveness (in terms of economic development objectives) of certain newly created institutions in Honduras: National Agrarian Institute, National Development Bank and Central Bank of Honduras, Rural Development Service and National Economic Planning Council. Previous research by the author on the role of the state in public lands administration provides the background for this study.

Two kinds of data were collected for the present study: (1) historical material on agricultural development policies from colonial to the present period; and (2) factual statistical material on the activities of those newly created institutions within the general framework of the economic problems of Honduras. The first type of information was obtained through research in the National Library and the National Archives in Tegucigalpa, Honduras. The second type was gathered through examination of records, conversations with officials and visits to several places where these institutions had some program activity, i.e., Choluteca Valley and several places on the north coast of Honduras. This required about one month's research activity in each of the above named institutions, plus visits to several colonization projects, and talks with both government officials and peasant farmers.

Cooperating Agencies.

National Agrarian Institute
National Development Bank
Central Bank of Honduras
National Superior Planning Council
Agency for Rural Development
Institute of Social and Economic Research of the University of Honduras

Comments. Government officials recognize the need for fundamental evaluation of the state's economic development policies. They feel this study will be useful if it provides information which could lead to the development of more efficient institutions. Officials of the USAID Mission in Honduras also showed interest in the study and thought it would be useful for an appraisal of AID assistance programs in the areas of credit and colonization.

NICARAGUA

James Taylor
Research Assistant, Agricultural Economics

This study, which was begun in autumn of 1965, deals with the agricultural economy that has developed in an area of recent and spontaneous settlement, located in the eastern (Atlantic) region of the country. Emphasis is on the different types of farm units established and how this related to income levels. The study also deals with the nature of the migration process toward previously uninhabited areas, and land tenure problems.

Personnel and Agencies. The project has been carried out in close cooperation with the Agrarian Institute of Nicaragua, which provided a large share of the financial and administrative support for the study. The Agrarian Institute is a government agency responsible for carrying out Nicaragua's agrarian reform law. The study is part of the Institute's overall program of research on the agricultural settlement and development of the country's eastern region. It is anticipated that the research findings will be utilized by the Agrarian Institute in formulating programs of assistance to spontaneous settlers.

Professor Kenneth H. Parsons has guided the project at all stages. Two Nicaraguan agronomists, Cristobal Ubeda and Augusto Oporta, have worked on the project from its inception to the writing up of the research report. Dr. George Hill, who was associated with the Nicaraguan Planning Office, assisted the research team in an advisory capacity, in addition to analyzing some of the social data.

BRAZIL

Eugene A. Wilkening
Professor, Rural Sociology

Interest in the settlement and development of the vast interior of Brazil received new impetus with the opening of the new capital of Brasilia in 1960. With the new capital and the roads leading to it, settlement of the interior has been accelerated. While the location of the capital in the relatively unproductive planalto is the subject of much debate, it has stimulated unusual interest in the Brazilian interior as an area for colonization and settlement. Roads leading to Brasilia have provided channels for increasing numbers of people to move into the interior. Many have come because of the attraction of opportunities in Brasilia and other urban centers, while others have come to seek opportunities in agriculture.

The spontaneous movement to the interior stimulated by Brasilia and the roads leading to it provide a somewhat unique opportunity for the study of migration and settlement. It provides an opportunity to determine from where people came, why they came, how they came, and their problems of adjustment. It also provides an opportunity to study the characteristics related to the success of migrants coming from other parts of Brazil to the central plateau, with its particular climate and physiographic conditions. It provides an opportunity to study factors associated with the adjustment and adaptation of migrants to both rural and urban areas, as a basis for predicting the stability of the settlement and for planning assistance programs.

I. Migration and Settlement in Itumbiara, a Município of Goiás (E.A. Wilkening; J.B. Pinto, Professor of Rural Sociology, Rural University of Rio de Janeiro; and J.C. van Es, Acting Instructor, Department of Rural Sociology, University of Wisconsin)

Focus. The município of Itumbiara in Southern Goiás was selected for study because it is an area in which considerable in-migration has occurred in the past decade. The population increased 143 percent from 1950 to 1960. The fact that it is located on the highway from São Paulo to Brasilia and includes land favorable for growing rice helps to explain its high rate of growth. The peak of in-migration was reached about 1960, after which the population and rice production tended to stabilize.

Within the southeastern region of the central plateau two vegetation areas meet and interlock: the humid tropical forest and the savannah-like campos cerrados. Population density is greater in the forest areas than in the campos cerrados. Also, agricultural activities are associated with the forest areas, and cattle-raising with the campos cerrados. Agricultural methods are about as primitive as in any other forest zones of Brazil. The campos cerrados, which predominate in the area, have not been under continuous cultivation because there are still some forest areas available. Given present methods of cultivation, these forest areas are more productive.

The soils of the campos cerrados are deficient in mineral elements--particularly potassium and phosphorus--a condition that could be remedied by fertilization. However, at present, the price of fertilizers is too high to make their use economical. Until a more advanced technology can be applied, the campos cerrados will be used primarily for extensive cattle-raising, interspersed with the shifting production of rice, corn, and other crops in the forested areas of the mountain slopes and in the lowlands. The main agricultural product of the area is dry rice, almost all of which is grown under a sharecropping arrangement.

Findings. Within the município of Itumbiara, an area sample was drawn of the households within the rural area. In total, 291 usable interviews were obtained with heads of households. Almost all (94.8 percent) of the respondents were employed in agricultural occupations in one ca ity or another.

Eighty percent of the respondents moved to Itumbiara as adults. Three-fourths of the migrants came from neighboring areas to the south and east, especially the state of Minas Gerais. Another 22 percent of the migrants came from the northeast, although many of them had been located in Minas Gerais before coming to Itumbiara.

As might be expected, the majority of the respondents moved to the area for economic reasons. More than 60 percent reported that problems in agriculture, or problems related to making a living, were the most important reasons for leaving their previous location. Just over 50 percent indicated that the economic opportunities perceived to be available in Itumbiara had induced them to come to Itumbiara. Approximately one-third of the migrants gave non-economic reasons for leaving their last location, as well as non-economic reasons for coming to Itumbiara.

It was found that the early migrants in the sample are different in personal characteristics from those who arrived at a later date. The early migrants were younger when they arrived and

are somewhat better educated. More of the early migrants belong to the owner class, which almost all joined immediately upon arrival in Itumbiara. There is little evidence of movement from tenant to owner class after migration.

It was found that owner and tenant classes do not differ in reasons for moving, perception of occupational opportunities, and such personal characteristics as age at time of move, marital status, or urban residence. The owner class is, in general, better educated and has had a more diversified occupational experience than the tenant class. The owner class is also more likely to perceive benefits from the move in terms of income and working conditions, rather than in terms of health and educational improvements.

Migration is, for most people, a disruptive experience. The migrant leaves the location where he is part of a network of social relationships which provide him with emotional and material gratification. The extent to which a person has access to, and participates in, locally based interpersonal networks will determine the level of integration. Those born in Itumbiara displayed the highest degree of contact with kin and others who could provide expressive and instrumental rewards, but among the migrants the degree of integration would be increased with length of residence. However, this effect does not operate when contacts with wife's relatives are considered. It appears that such contacts are more likely to be maintained than those with husband's kin, especially during the initial years after the migration.

A detailed description of this study will be available in a monograph, which is now under preparation.

II. Response Stability Among Brazilian Sharecroppers (J.C. van Es)

The social sciences are depending to an increasing extent upon the use of survey techniques for gathering research data. Those involved in such research are familiar with the problems of question formulation, transportation, training, interviewers, etc. Due to the difficulty of obtaining the data, perhaps, there have been few attempts to determine the reliability of the data obtained. The problem of reliability is particularly important for data on attitudes and perceptions.

A restudy of 108 sharecroppers in Itumbiara was designed to test the reliability of responses to interview questions for the study of migration and adaptation (see section I above). The second interview was made five months after the first interview. The specific objectives were:

1. To determine the response stability for the aggregate measurement and for the individual measurement of a range of questions.

2. To compare different types of questions according to degree of response stability.

3. To relate the degree of individual response stability to a number of individual characteristics, such as level of education, literacy, age.

The analysis of this material is in process, and results should be available by June 1968. Preliminary analysis indicates that, while there is considerable stability in responses to questions about factual matters, there is considerable discrepancy in the responses to attitude questions.

The Agricultural Development Council provided a major part of the financial assistance for this study.

III. Satisfaction Among Migrants to Brasilia (José Pastore, Professor of Sociology, University of São Paulo)

Focus. The success of settlement in new areas is indicated, in part, by the satisfaction of the migrants who have located there. This study was designed to study the satisfaction of migrants in the city of Brasilia, the most recent example of urban and regional planning in Brazil.

Methods and Observations. Data for the study came from a probabilistic stratified sample of 653 married men living in Brasilia, who were interviewed during the period September to December 1966.

The concept of "satisfaction" was isolated as the central dependent variable. The research problem was defined as: "What makes some people feel more satisfied than others after migration to a relatively new and modern area such as Brasilia?"

The theoretical frame of reference of the research was based on propositions derived from the theories of reference groups and relative deprivation. Seventeen hypotheses were formulated stressing the importance both of objective attainments after migration (occupational and economic mobility, house improvements, etc.) and subjective gratifications (perception of self-image with reference to certain standards of comparison, evaluation of present conditions, etc.) in determining one's level of satisfaction in Brasilia.

Findings. The hypotheses were tested by means of regression and contingency analyses. Results obtained from testing the hypothesis proved to be different for different strata and socio-economic groups within the sample. Things which were sources of gratification for certain migrants were seen as sources of deprivation by others. People living in the more developed sectors of Brasilia--those with higher status and level of aspirations--tended to report satisfaction as being affected more by perceptual factors than by objective attainments. Migrants living in the less developed areas, with lower status and level of aspirations, tended to report satisfaction more in terms of objective attainments than subjective appraisals. There was no significant difference in satisfaction between those from rural compared with those from urban backgrounds.

The data also showed that migration is not a new phenomenon for the people now living in Brasilia. Actually, they belong to a generation of migrants, and are part of a relatively old process of step-migration from rural to urban areas.

On the practical side, this study constitutes a first step toward an evaluation of Brasilia from the migrant's point of view. On the theoretical side, the data provide much supporting evidence of the importance of reference groups and mechanisms of comparison in determining satisfaction.

IV. Comparison of Squatters and "Colonos" in Rural Brasilia

(Fernando Rocha, Department of Rural Sociology, University of Wisconsin; Rural University of Minas Gerais, Viçosa and José Pastore)

Focus. One objective of the larger study of migration referred to above was to provide information useful for efforts aiming at planned colonization. While these efforts have not proceeded very far in the Federal District, there are six "nucleos" which are largely settled and in which extension work has begun. Outside of the nucleos, some "invasores" (squatters) have moved in and started farming with the hope that they also would qualify for land. Once there, they started subsistence farming.

While there have been many applicants for all of the 580 lots in the nucleos, most were discouraged when they learned of the stringent conditions for obtaining the 30-year lease to the lot. Applicants need certification from the Bank that they have no debts, and they are obligated to pay an amount equivalent to about $100 per hectare for the lease over the 30 years. This obligation for payment is more than most applicants are willing to assume. Furthermore, the low fertility of the soil and the lack of other services have not made the nucleos very advantageous for the colonos. Because of the interest of the local agencies in the development of the nucleos, the decision was made to conduct a study of the characteristics of the colonos as compared with the

squatters. (A colono is one who occupies land allotted to him by the planning agency of the federal district.)

Findings. Of the 311 respondents, 174 were classified as squatters and 137 as colonos. Tabulations for the comparison of the two groups are based upon information collected through the interviews. Some of the results obtained were:

Half of the squatters had no education; among the colonos only 35 percent had never gone to school. A greater proportion of colonos had a full grammar-school education (19.7 percent and 13.8 percent respectively), and 10.9 percent of the colonos, as compared with 2.9 percent of the squatters, had completed high school.

Foreign born, mostly Japanese, were over-represented among the colonos (20.4 percent versus 2.3 percent among the squatters). On the other hand, individuals born in the state of Bahia and in the northeast of Brazil, two traditional areas of out-migration in Brazil, were over-represented among the squatters (they had fewer resources for obtaining a lot in one of the nucleos). The Japanese were among the best farmers in the nucleos.

The differences in agricultural implements and other items between the two groups are striking. For example, while 14.6 percent of the colonos said they owned a tractor, none of the squatters did; 16.1 percent of the colonos said they owned an animal draft plow, while only 3.4 percent of the squatters said so. The differences in possessions between the two groups vary from two to six times more in favor of colonos.

Improved agricultural practices were adopted much more by the colonos than by the squatters. For the 13 practices selected, there are 15 to 30 percent more users among the colonos. A larger proportion of colonos obtained information on hybrid corn and insecticides from agricultural agencies (27.7 percent versus 10.9 percent for hybrid corn, and 25.5 percent versus 9.2 percent for insecticides).

Differences in background between the colonos and the squatters are not great. Except for the attraction of Japanese to the nucleos, the origin of the two groups is similar. The major difference is that the colonos come with more resources. Hence they have more equipment and are following more of the practices recommended in the area. Some of the influence for adopting these practices has come through the Extension Service of the Secretary of Agriculture, but most has come through contacts with other farmers.

There are many problems to be overcome before most of the colonos or squatters become efficient producers. While technical knowledge is an important limiting factor, there is a need for credit

and for a cheaper source of fertilizer and other farm supplies. Currently fertilizer is uneconomical for most field crops, and equipment, insecticides, and seeds are relatively expensive. It is difficult to develop an intensive type of agriculture in an area better suited to extensive exploitation.

A more detailed report on the characteristics and problems of the rural sample in the Federal District is being prepared in Portuguese and will be available within the next few months.

V. Sociological Study of Three Colonies in Brazil (Sugiyama Iutaka and E.A. Wilkening)

Focus. This study of three colonies was designed to provide a comparison of conditions in a primarily fruit and vegetable area near a large urban center (Papucaia), a wheat and general farming area in the southern part of the country (Curitibanos), and a rubber colony in the northeast (Una).

The objectives are:

1. To study the mental steps through which colonists go, beginning with their initial attraction to the colony and ending with their present status and plans.

2. To compare the characteristics of the more successful with the less successful colonists.

3. To compare the problems and the progress of colonists in three different types of colonies.

Preliminary Findings. The most striking feature that emerged in the preliminary analysis of the data gathered in three colonies (Curitibanos in Santa Catarina, Papucaia in Rio de Janeiro, and Una in Bahia) is the importance of the regional variation. The colonies differ not only in terms of organization but also in the type of colonist found in each one. In Curitibanos, most of the colonists are third and fourth generation descendents of German and Italian immigrants. In Papucaia, nearly all of the colonists are either natives of the region, or Japanese. Una is settled mostly by natives of the region and by a small group of Japanese, brought directly from Japan after World War II.

An important difference among the three colonies is the type of regulation. Curitibanos admits colonists on a temporary basis; only after a trial period may they become candidates. Papucaia consists of a settled group, most of whom are entitled to become owners. Una is the most unstable colony. A combination of lack of

facilities, minimum help from the colony administrators, and a slow-maturing crop (rubber) which requires seven years to start producing, makes this a colony of transients.

Although the majority of the colonists come from the same state in which they presently live, their characteristics vary. Those from Curitibanos are the most literate and employ modern agricultural methods; Una's colonists are the least literate and still practice "primitive" agriculture. A preliminary conclusion that can be drawn at this state is that the general level of agricultural sophistication is the single most important variable for explaining the general performance of the colonies as a whole.

A monograph is being prepared on this study to be published in Portuguese. Special analyses will be made of the factors affecting success and satisfaction of the colonists in the three areas.

Cooperating Agencies.

Instituto Nacional de Desenvolvimento Agrícola
Instituto Brasileiro Reforma Agrária

VI. Communication Behavior of Agricultural Agents in Relation to the Organizational Structure of Selected Agencies in Rio Grande do Sul (Theodore Hyman)*

Focus. The purpose of this study is to determine structural aspects of agencies engaged in extension and agricultural development work. Another objective is to ascertain extension agents' attitudes toward organizational and clientele variables, and to determine how these attitudes affect communication within the agency and with clientele.

In a previous study, Lloyd Bostian of the Department of Agricultural Journalism, University of Wisconsin, has shown that differences in the training of extension agents and differences in access to communication media affect the type of media used by agents. The present study considers how position in the agency, role definition, and certain characteristics of the agents influence use of mass media and other formal communication techniques.

Methods and Observations. A mail questionnaire was used to gather data from extension agents employed by ASCAR (Associação Sul de Crédito e Assistência Rural) and the Departmento de Agricultura. These data were supplemented by interviews with agency supervisory personne'

*The project was financed by a Ford Foundation Area Grant and by the Midwest Universities Consortium for International Activities.

Findings. Preliminary results indicate that organizational variables have an important influence on the type and amount of communication carried on by extension agents.

Cooperating Agencies.

Associação Sul de Crédito e Assistência Rural
Secretaria de Agricultura de Estado do Rio Grande do Sul

VII. Tenure Processes in a Community in Minas Gerais, Brazil (John T. Steele)

Focus. The primary purpose of this study was to find out if there were distinctive tenure stages which people go through during their lifetimes, and if the stages were different from those in different classes. Answers to these questions can provide an indication as to whether the tenure categories observed at a point in time are permanent or if they are merely stages through which individuals pass during their lifetimes.

Methods and Observations. The principal source of data for the study was from 61 detailed interviews with a sample of owners, sharecroppers, and rural workers in the município of Viçosa, Minas Gerais, Brazil. The interviews were conducted from March through June 1966. Information was collected concerning family backgrounds, occupation-tenure histories, land acquisitions, present tenure arrangements, and types of farming being carried out.

Findings. The respondents were divided into three groups on the basis of the average amount of land owned in the preceding generation. In group 1 the average size of holding of father and father-in-law was over 27 hectares; in group 2 it was between 0.1 and 27.0 hectares; in group three neither father nor father-in-law owned any land. This distinction between sons and sons-in-laws of larger owners, smaller owners, and non-owners was used as a measure of difference in opportunity to acquire landownership.

For each of the groups there was a progression of tenure stages that was very different. Almost all the respondents, where size of holding was larger in the preceding generation, began by working at home and moved from that status to landownership with very little use of other tenure arrangements. The group with smaller size of ownership in the preceding generation differed in that they engaged in temporary and permanent agricultural work and sharecropping at each age much more often than the sons and sons-in-law of larger owners. Even at age 50, only 42 percent of those with

smaller parental holdings had attained ownership compared to 91 percent of those where holdings were larger in the preceding generation. Respondents with no ownership in the preceding generation attained ownership very rarely. The major achievement for this group was the acquisition of sharecropper status.

The small owners (0.1 - 8.0 hectares) made fewer acquisitions than the large owners (37.1 hectares and over). Two-thirds of the small owners made only one acquisition while 82 percent of the large owners made six or more acquisitions. Most of the small owners (72 percent) acquired only through inheritance compared to only nine percent of the large owners who acquired only in this way. The small owners acquired most of their land (78 percent) through inheritance while the large owners acquired only 30 percent of their land in this way.

The size of holding of the older respondents (49 years and over) was compared to the average of that of their fathers and fathers-in-law in an attempt to measure the amount of subdivision of property over time. The average size of holding of the older respondents was 29 hectares while the average of their fathers and fathers-in-law was 56 hectares, indicating a substantial amount of subdivision in one generation.

Access to ownership is very unequal between those who come from landowning backgrounds and those who do not. However, large farms are already in the process of being subdivided and they are not large enough to provide many opportunities for those who are now without land. Over time these seem destined to become smaller farms--in many cases family farms--because of subdivision or because of mechanization and/or a shift to livestock farming.

A slowing down of fragmentation is primarily a function of the development of sufficient alternative opportunities outside of agriculture or in other agricultural regions. As long as alternative opportunities are not sufficient, subdivision and multiplicity of kinds of work will continue. Legal prohibitions will not prevent coheirs from living and farming portions of inherited land even if legal partitions cannot be made. This is already occurring. On the other hand, the data shows that recombinations of land occur when opportunities are available and it seems likely that, if sufficient outside employment opportunities were available, size of farm would stop decreasing.

Cooperation. Field work for this study was carried out with the assistance of and in close cooperation with the Instituto de Economia Rural at the Universidade Rural do Estado de Minas Gerais (UREMG), the Purdue-Brazil Project, and the Associação de Crédito e Assistência Rural (ACAR). In addition, Professor Edgard Vasconcelos Barros, retired Professor of Sociology at UREMG, worked closely with the project.

APPENDIX

90th Congress
1st Session } COMMITTEE PRINT

SURVEY OF THE ALLIANCE FOR PROGRESS

PROBLEMS OF AGRICULTURE

A STUDY

PREPARED AT THE REQUEST OF THE

SUBCOMMITTEE ON AMERICAN REPUBLICS AFFAIRS

OF THE

COMMITTEE ON FOREIGN RELATIONS

UNITED STATES SENATE

DECEMBER 22, 1967

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FOREWORD

This is one of a series of studies prepared for the Subcommittee on American Republics Affairs of the Committee on Foreign Relations as part of the subcommittee's broad survey of the Alliance for Progress. This survey was undertaken in the spring of 1967 in an effort to determine where the Alliance stands after 6 years and what, if any, changes are indicated in U.S. policies.

This study, which deals with the problems of agricultural modernization and land reform in Latin America, was prepared by Profs. William C. Thiesenhusen and Marion R. Brown of the University of Wisconsin. It is published at this time solely as the basis for discussion and further inquiry. The points of view expressed do not necessarily reflect the opinions of the subcommittee or any member thereof.

On behalf of the subcommittee, I wish to take this opportunity to express our appreciation to Professors Thiesenhusen and Brown and their colleagues at the Land Tenure Center of the University of Wisconsin for their willingness to undertake this work and for the contribution which they have made to illuminating some very complex issues.

WAYNE MORSE,
Chairman, Subcommittee on American Republics Affairs.

LETTER OF TRANSMITTAL

1 AGRICULTURAL HALL,
UNIVERSITY OF WISCONSIN,
Madison, Wis., August 25, 1967.

SENATOR WAYNE MORSE,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MORSE: Enclosed is the document regarding U.S. policy vis-á-vis Latin American agriculture which we were asked to prepare for the Senate Committee on Foreign Relations.

You realize, of course, that the report represents the work and ideas of many people besides ourselves. We have tried to reflect this by representing our role as one of preparation rather than authorship. In particular, we have drawn heavily on the research and experience of University of Wisconsin professors, Jacob H. Beuscher, Peter Dorner, Don Kanel, Bryant E. Kearl, Kenneth H. Parsons, and Raymond J. Penn. We must emphasize, however, that we alone are responsible for any misinterpretations, or other errors that appear in the document.

Working on this document has been a very pleasant experience and we greatly appreciate having had the opportunity. We sincerely hope that the report proves to be useful to the committee.

Sincerely,

WILLIAM C. THIESENHUSEN,
Assistant Professor of Agricultural Economics.
MARION R. BROWN,
Assistant Professor of Agricultural Journalism.

SURVEY OF THE ALLIANCE FOR PROGRESS

PROBLEMS OF AGRICULTURE

Summary

Food production in Latin America has until recently kept slightly ahead of population growth. Food imports are increasing, and foreign exchange which could otherwise be used for industrialization buys agricultural products instead. Yet the low-income groups which make up a majority of Latin America's population have actually experienced a decrease in per capita food supply because of inflation and the disproportionate rise in middle and upper incomes.

Permanent increases in Latin America's food supply are not likely in the short run. The costs of bringing new lands into production are increasing as suitable unused land becomes more scarce. Little is known about unused lands, and with study they are often found to be neither as vacant nor as productive as supposed. Concessionary food supplies from developed nations can provide only short-term relief. Higher crop yields from land already under the plow will require improved technology which cannot easily be transferred from other countries and whose acquisition locally is a long, slow process.

Low productivity is only part of the farm problem in Latin America. Latin American agriculture is characterized by concentration of productive resources in the hands of people who have not generally demonstrated a desire to maximize agricultural production. Rural economic and social institutions have been shaped by these resource owners themselves through governments in which they have traditionally had a controlling voice. The existing system has not generated necessary increases in production for urban and export markets, nor has it bettered the living standards of the farm work force.

Meanwhile, the rural labor force is growing in spite of increasing migration to urban centers. The rural masses lack bargaining power. There is increasing political activity in the countryside, growing incidence of civil disobedience, and a resulting disorganization not conducive to capital investment or productivity.

At the same time mechanization of agriculture has been replacing farmworkers and speeding rural-to-urban migration. Thus many rural-to-urban migrants are unemployed or underemployed. With other low-income groups in urban areas they form a growing political force which brings pressure on governments for welfare programs that meet short-range goals without changing the underlying conditions that govern the future.

Solving problems of agricultural production will not automatically overcome this tangle of economic and social ills.

It is at least theoretically possible to increase agricultural production without major changes in the existing institutional and income distribution matrix. "Efficient" plantation agriculture, for example, might well be accompanied by actual deterioration in income, employ-

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ment, and living standards of rural people. Furthermore, if increased production is achieved without increased benefit to the disadvantaged rural majority, its gains may be swallowed up by political instability and civil disorder.

Urban industrialization will be important in the longrun solution, but Latin American industry cannot yet absorb very much rural labor. For a long time, very large numbers of people will need to make their living from agriculture. The present need is for policies and programs (including land reform) which generate more rural employment and income security with strong bargaining power or secure tenure on the land.

The land reform experiences of Mexico, Bolivia, and Venezuela carry lessons for other Latin American countries. None of these can be taken as an ideal model, but they demonstrate the utility of encouraging each country to develop a program to suit its situation, resources, and needs.

I. Introduction

There appears to be an increasing tendency for U.S. policymakers to think of the Latin American farm problem as one of mere shortage of food, and consequently to devise policies to increase food production through improved technology without much attention to the consequences for food distribution or more particularly for the employment and income positions of rural people.

Whereas the original charter of the Alliance for Progress stressed the need for institutional reforms in rural Latin America, the emphasis has more recently shifted to modernization of agriculture without special concern for structural change.

This increasingly narrow focus stems in part from the fact that low farm productivity in Latin America creates very real and immediate problems for U.S. policy. Low rates of increase in production and exports, together with rising imports, depress foreign exchange earnings and revenues from export taxes; importation of capital goods becomes more difficult; development programs are harder to finance; foreign debt commitments are more difficult to meet; capital flight and inflation increase. These are immediate and almost preoccupying issues for Latin American governments (and for the United States as well in its attempts to support development programs and cover budget deficiencies in many of these countries).

Food scarcity in city markets adds to the pressure. High food prices to urban consumers—especially to the highly visible and increasingly organized urban poor—are politically explosive.

The fact that foreign aid funds are subject to annual renewal adds still more pressure to seek quick and dramatic gains in marketed food supplies.

These immediate shortrun pressures for more food in urban and export markets tend to overwhelm and dominate the attention of Latin American and U.S. policymakers alike.

The concern for productivity per se is further heightened by the fact that food supplies are typically (and most easily) measured in city and seaport market channels. Agricultural products that are processed and used on the farm are not always counted.

All of these issues, together with the popular myth that rural people are always able to feed themselves, lead many policymakers to conclude

that the main test of effectiveness of a program to modernize agriculture is how much food it delivers to the cities or the world markets. The success they aim for is almost entirely measurable in visible increases in the marketable portion of agricultural output. Policies and programs appropriate to this goal are primarily concerned with changing the physical and technical aspects of farming on larger farm units where quick, dramatic gains are theoretically possible through the introduction of machines, hybrids, fertilizer, irrigation, and protective chemicals.

These measures are tremendously important. They offer the very real hope of large gains in production. However, a narrow concern for production in response to urban and foreign exchange needs diverts attention from the revolutionary changes that are taking place in rural Latin America. The outcome of Spanish and Portuguese conquest and 150 years of independent rule by landed elites is a deeply divided and disturbed rural society, with millions of small holders and landless peasants separated culturally, politically, racially, and sometimes linguistically, from the *hacendados* who control the land.

It is well to remember that the world food problem is not yet one of deficient global supply. There is enough food in the world to meet the calculated minimum nutritional needs of the entire population. If existing food supplies were evenly distributed there would not yet be a world food problem.[1] This fact does not lessen the urgent need for increased production. It does, however, point up the importance of the distributional aspects of the present crisis and it belies the notion that the problem can be solved by focusing exclusively on increasing production.

The distribution issue is not merely a matter of uneven distribution among countries, but more importantly a matter of unequal accessibility among the regions, groups, and families within countries. In many underdeveloped countries "the poorest 25 percent of the people consume diets with caloric and protein contents that are only about three-fourths of the country average".[2] Nowhere else in the world are these inequalities greater or potentially more explosive than in rural Latin America.

Large per capita increases in food supplies—as measured in urban and export markets—would, if accompanied by lower food prices, benefit some presently disadvantaged urban groups. But this would be true for the equally disadvantaged rural population only if special efforts were made to increase the size and the security of their claim on the national agricultural product. Attention to matters of food distribution, rural employment, and income, calls for quite different policies than would be required to increase production per se. It raises such important questions as where, by whom, and for whom production increases are sought. It introduces a range of nontechnical, sociopolitical, and institutional issues that are complex, hard to analyze, difficult to deal with, and consequently, easy to ignore. Thus, it is tempting to confine our efforts to straightforward and noncontroversial measures such as technological improvement of large commercial farms. However, we must be wary of any approach that concentrates so narrowly on commercial production that it ignores large numbers of rural

[1] The White House, "The World Food Problem," a report of the President's Science Advisory Committee, vol. 1, report of the Panel on The World Food Supply, U.S. Government Printing Office, Washington, D.C. May 1967, p. 11.
[2] Ibid. pp. 11-12.

people. The rural poor are less visible and less organized than impoverished city slum dwellers. Yet in most countries they are more numerous than the urban poor, they are continuing to increase in numbers, and their misery is becoming steadily more acute. In most of Latin America there is no practical way for the laborer to share in production gains on the land he works. It is unrealistic to expect him to undertake measures that will yield more food when he has little voice in decisions and little chance to benefit from such measures.

It is imperative, then, that we incorporate rural income and employment issues into our concept of modern agriculture. In our efforts to help modernize Latin American agriculture, we should seek not only to increase the supply but also to improve the distribution of food. It is in conformity with this formulation of the world food issue that we have prepared the following report on the agricultural situation in Latin America.

In the report we first deal briefly with matters of food supply and demand including some of the difficulties involved in achieving and measuring production increases. These issues are quite straightforward, and as we noted earlier, have already become the object of a great deal of concern. The main burden of our report is to draw attention to less obvious and more complex aspects of the Latin American farm problem: rural employment, income, and accompanying institutional issues, including especially patterns of resource ownership, land management, and labor relationships. After describing the general situation, we attempt to formulate U.S. policy alternatives for encouraging agricultural modernization in Latin America. A discussion of relevant aspects of the land reform experiences of Mexico, Bolivia, and Venezuela is attached as an appendix.

II. The Food Supply in Latin America

A. AGRICULTURAL PRODUCTION AND NUTRITION

Production of food per capita in Latin American rose only slightly during the past decade.

The United Nations Food and Agriculture Organization estimates that available food supplies increased by 28 percent from 1955 to 1964. Concurrently, population grew by 27 percent, leaving a per capita rise over a decade of only 1 percent in available food.

Data of the U.S. Department of Agriculture show that per capita agricultural output (including nonfood products) leveled off in the early 1960's at a point slightly above the 1955–59 average. Production per capita rose sharply in 1965 but preliminary estimates indicate that it slumped below the 1955–59 average in 1966.

Before World War II, agricultural production (food and fiber) in Latin America was 5 to 10 percent per capita higher than in 1965–66.

Daily per capita calorie consumption in Latin America (excepting Argentina) ranged from 2,710 in Brazil to 1,780 in Haiti in 1959, 1960, and 1961. There is little evidence of improvement up to 1964. Per capita calorie consumption in Argentina (3,220) was similar to that in North America.

Protein consumption averages about one-third lower in Latin America than in the United States. In 1958, Latin America averaged 29 percent below standard minimum calorie levels set by the USDA's

world food budget. Thirteen Latin American countries had deficient per capita protein supplies, and eight registered substandard per capita fat supply levels.

B. AGRICULTURAL EXPORTS AND IMPORTS

Latin America has traditionally exported agricultural products to provide foreign exchange, both to service and repay external debt and to import goods and services needed for industrial development. In the decade ending in 1964 the volume of agricultural exports increased by 40 percent. Falling prices reduced the value of this increase to a gain of only 7 percent in export earnings. In other words, although volume averaged an annual increase of about 4 percent, values increased by less than 1 percent per year. An FAO study concludes that when changes in the terms of trade are taken into consideration, there was probably no rise in purchasing power over the decade as a result of the increased value of agricultural exports.

From the midfifties to the midsixties, Latin American agricultural export earnings fluctuated at a level between $3 and $4 billion a year, but they represented a progressively smaller share of total export value: 48 percent of the total in 1955 and 35 percent in 1965.

Nearly all agricultural exports from Latin America face uncertain futures. Speaking generally, world consumption of the agricultural crops which Latin America is able to produce is growing sluggishly and prices are weakening. In the coming decade, the export markets with the most promising growth potential for Latin American agricultural products will probably be for feed grains, oilseeds, meat, and fresh fruit and vegetables (which may reach the North American market in winter). It is uncertain how common market developments will affect export demand for agricultural products.

The volume of agricultural imports to Latin America from all sources increased fairly rapidly from 1948 to 1960 and levelled off in 1960–62, showing an annual rate of increase of about 2 percent over the period. The value of agricultural imports increased much more slowly, or at a rate of about 0.75 percent a year. This rate of increase of importation was below the rate of population growth. Brazil, however, increased her agricultural imports (including sales under Public Law 480) by 40 percent in the period from 1958 to 1963. Other countries which show a persistent upward trend in agricultural imports are Uruguay, Argentina, Chile, Venezuela, Ecuador, and the entire Central American region.[3]

Latin America's standing in world wheat and feed grain trade has deteriorated markedly, moving from net exports of nearly 2 million tons of grain annually in the late 1930's to net imports of just over 2 million tons in 1960–61.[4]

The annual value of agricultural imports from outside the region is currently running at about $600 million, about 40 percent of which comes from the United States.

Cereals accounted for 36 percent of all agricultural imports from 1934 to 1960. The second most important category has been livestock,

[3] Montague Yudelman, "Agriculture Development in Latin America: Current Status and Prospects", Inter-American Development Bank, 1966, mimeographed, pp. 26–30.

[4] Lester R. Brown, "Man, Land, and Food", Foreign Agricultural Economic Report No. 11, United States Department of Agriculture, Economic Research Service, Regional Analysis Division, November 1963, pp. 63, 78.

meat, and milk products. While total agricultural imports doubled between 1934 and 1960 (at constant prices), animal product imports tripled. The obvious effect of rising imports is to force governments to use foreign exchange for food that, if it were grown at home, would release dollars to service foreign debts and to bring in products needed for development and for which the region does not have a comparative advantage.

C. LIMITATIONS OF PRODUCTION DATA

These sweeping statements, based on aggregate data, mask a great deal of the complete picture.

Aggregate output data hide changes in the composition of the farm product. For example, some countries, especially in Central America, have expanded agricultural exports at the expense of production for domestic consumption, which means that per capita domestic food supply declined while total farm output increased.

Perhaps more importantly, aggregate figures mask marked variations among countries and among areas and socioeconomic groups within countries. In Brazil, Ecuador, El Salvador, Mexico, Panama, Peru, and Venezuela the gross agricultural product increased at least 1 percent faster than the population in the decade prior to 1963. In most of the 13 remaining Latin American countries population growth equalled or exceeded production increases. Furthermore, declining food supplies available to certain areas or socioeconomic segments of a country's population are obscured in the aggregate by rising food supplies available to others.

It should also be noted that the aggregate statistics themselves are of dubious precision. Import and export data are probably fairly accurate, as are data gathered by central government purchasing agencies. However, changes in food production and consumption in rural areas outside the market economy are impossible to measure in precise fashion. Then, too, as countries become more urbanized, more food tends to move through commercial channels. This suggests that slight gains in production as shown by statistics may really only reflect increases in the produce going through channels where records are kept or estimates made. Where this occurs, what seems to be a gain is probably actually a transfer made at the expense of low-income rural families. In fact food supplies available to lower income groups—the bulk of the population in Latin American countries—seem to be declining steadily as a result of inflation and rising incomes in upper income groups.

D. THE RISING DEMAND FOR FOOD

Inaccuracies and other caveats aside, Latin America's farm problem is severe. Population is growing at least as fast as in any other region of the world Assuming a 2.8 percent population growth (approximately the rate over the past decade), the present population of Latin America will triple by the year 2000. The rate varies by country, ranging from about 1.3 percent in Uruguay to 4.2 percent (the highest for any nation) in Costa Rica.

Birth rates usually fall as incomes rise, urbanization proceeds, life expectancy increases, and infant mortality drops—in short, as a country modernizes over the long run. Current birth rates in Latin

America exceed 40 per 1,000, while in developed countries the rate is below 25 per 1,000. Attempts to limit family size will not likely be successful in bringing population growth in line with food supplies over the short run. However, it is becoming increasingly clear that if present growth rates continue over the long run, population pressures will doom all efforts to achieve food balance, by whatever means.

Food production will not only have to keep up with large population increases, but also to satisfy the new demands for more and better food that result from rising incomes. Otherwise, imports will continue to increase as incomes rise. Capital goods necessary for industrialization will be barred and/or repayment of outstanding loans will be delayed and/or extreme balance-of-payments problems will be experienced. Certainly, this process will be accompanied by inflationary pressures, and, in general, development will be impaired. The sequence can be mitigated in the short run to the extent that increased food supplies are available on soft terms from developed countries.

III. Prospects for Increased Production

A. EXPANSION OF THE FARM LAND BASE

In the past 10 years almost two-thirds of the increased agricultural product in Latin America has come from pressing more land into production. This kind of expansion probably cannot continue for long. Arable but unused lands are neither as extensive nor as idle as sometimes calculated. And the costs of reclaiming them are increasing. Attempts to farm unoccupied tropical areas have resulted in less-than-hoped-for output. Much of Amazonia and other jungle areas, for example, have proved to be less productive than was once expected. Recent evidence seems to throw doubt on the potential of many such areas. It is now fairly well (but not universally) accepted that the major part of the sizable Petén area in Guatemala, for example, cannot support much cropping. Speaking generally, "new lands" policies face high costs and very uncertain returns.

Furthermore, the most promising new lands are not always as "available" as they seem. In some very populous Central American countries (Costa Rica, Honduras, Nicaragua, and Guatemala) where ample idle public lands were presumed to exist, recent surveys indicate that large numbers of squatters have staked out plots and are already farming. These pioneers often move from developed areas s export crops expand and commercial farms mechanize.[5] Some expansion of agricultural land is possible, but it will be extremely costly, and cannot be sustained indefinitely. In 5 to 10 years, given the current rates of population growth and migration, there will be no remaining frontier in Central America. Speaking more generally, it is unrealistic to assume the unused lands can long provide an economically viable "safety valve."

B. EXPANSION AT THE "INTENSIVE MARGIN"

If the Latin American nations are to increase their food supplies substantially in the foreseeable future, they will have to expand agriculture "at the intensive margin," exploiting presently occupied land more productively through the use of fertilizers, protective chemicals,

[5] Kenneth H. Parsons, "The Orientation of Research in Agricultural Development and Land Tenure Policy in Central America, A Field Report," Madison, Wisconsin, January 1967, mimeographed.

hybrid seeds, and improved breeding stock. FAO technicians have reported that in Latin America "resources are unquestionably ample, without approaching their full utilization, to meet the estimated increase required".[6] However, farming techniques will have to change radically. To date only Mexico has shown marked progress in crop yields (they rose 50 percent during the 1950's). This has been primarily because of improved irrigation facilities, but also because of fertilizer and improved seeds.

In general, yields are low throughout Latin America. Average production per acre of corn, rye, oats, barley, potatoes, and cotton is below world averages. Of 24 agricultural products recently studied by the Economic Commission for Latin America, only six showed an increase in yield of more than 10 percent between 1948 and 1959. Ten products showed gains of from zero to 10 percent, while eight remained stationary or decreased. There are, of course, important country differences. Average Mexican wheat yields are higher than those in the United States, for example. Brazil's crop yield position does not compare well with those of Argentina, Chile, and Mexico, either in absolute terms or with respect to improvement in recent years.

It is widely agreed that one crucial component of agricultural modernization in Latin America will be agricultural research experiment stations decentralized to ecological zones. Extension activities will also have to be greatly stepped up. Stable and favorable input-product price ratios are necessary to stimulate sustained investment. Cost-price ratios may need to be altered in favor of the farmer. Industries which provide agriculture with services and supplies must become more productive and competitive so that lower costs accrue to the farmer. Availability of inputs and services at appropriate times in the growing season is also a central issue. Research on improved varieties results in plants that are increasingly sensitive and responsive to environmental changes; but without an accompanying "package" of inputs to control the environment, new varieties often yield less than the strains they replace.

The United States had developed an adequate technical "package" and achieved rapid yield per acre increases by about 1940. Since that time, surpluses have often made it necessary to reverse gears through acreage allotments, conservation reserves, commodity storage, et cetera. But we should remember that it took decades to set the stage for this productivity revolution in the United States. Jeffersonian political philosophy led us into a freehold land tenure system and resulted in a large agrarian middle class. Successive Congresses with strong rural representation appropriated funds for the needs of the countryside. By the time our frontier closed and intensive farming became necessary we had a backlog of agricultural research results, well-developed State and local governments, an active extension service, widespread literacy, and well-established communications networks (including rural free delivery). Furthermore, industrialization was well along and our population was growing slowly as compared with Latin America's present rate. Even with land-extensive techniques we had farm surpluses by the 1920's.

[6] Simon Kuznets, "Economic Capacity and Population Growth." Unpublished paper presented at the Conference on World Population Problems, Graduate School of Business, Indiana University, May 3-6, 1967, mimeographed.

IV. Why Is Latin America Different?

A. THE NEED FOR RURAL JOBS

Most countries in Latin America must make the switch to intensive agriculture in a much different context. Unlike the United States during its drive toward agricultural modernity, Latin America's rural population is still growing by about 1.6 percent annually. (In the United States, rural population had already begun to decrease by about 1920.) In 1960, about 47 percent of the work force in Latin America was engaged in agriculture (ranging from about 20 percent in Argentina to 60 and 70 percent in Ecuador and Central America and perhaps 90 percent in Haiti); another 10 percent was engaged in supplying inputs to agriculture or services to farmers. Thus any programs designed to modernize agriculture and increase production in Latin America will have to take into account the employment and income needs of a large and increasing rural population.

Increased employment in urban areas is often discussed as an alternative to land reform and other efforts to promote employment or income security in rural areas. Latin American industry does employ more people now than it did a decade ago, but the increase in employment is insufficient to absorb urban population growth and migration from rural areas. Since Latin American industry is still small, even large percentage increases would generate few jobs in the short run. Also, to the extent that factories replace small artisan shops, first blushes of industrialization tend to displace labor.[7] In Russia, Japan, Western Europe, and the United States, industrialization was well along before it absorbed labor on a large scale. Latin American cities are already attracting many more people than their industries can employ. As industrialization proceeds, it will draw first on this large reservoir of urban underemployed rather than pulling more workers out of agriculture.

Thus increased migration to the cities is not yet a viable alternative to increased rural employment. It is estimated that between 4 and 5 million families already live in the shantytown slums that surround many cities in Latin America. Where industrial growth is fairly rapid (Buenos Aires, São Paulo), or where people have a more secure subsistence on the land (Bolivia), or where both factors combine (Mexico), the problem is less exaggerated. But the shantytown population of Lima grew from 10 percent of its total population in 1958 to 20 percent in 1964. In 1960, Rio de Janeiro's "favela" population was growing three to four times as fast as the city as a whole. Despite increased public housing, the shantytown population of Santiago, Caracas, and Bogotá is growing faster than the rest of the city.

Services are seldom provided in any meaningful way to these areas, since city budgets are small and already strained. The income gap between rich and poor becomes etched in sharper relief on the minds of the new settlers. Soon they may be even less satisfied than they were on the farm. Most do not—perhaps cannot—return to rural areas. They become increasingly involved in political action which partially substitutes for the former primary associations with kin and close neighbor groups, and rapidly develops the potential for violence.

[7] Gunnar Myrdal, "The United Nations, Agriculture, and the World Economic Revolution," *The Journal of Farm Economics*, Vol. 47, No. 4, November 1965, pp. 889–899.

Substantial public investments became absolutely necessary to provide even minimally acceptable living conditions in these areas.

Providing more jobs at the farm level would not solve the city problem. These slums will continue to grow no matter what policies are followed. But they will grow faster unless attempts are made to create rural employment opportunities. This will also require public investments, but most of these will be of the type that tend to increase production whereas antislum investments in the cities go primarily for improved living conditions (housing units, sewers, water supplies). In the countryside, investments can be primarily for land, roads, irrigation, fertilizers, hybrid seed, and other reproducible capital.

Not all capital is of equal priority in rural Latin America. Capital which increases yields per acre (fertilizers, improved breeding stock, hybrid seeds) must take precedence over most machines which are primarily laborsaving. A strategy which encourages rapid substitution of agricultural machinery for farm labor will increase joblessness and migration. We need to be constantly aware of the fact that the manner in which increased production is achieved and the number of people who are able to participate and reap some benefits from the experience may be as important as the production increase itself.

Premature mechanization of agriculture not only releases labor that has no place to go, it also uses scarce foreign exchange that would otherwise be available to equip urban industry more adequately, and thus, over the long run, increase rather than decrease employment. It is becoming clear from Mexico's *ejido* experience that large increases in production are sometimes possible from applying more labor to the land and increasing the proportion of labor-intensive high-value crops. In Mexico, gains on labor-intensive small farms have been approximately equal to gains on larger and more mechanized units. And because these gains were achieved with labor that had no opportunities outside agriculture, they were cheaper than the increases achieved with imported inputs and machines on large farms.

To reemphasize our point, agricultural modernization policies should attempt to employ rural people more productively where they are, rather than allowing them to be displaced by labor-saving technology. To do this it will be necessary to do more than encourage growth within the given structure. The task will necessarily involve institutional and structural reforms.

B. THE NEED FOR INSTITUTIONAL CHANGE

Institutions are less amenable to measurement than other variables which contribute to agricultural modernization; hence they are often neglected by scholars and planners alike. This does not mean they can be safely ignored or that they are exogenous to the agricultural development process. Institutions affect incentives to produce, income distribution, and opportunities for employment. They influence the actions of individuals, furnish the procedures for resolving conflicts between them, and provide the matrix within which productivity will be increased. They largely determine where, when, by whom, and for whom production increases will be sought.

Largely because of institutional patterns, the tools of economics are insufficient to explain the complex process of development. As Prof. Robert L. Heilbroner explains:

> * * * the process called 'economic development' is not primarily economic at all. We think of development as a campaign of production to be fought with budgets and monetary policies and measured with indices of output and income. But the development process is much wider and deeper than can be indicated by such statistics. To be sure, in the end what is hoped for is a tremendous rise in output. But this will not come to pass until a series of tasks, at once cruder and more delicate, simpler and infinitely more difficult, has been commenced and carried along a certain distance.
>
> In * * * Latin America, the principal handicap to development is not an absence of national identity or the presence of suffocating cultures (although the latter certainly plays its part), but the cramping and crippling inhibitions of obsolete social institutions and reactionary social classes. Where landholding rather than industrial activity is still the basis for social and economic power, and where land is held essentially in fiefdoms rather than as productive real estate, it is not surprising that so much of society retains a medieval cast.
>
> Thus, development is much more than a matter of encouraging economic growth within a given social structure. It is rather the *modernization* of that structure, a process of ideational, social, economic, and political change that requires the remaking of society in its more intimate as well as its most public attributes.[8]

C. LAND TENURE, FARM MANAGEMENT, AND LABOR RELATIONS

Unlike the United States, in which liberal land policies long ago established family farms, most Alliance countries in Latin America (except Bolivia and Mexico) are characterized by a land ownership pattern which includes a few large estates (*latifundia*), plantations, and large numbers of landless workers or operators of very small units (*minifundia*).

Small farms in Latin America are typically managed in a fairly routine fashion with traditional technology though there is evidence that in many countries of Latin America production per acre on small farms is as great as or greater than that on large ones. Returns to labor vary a great deal among small farmers, and probably average below the wage levels on large farms. However, total family income including returns to land and capital is probably higher for most *minifundistas* than for wage laborers.

From 5 to 10 percent of the landowners in Latin America control from 70 to 90 percent of the agricultural land. Latin America's *haciendas* and plantations are largely a legacy of the colonial period when lands were granted in large tracts.

Some large farms have come into the hands of more active owners. Actively managed large-scale agriculture also exists on plantations and new commercial farms (cotton in Central America and Colombia, rice and other food crops in Colombia, etc.). Close study of these apparently modern and progressive farms in Latin America often shows that they are not as well farmed as they at first appear. Modern machinery is sometimes used to replace labor rather than to increase yields. Purebred cattle often graze on unimproved pastures. Scarce irrigation water is frequently used on low-value crops. Still it is this group of farms (and no one can say how large it is) that offers the greatest promise for shortrun gains in marketable and exportable surpluses.

[8] Robert L. Heilbroner, "Counterrevolutionary America." *Commentary*, April 1967, pp. 31, 32.

However, most of Latin America's large farms are of the traditional type with absentee ownership, extensive land use, unchanging technology, and minimum cash expenditures. They are characterized by hired low-grade routine management, traditional organization which largely runs itself, and semifeudal labor arrangements (small cash wages supplemented with usufruct exchanged for labor obligations). Since jobs are scarce, labor has few alternatives but to seek employment on the large farms and plantations. Farm laborers have virtually no chance of acquiring land of their own through the normal operation of the market. Land prices are high because land is a commodity which: (1) bears social prestige; (2) acts as a hedge against inflation; (3) brings accompanying control over labor. This is especially true in the Andean countries, except Bolivia.

Work contracts are infrequent even though laws are on the books which require them. Rural labor is largely unorganized (except in Venezuela, Bolivia, and Mexico, and to a lesser extent in Brazil and Chile); legislation restricting unionization of agricultural labor is still effective in most Latin American countries. Thus, workers have little or no bargaining power and protective legislation is seldom enforced.

As a result, rural workers have benefited little, if at all, from the recent slight economic growth of many Latin American countries. In fact, some research has noted a persistent decline in real income, especially cash wages. It has been calculated that 50 percent of the cash income of Latin American farm workers is spent on food. (Laborers are often paid partly in kind, which protects part of their income from the effects of inflation but which also makes them more dependent on the landowner than they would be in a cash wage situation. In some countries farm workers are paid virtually no cash wage, getting almost all of their pay in kind. A recent study of Ecuador shows the cash wage to be about 15 cents a day.)

In Chile the minimum farm wage paid to estate workers (even the minimum is often evaded) lagged behind inflation until 1965 when the present Government legislated a new wage and relaxed enforcement of antiunion laws. Between 1953–54 and 1960–61 the wage eroded by one-third.

Large landowners often prefer to invest in nonagricultural pursuits rather than to build up their farms. Sometimes, for tax purposes, they have written off their agricultural enterprise as a loss—whether or not it has proven to be so in fact. If necessary to protect their wealth, they have sent it out of the country. In some countries they have been shown to invest a higher proportion of their income in luxuries than their counterparts in developed countries.

D. CONCENTRATION OF POLITICAL AND ECONOMIC POWER

For generations the landowning class has occupied the seats of government. Large landowners have been able to legislate in their own behalf. For example, they receive almost all the institutional agricultural credit (some of which is publicly financed and which because of inflation is often available at negative real interest rates). They are also the principal beneficiaries of other public investments that serve agriculture, including those in technical assistance, roads, irrigation, and electrification. Meanwhile, land tax assessments and rates have been low and delinquency high.

One outcome of the concentration of power and resources in rural Latin America seems to be impoverishment of local government. In Colombia, for example, municipalities are expected to build and maintain roads, schools, hospitals, public utilities, and control marketing facilities. But the rights of the majority to assess and collect taxes and select their own local officials are circumscribed. In the limbo that results, no unit of government seems to respond to requirements of social overhead capital needed by rural communities. Revenues collected by rural municipalities come from commercial business licenses, fines and fees, departmental transfers, and some property taxes. Those who own most of the resources contribute little tax revenue. These sources give communities so few funds that by the time they pay local salaries and administrative costs there is nothing left to supply municipal services.

In a study of 31 municipalities in Antioquia, generally thought to be the most progressive department in Colombia, per capita average municipal revenues in 1965 were only U.S.$2.32, with only $0.32 going for social or economic overhead capital. Since only a small portion of this $0.32 per capita goes for road construction, sufficient farm-to-market roads cannot be built. No amount of technical help will encourage small acreage farmers to produce more if they cannot get their production to market. Even when separate road-building grants come from higher levels of government, maintenance is left to local governments.[9]

Thus, a low rate of taxation, a high delinquency rate, and insufficient autonomy of the local governmental unit thwart local development. That this issue will be difficult to cope with is obvious—local governmental units are largely dominated by bosses, many of whom control most of the privately owned resources in the area and are able to manipulate municipal finances for patronage rather than developmental needs.

The national and local power of the landed class has been slowly declining. The increasing frequency of guerrilla activity, land invasion, and labor unrest attests to the decline of traditional authority in the countryside and to the need for modernization programs that not only increase productivity but also give the rural masses a stake in development.

The situation in rural Latin America, then, can be vividly summarized in sentences that offer little basis for optimism. Most of the land is in traditional farms that are producing below potential. Population is growing rapidly. Exports are lagging and imports are rising. The frontier of unused lands is shrinking. Migration from farm to city is proceeding faster than urban industry can hire new workers. Real incomes of most of the rural population are static or declining. Rural community governments are largely inoperative for development purposes. Traditional authority is eroding as class differences and inequalities become increasingly apparent through increased communications and mobility. Political agitation and civil disobedience are becoming more violent and more frequent in the countryside.

Food shortage, then, is only part of the problem. Farm production will have to increase, and this will require substantial public investment in agriculture. But investments must be made with full attention to problems of rural employment and of income distribution.

[9] Herman Felstehausen, "Memorandum: The Study of Local Governmental Structure as a Part of Agricultural Development Research," The Land Tenure Center, University of Wisconsin, March 14, 1967.

V. Some Policy Implications

A. ISSUES FOR LATIN AMERICAN GOVERNMENTS

The need is for active land management, low cost production increases that result in lower food prices, and employment or tenure arrangements that secure economic and political participation for large numbers of people. Meeting these needs will require Latin American governments to carry out different policies and programs for different subsectors within agriculture.

1. Progressively managed large farms and plantations

These are the farms that feed the cities and provide export earnings. As we mentioned earlier, the current U.S. policy impetus seems to focus almost exclusively on helping national governments to promote such farms and increase their numbers by stimulating greater productivity through the application of new technology. It has even been suggested that appropriate technology and management might best be introduced by bringing in foreign investors and entrepreneurs to stimulate commercial production, especially of export crops, so as to solve balance-of-payments problems. This narrow emphasis on the commercial and export sector is understandable given the balance of payments and urban population pressures. But it is vulnerable because it does little to provide employment and because it ignores the pressures for structural change. In addition, it is profoundly affected by wide fluctuations in the prices of export crops.

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 probably fully 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.

And they should encourage increasing intensification; that is, 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.

2. Traditionally managed large farms

Traditional large-scale farming contributes little to needed production. Its absentee ownership and traditional and paternalistic labor patterns are vulnerable to labor unrest as the *patrones* lose their social welfare functions, as their superiority is increasingly questioned and challenged, and as political agitation reaches the workers. It is the underutilized land of such farms that is especially vulnerable to peasant invasion.

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.

Thus, if in response to tax, price, and other "carrot and stick" policies, inactive owners either sell to commercial farmers or become more active themselves in introducing new technology, it will probably decrease employment and increase labor unrest. Investment in technical measures within the present institutional context may achieve optimistic shortrun results only to run afoul of costly social and political upheaval

It is true, of course, that these traditional large farms provide some processing and marketing services, and any new structure of agriculture might require emergence of new marketing channels before urban food supplies would return to pre-reform levels. Increases on well-managed existing commercial farms would probably offset this tendency somewhat.

These traditional farms also have irrigation systems, central buildings and storage facilities, and integrated use of cropland and pasture that cannot be immediately adapted to the needs of individual peasant farmers quickly or without some cost. Still it would appear that there is little to lose in the way of production and much to gain in the way of increased participation and employment of rural people by transforming much of this underutilized and poorly managed land into new peasant farms. Reform is not simple or costless; it does appear to be necessary in the face of mounting pressures on the existing system.

3. 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 (as in Japan and Taiwan) and if markets and credit can be made available to them, small farms can employ even more people and contribute more to marketable surplus. It may be possible through public investment (especially in

service institutions), and incentive policies, to transform the upper third to half of this sector into small- and medium-sized commercial farms. There is no substantial evidence of this ever having been accomplished in Latin America, though recent analyses of the Mexican experience are encouraging.

4. 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 has passed 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 increasing use of fertilizers, improved seeds, and protective chemicals. There is no economic reason why this should not be possible on the model of Japanese and European peasant agriculture, modified to suit wage levels of Latin American countries. However, as we pointed out earlier, there is not yet a Latin American model of such an agriculture.

Even if reform-created peasant farms only become subsistence units, reforms should not be discouraged. If reform does no more than provide secure subsistence for large numbers of rural people, it will contribute to economic and political stability and buy time for urban and industrial development to catch up with population growth.

Programs to provide secure and legal title for present occupants are less controversial than abrupt changes in landowning patterns, and of great importance in some areas. In most Latin American countries, there are many so-called squatters 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 is not conducive to political stability, nor does it offer the security required for long-term investments in agriculture.

In general, the need is for flexible agrarian policies. Doctrinaire and ideological solutions are not appropriate, not only because conditions vary from country to country, but also because the policy needs of a given country vary over time. It would probably be a mistake, for example, for any country to adopt a uniform ceiling on land ownership applicable to all farms. The need for further changes in all types of farms cannot be foreseen and dealt with by means of a single wholesale transformation of agriculture.

The emphasis should be on 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 serve as a hedge against decreases in production and marketed supplies. Assisting minifundia farmers and creating new peasant farms will serve as a hedge against increasing unemployment,

decreasing employment security, and increasing unrest. At the same time a search should continue for policies and devices that achieve both production increases and maximum employment on all kinds of farms.

B. 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 as to what the United States can and should 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-á-vis Latin American governments and other political forces in these countries can have an impact either in support of or in opposition to orderly 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 this year 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 have already discussed the 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 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 are often forced to work with elite groups, which are 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 a part of a program of internal reform. If we are serious about encouraging the reforms that are 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 overall 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. aid 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: (1) provide technical assistance and financial aid for land titling in reform areas; (2) provide loans and assistance in implementing credit and information programs for new landowners and existing commercial farms; (3) help finance road construction and other social overhead to provide access to new settlement areas in those cases that offer

promise; (4) 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 in which there is little or no commitment or intent to carry out meaningful reforms. In these countries there is little that we can do beyond:

1. Assisting in titling procedures for squatters who are settling the frontier;
2. 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);
3. Supporting policies that make it easier for peasants and agricultural workers to organize themselves into effective bargaining units;
4. 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 to make sure that 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 or support that enables it to ignore or repress legitimate internal pressures for reform. To do so will merely postpone the reforms and heighten the possibility that they will be violent rather than orderly.

In general, when considering outlays of funds for agricultural modernization in Latin America, Congressmen and administrators should recognize and vigorously support the idea that modernization includes more than an increase in productivity as measured by a rise in agricultural exports and domestically marketed surplus. Investments in Latin American agriculture must carry with them measures to improve the relative incomes of the disadvantaged rural majority. In the words of the late President Kennedy, "Those who make peaceful revolution impossible will make violent revolution inevitable."

APPENDIX I

Case Studies of Land Reform in Latin America

There are, of course, no land reform prototypes. Each country differs in factor proportions, technical experience, political conditions, and cultural heritage. However, three OAS countries (Mexico, Bolivia and Venezuela) have carried out extensive reforms and their experience can be instructive for policymakers who must deal with agrarian problems in other countries.

A. MEXICO

Mexico's land redistribution began in 1926, and enough time has elapsed to afford some tentative conclusions about the experience. The striking progress of the Mexican economy has led many to conclude that the revolution and accompanying land reform paved the way for development. Whether or not the reform was in fact respon-

sible in important measure for this progress will likely be debated for a long time.

No other country in Latin America has made comparable strides in agricultural production over the past several decades. And among the Alliance countries, Mexico's only rival for improvement of income distribution is Bolivia.

Between 1941 and 1960 Mexico's per capita agricultural production increased by 46 percent compared to a world average increase of 12 percent, and a decline in Latin America as a whole. By one calculation, based on FAO series, net agricultural output in Mexico trebled between 1934/38 and 1964/65. Between 1949/51 and 1960/62 the value of agricultural production grew by an average annual rate of 4.1 percent.

Prior to the revolution, land concentration in Mexico was among the highest in Latin America. Likewise, the social situation of *campesinos* was probably more onerous than elsewhere in the region. An estimated 95 percent of the rural population owned no land. Productivity in the agricultural sector was meager and absentee landlordism was the rule. Wages were low and because peasants were tied to the farm by debts, money seldom changed hands between landlord and worker.

Now, a little more than 40 years after the initiation of the land distribution in Mexico, more than 137 million acres have been given out in ejidos. These are properties owned jointly by communities, but on all but 3 to 4 percent of them farming operations are carried on by individual families. In 1960 there were about 1.6 million ejido members living on about 22,000 ejidos, which accounted for 45 percent of the cropland, 54 percent of all landholders, and 35 percent of the value of all farm production in the country.

A third of the land now in ejidos was distributed between 1935 and 1940. Between 1941 and 1958 very little land was given out, but the rate increased again during the regime of President López Mateos (1958–64). The man-land ratio varies a great deal, but on the average there are about 67.5 acres of land per ejido member, of which almost 17.5 acres are cropland.

Ownership is circumscribed. A member of an ejido (*ejiditario*) may legally will the land to only one of his children; he may not sell or rent it (although infractions of this regulation are common); he may not mortgage it to secure a loan (which is responsible for a dual credit structure in Mexican agriculture). Furthermore, if an ejiditario fails to cultivate his land for 2 successive years, it may by law revert to the ejido to be reassigned. If he rents it out, a similar reversion is legally possible.

Ejidos are organized to provide for maximum local control. The general assembly elects an executive committee and a vigilance committee. Every member of an ejido gets a certificate of agrarian rights and, ultimately, each is supposed to receive a title. (Only about 15 percent of the ejido members actually have this title as yet.)

The ejiditarios did not pay for their lands. The government reimbursed the original owners a fraction of commercial value up until 1931 when it suspended the practice. Even when compensated, the owners gained little, since they were remunerated on the basis of their own personal declaration of value for tax purposes, a very low amount.

The revolution and land reform resulted in a dual system of agriculture, the ejido on one hand and the private farm on the other. Many commercial or potentially commercial farms remained in private hands throughout the revolutionary period. In some cases these were unexpropriated remnants of traditional large units. Production on these farms began to increase rapidly after 1940 when the private sector began to recover from the initial shock of the land reform. Frontier areas were left open for private development (ejidos were given out in the most densely populated regions) and there were large public investments in irrigation works which vastly improved production on these privately owned dry farms.

In contrast, little public money was used to support the ejido or to provide ejido farmers with modern inputs, extension, or markets. This is not to say that ejidos have remained completely outside any benefits of governmental investment in the agricultural sector. But they are, as one commentator has claimed, "underfinanced, underdeveloped, underirrigated, and overcrowded".[1]

Heretofore, most commentators have concluded that it took until 1940 before the production of corn, wheat, beans, and rice in Mexico regained 1920 levels. This is now being seriously questioned. One problem is, that while statistics can be fairly accurate for most marketed surplus (which certainly did drop for the products mentioned), they cannot account well for the home consumption of produce grown by campesinos. It is quite possible that production remained the same after land reform or even increased, but that more was consumed by peasants.

The decennial census of 1960 which became available in 1965 makes it clear that the ejidos have made considerable progress. Ejidos apparently did not produce more in 1950 than they did in 1940. But 1960 represented a large increase over 1950. There is no clear indication of any significant difference in crop yields between ejidos and private farms over 12.5 acres, when all commodities are aggregated. Private farms under 12.5 acres had slightly higher yields in several crops, indicating more intensive tillage and higher proportions of high value crops.

Considering total output, the situation has been thus summarized:

> The ejidos doubled their farm output 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. It cannot be denied that this higher output with little change in labor and capital must have meant some modest increase in the level of net income of the ejido population. The private farms over 5 hectares, on the other hand, nearly doubled their use of labor while their output rose by 3⅔ times and their use of capital and other purchased inputs were much higher than those on the ejidos. It is therefore difficult to say whether the rate of net produce per worker on the private farms over 5 hectares rose more or less than that on the ejidos. Since, to begin with, the rate was higher than that of the ejidos (because ejidos were established principally in congested areas) the difference in rate between them and the private farms may have diminished somewhat.[2]

[1] Wolf Ladejinsky, "Traditional Agriculture and the Ejido." Unpublished manuscript, Oct. 26, 1966 p. 41.

[2] Folke Dovring, "Land Reform and Productivity: The Mexican Case, a Preliminary Analysis." AERR-83, Department of Agricultural Economics, Agricultural Experiment Station, University of Illinois, November 1966, p. 13. Five hectares equal approximately 12.5 acres.

A surprising gain has come simply from applying more labor to the land on ejidos. Average annual expenditures for external inputs was 635 million pesos for the farms over 12.5 acres and 251 million pesos for ejidos, which account for a slightly smaller total area. Thus, the large commercial farms are "using more of the hardware that might otherwise have been invested toward more rapid industrialization of the country." [3] The same is doubtless true for public expenditures, since farms over 12.5 acres have enjoyed the benefits of more of this funding than ejidos. The "ejido production is cheaper, in a social-account opportunity cost, than large-scale private farm production." [4]

Thus, while the productivity picture is mixed, it is far from bleak. And Mexican campesinos are immeasurably better off in terms of employment, income, freedom, and possibilities for advancement than they were before the reform. As the peasant's buying power has risen, he has helped stimulate the industrial sector. And as the industrial sector grows, more and more campesinos are gradually finding their way into the city labor force. Reform has brought economic incentives that were absent under the old system. There is evidence that literacy in the countryside is increasing. Thousands of peasants who formerly had no claim on education and no participation in local government can now petition for schools or tax themselves to build their own.

Many former owners of haciendas who lost much of their land began to take better care of what they had left in order to avoid a ruinous drop in income. Capital accumulation and investment thus followed on the heels of reform. Reform (except possibly in the very short run) did not drive capital out of the agricultural sector, but required it to be used more effectively. In transforming the political, social, and economic balance of the country, it is possible that land reform had its major impact outside of the ejido sector—maybe even outside of agriculture.

There are doubtless many improvements which could be made in the ejido sector. There is wide variability in performance which does not show through in gross data. The structure of the ejido itself merits serious rethinking. For example, ejido farmers should perhaps be allowed to sell their property to others within the community in order to get some return on their investment as they leave to take jobs in other parts of the economy. Then, too, there is ample evidence that a large proportion of the sector suffers from lack of services. Public investments in market, extension, and credit would likely increase production. A more intensive focus on the ejido will become necessary as the frontier shrinks and expansion of agriculture at the "extensive margin" becomes more difficult.

In sum, the Mexican precedent generates optimism about land reform. Hopefully, reforms in other countries would need to be neither as violent nor as disruptive as was Mexico's. And it should be possible to shorten the time required to bring marketed supplies back to and above pre-reform levels.

[3] Ibid. p. 15.
[4] Ibid. p. 16.

B. BOLIVIA

Compared to Mexico, reform in Bolivia took place more quickly, on poorer land, and in a later era. Because of its contemporary nature and its lack of institutionalization, data on the Bolivian situation are still quite scarce. Again, the Government did not—possibly it could not—channel investment funds into the newly restructured agricultural sector. And agricultural progress that has occurred in Bolivia since 1953 has come about through institutional change and without appreciable capital investment designed to increase yields.

Decree No. 3464, signed August 2, 1953, was an attempt to recognize a partly de facto situation growing out of the revolution of 1952. During this upheaval, which was relatively bloodless, thousands of campesinos rebelled and seized the property they worked. Most of this land was poorly exploited. While there is no universal agreement as to the process by which the reform spread, it did so very rapidly. It probably began in an area where peasants were already strongly organized—in the Cochabamba valleys. It seems to have diffused as more peasants organized and as the revolutionary government in La Paz encouraged peasant unity in an effort to capture their political support.

Bolivia's land reform law makes a distinction between idle rural property and agricultural enterprises which are "operated with large capital investment per unit of land, producing for the market, with labor paid in cash wages and enjoying the right to organize and participate in collective bargaining, regardless of the amount of land held by the enterprise." [5] In fact, the law was only partially successful in protecting these agricultural enterprises.

As in the Mexican case, the decree established the rights of Indian communities to recover land usurped from them under the old regime. Furthermore, all Bolivian citizens, 18 years of age or over, who intended to work the land could receive a grant on the condition that they cultivated it within a period of 2 years. Peasants who lived on the haciendas were declared owners of the land they worked. The National Agrarian Reform Service would later formalize their claim.

The density of population in the high Andes was so great that only in very exceptional circumstances could the minimum holding, as defined by the decree law, be granted. In order to satisfy the maximum number of campesinos, smaller units were given out; this resulted in subsistence farms in the most heavily settled parts of Bolivia and created pressures, felt even today, for settlement on the frontier.

Recent work challenges the widely held assumption that the Bolivian land reform led to a decline in production. Marketed supplies certainly did drop off. The U.S. operations mission reported that production indexes fell one-third between 1953 and 1954–55. U.S. Department of Agriculture data shows that production continued to decline until about 1956, while the upturn in the 2 succeeding years was slight, but these were extremely dry years in Bolivia.

The prerevolutionary marketing system was disrupted by the reform. It is possible, therefore, that production was not interrupted as much as previously supposed, but that increased peasant consumption

[5] Richard W. Patch, "Bolivia: United States' Assistance in a Revolutionary Setting," in Richard N. Adams, et al., "Social Change in Latin America Today." Vintage Books, 1961, p. 127.

and a faulty marketing mechanism were responsible for the apparent decreases. A dual marketing system prevailed in the northern highlands prior to reform. Agriculture seems to have been vertically integrated to uncommon degree. Absentee landlords operated stores in town through which they sold most of the produce of their farms. Peasant workers on the landlord's farm delivered the produce from all but their own subsistence plots. Peasants took barley directly to the brewery and wool directly to the mill, both of which credited the landlord's account accordingly. Occasionally, buyers of animals came directly to the farm.

The second major market channel was made up of barter and small cash transactions of peasant families in markets situated in the provincial and cantonal capitals. Here peasants dealt with retailers from the city who came to trade goods. They bought mainly small consumption items, and usually paid with produce from their small parcels. This market was never large since peasant plots were small and not very productive. They had little buying power and thus provided little stimulation for production of manufactured goods.

Most of the market channels operated by large landowners disappeared when they lost their land in the reform. It took time for new channels to develop and as a result the amount of produce available in towns fell off rapidly.

A restructuring of the market system began immediately and by the late 1950's and the early 1960's a single integrated market was emerging. The number of provincial and cantonal markets burgeoned. As quantity of goods sold in these "peasant" markets increased, so did the number of trucker middlemen. At the same time a return flow of investment to rural areas was set in motion. More consumer goods were purchased and more cash flowed into farm areas. The total amount of goods that was bartered dropped sharply and cash exchange increased. There is evidence that more purchased inputs are used now on the northern highlands (in the form of fertilizers, hybrid seeds, and insecticides) than formerly. Peasant participation in the money economy is, according to one study, more than four times what it was prior to the reform.[6] This does not include inputs for agriculture or other capital purchases—such as roofing, bicycles, cement—items which seem also to be much more prevalent in this area than before the reform.

The reform has not, of course, solved all of Bolivia's farm problems. Little technical assistance has been available from Government or any other sources. Credit made available for increased purchase of yield-increasing inputs was badly eroded by the inflation of 1952–56.

As one commentator has noted:

> . . . the 'land affection' process established by the Agrarian Reform Law has to date recognized the possession of some 400,000 rural families—that is, their legal right to receive titles to the holdings they possess. But of these, only about 50 percent have actually received the titles. Almost all of these campesinos have been in possession of these lands for as long as 14 years. In many cases their legal rights were recognized through a supreme resolution signed by the President five, six, or seven years ago, but they are still waiting for their titles. This state of affairs has, of course, created problems and conditions which prevent the economic and social development of the rural areas. The lack of security discourages land investment among the campesinos and the old landowners who are unsure of their respective rights. Agricultural credits are not granted without a title.

[6] Ronald James Clark, "Land Reform, Economic Participation of the Peasantry and Economic Development." An unpublished paper of LTC-CIDA, "Study of Agrarian Structure in Bolivia," mimeographed, March 1967, pp. 25, 47, 48.

Legal problems multiply as the years pass. The original campesino may have died or moved and the occupiers must undertake the difficult task of proving their rights as successors. All of this, in turn, has resulted in a loss of faith in the land reform, both by the campesinos and the population at large. Also, it has prevented the full application of the necessary complementary measures to a process of land distribution: that is, credit, technical help, marketing facilities, etc.[7]

Despite the difficulties, Bolivia's land reform seems to have paved the way for long-run progress. One of its most important effects has been to break down the barriers that have traditionally separated the Indian population from the national life. The "two culture" world of the Indian and the white is being dismantled. As a result, the fatalism of the Indian seems to be disappearing. Concomitantly, the peasant (who now resents the epithet "indio") is more willing to search out new possibilities for self-advancement. This is perhaps best indicated by the enthusiasm that is now shown for building schools and by increased settlement in the lowlands.

C. VENEZUELA

Unlike the agrarian reforms of Mexico and Bolivia which flowed from widespread disorder and violence, land reform in Venezuela has thus far been carried out in a peaceful and orderly way. Large numbers of families have received land under the Agrarian Reform Act of 1960. By 1963, official figures indicated that 33,000 families had been settled on expropriated private holdings and 34,000 on public lands. The reforms continue: the National Agrarian Institute reports that 40,782 campesino families (or about 78 percent of those who applied) were granted land in 1965. Again, unlike Mexico and Bolivia, agrarian reform in Venezuela (at least since 1960) generally has distributed larger land units and provided a wider range of services to land reform beneficiaries. This has been financially possible because of petroleum earnings, part of which the Government has allocated for agricultural development.

Venezuela's land reform has been deeply influenced in both scope and design by the Federación Campesina de Venezuela, a large and powerful peasant organization with a complex history dating back to the 1930's. Since the overthrow of the Pérez Jiménez dictatorship agricultural policies have been shaped by a close interaction of the FCV and and three political parties—Acción Democrática (AD), Social Christian Party (COPEI), and the Democratic Republican Union (URD).

The Campesino Federation is the major pressure group influencing the administration of agrarian reform. It also provides a channel through which peasants gain access to government services and programs and seek official action for redress of grievances. The Federation derives its effectiveness from its ability to generate political support for parties which further its interests. It has 550,000 members and some 3,500 local unions. About 65 percent are affiliated with AD, 25 percent with COPEI, and 10 percent with URD. Positions on the governing council of the Federation are divided in roughly the same proportions. In order to expedite the quid pro quo, it is common for Federation leaders to have parallel party posts.

[7] Joseph R. Thome, unpublished report cited in Peter Dorner, "Interpretive Synthesis and Policy Implications of Land Tenure Center and Related Research," LTC Papers, No. 31, January 1, 1967, mimeographed, pp. 43-44.

AD dominated governments have been elected in 1958 and 1963. The AD, in coalition with COPEI and URD, sponsored the agrarian reform bill of 1960. This party coalition also pressured for substantial budgets for three reform agencies—the agrarian reform institute, the agency which provides credit and market support, and the organism which provides extension and technical services.

Reform benefits are not restricted to union members, although a recent survey shows that areas with strong unions have received 16 percent more benefits of agrarian reform than nonunionized areas.[8]

APPENDIX II

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