

AGENCY FOR INTERNATIONAL DEVELOPMENT WASHINGTON, D. C. 20523 BIBLIOGRAPHIC INPUT SHEET	FOR AID USE ONLY <i>Batch #16</i>
---	--------------------------------------

1. SUBJECT CLASSIFICATION	A. PRIMARY Serials	Y-AE10-0000-0000
	B. SECONDARY Agriculture--Agricultural economics	

2. TITLE AND SUBTITLE
Annual program report 1965

3. AUTHOR(S)
(101) Wis. Univ. Land Tenure Center

4. DOCUMENT DATE 1966	5. NUMBER OF PAGES 199p.	6. ARC NUMBER ARC
--------------------------	-----------------------------	----------------------

7. REFERENCE ORGANIZATION NAME AND ADDRESS
Wis.

8. SUPPLEMENTARY NOTES (*Sponsoring Organization, Publishers, Availability*)
(Research summary)

9. ABSTRACT

10. CONTROL NUMBER PN-RAA-823	11. PRICE OF DOCUMENT
12. DESCRIPTORS Land tenure	13. PROJECT NUMBER
	14. CONTRACT NUMBER Repas-3 Res.
	15. TYPE OF DOCUMENT

THE LAND TENURE CENTER
ANNUAL PROGRAM REPORT

1965

Submitted January 20, 1966

By

The Land Tenure Center

A Cooperative Research and Training Program
of the American Nations,
the Agency for International Development
and the University of Wisconsin

310 King Hall

Madison, Wisconsin

CONTENTS

I PREFACE

II A SUMMARY OF LAND TENURE CENTER RESEARCH

III PROGRAM ACTIVITIES AND SERVICES

IV FIELD RESEARCH REPORTS

V UPDATING OF ACTIVITIES AT FIELD CENTERS

VI APPENDICES

William C. Thiesenhusen, "Research on Recent Colonization
in Latin America."

Peter Dorner, "Policy Implications for Chile as Derived
from Land Tenure Center and Related Research."

A. Eugene Havens, Dale W Adams and Joseph R. Thome,
"Summary of Colombian Research Activity of the Land
Tenure Center."

Herman Felstehausen, Marion Brown and James Grunig,
"Communications Research in Connection with Land
Tenure Center Studies in Latin America."

Don Kœnel, "Agricultural Productivity Development and Land
Tenure."

John Strasma, "Financial Aspects of Agrarian Reform and
Agricultural Development in Latin America."

PREFACE

PREFACE

Amendment 3 (Contract AID/repas-3, establishing the Land Tenure Center at the University of Wisconsin), page 11 (Article I-E-1-c) contains the following points on reporting procedure:

"The annual program reports shall elucidate all research findings during the year, all modifications or additions to findings of previous years, and principal hypotheses or inadequately tested findings of the year which require further study. Each year's annual program report shall be accompanied by a work plan for the following year. The work plan, though permitting flexibility, shall specify principal problems to be investigated and general lines of approach to such problems. The reports shall be so designed as to, cumulatively, provide AID with the principal findings of the research undertaking financed under this contract."

This document provides the required information insofar as is possible. To avoid misunderstanding, however, several points must be clarified. Research is not a smooth, continuous process. There are certain "pay-off" points reached, but they are not necessarily achieved month by month or even year by year. Thus, some of the findings reported here cannot be as readily identified as others as being modifications or additions to findings of previous years.

Much of the research being carried out under Land Tenure Center sponsorship is at a stage at which it cannot be summarized now, but will be part of similar reports in subsequent years. In an appendix to this document, however, there are four papers summarizing our research by subject matter and two by country. The next section of this report presents a brief summary of some of the major points in these six papers.

The two country papers summarize research conducted in Chile and Colombia under Land Tenure Center sponsorship. These country summaries have been written for several reasons. First, we have had the most continuous research effort in Chile and Colombia. Second, the research in these countries has focused on a number of different problems. Third, if we summarize research results solely in terms of issues, we lose that knowledge and insight which is meaningful only in the setting of the nation dealt with.

The subject matter organization of these six summary papers reflects the nature of our research program, which likewise has a dual focus. One orientation is to issues and allows some generalization of research conclusions across country lines. The other orientation recognizes the uniqueness of each nation. Since the Land Tenure Center's research program

is oriented to issues of public policy (both of country governments and the U. S. in its aid and technical assistance programs), this dual focus of issues and countries is essential.

A rather large amount of Land Tenure Center research has been concentrated on colonization and settlement, the subject of one of the six papers. As we look at Latin America and see what has been done under the name of land reform, we find that colonization and settlement have been the key programs, thus the importance of research into these experiences. Major exceptions to this are, of course, Bolivia, Venezuela, Mexico and Cuba. We do have major research projects under way in Bolivia and Venezuela, summary statements of which will be available next year.

The remaining three papers in the appendix were prepared by staff members who will soon be going to Latin America for extended periods of research. These three summaries are in themselves significant. But in addition to providing a resume of Land Tenure Center and other research, these summaries are also important because they provide a firm base on which to build future research which will be supervised and directed by their authors.

Following the summary in the next section is a report on other activities of the Land Tenure Center during 1965. Several points need be kept in mind in reviewing this section. Contract AID/repas-3 has now extended over the beginnings of four fiscal years. Over this time, salary increases probably amounted to about 20 percent. The constant budget which we have had thus implies a shrinking program in terms of number of professionals employed. Meanwhile other activities such as the printing of publications and their distribution are becoming more costly and time consuming. We strongly believe, however, that this is a service that we need to perform and indeed enlarge. But a constant budget implies that such services cannot be performed without a cut-back in our research efforts. That the program has not been substantially reduced demonstrates the increasing support coming from the University of Wisconsin, foundations and other sources.

The Land Tenure Center at Madison provides an increasing number of other services. We are willing and anxious to provide these services as, for example, we were happy to send two senior staff members to Chile to counsel with the AID Mission and others on Chile's agrarian reform bill. But these new demands bring with them critical problems. Short-term contract financing does not provide the funding needed to employ additional permanent staff members. The constantly shifting staff that this implies and a steady loss of good young professionals just as they become really familiar with the program is not conducive to the building of a well-integrated research effort.

The final three sections of the report present the 1965 field activities, an updating of activities at field centers, and the six research summaries of the appendix.

A SUMMARY OF LAND TENURE CENTER RESEARCH

II. A SUMMARY OF LAND TENURE CENTER RESEARCH

The present summary covers only a few of the high points of research reported. A more complete picture is given in the six papers in the Appendix.

The basic assumption or hypothesis underlying our research is that the general institutional structures of the Latin American rural economy support a relatively small, privileged class which leaves the mass of rural people on the periphery of participation in the market economy. This is essentially the same assumption underlying the demands for reform as formulated in the charter of Punta del Este which established the Alliance for Progress. Formulating the basic issues in this way places institutional change (economic and social innovation) at the center of any program for agricultural development. Unfortunately, social scientists have not had much experience in this. In the U. S. system, forms of organization are usually considered adequate and fundamentally sound, with research concentrating on working out the minor defects within this system. Freedom, security, stability, progress--these are all assumed firmly established. Research and suggested programs arising from it have a much narrower purpose.

However, there are some issues within the U. S. system somewhat analogous to those of rural Latin America in which basic institutional change is necessary. Institutional reconstruction in poverty areas, racial integration, reformulation of the concept of "work" as providing adequate criteria for sharing in the wealth produced in an increasingly automated economy--these are issues of the same basic nature requiring a public redefinition of rights, privileges, duties and obligations of the several groups and participants. We do not have solutions to this type of problem in the U. S., and are much less qualified and prepared to develop such solutions for Latin America. In full recognition of this, Land Tenure Center research has concentrated on questions requiring the gathering of information (related to these issues) at the level of the farm and the local community, trying to understand how institutions function and the points at which they might be changed to improve their performance. And, very importantly, our research has always been conducted in cooperation with students and professionals from Latin America, since it is the Latin American professionals who must guide programs and policies in this area.

The task of institutional reform is, of course, not new; nor is it confined to so-called underdeveloped countries. Since economic development spreads its benefits unevenly, there is a need for continuing redress in an attempt to equalize its burdens as well as its benefits. In the developed countries this is frequently accomplished through the system of taxation. In this sense, reform is a continuous process in all countries undergoing development. But while development has

proceeded a long way in Latin America, this continuous redress of power and benefit has not kept pace, thus the present inequities and maldistribution of wealth and privilege. The present circumstance may also make it more difficult to utilize the tax system for such equalization.

A number of obstacles to any realization of such redress exist in Latin America, even where there is the political will and power to carry it out. The paternalistic social structure has resulted in a concentration of managerial-entrepreneurial skills in a relatively small group. Given population pressures, the demand for increased agricultural production is high. The very unevenness of the distribution of income results in limiting the employment opportunities available. All these factors are aggravated by a shortage of government funds and technically trained professionals for carrying out programs of reform.

Another complicating feature is the diversity of economic and social circumstances on farms. In the literature, the latifundia is often portrayed as a social and economic unit where economic criteria and productivity are, at best, of secondary concern and where workers are badly treated. This indeed is a relevant characterization of some large farms in most Latin American countries, but it is much more fitting for some countries than for others. But in all countries where the major part of the land area is held in large units there are deviations. It is true that low productivity and extreme poverty among workers is common. But it is not unheard of to find a very large farm with low productivity but reasonably good working and living conditions for the laborers. One can also find large farms (with hundreds or even thousands of hectares of land in cultivation) with very good management and high productivity, and a range of living and salary conditions for workers which is as great as on the low producing farms. The whole matter of reform and institutional change is thus complicated by such diversity.

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

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

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

Although agrarian reform laws in Latin American countries generally have this dual focus (small-parcel consolidation and parcelization of large holdings), consolidation in areas of dense population leaves unresolved the problem of what to do with the excess people. None of the commonly suggested remedies is adequate by itself to treat the diversity of conditions encountered. A variety of reform tools must be applied in order to solve the different problems which exist.

There is another basic feature to be considered. Institutions do not operate in isolation. They are shaped by and in turn shape the thoughts, expectations and responses of the people involved. This agrarian problem is not merely a struggle between a small group of evil tyrants on the one hand and the masses of deserving peasants on the other.

There is the possibility, for example, that rural laborers do not perceive other alternatives as opportunities even though they are aware of them. An individual who is constantly faced with making judgments and decisions and acting upon them will be more likely to perceive new possibilities. But through the socialization process under the "hacienda system" (a general paternalism), an individual can internalize expectations for his behavior and follow these expectations even though he dislikes them. If all the agencies of social control tend to reinforce these expectations, then the individual may perceive alternatives for others (the patron, or even his children) but not for himself. Many peasants respond "that's for the rich ones," "that's for the boss" when asked about the use of certain agricultural practices. They know of the practice and are convinced of its value, but they cannot visualize using it themselves. However, lack of credit or other restrictions on its accessibility undoubtedly also play a role.

There are additional factors involved in this very intricate system of dependent relations. A peasant within the large farm structure (called by various names in different countries: peón, inquilino, colono, etc.) has a certain degree of security, even though he enjoys few rights. This is security at a low standard of living, to be sure. It is a security which depends not on public procedures but on personal judgment and goodwill of one's benefactor--the patron. One of the basic tensions in Latin American rural society seems to be that fewer people than formerly can be offered this security, and it is less assured even for those tied to the system. That is to say, with rapid growth in population and a food supply not quite keeping up with that rate of growth, the old pattern of security is insufficient.

Another general consequence of this local paternalism is that even when it is broken (or replaced in cases of reform and land sub-division) it is extremely difficult to establish a viable local institution to take its place. It is almost universally true that cooperative organizations have generally failed or been kept alive only with great outside help and effort.

In addition to this difficulty of establishing a viable local cooperative as an alternative to the old "paternalistic hacienda system," there is also frequently a mistrust of central (far away) government on the part of the peasant. (This may not be the case in all countries, but was reported from Colombian research.) It was found, however, that in communities where there were active voluntary farmer associations, confidence in government was higher. This may be the result of learning that government is also a group or collective affair which can be influenced much like their own smaller association. In any event, such organizations can provide new channels for presenting demands to government and it appears as though this also increases the confidence the members have in the government.

Given the circumstances above described, the relevance of the more traditional agricultural policy prescriptions come into question. Two basic points are involved: (1) Who will benefit from efforts to improve agricultural research, extension, new inputs and techniques, credit, market improvements, higher and/or more stable prices, etc.? These are among the "traditional prescriptions" for increasing farm output. In a system of widespread resource ownership and market participation, the benefits of these programs are, of course, widely shared. But where this is not the case, the benefits accrue to the resource owners (which may be a rather small group), and there is no guarantee that non-owners would share in the benefits without specific governmental intervention to assure it. Thus to assume a certain distributive consequence from such programs is also to assume a certain resource ownership pattern. But of equal importance is (2) will these programs actually result in increased agricultural productivity?

All these areas have not been thoroughly investigated. However, the evidence we do have with respect to the influence of higher prices on farm production indicates a very low price elasticity of supply (this especially with respect to conditions in Chile). We have already mentioned the wide range of conditions that exist within the large farm structure. While all large farms operate under the same price-cost conditions, some of them are showing very good profits while the owners of others complain that prices are too low. But our evidence (from both farm surveys and aggregative data) indicates substantial profit possibilities with average (or above average) management, given present prices. This entire question certainly deserves more study. Yet, at present, it would appear that the burden of proof is with those who hold that the level of agricultural prices is an important explanatory factor in the present farm output levels of Latin America.

We are not saying, however, that output levels in agriculture are as high as they could (or should) be. This is another question and a number of our studies have centered on this issue. More specifically, the question is frequently raised whether or not "small" farms produce more per acre (or hectare) than "large" farms. (With labor abundant and land scarce, generally, the measure of production per unit of land has come to be the most acceptable in discussing this issue.) There is little disagreement over the need and the possibilities for increased agricultural productivity in the aggregate. Of major concern is the location of this potential.

One of the realities in Latin American countries is the relative abundance (and inexpensiveness) of labor in rural and urban areas. If the employment situation were "tight," and if there were many nonfarm opportunities and if labor mobility characterized these societies, we would be discussing a different set of difficulties. But this is not the case. It is for this reason that tenure and employment rights and conditions in agriculture are so significant. In much of Latin America the tenure systems exist primarily in the absence of changing economic alternatives and are characterized by the personal dominance of the landowner over those in inferior tenure status. This is in contrast to U. S. agriculture where the alternatives in the labor market are the major factor in determining the terms of the tenure arrangements, and personal influence of a landlord and a tenant are secondary.

Thus, under Latin American circumstances, a certain degree of coercion does exist. But this is not always a conscious exploitation of the weak by the strong. It is part of a system in which every individual feels helpless and incapable of changing the basic outlines and dimensions of that system.

On the matter of potential productivity, however, several points can be made. First, the potential does exist, this is quite clear. Second, there is no conclusive evidence whether the potential productivity is larger on small or on large farms. In the studies available where the significant variables were adequately controlled, it appears that the potential is equally great for various farm size groupings. It does appear, however, that the reasons for the unrealized potential are different for farms of different size.

In addition to farm price levels and size of farm, the question of the importance of agricultural extension work has been widely discussed. The image brought to mind by the term "technical assistance," ever since the Point Four program was introduced, certainly placed agricultural extension work in the forefront.

Our research has provided us with a number of important insights regarding the establishment of this extension function. The first difficulty confronting anyone interested in establishing or strengthening this extension function is the very great variation in farm size and

system of tenure (or economic organization). To whom shall it be directed? If to the large farmer (or the administrator on the large farm), one can assume a literate, reasonably well educated person. But in this case the approach would be quite different than if the extension work is geared to small independent farmers. A still different emphasis is required if the center of concern is small farmers who recently acquired the status of owners, having come from the ranks of landless workers. Other categories could be added.

Variations among midwest U. S. farmers in farm size, tenure, class status and educational background also exist, but these are minor deviations compared to the great cleavage in the rural communities of Latin America.

Partly as a result of this, but also for other reasons, there is a great proliferation of extension type activity. This proliferation leads to a great duplication of administrative effort, with the result that an excessive number of professional people, of which there is a limited supply to begin with, are tied up with office work in the capitol cities. Since extension work is generally noncontroversial, it is also easy to attract foreign financing which may aggravate this duplication of effort and lead to movement of professionals from one agency to another.

There are other problems involved. In some cases research is not sufficiently developed to provide extension workers with a confident base of knowledge. Or, research may be well established, but it is so scattered that it is difficult to tie extension to it; consequently poor communication between research and extension results.

Finally, there is the entire question of the degree of volition vs. obligation or compulsion that should characterize extension work.* And this, at least in part, is related to the question of whether or not this extension function is exclusively a public service or whether this is to be shared with private firms.

*We use compulsion not in the sense of a directive coming from the central government dictating all practices to be employed. Rather, it is the kind of obligation or commitment a farmer undertakes once he signs a contract to grow sugar beets or produce corn for a canning factory. Once the decision is made and the contract signed, the farmer is obligated to carry out the production under practices prescribed by the contractor.

There is a fair amount of evidence that some private-obligatory mixture along with public service is desirable and gives good results. There is evidence on this from Chile, but also some from Colombia and Venezuela. The direction of future development of extension will become more important if increasing numbers of landless workers become decision-making farmers.

The major effort by Latin American countries in trying to transform their tenure structure (or at least relieve pressures in the countryside) has been colonization or settlement. But in addition to this overt governmental action, there has been a good deal of spontaneous movement and settlement, sometimes on public lands, sometimes on lands legally claimed as private property by other individuals. This has led to serious problems of title insecurity in some areas, which in turn has had undesirable consequences for agricultural investments and development.

Even governmental efforts and spontaneous settlement do not describe completely the activities in this area. In Chile the Catholic Church has established an independent organization to sub-divide some of its lands. In some instances private companies have done parcelization. And there are some cases (now being studied in Chile) where private owners have given over their farms to real estate firms for sub-dividing and sale.

There are several reasons why these diverse experiences are of interest for research. First, these colonization areas are deliberate constructions and their basic design and function is revealing about the way in which the society operates. Second, institutional innovation is taking place here, and it illustrates both successes and failures which might be anticipated should larger scale programs be initiated.

With respect to the first, the study of long established colonization projects reveals the lack of employment opportunities in the economy. A group of 30 parcels in Chile, all settled more than 12 years ago and originally sold to 30 former laborers and sharecroppers, supported entirely or in major part 104 families at the time of study in 1964. As already mentioned above, the cooperatives set up on these colonies were inoperative or functioned only in a minimal way. Finally, extensive land use practices and the use of sharecroppers on the parcels reflects a continuation of the basic structure as represented by many of the large farms.

A critical factor determining success or failure of a new settlement seems to be the selection of colonists. A heterogeneous group from different geographic areas and representing various social classes yields neither a cohesive neighborhood nor the basis necessary for a viable, functioning cooperative. On the other hand, while a private agency (e.g., the Colombian Tobacco Development Institute on one of its parcelization projects) can select very carefully for high quality and experienced peasant operators, a government reform program of greater scope must be prepared to deal with a wider human spectrum.

Present governmental efforts in Chile, for example, recognize some of the shortcomings of the earlier colonization efforts. But of great significance also has been the Church reform experimentation. On these projects, a diversity of tenure forms and patterns was introduced, evolving colonists through several tenure stages--beginning with rather strong, centralized management during the training period, and ending with independent farmers on their own private parcels. At the same time, great emphasis was given to technical assistance and the strengthening of the local cooperative organization. Evidence seems to show that these increased efforts are paying good dividends.

There is an especially interesting and revealing example from one of the reform projects of the Instituto de Promoción Agraria (INPROA--the Church established reform agency in Chile). The cooperative on this project was sufficiently strong and cohesive to threaten INPROA with a law suit unless a year-end lump sum payment was delivered to individuals (a payment which was their due but which had been delayed because of cumbersome accounting procedures). A group of families were interviewed several weeks after receiving this payment to find out how it had been spent. About 42 percent had been used for paying up farm expenses and investing in farm capital; 39 percent was spent on family needs--furniture, home improvements, clothing, food inventories like sugar, flour and oil; and about 19 percent remained saved and unspent. Given the circumstances, such expenditure patterns seemed prudent.

A major drawback of parcelization is its high cost. Consequently, progress is slow. Although reform agencies publish optimistic estimates of numbers of parcels to be established, these goals have not been met. Infrastructure costs in new, directed settlement areas will have to be reduced, and land expropriated by government will have to be paid in long term bonds if enough land is to be distributed to make substantial impact on land tenure structures.

Finally, we wish to stress the importance of the legal structure and our research in this area. Included in this are studies in water law, land title law, labor law, tax law and land reform law. Law is an inherent part of any economic and social system and consequently the object of attention in discussing reform of such a system. It represents the instrument through which goals are adopted (legislation, decrees), implemented (administrative agencies) and reviewed (courts).

In many cases studied there is a marked divergence between the apparent assumptions of the social and economic structure as evidenced in the way the law is written and worded, and the actual structure in the local community which determines the degree to which various provisions can be enforced.

In the case of water, for example, the water code defines procedures and thus the legal demand for water (i.e., the legal rights and privileges). But the nature of economic and political power concentration presents a different dimension of demand which may be at variance with that legally defined. In addition, there is a demand dimension provided by the criteria of economic efficiency in the use of water. And a final dimension emerges from considerations of social justice. These various demand functions might be assumed to be one and the same in a perfectly mobile and equalitarian society. But since societies are not perfect in the above respects, divergencies appear. The greater the imperfection in the mobility-equality sense, the greater also is the divergence between the various demand functions. Data from a Chilean study is being organized around these concepts.

In Colombia, a number of deficiencies were identified in the system of water regulation. Here the water legislation is a curious amalgam of regulations with elements of both riparian and administrative principles. Among present deficiencies were lack of rules concerning administration of irrigation districts, use of ground water, recording of individual rights, amount of land which may be irrigated, easement procedures and guidelines regarding priorities among different water uses. Furthermore there is overlap of power and jurisdiction among numerous agencies, without a central water coordinating agency or committee.

It is recognized that development programs can only be implemented if governments acquire more resources or reallocate those they have, increase efficiency or cut back on other programs. New resources may come from foreign aid, but the bulk will have to come from more taxes. This may require tax reform. Some of our research has explored recent innovations and new ideas in land valuation and assessment. We plan to test further the hypothesis that changes in the form and level of agricultural taxation may be an economical and efficient way to help achieve objectives such as increased output, improved security of land tenure and local democracy and initiative as well as a way to finance government programs. As already proposed in a number of professional analyses, tax reform might provide a viable alternative in at least some countries to the less acceptable and more drastic measures implied by expropriation and forced re-distribution.

Chile has just begun collecting land taxes based on re-evaluations made from aerial photographs and photo-interpretation combined with field work. This experience will be carefully evaluated in order to determine the feasibility and costs of repeating the process elsewhere. This experience should also indicate the feasibility of land reform measures that require a rapid decision as to whether certain properties are being farmed efficiently.

As was mentioned at the beginning of this summary, these are but a few of the ideas and high points of research as reported in the six papers in the appendix to this report. For more elaborate statements these six papers can be read. These six papers in the appendix are in turn summaries of a number of studies and published or unpublished reports, many of which are also available. It is our hope that this and future annual program reports will provide AID with the principal findings of the research undertaking financed under this contract.

III

PROGRAM ACTIVITIES AND SERVICES

III. PROGRAM ACTIVITIES AND SERVICES

A

THE ADVISORY COMMITTEE

The Research Program Advisory Committee of the Land Tenure Center assists the campus and field staff in reviewing development problems and in considering research needs for Latin America. Members of the committee all have an active interest in agrarian development research and are involved in major phases of the Center's research and training program.

New to the advisory committee this year were Robert E. Baldwin, professor of economics, University of Wisconsin; Orlando Fals Borda, Dean of the Faculty of Social Sciences, National University, Bogotá, Colombia and Garland P. Wood, professor of agricultural economics and director of the Latin American Center, Michigan State University.

Continuing members from the University of Wisconsin are Charles W. Anderson, associate professor of political science; J.H. Beuscher, professor of law; Harlow W. Halvorson, professor and chairman of agricultural economics and chairman of the advisory committee; Bryant E. Kears, professor of agricultural journalism and associate dean of the Graduate School; E.R. Mulvihill, professor of Spanish and associate dean of the College of Letters and Science; Raymond J. Penn, professor of agricultural economics and E.A. Wilkening, professor of Rural Sociology.

In addition, two representatives of AID and Peter Dorner, Director, Land Tenure Center, are ex-officio members of the committee.

The advisory committee met on the following dates:

- Feb. 5 Considered the advisory committee's future role and operations and the appointment of a new director. Agreed on nominations for membership to the committee from outside the University.
- Feb. 25 Discussed the program budget for FY 66-7 and instructed the staff to prepare a \$700,000 funding request. Met with the Dean of the College of Agriculture to discuss the directorship and the interdisciplinary nature of the program.
- March 12 Met with the new Chancellor of the Madison Campus to outline the organization and operation of the LTC and its interdepartmental and intercollege nature; to discuss recommendations for a new director and new members; and to outline the financial problems and base of the program.

232:VAJZ ORA 2311VITOP MARCOAN .111

- April 23** Met for a report on 1965-66 program plans and on re-organization of the committee and naming of the director; to approve a revised 1966-67 budget request and consider possibilities for supplementary support; and to take action concerning the Central America program.
- Sept. 9** Met to hear the director's report on decisions and actions taken during the summer; to review proposed revised agreements with cooperating Latin American agencies; and to review a proposal for additional AID funds for publication expenses.
- Nov. 11-13** Met for the first time with the new full committee, including off-campus members and AID representatives, to review the program, to plan for the coming period and to provide policy and operational guidelines to assist the directors in making decisions.

TRIPS TO AND FROM AID WASHINGTON

Six Land Tenure Center staff members traveled to Washington to confer with AID officials during 1965. The beginning dates of these trips are as follows:

Raymond Penn: Feb. 9, June 16.

Eugene Havens: Feb. 9, May 29.

Peter Dorner: June 2, Sept. 22.

Don Kanel: Feb. 9.

Herman Felstehausen: Feb. 9, May 29, Sept. 22.

Ronald Clark: May 29.

In addition, Ernst Linde, V.W. Johnson and Milo Cox of AID visited the Madison campus to attend and participate in the November advisory committee meetings.

LTC PUBLICATIONS

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.

To meet this goal, the Center presently has about 60 available publications organized into six series, along with motion pictures, photo exhibits and a quarterly 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. However, demand for these materials from outside sources is increasing at an overwhelming rate.

Based on projections from seven months of record keeping, approximately 17,000 copies of publications were distributed during 1965. About 10,000 of these were mailed in response to written requests. Approximately 1,000 other pieces were personally handed to people calling at our office. All in all, the LTC staff handles more than 200 requests for information each week.

Publications of the Land Tenure Center have been organized into the following series:

1) Research Papers--These papers generally represent the earliest form of research results. The papers are mimeographed with a printed cover. The series currently contains 13 papers.

2) LTC Reprints--This series of reprinted journal articles pulls together development research work from several academic disciplines. The series is especially important because the development field does not have a clearly defined set of journals. The series presently contains 13 articles.

3) Discussion Papers--This printed series contains discussions of the implications of research results and development theories. Five papers are presently in the series, which is intended for a general audience.

4) Training and Methods Series--This series presently contains two bibliographies and three papers discussing developments in research methodology resulting from field experiences. The series is intended primarily for training purposes.

5) Monographs--This series is not yet started but plans have been made for publication of the first number. These publications will be low-cost paper bound booklets giving in depth treatment to major research problems.

6) **LTC Office Papers**--This series contains mimeographed papers submitted for publication in journals, translations of Spanish or Portuguese articles or early drafts of more comprehensive reports. The papers are circulated primarily to LTC staff and students. The series now contains 11 papers.

In addition to these series, the quarterly Newsletter is circulated to LTC staff and students and policy makers, administrators and researchers in the United States and abroad who are interested in development problems.

An available publications list is distributed whenever a number of additions have been made to these series. Persons interested in particular publications can order them from this list. In addition, we maintain a number of mailing lists to which mailings of new publications are made. These lists include:

- 1) All Latin American AID missions.
- 2) A select group of Washington AID offices.
- 3) A group of about 100 research institutions and individuals in foreign countries who have a special interest in the work of the Center.
- 4) A similar group of about 100 research organizations and individuals in the United States.
- 5) A list of 100 or more U.S. and foreign libraries interested in receiving all regular LTC materials.
- 6) A list of about 60 to 70 students on the Madison campus who are involved with agrarian development studies and research in Latin America.
- 7) An additional general list of about 800 names of people who receive the newsletter and lists of available publications and who request publications occasionally.

The Center also has 10 films available on agricultural development conditions and issues in Colombia and Bolivia. Two similar films are being prepared on Chile. The films were developed by Fritz Albert of the Agricultural Journalism Department in cooperation with research workers in the field.

The films add a visual dimension to written documentation about agricultural development in Latin America. They provide a firsthand look at current conditions and problems and will serve as a bench mark in comparing future development with present conditions. The films are especially useful to those interested in Latin American research and those planning to work in Latin America.

The scripts of the films are presently being translated into Spanish; this will make it possible for the films to be used widely in Latin America.

Two photo exhibits of Bolivia and Chile have also been developed. These exhibits have been displayed on the Madison campus, at other universities, in New York's Rockefeller Center and in Latin America. They are available for loan and display if requested.

LTC LIBRARY

The Land Tenure Center Library continues to concentrate on collecting materials dealing with agrarian reform and social and economic development in Latin America. Approximately 500 books are added to the collection each year. The library now subscribes to over 100 periodicals and collects series on development, land reform and related subject areas. We are expanding our collection of audio-visual materials, including tapes, slides and maps. Our vertical files contain Latin American government documents, statistics, newspaper clippings, unpublished research reports and other similar materials. Publications of this nature, gathered by overseas staff members and ordered from Latin American government agencies, dealers and publishers, form the most valuable part of the collection.

Use of the library has continued to increase. We serve Land Tenure Center staff members and students, both on the Wisconsin campus and in the field. The library is also used by members of other departments and information requests from professors and students on other campuses are becoming more frequent. Materials were sent out of the state for a community development training program and information was recently supplied for the forthcoming United Nations conference on land reform.

For several months the staff of the library has focused its attention on developing a new cataloging system. During the coming year, a system of mechanized retrieval will be put to use by the Land Tenure Center Library, working in conjunction with the Department of Agricultural Economics. Information will be stored on IBM cards and up to date listings of library holdings will be printed at regular intervals. Many of the volumes of the Taylor-Hibbard Library of the Department of Agricultural Economics will be included in these printings, thus making a wider selection of books on economics, agricultural economics and development available to researchers. With the use of mechanized retrieval, bibliographies and lists of publications on most of the subjects held by the library will be readily available.

THE TRAINING PROGRAM

Forty-five Latin American and U. S. graduate students were supported by the Land Tenure Center in 1965. This includes students receiving full and partial research assistantship support or any field research expenses. On-campus support for assistantships during 1965 was about

\$70,000. Most student support came from University of Wisconsin or other assistantship granting institutions. Thirty-eight received support while working on the Madison campus, seven while conducting research overseas. Since the beginning of the program approximately sixty-five young people have received support from the Center. Most of these people are working toward Master's or Doctoral degrees at the University of Wisconsin. Most plan to take regular positions in international work after completing their training. Many past students are already a part of Latin American programs in U.S. colleges and universities; Latin American universities, research organizations or government agencies; or in other foundations or international programs.

PERSONAL INFORMATION SERVICES

One of the important ways in which the Land Tenure Center makes the results of its research and training available is through personal visits and consultations with AID representatives and representatives of government agencies, other universities, foundations and research organizations.

Informal Visits. Approximately 60 groups of one or more persons visited the Madison office of the Center in 1965 to gather information for Latin American work. Four of these groups came from AID.

Four groups came from other U.S. government agencies other than AID and five from government agencies of other countries. Five groups visited the Center from U.S. universities, one from a European university and 16 from Latin American universities. Sixteen persons made up one particularly large Latin American group.

Eighteen groups from U.S. foundations and other international programs personally sought information from the Madison office. Three came from similar Latin American sponsored organizations and one from the United Nations. Three representatives of Wisconsin organizations also visited the Center to gather information.

In addition to these visits, the Land Tenure Center staff and students took part in seven informal seminars with off-campus speakers. Several showings of the Center's research films were held for off-campus visitors.

Campus Training Programs. Three special training programs were held for off-campus visitors during 1965. Two of these were arranged for AID personnel, one for a United Nations representative.

These programs ranged from three to five days and consisted of individual consultation with Land Tenure Center staff members, independent work and study of materials in the Land Tenure Center library and briefing meetings in small seminar groups.

Service Overseas. As a result of a request from the Chilean AID Mission to the Chile desk, AID Washington, the Land Tenure Center was asked to provide consulting services. Accordingly the Land Tenure Center arranged in December for Kenneth Parsons, professor of agricultural economics, and Jacob Beuscher, professor of law, to go to Chile to evaluate provisions of the country's proposed agrarian reform law. Both Parsons and Beuscher have been actively associated with the Land Tenure Center program.

Parsons and Beuscher will spend approximately 15 days in Chile in January 1966. They will study the provisions of the bill recently submitted to the Chilean Congress, the administrative and economic requirements of the Chilean government in handling the proposed program and the economic and social consequences that might be expected from the bill if it becomes law.

The two will review the text of the bill and consult with Chilean officials and international advisers of the UN Food and Agriculture Organization before making their advisory report to the AID mission.

IV

FIELD RESEARCH REPORTS

IV. FIELD RESEARCH REPORTS

The Land Tenure Center began a new project in Bolivia on September 13, 1965, in cooperation with the Interamerican Committee for Agricultural Development (CIDA). CIDA has previously conducted eight land tenure surveys in various Latin American countries. The second stage of its work is evaluating agrarian reform experiences of Latin American countries which have carried out major land redistribution programs, such as Bolivia, Mexico and Venezuela. The combined LTC-CIDA project will study the major economic, social and political changes that have taken place in Bolivia since 1952, and will analyze the present land tenure structure and how it possibly prevents rapid agricultural development.

BOLIVIA

Ronald J. Clark

Assistant Professor, Agricultural Economics

The beginning phase of the project will be devoted to a re-study of various ex-haciendas studied by Celso Reyes in 1945. Reyes is now national advisor to the Bolivian Institute of Agrarian Reform, and will work closely with the present study. Information is available from Reyes' study on the economic and social conditions of 1945, and the Institute of Agrarian Reform has similar data available for the period of 1953-59, the period when most of these properties were expropriated. The properties are all located on the northern altiplano of Bolivia in areas of population pressure and traditional settlement.

The re-study should yield important information on the changes that have taken place in these properties since the land reform -- changes in the system of agriculture, the social and power structures and in the role local campesino syndicates have played in this change. The present land holding structure and its problems should also be revealed by the re-study.

At the same time, all of the properties studied by Reyes have been visited. Interviews with the campesinos and leaders of the comunicados have been conducted to gain information on the conditions existing on these properties so that two haciendas can be chosen for case studies to be conducted during the first year of the project.

Similar properties will be chosen in other geographical areas of Bolivia, particularly in the areas of traditional settlement such as northern Potosí, the Valleys of Cochabamba, etc.

Along with preparing for field work, a great deal of time has been spent during these beginning months of the project to work out an agreement between the Bolivian government and LTC-CIDA. This is absolutely necessary when any international organization such as CIDA works in another country. The Bolivian government will possibly contribute several people to the project. The Land Tenure Center is contributing the following personnel: Ronald J. Clark as director, Richard W. Patch as consultant and Roberto Gumucio as field coordinator. CIDA will contribute several professionals along with short-term consultants from ICIRA in Chile.

The following Bolivian agencies have been very helpful in deciding on the type of project to be conducted in Bolivia; the Ministry of Agriculture, the Ministry of Planning, the Ministry of Campesino Affairs (Asuntos Campesinos) and the Consejo Nacional de Reforma Agraria.

The local AID Mission has been helpful in formulating the project. Thus far it has been possible to integrate the project's objectives with those of the AID Mission's Rural Development Program, directed by Milton Lobel, and its Community Development program headed by David Anderson. Project directors attend meetings with the people concerned with these programs to keep them informed of our progress, problems, impressions and results. Most people in the AID Mission are interested in the tenure structure and tenure problems in the countryside, the present state of the agrarian reform program in Bolivia, etc. Reaction to field work completed so far has been good, and members of the mission have shown real interest in our reports.

BRAZIL

John T. Steele, Research Assistant

This report covers my work in Brazil from March 15, 1965, to December 10, 1965. The work has progressed well and close cooperation has been established with the Instituto de Economía Rural, the Purdue Contract group at the Universidade Rural do Estado de Minas Gerais, the Associação do Crédito e Assistência Rural (ACAR), USAID/Brazil and other agencies.

The major objectives of this study are: (1) to describe the traditional systems of land tenure and farm organization, (2) to examine the interrelationships which exist between size, tenure and productivity, and (3) to determine the reasons for differences in productivity if they are found.

The first two months were spent in Rio de Janeiro. During this time a review of relevant literature was conducted in the libraries of the Escritório Técnico de Agricultura (ETA) and the Centro Latino Americano de Pesquisas em Ciências Sociais. In addition, personnel of the above organizations and of USAID, Instituto Brasileiro de Reforma Agrária (IBRA), and Instituto Nacional de Desenvolvimento Agrária (INDA) were consulted concerning the research project and selection of an appropriate area in which to conduct the study.

The project is being carried out in the Zona da Mata in the State of Minas Gerais, Brazil. Both primary and secondary sources of data will be used in the study. Considerable information is being utilized from previous studies by the Instituto de Economia Rural and Departamento de Agronomia at the Universidade Rural do Estado de Minas Gerais, as well as data available from ACAR. A questionnaire has been developed and plans are being completed to interview farmers during January. This study should be completed in June 1966.

The following Brazilian personnel have assisted or cooperated with the study:

1. Prof. Eryl D. Brandão, Director of the Instituto de Economia Rural, Universidade Rural do Estado de Minas Gerais
2. Prof. Josué Leitão e Silva, Instituto de Economia Rural, Universidade Rural do Estado de Minas Gerais
3. José Paulo Ribeiro, State Supervisor of ACAR
4. José do Carmo Neves, Supervisor Secional, ACAR
5. Maurício de Souza, Local ACAR Agent, Viçosa
6. Prof. Sílvio Brandão, Departamento de Agronomia, Universidade Rural do Estado de Minas Gerais
7. Prof. Edgard de Vasconcellos Barros, Retired Professor of Sociology, Universidade Rural do Estado de Minas Gerais
8. Prof. Lytton L. Guimarães, Professor of Rural Sociology, Universidade Rural do Estado de Minas Gerais
9. Paulo de Vasconcellos Barros, Third year agricultural student at the Universidade Rural do Estado de Minas Gerais (assisting part time with data collection and tabulation).

The following agencies and institutions have provided information and data, given advice, or helped in other ways:

1. Instituto de Economía Rural and Departamento de Agronomía at the Universidade Rural do Estado de Minas Gerais (UREMG)
2. Agency for International Development (USAID/Brazil)
3. Purdue-Brazil Project
4. Centro Latino Americano de Pesquisas em Ciências Sociais
5. Associação de Crédito e Assistência Rural (ACAR) both state and local
6. American International Association (A.I.A.)
7. Escritório Técnico de Agricultura (ETA)
8. Instituto Brasileiro de Reforma Agrária (IBRA)
9. Instituto Nacional de Desenvolvimento Agrária (INDA)
10. Instituto Brasileiro de Geografia e Estatística (IBGE)

Special mention should be made of the assistance given by the Instituto de Economía Rural, ACAR and the Purdue-Brazil project. The Instituto de Economía Rural provided office space and equipment and made a considerable amount of relevant data available for use in this study. ACAR has cooperated by providing detailed information about the agriculture of the region (including a number of field trips to farms in the area) and has given access to all information in its local offices including detailed farm records of farmers in their supervised credit program. The Purdue project, in addition to helpful suggestions concerning the study and the selection of the area by its personnel, has assisted with many problems of transportation and communication.

Frequent contact has been maintained with USAID/Brazil primarily through Albert Pollard, Robert Price, Walter Beck, Ralph Miller and Richard Newberg. Research plans and progress have been discussed with them. I also participated in the USAID/ARDO Contractors Conference in Rio, July 12-16, 1965.

Close contact has also been maintained with the Purdue and Brazilian staff at the Instituto de Economía Rural, Universidade Rural do Estado de Minas Gerais. Considerable interest in the work of the Land Tenure Center and my research has been expressed by the graduate students in the Instituto and a seminar was held with the land economics students to explain this work. One or more additional seminars will be held during the next semester to present results of this study.

BRAZIL
Luiz Fonseca, Research Assistant

This project concerns information patterns, risk orientation and practice adoption among Brazilian farmers. It is a survey type study that seeks to learn how selected socio-psychological variables are associated with practice adoption in a rural area of Brazil. The two main variables are the effect of exposure to instrumental information and risk orientation on the acceptance of new practices. The survey was conducted in the Município of Esmeraldas, in the State of Minas Gerais, Brazil, from February to December, 1965. We secured the total sample of dairy farmers of the Município, and interviewers personally contacted 215 of 217 existing dairy farms. The basic lists of subjects were provided by the two local cooperatives that completely control milk production and processing in Esmeraldas.

In the United States the project has had the collaboration of the following people:

Herman Felstehausen, Land Tenure Center Executive Assistant,
University of Wisconsin
Richard Powers, Chairman, Agricultural Journalism Department,
University of Wisconsin
Eugene E. Wilkening, Professor of Rural Sociology, University of
Wisconsin
Eugene Havens, Professor of Rural Sociology, University of
Wisconsin

In Brazil, five extension agents worked three months on a full time basis to collect data for the project. Six other people (from ACAR, from the Rural University of Minas Gerais and from the Michigan State University) have occasionally supplied information and advice in different phases of the study.

In Brazil, the major agency cooperating with the project is the Associação de Crédito e Assistência Rural (Rural Credit and Assistance Association), the Extension Service of the State of Minas Gerais, which is known locally as ACAR. Faculty members of the Rural University of the State of Minas Gerais have also provided help and advice.

My work has been reported to the AID Mission mainly through copies of correspondence with LTC people in Madison. There have been no major contacts with the mission, except for some minor administrative problems. The project has been reported and discussed in a seminar at the Graduate School of the Rural University of Minas Gerais at Viçosa. The main purpose was to draw the attention of the graduate students to studies of this nature.

No major problems have occurred in developing this project in Minas Gerais. Being associated with ACAR has been very helpful. Contracting and insuring interviewers, transportation, office space, printing facilities and secretarial work were all economically and efficiently handled through ACAR's well established organization.

The field phase of the project and the coding work are now completed. Code numbers are presently being transferred to coding sheets as a preparation for IBM punching. Machine analysis and writing of the dissertation should be completed in Madison, Wisconsin, before September 1966.

CHILE

Marion Brown
Instructor, Agricultural Journalism

I. Papers and reports written

1. Thiesonhusen - Experiments in Land Reform in Chile, March 1965. Supervised by Dorner. Thesis submitted in partial fulfillment of requirements for Ph.D. degree in Agricultural Economics, University of Wisconsin.
2. Dorner and Collarte - "Land Reform in Chile: Proposal for an Institutional Innovation," Inter American Economic Affairs, Vol. XIX, No. 1, Summer 1965.
3. Dorner - "Open Letter to Chilean Landowners," June 1965. Spanish version published in La Nación, El Campesino and El Siglo. English version published in The South Pacific Mail and the UTC Newsletter, distributed to Chilean Agricultural agencies, USAID, and Embassy.
4. Roberto Echeverría - Respuesta de los productores agrícolas ante cambios en los precios, August 1965. Supervised by Dorner, Barraclough, Maturana and Ullrich. Published by ICIRA and also submitted as thesis for ESCOLATINA. Distributed to Chilean agencies, Wisconsin, USAID, and Embassy, mimeographed.
5. Stewart, Imable and Salanova - "Algunos aspectos del régimen legal de aguas en Chile, su aplicación y consecuencias económicas en el Valle del Illapel." Summary of research in progress presented at ICIRA Research Seminar, August 1965, mimeographed.

6. Dorner - "Response to a Response," August 1965. Excerpts and commentary published by Ultima Hora in Spanish. Distributed to agricultural agencies of Chilean government and to USAID and Embassy.

7. Brown - "Investigaciones Actuales del Land Tenure Center en Chile," summary of research in progress presented at meeting of Asociación de Economistas Agrarios, Santiago, November 27, 1965, mimeographed.

8. Brown - "Frej Unveils New Agrarian Reform Bill", LTC No. 11.

II. Teaching

1. Dorner - Course in agricultural economics, advanced cycle, 2nd. year students at ESCOLATINA.

2. Maturana - Course in agricultural economics, advanced cycle, 2nd. year students at ESCOLATINA, in collaboration with Dorner (first semester) and Barraclough (second semester).

3. Brown, Stewart, and Idiáquez - One lecture each discussing their research at ESCOLATINA.

III. Participation in International Meetings

1. Dorner - Participation in meeting of CIDA in Washington to assist in preparation of research plans for that organization; May 1965.

2. Thiesenhusen - Participation in Summer Seminar in Agrarian Reform at Chapingo, Mexico; June and July, 1965.

IV. Projects Underway

1. "An Analysis of the Diffusion of Technical Information as Related to Agrarian Reform in Chile."*

In brief this study has consisted of the following:

a. A survey of organizations doing agricultural extension and technical assistance work.

*A more complete summary of this project is given in the paper by Felstehausen, Brown and Grunig in Appendix D.

- b. A field survey to describe information seeking habits, attitudes toward change, level of technical knowledge and patterns of interpersonal communications among farmers and farm workers in Central Chile.
- c. An experimental direct mail information service.
- d. A second survey to describe any changes resulting from the experimental survey.

From the survey of "extension" agencies it is obvious that bureaucratic proliferation and duplication of effort have slowed the diffusion of agricultural technology. There are many extension and other service agencies and a great deal of competition for scarce resources and personnel. For example, in 1962 the Department of Agricultural Extension of the Ministry of Agriculture lost 35 percent of its technical personnel to new agencies created that year.

The second part of this study -- the experimental information service -- has shown that illiteracy and lack of education among campesinos need not preclude the use of printed media for agricultural information work in Chile. In this experiment we sent highly simplified, illustrated circulars to 41 campesinos, among them permanent resident workers on traditional farms, colonists in land reform colonies, and independent small farmers. These subjects were interviewed before the experiment and after receiving the weekly circulars for eight months.

Exposure to the mass media of communications is quite high in rural Chile, but these media carry almost no technical information of use to the farmer.

Opinion leadership occurs much as it is described in U.S. studies. Opinion leaders, however, were not more active than other subjects in passing on the circulars or in discussing them with neighbors.

An aspect of the field study which was not directly related to the experiment was observation of the technical assistance program of the Church land reform agency (INPROA). INPROA takes a moderately authoritarian approach to practice promotion in its technical assistance program, which greatly limits the decision making responsibilities of colonists during the first years of the reform. INPROA's experience definitely suggests that compulsory practice promotion speeds adoption much more than would a voluntary U.S. style program of agricultural extension or supervised credit.

Work in this project has been carried out in Santiago and in rural areas surrounding Talca and Linares approximately three and four hours, respectively south of Santiago.

The project was started in March of 1964. The final report is now being prepared.

Personnel Involved in the study include:

1. Marion Brown, Project Associate.
2. Antonio Idiáquez, who assisted in the preparation of circulars and in field interviewing.
3. Cristina Stefanowsky, who assisted in the gathering of data on extension programs.
4. César Carmona, who also assisted in gathering data on extension programs, especially the program of the National Institute for Agricultural Development (INDAP).
5. Mike Smith, who prepared drawings for the weekly circulars used in the experimental information service.

Work has been facilitated by the cooperation of INPROA, which permitted us to interview colonists on their reform projects and from the Food and Agricultural Organization of the United Nations, which provided mimeographing services for the questionnaires and for the direct mail circulars.

The USAID Mission in Chile was briefed on plans for the study in March of 1964 and in October received a written progress report which was also presented at the First International Symposium on the Role of Communications in Agricultural Development, held in Mexico City, October 1964. This report was presented in Spanish. Copies were distributed to ESCOLATINA, INPROA, CORA, INDAP, Departamento de Extensión Agrícola and other government agencies in Chile.

Two reports on the progress of the study has been given in ESCOLATINA classes. Another was presented before the research committee of ESCOLATINA and yet, another before the Agricultural Economists' Association of Chile. To our knowledge no direct use has been made of findings. However, in October a representative of CORA visited our offices and asked us to help prepare an information campaign which that agency plans for the near future. The project has also been reported to representatives of the National Institute for Agricultural Research and plans are underway there to establish a direct mail information service with which we have experimented. It is hoped that this program can be organized and conducted in such a way as to permit frequent and repeated evaluative studies. We have urged that it be regarded as both an action program and a continuing experiment which provides training in communications research for young Chilean nationals who participate in the program.

- e. Land and capital productivity is relatively higher on small farms.
- f. Subdivision of large properties and reallocation of labor employed on small farms would increase production and promote a better use of resources since:
- (1) Land and capital would be added to the small farms that now have the highest output.
 - (2) Redundant labor would be drawn off the small farms.
- g. Independent of considerations concerning re-allocation of resources, which are programmed on an assumption that technology will not change, the agrarian reform will permit better distribution of resources and income which is as important for social and political reasons as for purely economic considerations.

The most equitable distribution of resources and income will not cause drastic decreases in either savings or investment in either an absolute or relative sense.

Assuming that relationship and parameters of production and consumption functions do not change, it is possible, after the distribution, to expect a rate of agricultural development in the area that is compatible with relatively high demands for agricultural products.

Data for this project was collected by ESCOLATINA in an area just west of Santiago called Maipú. Data has been analyzed and the final report is being prepared. Sergio Maturana, who has major responsibility for the study, will be leaving Chile to work with a CIDA study in Mexico in January of 1966. He expects to have the study completed before he leaves. Kurt Ulrich of ESCOLATINA has agreed to help finish the report in case Maturana is unable to do so before going to Mexico. This study has had many cooperators including ESCOLATINA, ICIRA, LTC and the Escuela de Agronomía de la Universidad de Chile.

3. Private Sub-division of Land in Chile, by Antonio Idíquez*

Decades of talk about agrarian reform have produced no great re-organization in Chile's agriculture, which is still characterized by a latifundia-minifundia complex much as it was in Colonial times. But in recent years Chile has experienced a number of small isolated reform efforts and some experimentation with new tenure forms. A small scale government parcelization and colonization program has been going since 1928 and the Catholic Church started an experimental program in 1962.

*A more complete statement on this project will be published in the forthcoming November-January 1966 Newsletter.

Many private individuals have instituted "reforms," trying out novel share-cropping and profit-sharing plans in attempts to improve economic and social conditions on their farms. Other large farmers have divided their properties in private parcelization schemes of one kind or another. The purpose of the present study is to analyze private parcelization and to interpret its possible contribution to agrarian reform. The study was designed to find out as much as possible about what happens socially and economically when a farm is divided and sold as parcels, and to assess the extent to which the results of private parcelization meet the requirements of agrarian reform.

A field survey was conducted on 118 parcels resulting from the recent subdivision of 10 large farms. Tabulation and analysis of field data is not yet complete, but some tentative findings can be presented:

- (1) In general the method of subdivision is the same in all cases. The owner turns the property over to a real estate agency which specializes in parcelization. All transformations in buildings, roads, fences, canals, etc., are arranged by the realtor, with the parcelization costs added to the price.
- (2) Most of the farms in the sample were rented out -- some for as long as 30 years -- before being subdivided. Permanent improvements were generally run down and some of the farms were in such bad shape that it was no longer possible to find renters.
- (3) Motives for selling were not always clear. In every case the owner agreed that fear of agrarian reform influenced his decision, but only one named it as the major cause. Financial difficulties and the need for liquid capital were mentioned most frequently as the principal reasons for selling, but in every case other motives were also mentioned as having some influence.
- (4) A majority of the people who have bought these parcels have no experience in agriculture. They include professionals, merchants, businessmen and retired people. This is especially true on parcels that are near large cities.
- (5) That few farm workers are able to buy the parcels is not surprising in light of terms of payment. The usual payment contract calls for full payment in four years, with a down payment of between 10 and 35 percent. The remainder is usually readjusted according to the price of wheat, in order to control inflation. Interest rates vary from 7 to 12 percent, going up to as high as 18 percent in case of default. In no case is a parcel paying for itself.

- (6) Some buyers have purchased several parcels. One farm that was separated into 12 parcels was eventually sold in three large lots. Two buyers took two parcels each; two more formed a partnership and bought seven parcels, later splitting the land into two plots of about 50 hectares each. The original owner kept the remaining parcel.
- (7) Parcels employ more labor per hectare than did the undivided farms. The increase in demand for labor seems to run between 30 and 50 percent after subdivision.
- (8) The problem of absentee ownership was not solved by private parcelization in this sample. Exact tabulation is not complete on this data, but it is quite obvious that a high percentage of the new owners do not live on their land.
- (9) The size of parcels offered in sale varies from the minimum 15 hectares up to more than 200 hectares of irrigated land. The general rule is about 15 to 20 hectares.
- (10) There seems to be a trend toward more intensive cropping after subdivision. Lands that were in natural pastures have often been put into annual crops.
- (11) Investment in permanent improvements such as orchards and buildings is quite common on parcels owned by fairly well-to-do buyers. Those who must depend heavily on the land for their income have not made such investments, though they speak of plans to do so "when the land is paid for."
- (12) So far it has been impossible to get a clear picture of the extent to which this private subdivision is occurring in the country. Titles are registered in small regional offices, but the data are never centralized.

This study has been carried out in six provinces in Chile's Central Valley complex -- Acencagua, Valparaíso, Santiago, O'Higgins, Colchagua, and Curicé.

Field work is complete and tabulation and writing are under way. A preliminary report should be ready by the end of January 1966.

Antonio Idiáquez has main responsibility for this project. Dorner, Brown and Maturana have participated in supervisory and advisory roles.

Several departments of the Ministry of Agriculture cooperated in an attempt to gather data about the extent of subdivision in the country by sending mail questionnaires to their field personnel. However, as yet the return from this has been negligible. El Departamento de Defensa

Agrícola cooperated by making available files on subdivisions they have supervised in accordance with the law regulating minimum parcel size. Several real estate firms have also cooperated, providing information on their own parcelization efforts.

Progress reports on the study have been presented at ESCOLATINA and at a meeting of the Asociación de Economistas Agrarios. There has been a great deal of interest in the study wherever it has been discussed, since it touches a topic that is very important to the agrarian reform and about which there is very little easily available information.

CORA requested a report on the incomplete study in September for use in the preparation of the new land reform bill. At issue was whether private subdivision should be prohibited or controlled in some way by the state. Two recommendations that Idiáquez made at the time were incorporated into the law. These were that CORA:

- (1) Control future subdivisions to insure that buyers are campesinos.
- (2) Control terms of sale, including the size of the down payment, the length of the contract and the interest rate.

4. Some Aspects of Water Law in Chilean Agriculture

The principal task of this study has been to:

- A. Analyze the legal structure governing water use in Chile.
- B. Describe the actual distribution of water in a typical arid valley and its relationship to the legal, theoretical distribution.
- C. Analyze the economic consequences of the existing distribution.

The starting point for the study was an analysis of the laws promulgated to regulate water use throughout Chile's history, and of specific conflicts in which these regulations were applied. This analysis raised some important questions concerning the nature of acquired water rights in Chile. Is water a "public utility" or is it private property of those who have established rights to use it? Did the national government cede its right to regulate water or can it dictate new limitations on water use without major legislation or constitutional amendment? These alternative interpretations of existing legislation are examined in the study.

The field study was carried in the Illapel valley in Chile's arid Norte Chico. The valley has a rich history of water conflict. Through the years these conflicts have resulted in a de facto shift in water rights. Until 1936 the valley was divided into two sections for purposes of distributing water:

The Upper Section consisting of the Hacienda Illapel, a property of more than 165,000 hectares.

- b. The Lower Section consisting of three rather large farms, several medium sized ones and a "comunidad" of very small properties and commonly operated lands.

The first conflict for water between the two sections occurred in 1844 and resulted in a 15 day water turn, in which the Upper Section used the river for 8 days and the Lower Section for 7 days. Converted to a basis of a 10 day turn which is now used, the relationship was roughly 5-1/2 days for the Upper Section and 4-1/2 days for the Lower Section.

Between 1931 and 1936 the Hacienda Illapel sold 1750 irrigated hectares to private individuals and to the Caja de Colonización which subsequently distributed parcels. Since this time the valley has been divided into three Sections:

- a. The "First Section" made up of the remainder of the Hacienda Illapel.
- b. The "Second Section" made up of the 1750 hectares sold by the Hacienda, now called "La Colonia".
- c. The "Third Section" which is the same area earlier called the "Lower Section."

The original distribution pattern established in 1844 has been changed many times by both court decisions and de facto agreements until the Third Section now gets only 2 days of the 10 day turn, leaving 8 days to the Upper Section which formerly received only 5-1/2 days.

A key point in the study is the interpretation of the causes, consequences and legal significance of this transfer of water rights.

The final report of this study is now being prepared. Personnel involved have been: Daniel Stewart, Héctor Morales, Rogelio Imable and Alejandro Salanova. The field study was carried out in conjunction with ICIRA.

Informal reports of the incomplete study were given several times to persons working on the new agrarian reform bill, which contains a major section on water rights. It is impossible to tell to what extent these discussions had a direct influence on the contents of the law, but they have likely had some utility.

5. An Historical Analysis of Agricultural Credit as Related to Present Levels of Capitalization and Productivity on 96 Farms in O'Higgins Province. By Rogelio Imable.

Héctor Morales studied 96 case farms of varying size and found no positive correlation between farm size and productivity. This additional study was proposed to investigate a possible relationship between size and availability of long term credit, which should in turn be related to existing levels of capitalization and productivity. Specifically it is hypothesized that the owners of large farms in the sample have received more long term credit, especially from public sources, than have owners of medium and small properties. Since there is no significant difference in production per hectare on large and small farms in the sample, confirmation of this hypothesis would constitute evidence that credit programs favoring large landowners have not been translated into increased capitalization and productivity on their farms.

It was thought that data on credit would be available in public registries, and that complete credit histories could be had on all the farms in question. However, a few days spent examining these records showed plainly that they would not suffice. Only mortgage loans are registered, and then in many cases, only the initial mortgage loan which opens a line of credit. In these cases the original mortgage serves for future loans which are not themselves registered. Further, since about the late 40's mortgage credit has constituted a small percentage of the total available credit in the country. Thus it was decided that the data source was not adequate and the project is now inactive. There is a remote possibility that data can be had through public and private financial institutions, but this access to such information has not been forthcoming.

6. Unorganized Money Market in Chile. (Tentative)

Most studies of agricultural credit in Chile deal almost exclusively with formal financial institutions such as banks, government lending agencies and mortgage firms. Such studies do not present a complete picture of financial arrangements in Chilean agriculture, since they pay little attention to informal or "non-bank" credit sources such as village businesses, moneylenders, wholesalers, friends, godfathers, employers, etc. This study is designed to describe and analyze these credit sources.

Specifically the study will seek to answer questions such as the following:

- (1) To what extent do farmers depend on non-bank businesses for production credit?

- (2) How frequently do farmers obtain funds from private individuals? Do such loans usually come from professional lenders, from friends, from employers, etc.?
- (3) What are these loans like in terms of size, interest rates, and guarantees, penalties, duration, etc.?
- (4) How common are loans in kind rather than cash?
- (5) Is there a relationship between land tenure status and amount and source of credit?
- (6) What percent of farmers are currently served by formal financial institutions?
- (7) Is there a relationship between source of credit and the manner in which farm products are sold?
- (8) To what extent is it possible and advisable for the government to control, manipulate, or replace the unorganized credit market?

Data will be taken from the following sources:

- a. Existing published studies.
- b. Records of important financial institutions.
- c. A field survey of farmers representing various farm sizes and tenure arrangements.
- d. Case studies of specific informal credit sources through interviews with informants and participants.

All transactions studied will be classified as taking place within either the unorganized money market (characterized by private lenders) or the organized market (characterized by banks), and an attempt will be made to describe any relationships and linkages that exist between the two markets.

This project was begun in October. The field questionnaire has been pretested and revised and the field survey is now under way. Arrangements have been made with the Banco del Estado to review records there, and some records have also been made available by the government Development Corporation (CORFO). Two young Chilean nationals are currently working with Charles Nisbet, who has major responsibility for the project.

Cooperative arrangements were made with CONSFA and Chile-California to finance the pre-test and present activities are being financed with a Fulbright grant and with personal funds.

7. Land Reform and Income Distribution in Chile, by Rogelio Imable.

The role of income re-distribution in economic development has been discussed by many authors in recent years, and in spite of a certain amount of controversy, it is generally considered positive and indispensable to growth.

Agrarian reform is a re-distributive measure par excellence. A re-distribution of land and other productive capital attacks the basis of present disequalities in an economic sector which occupies a large segment of the active population and in which the disparities of income are great. Considering the proximity of an effective agrarian reform in Chile, it is necessary to study the particulars of the re-distribution it promises to bring. The fact that a land reform bill has been formulated by the government establishes a good frame of reference within which to carry out such a study.

This project is still in an exploratory stage. Imable is now reviewing literature, investigating data sources and preparing a detailed plan of analysis. This is being worked out in collaboration with Markes Mamalakis at ESCOLATINA and Sergio Maturana. It is hoped that CORA will provide data concerning the amounts of land expropriable for each cause established in the bill, at least in one province, as well as projections of the costs of the reform. The study will be based as much as possible on field data from recently established asentamientos.

8. Area Studies to Program Possibilities and Requirements in Production, Credit and Marketing.

This study, originally described on page 8 of the report for January to June 1964, is now nearing completion. James Locke and Kurt Ullrich, who worked in conjunction with Peter Dorner in earlier stages of the study are now drafting a report which should be available during January of 1966. Sergio Maturana's study, reported above, draws on data gathered as part of this study.

9. An Evaluation of Profit Sharing Plans on Some Large Farms in Chile.

This project has been inactive for most of the year since Juan Carlos Collarte left the LTC staff to join ICIRA. He has written part of a manuscript based on interviews conducted in 1964, and hopes to finish it soon.

10. Production Responses to Price Changes.

Roberto Echeverría completed the first half of this two-part study in August. Echeverría's analysis, which took a global view of the problem, was based on national acreage and price figures. The second half of the study consists of a field survey at the farm level to describe the reaction of farmers in specific cases to changes in cost-price relationships. This is a joint project with ICIRA. Designed and supervised initially by Dorner, the present field study is now being carried out by Adrian Vasquez and other personnel at ICIRA, with supervision by Barraclough, Ulrich and Maturana. Héctor Morales also assisted in one phase of the study.

11. Origins and Character of Rural-Urban Migration.

This is another joint LTC-ICIRA project, originally designed by Dorner and Barraclough, who secured financial support through a special USAID-ICIRA contract. The project has been carried out by Andrew Pearse and Hugo Zimmelman at ICIRA. It consists of several detailed case studies of families who have recently migrated to urban centers of different sizes in several parts of the country. Case descriptions have been prepared and a summary report is being written. It should be ready for distribution within the next two months.

12. Changes in the Farm and Nature of Wages on Large Farms.

Another joint project with ICIRA, this study is not currently active. The plan is for Juan Carlos Collarte to initiate it in January when his work on the CIDA study is finished. He plans to study three types of changes in wage arrangements classified according to their origin: changes introduced on the initiative of landowners (such as profit sharing plans); changes introduced at the initiative of workers (from case studies of campesino strikes); changes growing out of the application of new technology (such as in the cases of sugarbeet and tobacco production which have stimulated changes in labor arrangements).

13. An Economic Analysis of Two Land Reform Colonies.

Data for this study were gathered by William Thiesenhusen just before he returned to Madison. A sample of colonists was interviewed on Colonia Presidente Kennedy and on a Mapuche Indian colony in the south. Thiesenhusen has the data in Madison, where he will complete the analysis and prepare the final report.

VI. Projects Pending

1. Integrated Programs of Credit, Extension and Marketing in Chile.

As was mentioned in the discussion of the communications study on page 7 of this report, Chile has several highly integrated service programs which are organized on a commodity basis. These include IANSA (sugarbeets) COMARSA (oil seed crops) and Compañía Chilena de Tabacos (tobacco). The administrative aspects of these programs, especially their extension services, have been studied as a part of the Communications project. This study is an outgrowth of that project and is designed to supplement the data already gathered on these organizations with field interviews of participating farmers.

The first part of the study will consist of an analysis of farmer attitudes and behavior in response to compulsory practice promotion techniques used by these agencies. It is expected that farmers, with regard to a given compulsory practice, be classified as:

- a. Voluntary compliers (those who understand the technology in question, who are convinced of its value and who would continue to use it if compulsion were relaxed).
- b. Non-voluntary compliers (those who are ignorant of the technology, who are indifferent or have a negative attitude and who would likely stop using it if compulsion were dropped).

It is hypothesized that non-voluntary compliance leads to voluntary compliance. This will be tested by comparing knowledge and attitudes of recent contractees with those of veteran participants.

A second aspect of the study will deal with the spread of technology from contract crops to non-contract crops. Hypothetically, the rate of spread for any given transferable practice will be related to:

- a. The extent to which compliance on the contracted crop has been voluntary or non-voluntary.
- b. The extent to which production financing and marketing services are available for the non-contracted crop.

In addition to the highly organized programs of IANSA, COMARSA and Tabacos, there are businesses which contract production of raw materials. For example, the beer monopoly contracts barley production, and CAROZZI buys wheat on contract. These programs will be described and analyzed to determine the extent to which they rectify deficiencies in input and output markets associated with use of technology, and have possibilities of evolving into more complete service programs such as those discussed above.

Finally, in conjunction with Charles Nisbat's credit study, an attempt will be made to describe the "de facto integration" of credit and marketing services surrounding the urban wholesale produce market, and to analyze the possibility of converting this de facto situation into an IANSA-type program, including not only credit and marketing services, but also extension and control over the use of technology. This project is still in the design stage. Work should begin in February. It will be financed by LTC and carried out by Marion Brown with assistance from one Chilean professional.

COLOMBIA

Dale W Adams
Assistant Professor, Agricultural Economics

The activities carried out in Colombia during 1965 were a continuation of the general research project begun in 1964, i.e., an analysis of the rural occupational structures in Colombia. Since January eight additional field studies have been carried as a part of these activities. A brief description of each of these studies follows:

(1) During the first two weeks in January some 70 interviews were taken with a random sample of new cotton producers in the eastern plains Department of Meta. The principal objectives of the study were to determine what kinds of farm operators were helping to rapidly expand cotton production in this area, and to assess the part which the Colombian Cotton Development Institute (IFA) has played in this development process. Three Colombian research assistants of the Land Tenure Center, two fifth year students from the Facultad de Agronomía in Bogotá and a staff member and a student from the Facultad de Agronomía in Medellín participated in the study. The three students are using parts of this data to write their senior theses at the two Facultades de Agronomía mentioned above. Full cooperation was received from the IFA in carrying out this study. A major article covering this research is in the rough draft stage.

(2) Immediately after the study of cotton production in the eastern plains, the same group interviewed 27 colonists in the Avicure colonization project in Meta. The principal objective of this study was to determine the degree of commercialization which these colonists had attained, especially with regard to cotton. The results of this work are being written up by one of the Agronomía students from Bogotá as a major part of his thesis.

(3) During the first part of February, four Colombian research assistants of the Land Tenure Center and two students from the Facultad de Agronomía in Bogotá interviewed 77 small farmers in the central region of Tolima. Most of these farm operators were borrowers of supervised credit which stemmed from an AID loan to the Colombian Agrarian Reform Institute (INCORA). The principal objective of the study was to establish guidelines for a future evaluation of INCORA's supervised credit program by the Land Tenure Center and the Centro Interamericano de Reforma Agraria (CIRA). The results of this preliminary study were presented to the local AID mission in March. On the basis of this study a more comprehensive evaluation of INCORA's supervised credit program was begun in May.

(4) Five major areas were included in this evaluation of INCORA's supervised credit program. From May through August the following interviewing was carried out in this regard:

- a. In Tolima an additional 127 farm operators with supervised credit and neighbors of borrowers were interviewed.
- b. In Caldas 100 borrowers and neighbors of the Banco Cafetero - IDB credit program were interviewed. Although INCORA is not directly participating in this program, it was felt that some ideas from this program might be useful for INCORA.
- c. In Antioquia 62 farm operators with supervised credit and their neighbors were interviewed.
- d. In Boyacá a similar sample was taken of 41 farm operators.
- e. And in Valle 109 farm operators were interviewed via the same procedure.

In addition to the farm operators interviewed during this study, some 78 supervisors and zone chiefs of this credit program were formally interviewed.

An additional part of this study was carried out by a graduate student with the Land Tenure Center. He assisted INCORA for three months to set up the data coming in from the supervised credit program for mechanical processing. Full cooperation for this study was received from the local AID mission and INCORA. Two staff members and 16 students from CIRA participated in these field studies. Four Land Tenure Center research assistants, and some 12 students from the Facultades de Agronomía in Medellín, Bogotá and Palmira also assisted with the interviewing. A substantial amount of secondary information on the farm operators interviewed was also assembled through the assistance of the National Agricultural Bank (Caja Agraria).

An interim report on this study was presented to the local AID mission and INCORA in mid-October, and the final version of this report is in preparation.

(5) During February and August an intensive study of a semi-private parcelization project in Tolima was carried out. Some 33 of the parceleros in this project were interviewed. The principal objectives of this study were to determine the degree of fragmentation which had taken place in the project since the original settlement, and to identify the principal sources of income for the occupants of the project. Three Colombian research assistants carried out the interviewing and a draft of an article which summarizes the result of this study is now in circulation.

(6) During September a CIRA staff member, six students from CIRA and a Colombian Land Tenure Center research assistant, carried out an evaluation of an INCORA parcelization project in Nariño. About one-quarter (33) of the participants in this project of Bomboná were interviewed. Preliminary results of this study are being circulated in draft form.

(7) Also during September, one of the Land Tenure Center's Colombian research assistants studied a unique cooperative effort to attain landownership status in Antioquia. A draft of the results of this study is being circulated.

(8) During November and December a Colombian graduate student from Cornell, presently employed by the Land Tenure Center, carried out a benefit-cost analysis of the Saldaña, Tolima irrigation project as a basis for his M.S. thesis.

In addition to above mentioned studies, a good deal of time was spent during 1965 writing up research results from the 1964 studies. A number of journal articles and publications by CIRA resulted from this effort. Furthermore, one of the Colombian research assistants trained by the Land Tenure Center for two years was hired by Ohio State to assist in its study of rural credit in Colombia. He will later do graduate work at Ohio State in agricultural economics. Another of the research assistants trained by the Land Tenure Center this past year was recently hired by the Colombian Coffee Federation to head its new section of economic research.

The Land Tenure Center group in Colombia has attempted to maintain a close working relationship with the local AID mission. Members of the local mission have promptly contributed suggestions and comments on the drafts of research results which are regularly sent to them. The study of the supervised credit program was initiated mainly through stimulation from the local mission. The mission is now using the results

of the study to help evaluate a new request from INCORA for an additional \$20 million loan. The local mission has also called upon us a number of times for background data on agrarian reform as well as for briefings on specific topics.

COLOMBIA

Joseph R. Thome
Assistant Professor, Law

During 1965, I continued the research activities initiated in 1964 and, in addition, embarked on new projects during the course of the year. Carried over from 1964 was the study of Colombian water laws as they affect irrigation. New studies or projects included a study of the title insecurity problem in Colombia, legal problems involved in expropriating land, and the role rural unions in the Atlantic Coast are playing in the land reform activities of INCORA in that section of Colombia.

My field study activities included the following:

A. February-March of 1965: Tolima

1. A complete study of the institutional framework and operation of the irrigation districts of Coello and Saldana in the Department of Tolima. The study included some 60 formal interviews among farmers in the districts, as well as many informal interviews with personnel from the administration of the district and other knowledgeable people. The purpose of the study was to determine the method of water regulation in the districts and the efficiency of this method.
2. A short study on a special training program being carried out under a joint program by INCORA and a large tobacco company with the purpose of introducing new techniques in the cultivation of tobacco and training prospective beneficiaries for INCORA's land distribution programs.

B. June 1965: Meta

A two week trip with INCORA personnel to the region of San Juan de Anama in the Llanos Orientales. The purpose of the trip was to study the conditions of the many colonos (homesteaders) in the area, particularly conditions due to the serious conflicts arising between them and various large landowners.

C. October 1965: Atlántico, Bolívar and Córdoba

A field study, lasting three weeks, of the rural unionization movement in the Atlantic Coast. The study was directed by Dr. Geraldo Semenzato, a CIRA sociologist, with my cooperation, and the participation of various CIRA students. Extensive interviews were taken among union leaders and members, non-union campesinos, INCORA officials, land owners, government officials, priests, etc. All of the interviews were tape recorded. Further interviews were subsequently taken in Bogotá among union leaders (FANAL, CTC), politicians and INCORA people.

Library research during 1965 included study of laws, decrees, regulations and court decisions regarding the use of water for irrigation; the eminent domain procedure, as well as case studies of expropriations; the laws, decrees, etc., regarding the settlement of title conflicts, rights of squatters, public domain lands, etc.; labor legislation and other legal material pertaining to rural unions; as well as other, non-legal, sources. Much useful information was obtained from reports or other information provided by government officials at the Ministry of Agriculture, Caja Agraria, CAR, INCORA and other similar organizations. The importance of establishing contacts at these institutions cannot be over-emphasized. Only through their cooperation and conversations can one really begin to understand how they operate and see their defects as well as qualities.

Excellent contacts were made at INCORA and CAR which provided excellent sources of information as well as opportunities to accompany their personnel on field trips.

Results from the above research activities (during 1965):

1. CIRA mimeograph report entitled "Title Conflicts in Rural Areas of Colombia; A Colonization Example" (published in Winter, 1965 issue of Inter-American Economic Affairs).
2. CIRA mimeograph entitled "Limitaciones Legales a la Compra o Expropiación de Fincas con Destino a Parcelación".
3. LTC Training and Methods report entitled "Gathering Survey Data for Agrarian Legal Studies in Latin America".
4. Memorandum written at the request of AID local mission in Bogotá entitled "Provisions of Colombia's Law 135 Requiring Amendment or Reform".

In addition, reports are in the process of being written on the following subjects:

1. The Irrigation districts of Coello and Saldaña
2. The INCORA-Compañía de Tabaco training program;
3. Rural Unions in the Atlantic coast of Colombia.

Aside from the research projects, other activities during 1965 included giving lectures at the Centro Interamericano de Reforma Agraria (CIRA) and cooperating with the local AID mission through findings and reports.

It should be noted that excellent cooperation existed between the Tenure Center team in Colombia and the entities with which it was closely working, namely, the Local AID Mission, CIRA and INCORA.

NICARAGUA

James R. Taylor
Project Assistant

Area of the Project

The project involves a socio-economic investigation of spontaneous agricultural settlement in Eastern Nicaragua. The tropical rainforest Eastern Nicaragua has recently received an in-migration of settlers, resulting from the construction of a road which connects this region with the densely populated parts of Nicaragua. The Instituto Agrario de Nicaragua is considering undertaking the directed colonization of the area in which the research is being carried out. The research is designed to provide the Institute with a basis for determining the feasibility of large scale, planned settlement.

Present Stage of Work

We have constructed a questionnaire, which was recently pretested in the field. It is presently being revised for another pre-test.

Personnel

- Kenneth H. Parsons**, Professor, University of Wisconsin
- James R. Taylor**, Project Assistant
- Cristobal Ubeda V.**
- M. Agosto Oporta T.**

The above two Nicaraguan agronomists are project assistants who will be involved in all phases of the work, except writing of the final report.

Participation of Local Agencies

The Instituto Agrario de Nicaragua is contributing financially to the project, as well as making its own personnel available for collaboration. The Institute has also contributed office space and secretarial help, plans to hire additional technical personnel (soil specialists, engineers, agronomists and a rural sociologist) to carry out studies in the same region.

United Research, Inc., a private research agency with an AID contract, allows Dr. George Hill, formerly of the Land Tenure Center, to participate in the work.

Communication with Interested Groups

The Instituto Agrario will be a "direct consumer" of the research findings, and will make them known to other interested Nicaraguan and international agencies.

The AID mission has indicated strong interest in this project. I have discussed our experience with the pre-test with Bailey Pace, head of the agricultural section of AID in Nicaragua.

This project was begun in August, 1965.

GUATEMALA

Lester Schmid
Research Assistant

The project involves a study of the extent of seasonal migration of campesinos to work on large fincas, where these cuadrilleros come from and where they go to work, conditions under which they work and live on the large fincas compared to their home communities, and the effect of this type of work on the welfare of the cuadrilleros.

Several finca owners in Guatemala City have been interviewed to gain information. We plan to send questionnaires to a sample of farmers and aldeas to determine where the migratory workers live and where they migrate to find work. We also plan to visit several coffee and cotton farms and interview the administradores, several cuadrilleros and a few colonos.

Raphael Piedra Santa, head of the Institute of Economic and Social Research, is cooperating in the study. We are also being advised by Lic. Orellano and Lic. Cabarrús. My work has been reported only informally to the AID mission through its agricultural economist, Leonard Rhodes.

This project was begun in September 1965.

V

UPDATING OF ACTIVITIES AT FIELD CENTERS

- 5 -

UPDATING OF ACTIVITIES AT FIELD CENTERS

In this section we present general plans for our field centers in the coming year. While some of these plans may be slightly altered, this report represents our expectation at this time. Although we state these plans in a non-qualified manner, we are fully aware of the country clearances and approvals from AID which need to be obtained.

1. Bolivia

Professor Ronald Clark began a two to two-and-one-half year field research program in cooperation with CIDA in September 1965. The project consists of an evaluation of the land reform experience in Bolivia since 1952. In selected areas case studies will be made of land tenure, farm organizations, productivity and social changes. Professionals from Bolivia are cooperating, and additional personnel is being supplied by CIDA. This project is being carried out in cooperation with Bolivian governmental agencies and the AID Mission in Bolivia.

2. Brazil

John Steele is expected to finish his field work in the spring of 1966. Luiz Fonseca will return in January. Sidney Greenfield has completed his field work with the Land Tenure Center but will not have a final research report until late in 1966. New projects are being planned and will be directed by Professor Eugene Wilkening of Rural Sociology, assisted by several Brazilian and U. S. students working on Ph.D. programs at Wisconsin. The projects will be part of the over-all study of social factors related to migration and adaptation in new settlement areas. These studies will be carried out with the cooperation and participation of professionals and students from Brazilian agencies and universities.

3. Central America

At present we have two active projects in this region--one in Nicaragua and one in Guatemala. Both are being carried out by Wisconsin (U. S.) Ph.D. students in cooperation with university and government agencies and personnel of these countries. These projects were begun in July and September of 1965 respectively. Staff supervision is provided by Wisconsin staff from the Madison campus. George Hill, visiting professor previously in charge of Land Tenure Center projects in Central America, resigned in July 1965. To date three Wisconsin staff members have visited this area since the project began; in two instances these trips were combined with other duties. Another two-week visit by

a senior staff member from Wisconsin is planned for February 1966. We are trying to fill the position of a senior staff member for this region, but have thus far been unable to do so. We plan to continue research here involving additional students and staff from both the region and Wisconsin. We also expect to maintain close coordination and cooperation with CIDA projects in the region.

4. Chile

The program in Chile will continue, but with some major personnel changes. Professor John Strasma, who has previously spent over four years in Chile with the Institute of Economic Research, University of Chile, will return there on April 1, 1966. Professor Strasma has been employed as a senior staff member by the departments of Agricultural Economics and Economics at Wisconsin. In Chile, Strasma will conduct and supervise a 15-18 month study of changes in tax legislation and their consequences for various sizes and types of farm. In June 1966, Professor Don Kanel will leave for a two-year research undertaking in Chile. He will direct the Land Tenure Center's operations there, and Marion Brown will then return to Wisconsin as Assistant Professor of Agricultural Journalism.

5. Colombia

The Colombian program will continue in cooperation with local institutions and professionals. Joseph Thome returned from Colombia in December 1965 as Assistant Professor of Law at the University of Wisconsin. Professor Dale Adams will return in July 1966. On April 1, 1966 Professor Herman Felstehausen will go to Colombia to take charge of Land Tenure Center operations for the following two to two-and-one-half years. Tentative plans are to study agricultural service facilities such as sources and uses of credit and technical information on farms operating under tenure and organizational arrangements. The purpose is to develop recommendations which might be useful in suggesting more effective organization and use of resources at the local level. Professor Eugene Havens of Rural Sociology may also return for additional work in Colombia. Havens was in charge of Land Tenure Center work in Colombia during the first two years of the program.

6. Venezuela

John Powell returned to Venezuela in December 1965 for six months to collect additional data for his study of the campesino federation. He is also working with CIDA who requested his assistance. CIDA is sharing salary and other costs with the Land Tenure Center in supporting Powell. Michael Sund and Jorge Schuster, also formerly with the Land Tenure Center, are working on this combined CIDA-LTC project. The project, in addition to Powell's work on campesino federations, consists of an evaluation of the land reform experience in Venezuela.

VI

APPENDICES

William C. Thiesenhusen, "Research on Recent Colonization in Latin America."

Peter Dorner, "Policy Implications for Chile as Derived From Land Tenure Center and Related Research."

A. Eugene Havens, Dale W Adams and Joseph R. Thome, "Summary of Colombian Research Activity of the Land Tenure Center."

Herman Felstehausen, Marion Brown and James Grunig, "Communications Research in Connection with Land Tenure Center Studies in Latin America."

Don Kanel, "Agricultural Productivity Development and Land Tenure."

John Strasma, "Financial Aspects of Agrarian Reform and Agricultural Development in Latin America."

RESEARCH ON RECENT COLONIZATION IN LATIN AMERICA

William C. Thiesenhusen

January 1966

**LAND TENURE CENTER
310 KING HALL
UNIVERSITY OF WISCONSIN
MADISON, WISCONSIN 53706**

RESEARCH ON RECENT COLONIZATION IN LATIN AMERICA

William C. Thiesenhusen*

January 1966

Topical Index

A. Agrarian Reform as Colonization in Latin America

B. Recent Studies and Researchable Questions on Colonization**

I. Effects of Colonization on Social and Economic Organization

- a. Conceptual Problems in Colonization Research
- b. Colonization Research in Colombia
- c. Colonization Research in Costa Rica
- d. Colonization Research in Chile

II. Operating Bottlenecks in Colonization Programs

III. Does Colonization as Currently Conceived Provide a Workable Model for Future Reforms?

*Assistant Professor of Agricultural Economics, Land Tenure Center.

**Sections I, II and III are concluded with questions which further investigation must answer. They are suggested by the research efforts described.

Land reform tends to be discussed in counterposition to other more indirect methods of improving rural life in Latin America: industrialization, regulation of tenants' and workers' contracts, land taxation, and colonization.^{1/} Yet, in operational terms, colonization seems to be the basis for every one of the thirteen agrarian reform laws that have been passed in Central and South America since 1960 (Cuba excepted). Thus the difference between colonization and agrarian reform itself, as currently defined by most Latin Americans, seems to be merely a matter of degree and scope.

These statements should be qualified in several ways. As we shall use the term, colonization means not only directed settlement of virgin or vacant land in the public domain, but the establishment of campesinos on heretofore private haciendas which, for one reason or another (usually via expropriation because they were ill-used after which landlords have been compensated immediately at commercial or near-commercial value) have been acquired by colonizing institutions. In the literature, this latter is often called re-settlement. Here re-settlement will be included under the rubric of colonization somewhat arbitrarily since in much of Latin America the term colonización or colonização is used for both concepts. Furthermore colonization, as the term will be used here, encompasses not only government directed settlement but that of private institutions, like the Church or foreign agencies which operate with host-country permission. It also includes spontaneous settlement, later legitimized by varying degrees of public action and/or aid and spontaneous settlement that is government instigated in its initial stages.

Indeed, conventional definitions of land reform have been refined and limited under recent Latin American laws treating reforma agraria. This is to be expected since, far from permitting radical changes in social fabric, agrarian reform is often an adaptation of previous colonization legislation which has existed in the country for years.

As the United Nations has stated recently, agrarian reforms can be classified in two groups. Some laws are applied "immediately and compulsorily to a whole country (e.g., in Cuba, Japan, or in the United Arab Republic)." Others permit a land reform agency "to select particular areas for redistribution seriatim. This last may again be subdivided into the regional method of enforcing universal provisions... on whole regions at one time (as in Italy) and the project method of selecting particular holdings or groups of holdings for distribution (as in Colombia)."^{2/}

Not only Colombia, but all Latin American countries which are part of the Alliance for Progress that have recently passed agrarian reform laws favor a project or "colonization" approach, although many have made provisions for regional planning which is, to date, largely in discussion stages or on drawing boards.

Recent Studies and Researchable Questions on Colonization

Colonization has become the object of research for two main reasons: (1) It is intrinsically interesting since, as defined by agrarian reform laws and the Alliance for Progress, progress toward colonization is progress toward agrarian reform (or, in the case of Mexico and Bolivia, toward deepening of the reform). (2) Settlement problems are likely to be somewhat representative in microcosm of what difficulties a broader reform might face.

Research into colonization requires objective on-the-scene investigation. Most detailed information heretofore at our disposition has emanated from agencies performing or at least supporting the reform. These organisms have a vested interest in more-or-less glowing portrayals not only of the scope of colonization, but the well-functioning of established settlements.^{3/} Or if there has been a change in government, their interest is in doing precisely the opposite.^{4/} Not only AID, but also the cooperating governments, must have the help of investigation by disinterested but qualified researchers whose only concern is with objective reporting and factual analysis. This report aims to summarize findings of some recent research on colonization and to suggest questions on which increased documentation is necessary. Research conducted by governmental agencies will be included only tangentially. Emphasis will be given to studies made by the Land Tenure Center.

Researching colonization is not a facile task. It involves traveling to oftentimes remote projects, selection of a representative settler-sample, living on colonies for a time to gather necessary information, and office analysis of income and other data. Ideally, it encompasses several return trips--preferably over a period of years--to assess colony evolution.

This research is neither inexpensive nor rapid, probably explaining why little has been accomplished to date. But considering present levels of expenditures for colonization, especially for infrastructure supplied by the U.S. government (often through the Social Progress Trust Fund of the Inter-American Development Bank) and Latin nations, making a case for field studies is not difficult and will not concern us here.

The critical areas for research on colonization are:

1. What long range effects does colonization have upon social and economic organization? Is colonization an economic goal or a social and/or political goal (i.e., is it merely a vehicle to shunt landless rural underemployed, who might be most prone to unrest or violence, into subsistence agriculture or is it designed to improve the productivity of the colonists)? Suggested researchable sub-questions include: Has colonization met some of the pressing needs of redistribution of income in Latin America? What do colonies

produce for the national economy? Is total production on colonies more or less than on the same land before "reform?" Are more or less people employed than previous to the reform? Are colonies producing up to potential--if not, why not? Intimately related with the aforementioned, what are the levels of living (measured by such parameters as consumption levels, education levels, etc.) now as compared with previously? What do such matters as title insecurity have to do with colonist investment and productivity?

- II What are the operating bottlenecks within the colonies that impede their well-functioning?
- III Is colonization as currently conceived a workable model for future reforms? Intimately related to this: What are colonization costs and will benefits outweigh them?

We shall discuss the extent to which some current research bears on each question in turn.

I. Effects of Colonization on Social and Economic Organization

The reservations of many economists on the desirability of reform are usually grounded on one matter: agricultural production. The same social scientist who admits reform necessary to cope with internal inequities may express grave doubts about its beneficial results on the already lagging ability of the economy to feed itself--either in the long or the short run. The experience of Bolivia, especially, seems to indicate that production probably rises under reform, but so does peasant consumption, and less surplus than before may be available for sale in cities.^{5/} Other economists claim a drop in agricultural surplus unlikely after a reform, at least in the long run. Still a third group claims the distribution of land rights a necessary but not sufficient condition for agricultural development; progress, they say, depends on the "integral" factors. This latter, for some, is the difference between the terms "land reform" (division of land rights) and "agrarian reform" (division of land rights plus supplying credit, extension facilities, etc.).^{6/}

This said, it seems but reasonable that these social scientists study the only internal laboratory available to them in the country contemplating wider reforms--colonies established previous to or after the passage of current land reform legislation--to seek documentation for their hypotheses. It also seems logical that they study new colonization in countries in which wider reform has already taken place (Mexico, Bolivia and Cuba) looking for clues whose wider implications may assist settlement areas in other parts of the country.

Conceptual Problems in Colonization Research

There are conceptual problems with research and analysis of this type, however. (1) Non-parallel information may be compared. For example, although under current legislation in Chile landless resident workers are now coming into the possession of their own land, in a previous program, administered by the Caja de Colonización Agrícola (1929-1962), colonists were not selected by the government because they were landless campesinos, ordinarily considered the target of reform. Instead, these settlers were political leaders, agriculturists with college training or long experience, businessmen, or even farm operators anxious to increase their holdings--all with "connections." They seldom worked their land personally, usually engaging resident and/or day laborers to farm their land and often even hiring trained agriculturists to administer the operation. A study summing production on individual plots and a comparison of this figure with total production on the hacienda previously may conclude, as one Chilean study, that production was markedly increased by the settlement effort. But studying experiences in which land went to practiced entrepreneurs gives us a poor guide for predicting results when reform allows landless laborers to come into the possession of their own farms.¹⁷

(2) Sampling may be extremely difficult in colonization areas. Hill, Gollás and Alfaro, who studied a tropical colonization area in Costa Rica, asserted that government statistics on the zone they had selected were faulty.^{8/} Thus, they relied on information from merchants, police, post office employees, and school teachers in area villages and hamlets for information on how many and what types of farm families lived on roads and trails radiating from each population center. "This information was most valuable, although there was a tendency to exaggerate greatly the number of families along these roads, or else we were unable to find many, even though we travelled every trail that showed any evidence of recent use." The sampling method finally settled upon was visiting each third family encountered as the research team followed the trails. "The sampling varied from this procedure only along trails where families were few and lived far apart; in these cases each family, if there were only two or three, was included under the reasoning that greater heterogeneity of farming conditions prevailed along the less densely settled trails and hence a greater proportion of cases were required to represent them."^{9/}

(3) There may be a lack of information at critical points in the analysis. One researcher, attempting to make pre- and post-colonization production comparisons, complained in several instances, "We have no information concerning production under the former renter since he was unwilling to give us the data we needed. Furthermore, he rented several adjacent fundos (farms) and all were included in the same accounting." In one case he attempted to measure previous production with the help of a former field supervisor. With this information he was "able to reconstruct the farming program...under the last renter and compare it

with production (on the colonized farm). As with most data collected in this manner, there were unsatisfying...gaps. ^{10/}

Colonization Research in Colombia

Colombia has received more colonization attention--if judged by the bulk of legislation passed--than most Latin American countries. Law 200, passed in 1936, attempted to regularize squatters' rights and included an unenforced provision that land left uncultivated for ten years would be expropriated for redistribution. Settlement of unused land was the goal of the Colonization Institutes established in 1948, 1953 and 1959, but each collapsed. Law 135, the reform legislation of 1961, founded a land reform agency (INCORA) and determines to enforce the 1936 statute, but a battle currently rages about which should be the main thrust of Colombia's program: colonization of new, untried lands or settlement of proven lands near centers of population which have largely been unused. The land reform agency has already acquired substantial unused property and some feel this should be rationally settled before more private farms are expropriated. Advocates for more expropriation note that much of the property acquired has already been settled informally by squatters. ^{11/}

Feder's studies have led him to lament that early colonization in Colombia under the law did little to assist its beneficiaries:

"Settlers are being given (or occupy) virgin land, but they do not receive any other assistance in terms of credit, farm management, advice on soils, crops, seeds, or breeds; there are no schools, hospitals, and roads and costs of marketing are exorbitant....At the end they sell out to landlords....It is indeed a cheap colonization for landlords and at first even for the government....The use of virgin lands is for the far-away future, one of the great hopes for supplying a vastly increased Latin American population with food, and giving each farmer his piece of land. But under present conditions it is unnecessary: Colombia can supply all the food needed for 20 million Colombians and several million people in LAFTA countries on farms in its traditional farming areas. ^{12/}

However, Land Tenure Center studies have shown that lately, on some important INCORA projects--such as Cafrerías and El Darién near Cunday and Roldonillo and Cartago near Cali (in which INCORA has cooperated with the Cauca Valley Corporation--CVC)--credit and extension help is being conscientiously provided. ^{13/}

It still seems to be true, however, that the machinery of expropriation moves very slowly. Adams and Montero suggest that commercial land purchases might be used as a stopgap provision by the government. ^{14/}

In studying a colonization project in Bócare they report on several large landholdings, heretofore used largely for cattle raising (although ten families also lived on the land as sharecroppers in tobacco), purchased by the Colombian Tobacco Development Institute (INTABACO) and later re-sold to colonists. Ninety-eight colonists, who had many years of experience in raising tobacco as sharecroppers and selected from more than 500 applicants, were picked as colonists. During a several-year test period the traditional sharecropping system continued: the parcelero paid INTABACO the traditional one-quarter of his tobacco production. If he "proved out" (and all but five did) his past payments were applied as a down payment on the land. The parcelization has resulted in (1) a substantial increase in production, (2) a relatively rapid repayment of original project costs and (3) a favorable rate of economic return on the project investment. The authors imply that commercial sales might be a useful reform tool until laws are modified to speed up expropriation but that such schemes (or any others) are likely to result in more productivity when experienced farmers are selected.

Tinnermeier likewise shows that settlers' "experience in agriculture" is a crucial factor to the success of a colonization effort.^{15/} Although he argues that land is undoubtedly a necessary condition for increasing yields above subsistence, if inexperienced colonists are selected and if the government makes no effort to train them, their success will be problematical. In the case of inexperienced colonists, Tinnermeier places primacy in supplying technical assistance, implying that without it even available credit will likely not be used well.

Examining a group of Colombian directed and spontaneous settlers in the tropical lowlands of Caquetá, he reports that spontaneous settlers received little government help, while the governmental assistance for directed colonists was largely ineffective. Spontaneous settlers had more past entrepreneurial experience in agriculture since, more frequently than directed colonists, they had owned land previous to their migration to Caquetá. Although directed colonists were supposed to receive assistance from technicians, extension workers knew little about general agriculture and less about tropical farming. They, as the colonists themselves, came from highland areas. There appeared to be no significant difference between government directed and spontaneous settlement in terms of education, level of living, adoption of new practices attitudes, labor efficiency and material possessions. The government directed settlers, however, had more access to credit, the extension service and to new agricultural techniques. But these same colonists seemed to be poorer farmers than spontaneous settlers since, when compared, they had less livestock, sold less on the market, were less satisfied with their lot and were living at a lower level of income.

Tinnermeier implies that once a reasonably sized farm has been given out, colonist knowledge of how to cope with the exigencies of

farming becomes crucial. And as Hill, Silva and Hill have asserted, "More commonly than is thought the limiting factor is not the size of the unit, but the technical knowledge of cultivation and the lack of facilities for working the land."¹⁶

Tinnermeyer notes that as size of farm increases in Caquetá, per cent of land cleared decreases. Abundance of land in Caquetá makes insecurity of ownership (especially marked in the case of spontaneous settlers who were largely unaware of procedures to follow in getting title) less important than in the interior of Colombia, where there is more pressure on land use.

However, Thome believes title insecurity is "one of the most inadequately discussed aspects of land tenure problems in Latin America."¹⁷ In Colombia alone, he estimates that some 47,000 farms are either exploited without a title or there is a conflict as to ownership. He sets the number of title-less owner-cultivators throughout Latin America in the "hundreds of thousands." Tenure insecurity has repercussions on the amount of investment colonists are willing to make on their plots. It means also that colonists are unable to borrow on their land and, hence, cannot receive a dependable line of credit.

Thome traces the reasons for lack of titles in Colombia to difficulty in identifying lands. The Spanish crown and subsequent national governments granted indeterminate and often overlapping possession to huge holdings. Cadastral surveys were lacking as were boundary descriptions. Besides, many "owners" failed to register their properties. Archaic legal registry practices further complicate the situation.

In the last thirty years there have been invasions of idle lands by impoverished campesinos--a sort of "popular" land reform. Less serious on public domain land, this movement results in serious disputes when campesinos spill over into property that has been claimed by individuals.

Law 200 presumed "private" all economically exploited land and "public" all idle land. This statute made it harder than previously to evict squatters and gave title adjudication responsibilities to a body of travelling "land judges." But Law 4 of 1943 did away with the land judges, submitting the matter once again to civil courts more apt to favor vested interests in the community. The intent of this law was not restored again until the passage of Law 135 in 1961.

For at least 18 years Law 200 was all but forgotten, but after the passage of Law 135 there was a concerted government effort "to provide comprehensive solutions to the title insecurity problem." Title problems are far from being solved in Colombia, however.

In Atlántico, 1500 farms with less than three hectares apiece are being worked without a title--21 percent of all the minifundias in the Department. Similar situations exist in Magdalena and Bolívar. More critical still is the problem in the Llanos Orientales, an area encompassing the Department of Meta, part of the Department of Boyacá and the territories of Vichada and Arauca.

Squatters abound in the Sabana de la Macarena, located in Meta, a rapidly developing frontier area. Some ten years ago the region consisted of large cattle ranches and was populated by a few cowboys. San Juan de Arana did not even appear on maps. Today San Juan is a bustling town of 3,500, populated mostly by squatters and day laborers. Almost all of the ills plaguing an insecure tenure system appear in sharp relief by examining the plight of squatters in this area. Squatters often fail as farmers, frequently due to no fault of their own. Land has to be cleared and little or no credit is available to do it. Nor does credit provide the seeds and fertilizers necessary for farming the land later. Old squatters who fail sell title to new ones through a carta-venta, a letter of sale--the only "title" that can be given.

Rarely, resultant title conflicts are settled without recourse to violence. In one case 1,000 forested hectares were mostly cleared and occupied by 60 squatter families. Rather than face a protracted struggle, the landowners passed title to INCORA which is proceeding to distribute it to the colonists with the proviso that they not invade this owner's 3,000 hectares of grazing land.

The conflict is usually not disposed of this peacefully. Another 60,000 hectare hacienda (some say it is only 30,000 hectares--even that is not definite) has been settled by about 1,000 squatters who now occupy about 12,000 hectares. Most of these holdings are in formerly forested lands which have been cleared by squatters. Although the property does not impinge on the land the hacienda uses for cattle grazing, physical clashes between squatters and representatives of the landlord are common. Squatters threaten to kill the landlord, so he only visits the hacienda two or three times a year and under heavy guard. Meanwhile, the landlord's cowboys attempt to protect his interests by tearing down squatters' fences and driving cattle over their crops. And local police have cooperated in evicting squatters, apparently without observing the few legal safeguards that do exist for them.

Thome suggests positive steps be taken by INCORA to rectify this situation. INCORA has power to revert to the state that portion of a property over 1,500 hectares which has been unexploited by its owner for a continuous ten-year period and subsequently distribute title to squatters. But this applies only to departments and not to national territories which have not reached this statehood status. In new departments, this stipulation can be applied ten years after the receipt of statehood--in the case of Meta not before July of 1970.

In addition to passage of a broader law, Thome details the legal steps that are currently open to INCORA in regularizing the precarious situation of squatters in Meta and implies that a country can rectify some unsatisfactory tenure types by piecing together the assorted legal sanctions it already has:

1. Send a land survey team in to study the present title situation.
2. Establish which lands are in the public domain. INCORA could promptly adjudicate these titles.
3. The civil code provides that when a squatter has farmed a plot for 20 years, he receives title by pre-emption. Thus INCORA could study the chain of possession helping those who have lived in the area for a long enough period of time to initiate ownership proceedings.
4. Move remaining squatters to other public domain land or try to convince the owner to arrive at some amicable division. All else failing, INCORA could set in motion its expropriation procedures (admittedly a long and drawn-out process).
5. A judicial order decreeing a status quo--until a definite solution can be reached--could be enacted. At least INCORA should make its presence felt to prevent flagrant violations of squatters' rights.

In these areas, land is being cleared by squatters, but since no credit is available to those without title and access to market is tenuous, they are often forced to abandon their holdings or transfer them to a more prosperous neighbor. Thus they clear the land, but benefits are reaped by others who can afford a more long-term investment. And the net result is that the latifundia is growing back into these "colonized" areas.

Colonization Research in Costa Rica

Hill, Gollás and Alfaro also show security to be a very important factor, even when pressure on land is not great. There seem to be great differences in production depending on tenure type in the zone of Costa Rica they examined.^{18/} Studying a trackless valley near the Panamanian border, Coto Brus, in which an estimated 1,500 to 2,000 families live, they note its relative neglect to date by the government. The Instituto de Tierras y Colonización (which requested the investigation) is, according to the study, interested in regularizing the chaotic situation in the zone as part of its current program.

Originally to be favored by the Pan-American Highway, which was to run through its heartland, plans were changed and the Carterera Panamericana by-passes the Coto Brus region entirely so that it is still completely cut off from the rest of the country during the long rainy season. The promise of the highway was a prime reason for the area's selection for an Italian settlement after World War II and the immigration of Costa Ricans from other more densely populated portions of the country.

Largely because of a lack of farm-to-market roads the economy of the zone is relatively self-contained. Coffee, grown largely by the Italian colonists (who had to learn techniques of growing it from Costa Ricans after their arrival in the early 1950's), is the region's only link to the national market.

Costa Rican owner-operators in the zone (having farms averaging about 61.2 hectares) and squatters on state-owned land (ocupantes--whose farms average 34.8 hectares) actually work only an average of 4.29 hectares and 4.05 hectares of their farms respectively. Italian colonists (who average a 30.5 hectare farm) work about 2 1/2 times that farmed by ocupantes and native proprietors or about 10.7 hectares. Squatters on private lands in the area (called parásitos) claim an average 12.75 hectare farm and work only 2.4 hectares of it.

Parásitos consume about 57 percent of what they grow but, forming the basis for the money economy of the zone, Italian colonists purchase nearly all of their consumption needs. They buy from middlemen who, in turn, purchase mainly from Costa Rican proprietors who grow the subsistence crops--rice, corn and beans--which the Italians need. Those further down the tenure ladder (ocupantes and parásitos) also sell some subsistence crop produce.

The Italians, who were favored by some early help in terms of capital from their government, now gross about 28 times that of the parásitos and they out-produce by almost three times their nearest competitors, the Costa Rican owners. The latter, in turn, achieved a production that was about twice as great as that of the average ocupante. Capital owned by the four tenure groups is positively correlated with production figures.

Except the Italians, many of whom have access to hard-surface within-colony roads (which the colonists built), other tenure groups live mostly in the hinterlands and record higher farm-to-market transportation costs.

Although farming in the area is essentially a family enterprise, Costa Rican and Italian proprietors--and even some ocupantes--hire from a pool of landless laborers: peones (year-round hands) and day laborers. Italian colonists devote a greater percentage of their operating expenses to hiring labor than other tenure groups.

Despite the fact that much labor is hired, all tenure groups show great amounts of underemployment which more intensive and diversified cropping patterns (and the concomitant knowledge required and better methods of getting produce to market) could presumably rectify.

Squatters depend for 71 percent of their income on work outside their plot. Italian colonists earn but 21 percent of their income outside of their farms (most of this from artisan trades they learned in Italy), and the figures for Costa Rican proprietors and ocupantes is 29 and 24 percent respectively.

After paying only out-of-pocket operating expenses, the average Costa Rican owner and ocupante each came out with peon's wages, notwithstanding the risk and effort they went through to operate a farm. The Italian settler earned artisan's wages, nearly three times that of Costa Rican proprietors and occupants, while parásitos came out with wages below those of peons. It is estimated that parásitos had productive employment at peon's wages only about two-thirds of the year.

Lower level tenure groups have other problems: families with least security report highest incidence of sickness and these groups have had least education.

Were communications improved, the market could, it seems, be expanded and colony living conditions would be bettered as funds were pumped in. Labor would be more productively employed and wasteland which exists (as noted, a high percent of land on each farm is unused) could be brought into production. All this seems to reaffirm again the hypothesis of Tinnermeier and Hill, Silva and Hill that land access is a necessary but not sufficient condition for agricultural development.

If tenure of parásitos and ocupantes in Coto Brus could be made more secure, they could presumably plant coffee, a permanent crop requiring a high initial investment. Currently operating under insecurity, this group is not likely to grow perennial crops for fear of not being able to recoup their investment. (Ocupantes and parásitos devote a much lower percent of their land area to permanent crops than Costa Rican and Italian owners although it should be noted that they are also newer to the area). Or, if a road were built which would connect the isolated settlement to the remainder of the country (also a recommendation of the study) they might grow subsistence crops for a wider market.

The study concludes that technical guidance is necessary to instill management principles. At least a modest supervised credit program based on five-year loans should be established since many come to the area with little or no operating capital, a prime limiting factor in the zone.

In order to get trained técnicos and teachers to live in the area, salary incentives are a high priority need. (Better stated, perhaps: salary is a necessary but not sufficient incentive. Dale Adams found that while salary was of concern to graduates of the Facultad de Agronomía in Colombia, jobs paying less were frequently taken since there was a strong desire to live in the central city, educational facilities were more adequate, etc.)¹⁸ An area development program, encompassing a wide variety of social services, is a top level necessity. And, more generally, the Costa Rican government must give more primacy to agricultural development.

Colonization Research in Chile

Another recent research project attempted to determine the present living conditions of a number of former landless laborers who were given parcels under the Chilean colonization program (Caja de Colonización Agrícola) which settled 4,206 colonists from 1929 to 1962.²⁰ Of 544 colonists in the original universe studied, only 82 were former landless laborers. An examination of 30 farms belonging to former landless workers also concluded land itself was not sufficient to bring about great production increases, although all families living on their own land--or relatives living with original owners on plots--earned about three times the net income as that earned by average resident farm laborers or sharecroppers in Chile. But nearly all of the increases went into higher consumption and very little was used for savings and investment. Furthermore:

1. There has been a fragmentation of the basic parcel. By law, title to parcels can be held only by the owner; in case of his death the heirs as a group may receive legal ownership. But even before the owner's death, de facto division of the farm is common and only five of the 30 farms studied intensively are still supporting only the original family. The other 25 parcels, originally assigned to as many families, are now supporting 99 families who earn the major part of their income there. Twelve of these farms are physically divided. Obviously, these farms have become havens for grown children or other relatives who cannot find work elsewhere. It is on parcels which have been colonized for the longest time that family income is usually smallest, since as the farm owners' children married, more and more people settled in, subdividing profits further.

2. Hired labor is the rule rather than the exception. But 12 of the parcels were farmed with only family labor, in seven of these cases with more than one family with kinship ties to the owner. The other 18 parcel holders employed a total of 33 inquilinos, sharecroppers or other permanent laborers. In most cases where workers were hired, there was ample family labor available (a total of 37 families on these 18 parcels). Even though there has been a great deal of substitution of outside labor

for family labor, most parcel holders are farming with a team of horses, a crude plow and a harrow, indicating there has been little substitution of capital for labor.

3. There is also a tendency for the parcels to be farmed extensively despite the large number of families living there. On the average, half of each farm was planted to annual crops and half left to pasture, on which only a few animals graze. Improved pasture was found only on two parcels. Water for irrigation, the market system and input prices do not seem to be the major bottlenecks that account for the limited seeding of annual crops. Most colonists used either an inadequate amount of fertilizer or none at all.

While the tendency toward extensive land cultivation and excessive use of hired labor on the part of the colonists seems irrational, it probably is not. Little or no credit was available to the colonists studied; few knew how to productively use the little that was available. The campesinos had little or no management experience prior to receiving their parcels and little or no technical advice was offered from the government agency. Agreeing with the former analyses cited, this study points out that for campesinos with little experience in making entrepreneurial decisions regarding their own land, management training seems indispensable to good land and labor use.

It seems as though, aside from this, the parcel holder may be merely forced by the economic system, characterized by large numbers of laborers whose marginal product approaches zero, to shelter more workers than principles of maximization would dictate. Besides, he feels his status so improved by land ownership that he can hire laborers just as his former patrón made use of a contracted labor force. Hence the parcel holder merely copies the system he knows best--that of the extensively farmed fundo using abundant labor. His former fundo experience has been unadulterated by new learning. Thus when a new practice is tried, it usually fails to bring expected profits in the absence of proper management techniques.

This study also looked into private reform efforts on fundos formerly owned by the Catholic Church.

On the four recently-reformed Church farms, the Instituto de Promoción Agraria (INPROA) has experimented with different tenure forms: an almost collective system on the fundo Los Silos; individual family farms on the fundo Las Pataguas; and a system of sharecropping and rental which allows fields and the irrigation system to be used without subdivision on the farms San Dionisio and Alto Las Cruces. The study showed that reform tends to raise the incomes of campesinos immediately. The income of new landholders was, on the average, increased two or three times under each reform system.

In addition to supporting campesinos with a better standard of living than formerly, reform makes it possible for the fundos to support more families. When the reform on the four Church-land fundos studied has settled all families now planned for, the farms will be supporting 182 families or 23 percent more than the number of families that lived there prior to the reform.

It was quite obvious that total production on all of the Church-land farms studied was greater after reform. Even so, by comparing per hectare production on each farm with production on a well-managed neighboring fundo with similar soil conditions and water availability, this study concludes that production on each--with the possible exception of San Dionisio--was lower than potential. And even on San Dionisio, where great reliance was placed on accumulated fertility of the soil to raise immediate production under reform, production may not remain high. This means that in a number of cases colonists will not be able to cover their new debts--land payments to the Church via INPROA and necessary capital. More intensive farming seems to be the most obvious remedy for production below potential. In order to raise productivity per hectare, more yield increasing inputs will have to be applied and the farm will have to be better managed.

There are other manners in which current debts can be paid; in each case they involve more sacrifices than raising productivity per hectare:

a. Since consumption of campesinos rose with income under reform, consumption could be cut back still leaving members better off than they were previous to the reform and better off than even the best paid of inquilinos in Chile.

b. One manner of raising net income might be to cut back on the amount of hired labor used until it is possible to intensify the operation. This means that individuals would have to become more efficient (e.g., productivity of labor would have to be raised). Comparing labor use on each colonized farm with norms established in a study conducted by the Chilean Development Corporation, the Ministry of Agriculture and the University of Chile, investigation shows that much more labor than average was used on the farms under reform. The defect of this recommendation is that one way effects of a reform can be spread to a larger group is through employing labor. Calling for a cut in labor supply reduces this beneficial effect of reform. On the other hand, once the farm is worked more intensively and the individual campesino is solvent enough to make his land and capital payments, he should be better able to employ the superabundant labor which exists more productively than at present.

Although consumption rose on these projects, this should not be construed as meaning that once campesinos receive funds they always or even usually spend them foolishly. On San Dionisio, where special attention is being given to the organization of a strong cooperative,

members received a lump-sum payment of from E°688 to E°1,091 at the end of the 1963-64 crop year. The study reported that colonists spend quickly upon the receipt of their money because they are aware of how fast inflation depreciates currency. But most colonists interviewed were aware of their capital needs--as they were of their consumption necessities--and made purchases when they received their funds.

About 41.5 percent of the average cash available was spent for farm expenses and capital between the date of the receipt of the cash and the time of the interview two weeks later. About 39 percent had been spent for family expenses. Only about 19 percent of the average cash available had been saved.

Of the amount saved, several methods of disposition were noted by interviewees:

a. It will be used to pay labor so no advances need be requested. Only two from our sample indicated their willingness to do this. This frugality is not as rational as it seems. Inflation in the 1963-64 crop year ran nearly 40 percent while the subsidized credit rate, available through INPROA, was about 15.6 percent. Nonetheless, upon receiving their statements, a number of colonists were shocked at the amount charged for interest on advances. When we interviewed our original sample, few knew what their interest rate would be.

b. It will be used for consumption purposes later.

c. It will be used for entertainment. This response was as frequent as (a).

These studies do not speak to the current body of literature which implies that given a static situation, campesinos allocate their resources efficiently.^{21/} A reform or colonization situation is dynamic and, it seems, colonists are just as apt as not to allocate available resources inefficiently. Obviously this will have to be tested further; it must be documented by further research. Some other priority areas emerging from this work which deserve our research attention are the following: How can new landholders without previous agricultural decision-making experience be trained for their new roles as managers? Is "training in agriculture" really substitutable for "past managerial experience in agriculture?" How can the extension function be performed effectively--and without being prohibitively expensive? Is the problem a lack of technology adapted to the country in question--or is the crux of the matter a lack of knowledge of already existing technology by those who must use it to raise their production? How can a government judge how many scarce resources it can legitimately give to such matters as titling property and how can the procedures be streamlined?^{22/}

What criteria should be used in new colonist selection? How can colonist in-kind consumption be held within certain limits to make more

surplus available for sale? How can colonists be encouraged to invest in their new properties rather than channeling too much of their increased earnings into consumption?

II. Operating Bottlenecks in Colonization Programs

Patch has noted in studying colonies in Bolivia that problems internal to colonies are the results of administrative decisions, engineering problems, and personnel deficiencies.^{23/}

Many settlers are drawn to lowland colonies from the Altiplano on the basis of false and utopian promises by project officials. But when they arrive, roads are not built and adequate equipment for settlement purposes is not available. The result is a very high rate of failure of recruited colonists and their subsequent exodus from the colonies.

The high departure rates, in turn, give an air of social disorganization to the community and interfere with the functioning of the cooperative founded on each colony. Besides, settlers who leave discourage future colonists as the word of present disenchantment trickles back to the up-land region.

Faulty colonist selection contributes to this problem. Patch suggests that settlers be limited to men over 25 with families who have had some farming background. Single men are disruptive to the colonies. Heretofore, having an agricultural background has not been essential to selection and miners who have little idea of how to farm efficiently together with small time merchants have been chosen to receive land. Invariably, they fail.^{24/} Evangelical sects tend to be intolerant and also detract from the well-functioning of the colonies.

There is a tendency for paternalism to become established in colonies.^{25/} Cooperative organizers often have little experience in the elements of social organization and are unable to transmit the wishes of colonists back through the bureaucratic structure. This tends to foster continued dependency on a far-off organization unable to be of real service and acts as an inhibitor to colonist initiative. It further fosters the idea among colonists that the co-op has been foisted upon them and does them no positive good. Over-centralization in such matters as purchasing equipment reinforces this idea--it seems as though colonists should be able to select some of the capital items they want and need.

Patch recommends that an orientation program be developed together with an adequately equipped reception center. Small groups within the colonies should be encouraged to cooperate in specific enterprises thus leading to a better understanding of the functions of co-ops. Organizers well trained in sociology should be enticed to the colonies since they will, presumably, be better equipped to break the paternalistic patterns that have a tendency to develop.

Tinnermeier similarly asserts that in Caquetá, where little effort was made in co-op organizations, settlers tend to distrust it, feeling that prices paid to them for their crops are too low and that prices they pay for consumption goods are higher than in neighborhood stores. He asserts that co-ops will be successful only if they are able to demonstrate that membership is to their economic advantage.^{20/}

A study emanating from Chile notes that co-ops could be organized on land reform colonies to bargain to obtain inputs more cheaply and sell production advantageously. Besides, a well organized co-op could be a vehicle through which technical help for each colony might be channeled. But this investigation, as Patch's, notes the tendency for paternalistic structures to grow back into "reformed situations."^{21/}

On colonies founded by the Caja de Colonización Agrícola, inter-related factors hampered co-op effectiveness from the very beginning. Little capital was supplied by the Caja. Heterogeneous backgrounds meant members had little in common. Leadership, when it developed at all, tended to be provided by the best educated and wealthiest colonists, who treated their less favored neighbors with disdain. These more affluent settlers, often absentee operators themselves, have less need for a cooperative since they usually have economic interests elsewhere to provide some of their livelihood. Little attention was given to institution building. In some cases an able person was promised two parcels if he would come to the colony to act as "manager." But since this request (and favored position) came not from the cooperative but from the Caja, it often resulted in the "manager" not having an harmonious relationship with the cooperative members or even being totally ostracized by them. In most cases the "manager" regarded his co-op position a sinecure and his major interest was in farming the land promised him.

Caja co-ops had no control over their own membership either; colonists were chosen by the Caja and the edict passed down that all settlers were to belong to the colony's "cooperative." The net result was that a sense of loyalty to or faith in the cooperative seldom developed.

Cooperatives recently founded on INPROA colonies were more effective-- colonists were, of course, more homogeneous in background, since settlers were largely former landless laborers. Still, on Los Silos and Las Pataguas there was a tendency for the technical person, employed by INPROA, to be regarded as a patrón. On Las Pataguas, three size categories of plots were given out. Social rifts developed between those who were given largest plots and the remainder. More favored colonists considered themselves patrones while those on smaller plots resented these new bosses. On Los Silos, even an elected member of the co-op-- a campesino himself-- was voted out of power partly because of the gulf that developed between him and other cooperators. He felt his special position carried with it the privilege to engage in little physical work and he preferred to limit his activities to supervision.

Some of this paternal relationship is still evident as INPROA deals with the respective campesino cooperatives it organized, this study notes. Institutions are not changed easily and, especially in a traditional society where wealth and power are still in the hands of the landlords, old patterns of social relations tend to persist.

This does not mean that it is impossible for communications feedback to occur between the reform agency and the campesino organization. On the contrary, once this difficulty is known and understood, overcoming it should not be an insuperable problem.

The study continues by implying that as communications feedback between the agency and the campesino co-op improves, the reform agency has a responsibility to modify some of its policies based on pressures from campesino groups. On the other hand, the reform agency has as impelling a responsibility to veto some of the co-op's actions because of its obligations and restraints: (a) it has only limited funds; (b) it has obligations and limitations placed upon it by its lenders and donors; (c) it has a number of co-ops within its program--if demands of one infringe upon the rights of others the reform agency must veto or modify the action; (d) the land reform agency represents a concentration of technical knowledge which gives staff members professional obligations, i.e., if the co-op wants to supply a certain amount of fertilizer and the professional is aware that the amount is not sufficient or of the wrong quality, his duty is to veto the co-op's decision.

There are indications that the campesinos' organizations in INPROA's charge and INPROA itself strengthened and communications improved during 1963-64. This interplay between institutions and the learning process it involved has brought about certain policy modifications.

This interplay between two institutions involved in land reform is important. As a result of demands made of the cooperative, individual members and the service agency learn. This give-and-take seems to be the essence of a pragmatic approach to land reform--one which can settle issues as they arise. It is quite distinct from the early Caja de Colonización Agrícola in which Caja-cooperative-campesino contact was infrequent. INPROA seems conscious of the necessity for good communications and strong cooperative organization. In order to assist the cooperatives to develop into bargaining organizations, INPROA is:

- a. Allowing the cooperative (in large part) to choose its own landholding members.
- b. Attempting to give all members more or less equal land rights.
- c. Placing a person skilled in cooperative techniques on each fundo under reform who works only through elected campesino leaders.

Splitting up the fundo into parcels only after a number of years of centralized management during which members are dependent on the cooperative for many of their needs. This latter is regarded by critics as a mere extension of the patronal system; in fact, it seems to be a rational step during which campesinos are trained for the trying experience of becoming landholders. Besides, in this intermediate period, they come to rely more on the cooperative as an institution through which they can have a voice in solving their problems which they could not cope with alone, the study indicates.

Adams and Herrón suggest the possibility of using some communal work (called convites in Colombia) early in the reform period too. Their suggestions are based on observation of a club organized among underemployed day laborers near the ready market of Medellín in which members rented a plot on which vegetables could be planted and devoted one day a week to working it under the direction of an extensionist. Their efforts showed a healthy profit at the end of the club's first year (1964) although six of the nineteen dropped out the project and was expanded to more rented land in 1965.^{26/}

We have much to learn about what factors influence the well-functioning of a successful colonist organization. We can say with some assurance that if voluntary organizations exist in the area, their use in a settlement effort will ordinarily improve the colony's well-functioning. But in the absence of voluntary organizations, new groupings must be founded.^{29/} How can these groups be organized into effective "going concerns?" What do we know about voluntary associations that can help us in formulating these new groups? Might a closer inspection of community resources reveal voluntary organizations that would alleviate the necessity of forming new groups? How can a bureaucratic service agency best deal with a campesino group to prevent excessive paternalism? How can two-way communications between these groups and within the hierarchy of each be improved? How can frictions internal to the campesino organizations be removed? Can scarce technical funds be somehow stretched by their administration through a campesino organization at the colony level? Could, for instance, most able colonists be taught and be relied upon to teach their fellows in a "trickle down" approach without paternalism re-developing?

III. Does Colonization as Currently Conceived Provide a
Workable Model for Future Reforms?

Previously we have noted that progress toward colonization is progress toward land reform as currently conceived under most Latin American reform legislation. But unless this conception changes, both seem doomed to move with disappointing slowness. And worries about whether other forces might attempt to make their own reform, perhaps through violence (after becoming too discouraged with government progress) are perfectly legitimate.

The fact of the matter is that budgets for land reform in Latin America are limited and colonization, as currently defined, is prohibitively expensive to support a large scale program. (1) Private land must usually be paid for at near commercial value; (2) costs of moving into and clearing new areas and building roads, shelters, granaries there are very high. Since new areas are often tropical and level of knowledge on the productivity of such soils is usually low, research costs are especially high. And rates of return are liable to be unsatisfactory because of the high farm-to-market transportation costs; (3) costs of building infrastructure--whether in an old or previously unfarmed area--are usually high; (4) the entire effort must be administered through a usually large and cumbersome bureaucracy which tends to retard the program and make for high planning costs. Furthermore, internal to each country "land reform" has limited political support.

Consequently, most accomplishments under recent agrarian reform laws fall far short of previously announced plans. Under the center-right coalition governing Chile until late 1964, planner-projections called for the establishment of from 10,000 to 12,700 families on their own farms.^{30/} But in the two years of their "reform" (1963 and 1964) only about 1,100 were settled. The Instituto de Promoción Agraria, a private foundation colonizing Church lands, hoped to colonize at least 1,000 families, but funds ran out after about one-fifth of that number were settled--600 more should benefit from a \$1.5 million loan from the Inter-American Development Bank's Social Progress Trust Fund, applied for several years ago but not finally approved by the IADB until November 8, 1965. In Colombia only 1,400 were settled in three years and 16,500 were given titles to lands in the public domain which they already occupied. The records of such countries as Peru, Panama, Paraguay and Brazil are even less impressive. Only Venezuela appears well on her way toward progress. Here oil resources made high settlement costs easier to pay and land of the former dictator and his allies (that went into the public domain after their flight) was available for reform uses. The long term target was to settle 400,000 families in a decade; the short term goal was 100,000 families by March 1964. This latter was not quite reached "because of financial stringency during 1963 and a decision to devote more resources to the consolidation of old settlements, rather than to the establishment of new ones...The long term

goal remains, however, and by the end of 1963 some 33,000 families had been settled on land expropriated from private haciendas and another 34,000 had been settled on public land.^{31/}

Until land reform laws are modified to provide for delayed payment at less than commercial value, progress will be slow. At the same time, ways must be found to lower per settler establishment costs. In Venezuela, land improvements for those settled on public lands amounted to something like U.S. \$750 per family. Settlers established on heretofore private property cost the government about \$1,800 for land and infrastructure for each family settled. In Chile the government reform agency's expenditures for infrastructure (well over half of which came through hard foreign loans) ran over \$2,000 per family settled during the pre-Frei government.^{32/} One of the very high costs of reform in Chile is redesigning irrigation systems to fit the needs of small family farms. Modifying the irrigation system on one farm studied cost nearly \$21,000 to settle 79 families, an average of about \$265 per family.^{32/}

If parcelization is to be used as a land reform instrument, it would seem to be at its best only as colonists contribute to their overhead capital necessities, government expenditures being largely used for priority items most likely to have the greatest impact on improving productivity--investments in extension efforts and increasing the availability of yield-increasing inputs, for example.

Only the basic infrastructure should be supplied--reform beneficiaries should be encouraged to build their own roads and make their own irrigation system revisions (as part of a cooperative plan of work, based on study, of course). Colonists can erect their own fences and even construct their own houses, warehouses and granaries. This would lower original costs to the parcel holder, mean less expense for the reform agency and give colonists some sense of participation in their own future.

Of course, alternative forms of organization for reform might also lower per settler costs. Should the farm not be divided and somehow farmed cooperatively--the irrigation facilities would not need division and some of these problems might be avoided.

Difficulties of systems which involve cooperative farming aspects when compared with individual units are:

a. Technical mistakes are more costly. Since decisions are made centrally, a wrong decision usually means a loss for all participants in the reform.

b. It is extremely difficult to build meaningful economic incentives into a cooperative system. It is very easy for one individual member to reason that all functions of the co-op will be performed just

as efficiently if he, one member in a group, shirks his responsibilities.^{34/} Yet there are ways of building incentives into a cooperative-farming arrangement. Dorner and Collarte^{35/} have explored profit sharing and possible corporate structures. On San Dionisio a settler committee system was established for the working of large fields in which groups of eight settlers were in charge of collective wheat fields. This committee can vote to dock members who don't work conscientiously.

c. Without strong institutional control it is difficult to capture all of the income necessary to cover co-op expenses.

It would seem as though administrative costs of the colonization should be decreased. The land reform agency staff in Chile consisted of 537 persons, before the Christian Democrat government took over. Our data to date do not permit us to suggest how the bureaucracy might be reformed but, considering the few colonists settled, it is difficult to imagine that so many administrators are necessary. Yet technicians are probably needed in greater numbers. Only a small percentage of the staff members in the Chilean reform agency (15 percent--again before the Frei's term began) are actually technically trained in agriculture and work in rural areas with colonists who have been granted land.

We must know more about in what acceptable ways (likely to differ in each country and within the same country) per colonist establishment costs can be lowered. Are there good alternatives to parcelization as a means of land reform--and to which regions are they adapted? How can land costs be lowered? How can the bureaucracy administering reform be streamlined?

This paper has raised more questions about colonization than it has answered. But somewhere in the replies that will grow out of the past and future research lies the future of Latin American Agriculture. By continuing to study presently operating colonies in a variety of countries we must search for clues around which Latin Americans can build their rural development programs.

FOOTNOTES

1/ See, for example, FAO, UN, Agrarian Reform Policies, Latin American Conference on Food and Agriculture, Eighth FAO Regional Conference, Item 7 (a) of the Provisional Agenda, LARC/65/Conf./3, Mimeographed, 1964, especially pp. 33-40.

2/ UN, Economic and Social Council, Progress in Land Reform, Fourth Report, E/4020, April 9, 1965, Mimeographed, p. 14.

3/ For example, Instituto Nacional de Colonización, La Colonización en Ecuador, Quito, 1959.

4/ For example, Ministerio de Agricultura y Cría, La Colonización Agraria en Venezuela, 1830-1957, Estudio Efectuado por el M.C. con la Colaboración de IAN, Caracas, 1959. There are, of course, notable exceptions to these generalizations. The following seem quite objective: OEA, Consejo Interamericano Económico y Social, Colonización y Cooperativas, Union Panamericana, Washington, D.C., 1959 and International Bank for Reconstruction and Development, The Economic Development of Venezuela, The Johns Hopkins Press, Baltimore, 1961. A problem with these latter studies is that they lack information gathered in communities; their source of information is often intermediaries who usually are representative of operating institutes.

5/ Land Tenure Center, The Progress of Land Reform in Bolivia, Discussion Paper No. 2, Madison, Wisconsin, May 1963.

6/ See Philip M. Raup, "The Role of Research in Agrarian Reform," Agrarian Reform and Economic Growth in Developing Countries, USDA, Economic Research Service, Washington, March 1962, p. 52. In this report the terms will be used interchangeably as they are in Spanish where "reforma agraria" covers both concepts.

7/ See Joaquín Leiva and Hugo Trivelli, Labor Desarrollada por la Caja de Colonización Agrícola, 1948 and Ministerio de Agricultura, Estudio de la Colonia Pedro Aguirre Cerda (El Tambo) de la Caja de Colonización Agrícola, 1959 and the use made of these conclusions in UN, Social and Economic Council, op. cit., p. 12.

8/ George W. Hill, Manuel Gollás Quintero and Gregorio Alfaro, Un Area Rural en Desarrollo: Sus Problemas Económicos y Sociales, Instituto Universitario Centroamericano de Investigaciones Sociales y Económicas, San José, Costa Rica, Elaborado con fondos del Land Tenure Center, Universidad de Wisconsin, November 1964.

- 9/ Ibid., p. 9.
- 10/ William C. Thiesenhusen, Experimental Programs of Land Reform in Chile, Ph.D. thesis, University of Wisconsin, 1965, See pp. 192-193 and p. 269.
- 11/ UN Economic and Social Council, op. cit., pp. 22-31.
- 12/ Ernest Feder, "The Rational Implementation of Land Reform in Colombia and Its Significance for the Alliance for Progress," América Latina, Vol. 6, No. 1, 1963, pp. 81-108.
- 13/ Land Tenure Center, "Changes in Land Use and Transportation Problems for Two New Settlements," Tolima, Colombia, color/sound film, 12 minutes, 16 mm., 1963 and "Improvement and Utilization of Valley Resources," Valle, Colombia, color/sound film, 15 minutes, 16 mm., 1963. (Films shot by Professor Fritz Albert, University of Wisconsin).
- 14/ Dale W. Adams and L. Eduardo Montero, Una Alternativa a Programas de Distribución de Tierras: La Parcelización de Fincas Adquiridas Comercialmente, Centro Interamericano de Reforma Agraria, Mimeografiada, No. 4A, Bogotá, October 1965.
- 15/ Ronald L. Tinnermeier, New Land Settlement in the Eastern Lowlands of Colombia, Ph.D. thesis, University of Wisconsin, 1964.
- 16/ G.W. Hill, J.A. Silva Michelena and Ruth O. Hill, Vida Rural en Venezuela, Caracas, July 1958.
- 17/ Joseph R. Thome, Title Problems in Rural Areas of Colombia: A Colonization Example, Centro Interamericano de Reforma Agraria, Mimeografiado No. 3, Bogotá, October 1965.
- 18/ Hill, Gollás and Alfaro, op. cit.
- 19/ Personal Conversation with A. Eugene Havens, December 30, 1965.
- 20/ Thiesenhusen, op. cit.
- 21/ See, for example, Theodore W. Schulz, Transforming Traditional Agriculture, Yale University Press, New Haven and London, 1964 and articles by Arthur Mosher.
- 22/ Writings of Joseph Motherall on the Philippine experience touch on matters of title streamlining in that country. Applicability of these procedures in Latin America should be studied.

23/ Richard W. Patch, Personal conversation with the author and unpublished manuscripts.

24/ Monje Rada, José and John S. Marus, Estudios de Colonización en Bolivia, Part II (Análisis de las Características Socio-Económicas de los Colonos), La Paz, December 1962.

25/ Patch, op. cit.

26/ Tinnermeier, op. cit.

27/ Thiesenhusen, op. cit.

28/ Dale W. Adams and Antonio Herrón O., "Como Alcanzar el Nivel de Propietarios Mediante Esfuerzos Cooperativos," Centro Interamericano de Reforma Agraria, Mimeografiado, No. 5, Bogotá, October 1965.

29/ The writing of A. Eugene Havens can be especially helpful in the area of voluntary associations.

30/ William C. Thiesenhusen, "Agrarian Reform and Economic Development in Chile: Some Cases of Colonization," Unpublished manuscript, November 1965.

31/ UN Economic and Social Council, op. cit., p. 21.

32/ William C. Thiesenhusen, "Agrarian Reform in Latin America: A Many Sided Problem," The Nation, January 17, 1966.

33/ Peter Dorner and William C. Thiesenhusen, "Relevant Research Programs to be Conducted in Developing Countries," Journal of Farm Economics, Vol. 46, No. 5, December 1964, p. 1100.

34/ Thiesenhusen, Experimental Programs of Land Reform in Chile, op. cit.

35/ Peter Dorner and Juan Carlos Collarte, "Land Reform in Chile: Proposal for an Institutional Innovation," Inter-American Economic Affairs, Vol. 19, No. 1, Summer 1965, pp. 3-22.

**POLICY IMPLICATIONS FOR CHILE AS DERIVED FROM
LAND TENURE CENTER AND RELATED RESEARCH**

Peter Dorner

December 1965

**LAND TENURE CENTER
310 KING HALL
UNIVERSITY OF WISCONSIN
MADISON, WISCONSIN 53706**

POLICY IMPLICATIONS FOR CHILE AS DERIVED FROM

LAND TENURE CENTER AND RELATED RESEARCH

Peter Dorner*

December 1965

This brief summary statement does not attempt to discuss all research that would have a direct bearing on the areas listed. It is, rather, a beginning on which we plan to build in the future. It can serve as a guide for additional work by students and other researchers. As new areas are added and additional evidence obtained, future reports will become increasingly complete. We must realize, of course, that evidence is never complete and conclusions are always tentative on these complex policy questions since circumstances are constantly changing.

Following are the general policy areas discussed in this report:

- I. Toward a New Economic and Social Organization in Agriculture: Reform Experiments.
- II. Productivity and Potentials as Related to Farm Size.
- III. Toward an Effective Administrative Organization for Agricultural Development.
- IV. Farm Prices and Capital Availability.
- V. Data Needs and Statistical Requirements.

The references identified by number under each heading are found at the end of this report.

*Professor of Agricultural Economics and Director, Land Tenure Center.

I. Toward a New Economic and Social Organization in Agriculture:

Reform Experiments

(See Reference Numbers 2,9,10,13,17,19,22,33,38)

The difficulties of changing the system of economic and social organization in agriculture are well recognized by the Chilean government. It involves changed responsibilities and opportunities, a re-ordering of rights, privileges and obligations. It takes time, education, investments and sometimes coercion to get people to accept their new roles. All this is complicated by the fact that the present system of economic and social organization in agriculture is not easily defined. That is to say, it is difficult to generalize with respect to this system since there is such wide diversity. "Latifundio-minifundio complex" has some validity as a general classifying variable, but the diversity of situations within and the clear deviations from any meaning we could give to such a general concept remind one of the complexities of this task of defining organizational change.

Yet, it is in this area of social and economic organization where changes are contemplated under the general rubric of agrarian structural reform. In the declaration of Punta del Este in August 1961, one of the purposes of the Alliance for Progress was stated as follows:

"To encourage, in accordance with the characteristics of each country, programs of comprehensive agrarian reform leading to the effective transformation, where required, of unjust structures and systems of land tenure and use, with a view to replacing latifundia and dwarf holdings by an equitable system of land tenure so that, with the help of timely and adequate credit, technical assistance and facilities for the marketing and distribution of products, the land will become for the man who works it the basis of his economic stability, the foundation of his increasing welfare, and the guarantee of his freedom and dignity."

These statements imply that the task is to increase production through an improvement in the access routes that rural people have to future income earning possibilities, and the security of such access. In essence, they imply that available alternatives for making a living be expanded, and individual capacities to exploit them be developed so that these alternatives become, for the individuals, realistic opportunities. In other words, alternatives plus capacity equal opportunities. It is within this context that we wish to discuss research recently conducted.

Evaluation of Reform Experiments

1. Governmental

One aspect of evaluation must always be the magnitude of the task compared to the present effort. Estimates vary, but the figure most frequently used is 100,000 rural families whose access routes to future income earning possibilities and their security must be greatly improved.

The Colonization Agency established in 1928 had settled 4,206 families by 1962. The successor agency, the Agrarian Reform Corporation (CORA) established in 1962, moved at a more rapid pace, settling 1,100 families in the first two years (but as compared to a projected 10,000 to be settled in that period). Even this is not commensurate with the magnitude of the task. Only about 65 percent of the 1,100 received family-sized parcels, the remainder received small garden plots.

Parcelization as practiced thus far is slow and costly. Constructing individual farm dwellings and farmsteads, building roads and fences, and re-adjusting the irrigation system comes to about 60 percent of the total cost per parcel. The reform agency data show a total cost equivalent of about \$4,000 per parcel holder in recent years. Many of the initial infrastructure costs could be reduced or postponed. This would lower costs to the reform agency and reduce the debt burden of the new parcel holder. Parcel holders could themselves make some of the improvement investments as their income permitted, giving them a greater sense of participation in their new farms. There are indications that the present Chilean government will move in this direction.

Thiesenhusen studied eight of the colonies, all of which had been established for at least twelve years. These colonies had 544 parcels, only about 20 percent of which were assigned to former inquilinos (farm laborers) or sharecroppers. The remainder were assigned to a variety of people including government workers, people with business interests, professional people, etc. At the time of the study (1964), 39 percent of the parcels were owned by absentee landlords.

The problems with this selection process of new settlers has been recognized and new criteria for such selection were introduced in 1959 and 1962. Settlements, especially since 1962, have included proportionally more landless farm workers.

Another difficulty with the parcelization before 1960 was that the settler's mortgage was not readjustable for inflation. Payments in fixed money terms under inflation provided a major subsidy to the settlers, but it impoverished the land reform agency. This too has been corrected in recent legislation, and today such payments are readjustable in accordance with the market prices of several major farm commodities.

Farm interviews were conducted by Thiesenhusen for a sample of those parcel holders who were former inquilinos or sharecroppers. The average net cash income of these families was from three to four times that of the average inquilino in Chile. However, we must recall the help which accrued to them in the past (the result of inflation in paying off their mortgage). These same advantages will not be available to new parcel holders under current practice.

Three problems were identified which appear not to be sufficiently recognized in present legislation. First, although sub-division through sale is legally prohibited, the 30 parcels in the sample originally sold to 30 former laborers and sharecroppers supported entirely or in major part 104 families at the time of the study. In the absence of employment opportunities in the economy, these parcels can become new areas of minifundio. Second, although a cooperative was set up in each colony as specified by law, some were completely in-operative and the remainder functioned only in a minimal way. In part this may be attributable to the diverse background and social strata of the original settlers. But it also points up the difficulty of establishing a viable cooperative organization on an isolated colony surrounded by the traditional system of land ownership, markets, etc. Third, extensive land use practices and the use of hired resident labor and sharecroppers on the parcels reflects a continuation of the basic social structure. Much more intensive technical information and credit services would have to be made available to overcome some of these problems. To develop the necessary supporting institutions for these colonies scattered throughout the country would be a very costly process. Thus the magnitude of this parcelization effort remains deficient in two ways: (a) in terms of the total task and (b) in terms of the isolation of these colonies, surrounded as they are by the traditional system. Since Chile does not have any appreciable vacant areas in the public domain for new colonization, the land reform effort remains restricted to parcelization of large farms either now owned by the government or to be purchased by it.

2. Non-governmental: INPROA

In addition to government sponsored land reform, the Catholic Church in Chile has created INPROA (Instituto de Promoción Agraria), a private foundation, to carry out land reform on some Church lands. About 200 families have been settled on five farms comprising approximately 3,000 hectares of irrigated land.

*One must point out that parcels given in earlier years were, the average, larger than parcels given in the last few years.

INPROA has experimented with several systems of organization: a centrally-managed sharecropping and rental operation, a mixture of cooperative operation on certain crops and individual parcels for others, and individual parcels with the cooperative functioning mainly in the service and marketing area. In most cases, the establishment of a strong cooperative organization has been emphasized, with INPROA retaining certain control over major decisions in the initial years. These experiments are all very new.

The picture that emerges from Thiesenhusen's study of the INPROA projects is about as follows: the cooperatives seem to be developing into viable organizations with emerging internal leadership in response to the planning and decisions that INPROA has delegated to them; per hectare production levels are lower than those of the better farms in the area, but about the same as the local average and usually higher than the production on the same farms before the reform; productive potentials yet to be realized are high and a large part of this can be realized by using more of the inputs already in use (especially fertilizer); income and especially consumption levels are much higher for the average family than that realized by them in their previous employment as inquilino or laborer; productivity levels must be raised substantially if these consumption levels are to be maintained and the mortgage is to be repaid.

This program is too recent to draw many policy implications at this time. However, it has placed more emphasis on technical assistance, on experimentation with different tenure forms and on the building of cooperatives than previous governmental efforts, and there is at least some indication that this extra effort is paying good dividends.

3. Private

There are two other "reform experiments" that have been studied. One is the profit-sharing plans instituted by some large farmers. Collarte studied a group of these plans. There are probably 75 large farms on which such plans exist. These are generally fairly progressive farmers who are interested in demonstrating that the landowners themselves can initiate changes which can lead to an improved social and economic position for agricultural laborers. There are some rather significant institutional innovations being made on some of these farms and the present Chilean government is interested in utilizing this experience in its land reform programs. There are of course several problems with such a private effort. It is privately controlled and there is no mechanism at present, which would make the private interest of these owners recognize and make their "private policy" conform to the public need. For example, higher worker earnings will make it in the interest of the owner (as well as in the interest of their better workers) to mechanize and reduce the labor force, retaining only the better trained and skilled. (There is evidence on at least some of these farms that

this is occurring.) This simply intensifies the short-run public problem-- landless workers with low levels of skill and education become jobless as well. Also, the workers have not gained any new legal securities and rights, and thus remain largely at the mercy of the owner.

Another private effort is the sub-division and sale of some large farms in parcels. Idiaquez is studying this experience at the present time. Again the private control and interest does not automatically conform to the public need. A preliminary look at some of the data seems to indicate that parcels sold are fairly large, that payment terms are short, and that there are therefore few (if any) farm laborers among the buyers.

B. Realities a Land Reform Program Must Face

There are a number of existing conditions in Chilean agriculture which seem to indicate the need for "reform," but also the complexities and difficulties of achieving it.

1. The paternalistic social structure with its concentration of managerial skills in a relatively small group.
2. Present lack of employment alternatives for the landless and the uneven distribution of income.
3. The requirements for increased agricultural production (yet with wide variation of productivity levels achieved by farmers in various farm size groups; that is to say, all the poor [or good] producers are not concentrated in any particular farm-size group).
4. The shortcomings of conventional policy prescriptions (such as incentive creating price policy), in a situation where resource ownership is heavily concentrated and with little "counter-vailing power" on the part of non-owners.
5. A shortage of government funds and technically trained professionals.
6. The large scale effort which the magnitude of the problem requires.
7. The conflicting interests within the rural population (small owners finding common interest with large owners on some issues and with the landless workers on others; internal, permanent farm workers with an interest in reform that may be antagonistic to the interests of those landless laborers without such ties to a large farm).

8. The need for a constructive reform. "Getting rid of the landlords" is not a sufficient goal. New institutions, new forms of economic organization in agriculture, must be created to replace the old and provide a wider array of opportunities, and the capacity to exploit them, for the mass of people who find their alternatives greatly restricted under the present system. Yet, such new institutions must have their roots in Chilean experience.

In looking at the present experience of reform along with these "realities," I come to the conclusion that some means must be found to provide more people with secure income opportunities within the present large farm structure. The question is, how can the ownership and security structure be changed without sole reliance on the slow and costly procedure of purchasing and splitting up large farms, and at the same time maintaining or increasing agricultural production? The present Chilean government recognizes this need, and the officials concerned have announced that their plans for reform include both parcelization along with the establishment of producer cooperatives on some of the large properties. But this is a complex task and Chilean experience to date with producer cooperatives is not encouraging.

C. A proposal

On the basis of this research, the article by Collarte and myself contains a proposal which would make it possible to evolve into a corporate system on some of these large farms, building upon the present profit sharing experience. The operational guidelines give details with respect to the number and value of stock shares, their distribution, repayment plans, the selection of new members, management decisions, incentives, source of earnings of the several parties, stock transfers, initial financing, settlement of conflicts, and future modifications.

This was intended as a possible policy guide in this area, but more importantly, as an illustration of the kind of specific organizational details which must be worked out if reform involving some type of producer cooperative is to have a chance of succeeding.

Thus, in the research focus of the Land Tenure Center as well as that of some of the other studies listed, emphasis was placed on identifying the major problems and possibilities of their solution for both the small farm in parcelization projects, as well as the large farm in some type of collective management.

III. Productivity and Potentials as Related to Farm Size

(See Reference Numbers 3, 8, 10, 15, 17, 18, 27, 29, 31, 33, 38, 41)

In a recent article evaluating the world food situation, Gunnar Myrdal says "...the facts I have pointed to and the conclusions I have reached would definitely move me to give top priority to agriculture. Without progress in agriculture we face calamity." He concludes by saying "most of this increase in agricultural production must take place in the underdeveloped countries."

Chile, and Latin America in general, is in a much more favorable position with respect to resource-population relationship than such countries as India or Egypt. Nevertheless, population in Chile is growing at a rapid rate (approaching three percent) while agricultural production is not growing at the same rate.* CORFO (the Chilean development corporation) has estimated that about 65 percent of Chile's imported farm products could be produced internally. At 1960 level of imports and production, this would mean an increase of about \$75 million worth, about a 15-20 percent increase in total farm output. From several of our studies we concluded that short-run increases in agricultural output of from 30-40 percent are feasible. Even here the standard of comparison was not the concept of economic optimum, but levels of production actually achieved by the better farmers. There is general agreement that Chile has a substantial unrealized productive potential in agriculture.

There has been debate and controversy over the productivity of farms in various size groupings. This issue is sometimes considered central to land reform. However, even though it could be "proven" beyond a doubt that the small farm (e.g., under 50 acres) has higher productivity per acre, this would not likely convince the large landowners to divide up their farms. Nor would the reverse relationship (higher production per acre on large farms) be convincing to those who pressure for reform. In other words, land reform in Chile is not just a matter of determining an optimum size of farm and then establishing it. It is first and foremost a political question.

However, in spite of this conclusion, this question is of interest to policy makers. Relevance to policy changes with the conditions that one starts from. The issue takes on a different meaning if there now exist small peasant holdings (owners or renters) and the question is whether or not to combine them into larger units (or move to a cooperative form in production--Long's article on India), or whether there are large units operating as going concerns and the decision involves splitting them up into small units (or moving toward a cooperative or

*Figures since 1960 indicate that there has been an absolute decline in agricultural production.

corporate structure on these large units--a possibility in Chile). On strictly efficiency grounds, a constant return to scale (or size) would not justify enlargement in the former case. In fact, even some economies of size might be too small to offset the capital obsolescence that may occur in moving to large scale production. In the latter case, even small diseconomies may be tolerated because of capital obsolescence resulting from sub-division and the added investments needed to establish small units.

But of greater interest is the number of variables which need to be incorporated into the analysis to try to isolate the net influence of size on production and some insights which such an investigation provides. Even if we control or hold constant in the analysis, such factors as soil, type of farming, proportion of land irrigated, location, etc., there are still many uncontrolled variables. Many of these variables may be associated with size, but external rather than internal to the firm. For example, in an agriculture dependent on irrigation, it may be that the large farmer has more secure access to water. The same may be the case with credit. Thus, we may find small farms having lower production per hectare, not strictly because of their size, in the production economies efficiency sense, but because of external factors that are related to size. This might give us clues as to the effectiveness of external institutions in serving farms of different size, but would tell us little about the relation between farm size and production per se.

The study by Morales was an attempt to establish the relationship between farm size and present production per hectare, while controlling as many factors as possible. The farms ranged in size from 10-500 hectares of irrigated land. Although the average gross income per hectare appeared to be larger for farms in the larger size classes, the variation within groups was so large that these differences were not significant at the .05 level.

Production potential was also measured, using as a standard of comparison the average gross income per hectare of all farms in the sample above the median (from an array based on gross income per hectare). Realizable potential, based on this criterion, ranged from 21 to 41 percent above the present average production for the five size classes. There were a number of farmers in every size group that had achieved production levels above this standard. Thus this potential seems a realizable goal for most of these farms with production practices that are available and have been proven successful under present operating conditions. Why has this potential production not been achieved.

We have no general explanations. We do know that a much smaller percentage of the farms in the small size classes received credit in the year under study than did those in the large farm classes. There was likewise a much higher percentage of land area with reported irrigation problems in the small farm classes. These two factors offer some explanation for the unrealized potential on the smaller farms which would not apply, at least in the same degree, to the larger ones.

Although this was a study of only 96 farms located in one province, it does lend support to the proposition that there is a relatively short-run realizable productive potential in Chilean agriculture and that this potential exists about equally for farms in various size groups. Several studies among the references listed arrive at the conclusion that this realizable potential is much greater on the larger farms. However, these studies were based on secondary, aggregated data. The resulting lack of control of strategic variables which must be held constant in such an analysis, lead one to question the reliability of the conclusions reached.

III. Toward an Effective Administrative Organization for Agricultural Development

(See Reference Numbers 1, 4, 5, 10, 19, 21, 22, 25, 32, 33, 34, 36, 38, 40)

There are three basic categories to consider: (1) administration of tax and water laws, (2) rural labor organizations and (3) research extension and supervised credit programs. The present discussion will emphasize the third area.

The problem of administration seems directly related to the influence of the large landowners in rural areas. Stewart's study on water law and its functioning in the valley of Illapel is in process. Within the next six months we will be able to make available insights gained from that study. In another section of this annual report, Strasma has detailed the research findings in the area of taxation and finance. A study to test out the impact of new tax changes implemented in Chile in 1965 will be undertaken by Strasma in 1966.

Thiesenhusen's study and the CIDA report summarize the situation with respect to rural labor legislation and existing organization among rural workers. The picture that emerges is that very few of the rural workers belong to any kind of an organization, perhaps less than 1 percent. In large part this seems due to restrictive clauses in the labor code the provisions of which, it has been estimated, prohibit organization of workers on about 95 percent of Chilean fundos. National federation of individual rural unions is also prohibited. Perhaps because of this (or perhaps also because of some of the factors to be discussed under extension), there has been a great proliferation of efforts to organize small groups. Other factors that seem related to the difficulty of establishing rural labor organizations are the geography of the country, the relative isolation of workers in the large farms, the heterogeneity of agriculture in the central zone and the differing interests among the worker groups themselves.

207 Unlike any of the above issues, programs of research, extension and supervised credit (as well as the establishment of cooperatives) are generally less controversial. It is very easy to gain support (or at least not arouse opposition, except perhaps on some research into social and political questions) for these programs. The success of these programs in the developed countries appears quite clear. Because of their uncontroversial nature and their apparent need and potential, it is also relatively easy to get external financing from other country governments, private groups and foundations, and international organizations. The result is a great proliferation of agencies with much duplication and with many professionals tied up in performing the administrative functions. This, we must recall, under conditions of a shortage of professionally trained people for these tasks. This creates great instability and personnel movement between various agencies.

Another feature is the tendency for various agencies to duplicate the several services involved--extension of technical information, providing credit and helping establish cooperatives. These functions should perhaps be performed by the same agency; with many agencies involved, the size of the administrative bureaucracy is much too large in relation to the trained manpower available.

Brown's thesis (in process) will throw additional light on these matters as well as on communications problems and possibilities as they relate to land tenure, land reform and agricultural development in Chile. There are several other questions, however, that emerged in the course of Brown's and other studies in Chile. We have insufficient evidence, but the following hypotheses deserve further testing, especially through comparative studies between developed and developing countries, and among several of the developing countries.

The first question is whether the extension function must always be a public one, or whether it can be better performed by private or semi-private organizations. A related question is whether new practice adoption can always be completely voluntary, or whether it is better to have some mixture of persuasion and obligation. Thiesenhusen's study of the INPROA and government parcelization experience, and Brown's observations with respect to the extension activities of IANSA (a semi-public sugar beet corporation) suggest some advantages to the persuasion-obligation mixture. Likewise the private and semi-private (or non-governmental) agencies seemed more successful in getting technicians actually on the farm to instruct and supervise. There are these two sides to the issue: (a) to get extension men to spend time with the farmers on the farm and (b) to get farmers to have confidence in the extension worker thus learning to adopt new techniques. Through the provision of an additional service (such as a guaranteed market and price for the sugar beets) other practices are made obligatory for the recipient, while the extension worker is obligated to supervise and guide these adoptions.

The second question that deserves further study is whether or not we attempt to introduce the extension function without a sufficiently established research base (or where the proliferation of extension agencies and a similar lack of concentration and coordination among the research efforts result in extension operating independently and separated from research). Moseman and Hill (in the 1964 Yearbook of Agriculture) point to the great difficulty of transferring (extending) knowledge which is not developed from research in the country itself. Perhaps of equal importance is the need for close collaboration and continual communication between research and extension people.

IV. Farm Prices and Capital Availability

(See Reference Numbers 7, 9, 10, 14, 15, 17, 19, 20, 21, 23, 24, 28, 32, 35, 39)

There is much disagreement among professionals over the nature of the problems involved in increasing agricultural productivity. It is frequently argued that farm product prices are fixed by government at a level intended to keep food prices low for consumers, and thus do not provide incentives for the producers to invest and increase production. But aggregative data in Chile do not offer support for this conclusion. Data presented in La Economía de Chile en el Período 1950-1963 indicate that farm product prices rose more rapidly than industrial prices in the 1950-1961 period. Although this is an imperfect index of cost-price relations in agriculture, an index of input costs in farming is not available.

Echeverría studied the price elasticity of supply (measured in terms of hectares planted) for a number of crops (onions, garlic, wheat, rice, sugar beets and sunflowers) over the past 10 years. Price elasticity for the first four crops was very low, ranging from .12 for onions to .58 for rice. Sugar beets and sunflowers were much more price responsive, showing supply elasticities of 1.53 and 1.17 respectively. (There are many limitations in the data which are well recognized. Every effort, however, was made to obtain the best estimates.)

Onion and garlic prices are free market prices, those of wheat and rice are fixed by government and announced after planting time, sugar beet and sunflower prices are fixed and announced before planting time (to be adjusted for changes in costs of the major inputs used). These last two crops are grown on contract with the processing firms.

Why should these last two show greater supply responsiveness to price? There may be some selectivity in contracting with the better farmers (especially in the case of sugar beets). However, these crops are widely grown and are found on large as well as small farms. Both of these companies do have intensive programs of technical assistance

and credit (farmers being obligated to follow certain practices). The greater price security may be a factor. However, it is of interest to note that the correlation coefficient resulting from correlating prices with acreage planted of the same year was found to be non-significant statistically, whereas this coefficient became highly significant when prices were lagged by one year. One possible explanation of this phenomenon, offered by Strasma, is that in an inflationary setting, farmers place more reliance on the net income experience of the past season than on guaranteed future prices, even when these prices are known (and at least to some extent adjusted for inflation during the season). In an inflationary setting, even guaranteed prices are difficult to translate into real purchasing power.

In some of our studies we found very substantial net earnings of farmers on large, well-managed farms. The question arises whether the present price structure is really detrimental to incentives, when these farmers demonstrate such favorable returns. It seemed that additional light might be shed on this question if one could compare various groups of farmers in terms of the percentage of total cash income retained as net cash income. Thus we compared 7 large, well operated Chilean farms and 9 small Chilean farms (average management) with over 700 Wisconsin farms (all members of farm management associations and above average in management). The Chilean farms (large and small) retained 50 percent of total cash income as net cash, while the Wisconsin farms retained only 44 percent.

The evidence presented here is not conclusive as to the effects of price on production in agriculture. But it does throw considerable doubt on the assertion that production would increase substantially in response to higher prices.

Capital availability studies are likewise inconclusive. Kaldor (quoted by Sternberg) has pointed to a low rate of savings in spite of a relatively high rate of profits in the Chilean economy. Sternberg gives some evidence on this as shown by the 20 large farms he studied. Feder's study shows that large landowners are the favored ones for receiving bank credit. Our own studies do not add much on this question, except that well-managed farms seem to generate sufficient income within the present price structure to make continuing investments out of savings realized. This is not to say that more credit, especially for the smaller farmers, would not result in increased production. But the studies referred to in this section do cast doubt on the assumption that price policy is the critical factor in increasing agricultural production in Chile.

V. Data Needs and Statistical Requirements

(See Reference Numbers 7, 8, 10, 16, 20, 35, 36, 38, 39)

Although Chile seems in a much more favorable position with respect to data series available than most countries in South America, there is need for new series and greater refinements of those existing. There is, for example, no price series showing prices received at the farm level. "Hectares planted" series are not available for all crops. There is practically no data on water flows by years in the major river and canal systems. Even census figures on the number of people in various categories of the active population in agriculture are open to doubt, given the manner in which these enumerations are made. Especially deficient are data on marketings, marketing channels, farm inputs and input cost series.

Consequently, all aggregative analysis are the subject of great controversy. Conclusions are challenged on the ground of data deficiencies, and diametrically opposed conclusions using different assumptions with respect to interpolation of data gaps are not uncommon. All of these difficulties are intensified in an economy with a history of inflation, where a choice of the appropriate deflator indices and their interpretation is in itself a point of great disagreement.

Much improvement can be made in this area. In view of this situation, however, Land Tenure Center research has been concentrated on field studies in which primary data were gathered through interviews. Working together with Chilean students and staff under excellent cooperative arrangements, we wish to acknowledge their help as well as the cooperation extended by Chilean farmers and the people in government. In the case of Dan Stewart's study, the Chilean ministry of public works provided the technical people for the field work involved in making the necessary water measurements. People in charge of the air-photo maps were most cooperative in providing help. Even if the official data series are greatly improved in the future, we would recommend a continued emphasis on field research, since these data can be given meaning only as the operations of the agricultural system at the practical level are better understood.

What general conclusions do we draw from the research represented by the studies listed at the end of this report?

First, introducing a greater equality in the opportunity structure by which more individuals can be given security in their claim to the future productivity of the rural economy of Chile requires a larger effort and one of different focus than parcelization of isolated large farms by the government land reform agency as practiced to date.

Second, some intermediate course for a policy of land reform must be found. That is, a course between the experience to date and that of "complete reform" where all land of large owners would be expropriated. This latter course can be expected to arouse complete and total opposition on the part of the landowning class. Some intermediate steps will receive support from at least some of the large owners. There is diversity of opinion within the large landowner group.*

Third, agricultural production has not kept up with population growth and increases in demand, especially in livestock production. Yet the potential exists. The price structure, while important, cannot be shown to explain a major part of this lag. Combined with the "intermediate position in reform" referred to above, there should perhaps be a program that makes obligatory certain production and production intensification practices in return for services of credit, marketing and perhaps additional input subsidies. This will require that the Chilean government coordinate and provide greater guidance in the use of outside funds in the establishment and administrative centralization of the functions of agricultural research, extension, supervised credit, setting up cooperatives, etc.

Uncertainties created by debate over land reform may itself be a factor. Given that a new agrarian reform bill is now under consideration and that the present government has five more years in power, this situation should soon be clarified.

Research in the future needs to center on several areas: (1) a detailed study of the production techniques actually employed (and the potential of new technology) on large and small farms of different type of farming and tenure arrangements, (2) evaluation of the impact on different farms of the tax changes implemented in 1965, (3) a study of markets and marketing policy as related to farm size and tenure and their effects on producer incentives, (4) an evaluation of land reform activities as these are intensified as is expected under the new bill when it becomes law, and (5) a re-study of the church reform experiments.

*The new agrarian reform bill proposes such an intermediate course, but that bill is not yet law as of this writing.

BIBLIOGRAPHY

1. Barraclough, Solon L., Agrarian Structure and Education in Latin America (New York, New York; UNESCO, 1961, ED/CEDES/30, ST EC/A/Cont.10/L.30; PAU/SEC/30).
2. Barraclough, Solon L. and Arthur L. Domike, Evolution and Reform of Agrarian Structure in Latin America, Instituto de Capacitación e Investigación en Reforma Agraria, Santiago, 1964.
3. Bray, James, O., La Intensidad del Uso de la Tierra en Relación con el Tamaño de los Predios en el Valle Central de Chile, Santiago: Centro de Investigaciones Económicas, Universidad Católica de Chile, 1960.
4. *Brown, Marion R., "Sources and Uses of Information by New Land Owners," First Inter-American Research Symposium on the Role of Communications in Agricultural Development, Mexico City, October 5-13, 1964.
5. *Brown, Marion R.; An Analysis of Communication of Technical Information as Related to Land Reform in Chile, Ph.D. thesis (in process).
6. Cañon Valencia, Patricia, Las Comunidades Agrícolas de la Provincia de Coquimbo Frente a una Reforma Agraria: El Caso de Mincha, Tesis presentada como parte de los requisitos para optar al título de Ingeniero Agrónomo, Universidad de Chile, Santiago, 1964.
7. **Carmona Acevedo, Cesar and J. Luis Marambio Canales, Comercialización del Trigo en Chile, Tesis presentada como parte de los requisitos para optar al título de Ingeniero Agrónomo, Universidad de Chile, Santiago, 1964.
8. Carvallo, Marcelo, Land Tenure and the Development of Chilean Agriculture, M.S. thesis, University of Wisconsin, 1963.
9. *Collarte Rivacoba, J. Carlos, Análisis de una Alternativa de los Sistemas de Tenencia de Tierras de Chile, Tesis presentada como parte de los requisitos para optar al título de Ingeniero Agrónomo, Universidad de Chile, Santiago, 1964.
10. **Comité Interamericano de Desarrollo Agrícola (CIDA), Estudio Sobre la Tenencia de la Tierra en Chile (in process).

11. Corporación de Fomento de la Producción, Chile: National Economic Development Program 1961-1970 (mimeographed), January 1961.
12. Departamento de Economía Agraria, Aspectos Económicos y Sociales del Inquilinaje en San Vicente de Tagua Tagua, Santiago, 1960.
13. *Dorner, Peter, Some Thoughts and Ideas on Land Tenure Center Research (in process), LTC, University of Wisconsin, August 1965.
14. *Dorner, Peter, Issues in Land Reform: The Chilean Case, Discussion Paper No. 5, LTC, University of Wisconsin, Madison, August 1965.
15. *Dorner, Peter, An Open Letter to Chilean Landowners (mimeographed), Santiago, 1965.
16. *Dorner, Peter and William Thiesenhusen, "Relevant Research Programs to be Conducted in Developing Countries," Reprinted from Journal of Farm Economics, Vol. 46, No. 5, December 1964, LTC Reprint Series No. 1, University of Wisconsin, Madison.
17. *Dorner, Peter, "Land Tenure, Income Distribution and Productivity Interactions," Reprinted from Land Economics, Vol. XL, No. 3, August 1964, LTC Reprint Series No. 5, University of Wisconsin, Madison.
18. *Dorner, Peter and Héctor Morales Jara, Present and Potential Productivity as Related to Farm Size on a Sample of Farms in Chile (typewritten).
19. *Dorner, Peter and Juan Carlos Collarte, "Land Reform in Chile: Proposal for an Institutional Innovation," Reprinted from Inter-American Economic Affairs, Vol. 19, No. 1, Summer 1965, LTC Reprint Series No. 2, University of Wisconsin, Madison.
20. **Echeverría, Roberto, Respuesta de los Productores Agrícolas ante Cambios en los Precios (mimeographed), Instituto de Capacitación e Investigación en Reforma Agraria, Santiago, 1964.
21. Feder, Ernest, El Crédito Agrícola en Chile, Instituto de Economía, Universidad de Chile, Santiago.
22. *Idiáquez, Antonio, Private Sub-Division of Land in Chile (in process).

23. Instituto de Economía, La Economía de Chile en el Período 1950-1963, Tomo I, Universidad de Chile, Santiago, 1963.
24. Instituto de Economía, La Economía de Chile en el Período 1950-1963, Tomo II, Universidad de Chile, Santiago, 1963.
25. Instituto de Economía, La Tributación Agrícola en Chile, 1940-1958, Universidad de Chile, Santiago.
26. Karst, Kenneth, "Latin American Land Reform: The Uses of Confiscation," Reprinted from Michigan Law Review, Vol. 63, No. 2, December 1964.
27. Long, Erven J., "The Economic Basis of Land Reform in Under-Developed Economics," Journal of Land Economics, Vol. XXXVII, No. 2, May 1961.
28. Ministerio de Agricultura, Sinopsis de la Agricultura Chilena, 1961-1963, Santiago, August 1964.
29. *Morales Jara, Héctor, Productividad Presente y Potencial en 96 Predios de la Provincia de O'Higgins y su Relación con el Tamaño de las Propiedades, Escuela de Agronomía, Universidad de Chile, Santiago, 1964.
30. Moseman, A.H. and Hill, F.F., The Yearbook of Agriculture, 1964: Farmer's World, "Private Foundations and Organizations," pp. 523-34, the U.S. Dept. of Agriculture, Washington D.C.
31. Myrdal, Gunnar, "The United Nations, Agriculture and the World Economic Revolution," Journal of Farm Economics, Vol. 47, No. 4, November 1965.
32. **Ossio Sivilá, Hugo, El Crédito Agrícola Supervisado en Chile, Memoria para optar al diploma de graduado en Economía Agraria, Programa de Estudios Económicos Latinoamericanos para Graduados, Universidad de Chile, Santiago, 1964.
33. *Problems in Chilean Agriculture and Land Reform (For USAID Chile FY 1966 CAP Report, Prepared by Prof. Peter Dorner, University of Wisconsin/AID Contract, Instituto de Economía, Santiago, Chile).
34. *Strasma, John, Market-Enforced Self-Assessment for Real Estate Taxes, Research Paper No. 6, LTC, University of Wisconsin, Madison, August 1965.
35. Sternberg, Marvin J., Chilean Land Tenure and Land Reform, September 1962.

36. *Stewart, Daniel, Some Aspects of Water Law in Chilean Agriculture: Historical Developments, Economic Consequences and Suggestions for Alterations, Ph.D. thesis: (in process).
37. Sunkel, Osvaldo, Change and Frustration in Chile (mimeographed), Santiago, November 1964.
38. *Thiesenhusen, William C., Experimental Programs of Land Reform in Chile, Ph.D. thesis, University of Wisconsin, Madison, 1965.
39. Ullrich, Kurt B., Algunos Aspectos del Control de Comercio en la Agricultura Chilena, 1950-1958 (mimeographed), Ministerio de Agricultura, Santiago, 1964.
40. Ullrich, Kurt B. and Ricardo Lagos Escobar, Agricultura y Tributación - Dos Ensayos (mimeographed), Universidad de Chile, Santiago, 1965.
41. Vial A., Mario and Germán Casenave B., Determinación de Unidad Económica en Base de los Resultados y Posibilidades de Predios de 1-30 Hás. Regadas, Ministerio de Agricultura, Depto. de Economía Agraria, Investigaciones en Administración Rural No. 16, Santiago, 1961.

* Produced under LTC sponsorship

** LTC participation

**SUMMARY OF COLOMBIAN RESEARCH ACTIVITY
OF THE LAND TENURE CENTER**

A. Eugene Havens, Dale W Adams and Joseph R. Thome

January 1966

**LAND TENURE CENTER
310 KING HALL
UNIVERSITY OF WISCONSIN
MADISON, WISCONSIN 53706**

**SUMMARY OF COLOMBIAN RESEARCH ACTIVITY
OF THE LAND TENURE CENTER**

by

A. Eugene Havens, Dale W. Adams and Joseph R. Thome*

The present summary was prepared as a part of the Annual Report of the Land Tenure Center, University of Wisconsin, to USAID/Washington. It is an attempt to summarize some of the past research activity and to suggest needed areas of future research. This report does not, however, include all of the research done since some of the data on supervised credit, irrigation districts and rural migration and rural syndicalism are still being analyzed.

The report is divided into four parts. The first part concerns itself with social structure and organization in rural Colombia, the second with minifundio, the third with absenteeism and concentration in landownership, and the fourth with the role of law in the agrarian sector. Each section attempts to summarize the most relevant data gathered during our cooperative research effort. On occasion, an attempt is made to cast these findings into a general theoretical framework and their implication for development and change.

Social Organization in Rural Colombia**

Individuals brought together to participate in joint enterprises that last for any sustained period of time form a group that displays some type of organization. The exploitation of land may be such a joint enterprise. Someone must lay claim to the land; someone must provide the capital to exploit it and others must supply the labor. Still others are needed to make the decisions with regard to how the land should be exploited. All of these activities may be combined into one role. On the other hand, if the size of the unit to be exploited is fairly large, then no single individual can provide all the labor needed unless some type of technological innovation can be

*Assistant Professors of Rural Sociology, Agricultural Economics and Law, respectively. The authors have spent over two years each in Colombia with the Land Tenure Center.

**This section was prepared by A. Eugene Havens, Assistant Professor of Rural Sociology.

substituted for labor. Sometimes the family, which is a number of individuals brought together to participate in a joint enterprise, is the group which exploits the land. Thus the notion of family farms.

The hacienda is another such group which encompasses more than a single family unit. But since it may be viewed as a group it will display a structure and an organization. Regardless of the nature of the group that is formed, or that evolves, to exploit land, the transactions necessary for the exploitation tend to be repeated over and over by the same persons and, consequently, the action pattern becomes fixed. Positions become defined and the individuals occupying these positions have certain rights and duties commensurate with the positions they hold. They are expected to do certain things as the occupant of a given position; such expectations are designated as roles. Once formed, groups tend to perpetuate themselves, for the participants continue to do what they believe to be expected of them even when they no longer have any personal desire or interest in doing so.

As groups grow in size, roles become more differentiated, the number of positions increases and it becomes more difficult to comprehend the total set of interactions. For analytical purposes, it may be best to think of the larger units as social systems and the smallest units of joint enterprises as groups. Thinking of the hacienda as a system, then the various groups involved may be: 1) the peons, 2) the managers and 3) the owners. Interaction then will take place within groups and between groups.

If groups are relatively equal in power, then the interaction between groups allows for the ever-present opportunity of changing positions, of gaining or losing status. A fundamental rule of human behavior appears to be the constant desire to gain status rather than to lose. If a change in position is not perceived to represent a gain in status, or at best the assurance of not losing status, it may be resisted. Since status rankings tend to be determinant relative to a given society (even if the status rankings are improved for the total society there is always a top and bottom) the gaining of status on the part of one group may be perceived as the loss of status on the part of another. The result of this desire to maintain or improve one's own group's position is a possible source of conflict. But if groups are relatively equal in power, this conflict is an essential part of the functioning of society.

As these social interaction processes pass through time there tends to develop a recognition of each group's relative power and ability to suppress new behavior that may be conflicting. This leads to a more or less stable equilibrium of balanced forces which is known as the social order. This balance of forces has sometimes been confused with consensus. But consensus does not mean agreement in the sense that men have harmonious interests. Consensus may be

maintained by suppressing conflicting interests. Groups come into conflict with one another as the interests and purposes they serve tend to overlap, encroach on one another, and become competitive. There is never any serious conflict between groups whose operations can be channeled so that they perform satisfactorily without moving in on another's territory of common interests and common purposes.^{1/} In Latin America the power dominant groups have been fairly successful in channeling group activity so as not to allow competing groups to operate in the same sphere. In so doing they reduce open conflict and at the same time strengthen their own positions.

The logical outcome of this group conflict is either superordination-subordination or else the constant give and take involved in compromise. At the time of the conquest of Latin America, the Spanish were able to bring about almost total subjugation of the Indians. This was partially due to the docility of the Indians encountered on the high plains, which allowed for the beginning of the institutionalization of interaction patterns involving the use of forced labor in the exploitation of large estates which today has evolved into the hacienda system. When the Indians would not submit to subjugation, they were annihilated and replaced with Negro slaves who could be held in a subjugated position.

Certain changes have occurred since the time of the conquest. The slavery system has been abolished. Indians are no longer forced to provide labor through the encomienda system. There has been a great deal of miscegenation of the races. But the basic structure has remained relatively similar. The changes that have occurred have taken place within the same structure. What once were slaves are now peons occupying the same positions that the slaves occupied formerly and submitting to similar expectations for behavior which are reinforced through socialization and social control. Such forms of social organization are frequently referred to as feudal and patrimonial forms. Latin America is not entirely feudal and patrimonial. As societies move from these feudal and patrimonial forms of social organization, new groups emerge which are strong enough to be power contenders and as a result bring about concessions from the old power holders.

It is this change that is most striking and important in Latin America today. Some of the countries have already experienced these changes, notably Mexico, Venezuela, Chile, Uruguay and Argentina. Colombia has not to any large extent. It is for this reason that when

^{1/} George B. Vold, Theoretical Criminology (New York: Oxford University Press, 1958), pp. 203-207.

one thinks of Colombia, he generally thinks in terms of a land tenure pattern of latifundio. But land tenure patterns are reflective of underlying social structural and organizational conditions.

In order for a hacienda system^{2/} to persist, certain conditions are necessary. There must be an available labor supply that: a) lacks other employment opportunities and is unable to create new ones or b) is unwilling to enter other opportunities or c) is unaware of other opportunities.

Given the available sources of information and communication present in all of Colombia it is unlikely that the rural peon is unaware of other possibilities. However, given the early compliance system where the patron was able to preclude other possibilities from the worker by systems of debt peonage and control over sanctioning groups, there is a possibility that some of the rural laborers do not perceive other alternatives as opportunities even though they are aware of them. Through the socialization process, individuals can internalize expectations for their behavior and follow these expectations even though they dislike them. If all of the agencies of social control tend to reinforce these expectations, then the individual may perceive alternatives for others (his children, for instance) but not for himself. One person, without some sort of group support, may be precluded from entering new opportunities because of the selectivity of his perceptual field. If this is the case, then the central problem in bringing about change for these individuals is affording him group support with regard to the desired change and enabling him to view new alternatives for his own behavior.

Individuals may not enter other opportunities if these other opportunities involve a perceived risk so great that they are unwilling to enter them. There is a certain degree of security in the position of peon on a hacienda. Homes are furnished; the individual is generally surrounded by his kin; meals are frequently furnished by the patron; and the contemporary peon is partially covered by labor laws in most countries. Furthermore, the patron is generally less concerned about the farm enterprise as an income property. Property is a source of prestige as is the number of peons and also a hedge against inflation. As a result, there may be less pressure for performance in order to maintain one's position as compared with industrial labor positions.

While it is possible to hypothesize why the labor supply would be available for hacienda employment due to lack of willingness to enter other occupations or lack of information about other alternatives,

^{2/}The hacienda is singled out because it is the most frequent form of land exploitation on large holdings. It differs significantly from the plantation, however.

there is little evidence to support these possible explanations. In fact, when one asks the peon why he is working on a given hacienda, almost invariably he responds that no other alternatives were open to him. Of course, his answer could be the result of the selectivity of perception mentioned earlier. But to what extent might his perception of alternatives be an accurate reflection of the employment possibilities?

The following factors seem to bear upon this question. First of all, rural laborers lack the educational training necessary for entering the industrial labor market. They lack financial resources of their own with which to move out of agriculture. They lack credit facilities to employ in relocating their family or for the purchase of land. Furthermore, even if credit sources were available in general, they lack meaningful groups to represent their interests in obtaining credit from these sources. Lacking any such groups at the local level, there is a tendency on the part of the peon to wait for some external agency to solve all his problems for him, such as the government. This may be reflected in the institutionalized expectations of the peon -- the patrón will take care of him.

But government is never too responsive when there are no instrumental associations to present demands on the part of the peon. Government is comprised largely of those whose interests are most closely aligned with the large owners. And the large owners apparently are not willing to change to more productive methods or techniques unless they, too, are convinced that the risks in doing so are low.

A significant feature of the social structure accompanying haciendas is the lack of meaningful voluntary associations to represent the interests of the rural laborers.^{3/} The social groups with which the local resident is most involved, other than the hacienda itself, are the church and family. The political system and educational system are largely extra-local. Therefore, the church and family become crucial in determining the types of individual behavior that will receive local reinforcement. They may be either conservative forces or they may be the main instigators of change. The church and family in Colombia have, by and large, been conservative forces. However, this varies tremendously from region to region.

Minifundio is often an accompanying feature of latifundio. The reasons why this is so are the following: 1) Small plots are sometimes

^{3/} See David L. Sills, "Voluntary Associations: Instruments and Objects of Change," Human Organization, Vol. 18, Spring, 1959, pp. 17-21.

given or sold to the peon in order to tie him to the hacienda.^{4/}
2) Latifundio ties up the major portion of the available land. Land is therefore scarce and, coupled with weak enforcement of land taxes, prices become inflated. Therefore, land prices increase, which tends to reduce the opportunity for large land acquisitions.

Minifundio can also arise as a consequence of land subdivision. If land is valued highly either as a source of income or for prestige, then there is more of a tendency not to be willing to relinquish ownership. But as the population increases and the land base stays constant, and if the social tradition is for each child to inherit an equal portion, and if the child values land highly and refuses to sell it, then minifundio is a logical consequence. These conditions, coupled with low non-agricultural employment opportunities, produce minifundio. The following sections by Adams will explore the minifundio-latifundio complex in more detail.

Based upon these theoretical considerations, one would expect that the forms of social organization in the rural parts of Colombia would display certain characteristics. Moreover, these characteristics should vary from region to region. For example, if it is true that many of the rural people lack educational opportunities^{5/} and thus lack knowledge of alternative ways of doing things, then one would expect to find low levels of years of attending rural schools and little general knowledge about extra-community events. These data are presented in Table 1. Education was measured by the number of school grades^{6/} completed. General knowledge was measured by the following 12 items:

1. What is the name of the legislative representative from your region?
2. Do you know of any sickness caused by drinking dirty water?
3. What rights does a person have who makes improvements on land that isn't his?
4. What is the purpose of cross-breeding cattle?
5. What is erosion?
6. Have you heard of satellites? When?

^{4/}This is particularly frequent in the Atlantic Coastal region of Colombia. See A. Eugene Havens and others, Cereté: Un Area de Latifundio, Bogotá: Facultad de Sociología, 1965.

^{5/}See A. Eugene Havens, Education in Rural Colombia, Land Tenure Center Research Paper No. 8, February 1965.

^{6/}Grades is a crucial factor since many rural schools offer only two grades. A person may attend three or four years in order to complete the two grades.

7. Who is Cantinflas?
8. From what country is Rómulo Bentancourt?
9. For what purpose is a radiator on cars and tractors?
10. Do you know the name of any Indians that lived in Colombia prior to the arrival of the Spanish?
11. What is the name of the Colombian National Airline?
12. What is the purpose of baptism?

For each item answered correctly, the individual received a score of one. Therefore, total scores could range from zero to 12.

TABLE 1. Average Grades of Schooling Completed and General Knowledge in Twelve Rural Communities of Colombia.^{a/}

Community	Grades of Schooling	General Knowledge
1 ^{b/}	3.7	3.4
2	2.5	1.8
3	2.1	4.9
4	2.1	5.7
5	1.2	5.1
6	1.9	3.8
7	1.2	3.4
8	2.1	1.7
9	N.D.	4.2
10	0.9	1.5
11	2.2	1.3
12	1.9	1.5

^{a/}Based on 1,280 observations.

^{b/}An urban service center for a rural region.

Table 1 clearly indicates that levels of education and knowledge are low in all regions of Colombia but that there is a variation, particularly in general knowledge. Those communities where knowledge is higher (3,4,5,6,7 and 9) are rural villages located close to large urban centers. Correspondingly, there is more out-migration and frequent visits to these urban centers. Also, communication contacts are higher as one would expect. Nevertheless, it is clear that overall education and knowledge is very low. It is not surprising that the alternatives these people see are somewhat limited. This may be functional from a certain point of view. If the rural people are highly educated and informed, it is quite likely that the demands they feel

are legitimate would be difficult to fulfill over-night. On the other hand, if they do not receive more education and knowledge, why would they increase their demands? And if it is true that governments are not responsive unless demands are placed upon them, what are the prospects for change?

One response to these types of questions is that the state must become the leading sector for change and development. However, we find an obstacle to this when we turn to the data. In each of the communities studied, data were gathered concerning the level of confidence people place in government.¹⁷ This was measured by a five-item scale with each item being scored "strongly agree" to "strongly disagree." Therefore, total scores could range from 5 to 25 with low scores indicating low levels of confidence. Table 2 presents these data. Clearly, the level of confidence is on the low end of the continuum.

TABLE 2. Average Level of Confidence in Government in Twelve Colombian Communities.

Community	Level of Confidence
1	9.11
2	11.38
3	12.35
4	12.59
5	12.07
6	11.81
7	10.43
8	8.90
9	11.87
10	11.70
11	10.87
12	10.12

One factor involved in the level of confidence Colombians place in their government is the rural violence that still is taking place in Colombia. In one of our studies we asked the following question,

¹⁷Typical items were: "Most public officials aren't interested in the problems of the average man" and "Most people don't care what happens to others."

among others, "Because of the violence the majority of people have lost confidence in the Government."^{8/} Ninety-two percent of the respondents agreed with the statement. Moreover, another statement was "It is impossible to expect justice from judges," and on this statement 81 percent agreed.

The significance of this for programs of planned change and development with which government is involved is clear. Due to the lack of confidence in government, government programs are viewed with a high degree of suspicion. As a result, people withhold their participation in the program. Tinnermeier noted such an occurrence in Caquetá in the government-sponsored cooperative. People refused to buy or sell produce there and, as a result, prices increased because of the low volume. When the prices of things they bought increased the local farmers offered this as evidence as to the lack of government's concern for them.^{9/}

Other examples could be cited. But the major point is that government must make an effort to create an atmosphere of confidence; otherwise, they must expect low degrees of participation in their sponsored programs. This is, in part, a self-defeating prophecy. The people withhold participation in the program, thus causing it to be less than efficient which decreases its ability to attain its goals; thus the local people's opinion of government's effort is in part borne out by their own attitude and consequent action.

Given this low degree of confidence in government, it is important to know what might contribute to changing these types of attitudes. Our data indicate that participation in voluntary associations seems to be a sufficient condition for doing so. An example may be taken from one of the community studies where voluntary associations are strong (Community #3 in the previous tables). Here we note two things. First of all, this community has a higher degree of confidence in government than any other and, secondly, if we look at the various members of the community, those that participate in the voluntary associations have a higher degree of confidence in government. A correlation of $+0.413$ was found between degree of participation and confidence in government. Furthermore, when the relationship between these two variables was observed while controlling on farm size and general knowledge (the only one variable found to be related to confidence) no attenuation was observed in the relationship.

^{8/}See A. Eugene Havens and Aaron Lipman, "The Colombian Violencia: An Ex Post Facto Experiment," Social Forces, December 1965.

^{9/}Ronald Tinnermeier, New Land Settlement in the Eastern Lowlands of Colombia, Ph.D. thesis, University of Wisconsin, 1964.

Similar results were observed in other studies.^{10/} Therefore, assistance in developing effective voluntary associations at the local level, linked to a national organization would have two effects. It would change the structure and organization of these communities by providing new channels for presenting demands and it appears as though it would increase the confidence these members have in government. This may be due in part to a realization that government is also a group affair and other groups may influence government's action.

In summary of this section, it appears as though certain things must be taken as given in the rural areas of Colombia. These are: 1) people have little means to present demands to government, 2) the social organization in most areas serves to keep people in ignorance, 3) people have little confidence in government and 4) government programs of directed social change largely fail due to withholding participation because of this lack of confidence. Even though there are givens at the moment in hand, this does not imply they are unalterable. Indeed, they must change if the country's development goals are to be attained. On the other hand, given present conditions, other factors may be viewed as variables. These are: 1) even though formal education is not increasing rapidly, 2) communication sources are, 3) thus creating new ideas which take the form of new demands on the part of rural people. As the demands of the people increase but the mechanisms for presenting demands to those who control the allocation of resources are lacking, the following alternatives seem to be logically possible:

1. People attempt small scale changes at the local level. The difficulty with this alternative is that as their action begins to run counter to those who have more power resources, the probability is high that their activities will be blocked. This in turn may lead to a) apathy and withdrawal or b) attempts to generate large scale social movements.
2. Innovations in social organization are encouraged by regional or national agencies which help to establish channels for presenting demands to government and other power holders.

Past experience in Colombia indicates that the attempts to create social movements have been abortive, witness the recent activity of Padre Camilo Torres. It is hypothesized that the reason these attempts have been unsuccessful is that the leaders of the movements

^{10/} See Havens and Lipman, *op. cit.*; A. Eugene Havens and Elsa Usandizaga de Osorio, Tres Barrios de Invasión, Bogotá: Tercer Mundo, 1965; and Rodrigo Parra Sandoval, Adoption of Farm Practices in a Cauca Valley Community in Colombia, Unpublished M.S. thesis, University of Wisconsin, 1965.

have failed to recognize the current forms of social organization present and assume that there is a form of social organization that allows for easy mobilization of the people. This obviously is not the case.

On the other hand, some attempts to create new innovations in social organization have been somewhat successful, such as the Corporación Autónoma del Valle del Cauca^{11/} and the Federación Agraria Nacional.^{12/} Of course, the mere formation of local level voluntary associations is not a sufficient condition for establishing new forms of social organization and control. These associations must be effective in attaining their goals and must become linked to the national power structure of the country.^{13/}

Future sociological research in Colombia might profitably focus upon the emergence and growth of rural voluntary associations and their impact upon public policy. Under what conditions do these associations develop? What are the factors that contribute to the effectiveness in attaining their goals? How do these local associations evolve into national level pressure groups? This type of research should be most productive in terms of the potential impact voluntary associations could have upon public policy. In terms of policy, it would be profitable, if Colombia really wants change and development, to encourage the formation and growth of voluntary associations in both rural as well as urban sectors.

It is within this type of a social organizational context that land tenure problems and their solutions must be viewed. The following two sections by Adams specify the more relevant problems of land tenure arrangements in Colombia. And, in order to attain some of the solutions he suggests one must keep in mind the considerations previously presented.

^{11/} See the report of Antonio and Jeanne Posada, The CVC: Challenge to Underdevelopment and Traditionalism, Bogotá: Tercer Mundo (in press).

^{12/} One of the Land Tenure Center graduate students, Harold Seeberger, is currently undertaking a study of FANAL.

^{13/} See A. Eugene Havens, Social Factors in Economic Development, Land Tenure Center Research Paper No. 5, May 1965.

III: A View of Minifundia Problems in Colombia*

In Colombia over 50 percent of the 1.2 million farms in the country include less than three hectares of land. Because of the importance of these small farm units (minifundia) in Colombia, the Land Tenure Center has placed heavy emphasis within its studies on regions where these types of units exist. During the first three years of activities, studies were carried out in twelve regions of Colombia where minifundia predominate.^{1/} Out of this rather extensive experience in minifundia areas it is possible to draw several conclusions which are pertinent to Colombia's agrarian reform program. The first is that there is not just a single minifundia problem, but rather a complex of problems which vary widely from case to case. The second is that the term minifundia covers a number of very different types of small farm units. The third, following from the first two, is that the heterogeneity of the minifundia is such that a bundle of activities, rather than any single agrarian reform tool, will be required to solve minifundia problems.

As Schulman and Adams point out, it is possible to identify three general types of minifundia in Colombia according to the essential functions of the farm unit.^{2/} The first type is the independent minifundia. On these units most of the family's labor supply is devoted to the direct exploitation of the small farm; production decisions are principally oriented by direct consumption needs rather than market conditions. Large landholdings seldom affect the labor patterns associated with this type of minifundia. In Colombia these independent minifundia tend to be concentrated in parts of the Departments of Narino, Boyacá and Cundinamarca.^{3/}

*This section was prepared by Dale W. Adams, Assistant Professor, Land Tenure Center.

^{1/} These studies were in the areas of Cereté, Córdoba; Sopó, Cundinamarca; Silvia, Cauca; Contadero, Narino; Duitama, Boyacá; Tenza, Boyacá; San Gil, Santander; Espinal, Tolima; Various regions of Caldas; Tamesis, Antioquia; and Rio Negro, Antioquia.

^{2/} Sam Schulman and Dale W. Adams, 'Minifundia in Agrarian Reform: A Colombian Example,' Centro Interamericano de Reforma Agraria (CIRA) manuscript in process of publication.

^{3/} See L.E. Montero and D.W. Adams, Algunas Consideraciones sobre Reforma Agraria en Regiones de Minifundia: Un Ejemplo Colombiano (Bogotá, IICA-CIRA, 1965); and A. Pearse and S. Rivera, Un Estudio de Minifundio: Tenza, Colombia, a manuscript in process of publication by the Facultad de Sociología Univ. Nacional de Colombia, for two studies by the Land Tenure Center in areas of independent minifundia.

The second general type is the commercial minifundia. These units absorb much of the family's labor supply, but production decisions are closely tied to market conditions and not to direct consumption needs. Small coffee farms, tobacco units and truck garden farms in Colombia are typical of this group of minifundia.^{4/}

The third type of minifundia is the dependent. These units are principally places of residences and the bulk of the family's income is derived from off-unit employment. Units of this type can be found throughout Colombia.

Within each of these three general types of minifundia there is still a good deal of heterogeneity. The study of Cereté, Córdoba, for example, encountered concentrations of dependent minifundia whose occupants heavily relied on neighboring latifundia to provide the bulk of their income.^{5/} In the study of Sopó, Cundinamarca, on the other hand, three fairly distinct types of dependent minifundia were found intermixed.^{6/} Some of the occupants of the minifundia in Sopó had sources of income which were similar to those found in Cereté; in that they largely depended on income derived from work on the large nearby units for their sustenance. Other occupants of farms in the concentrations of minifundia in Sopó derived most of their living from occupations in the local village. Still other minifundia operators in Sopó derived a living from home industries.

Why is it necessary to recognize that there are a number of distinct types of minifundia? When Colombia's Agrarian Reform Law was passed in 1961, small-parcel consolidation, and parcelization of large landholdings were the principal means suggested for solving the "minifundia problem." With the diversity of conditions found among the minifundia, however, it appears that these two measures are appropriate for only a small proportion of the farm units involved. With respect to consolidation, for example, this tool is most appropriate in areas where there is a high degree of land fragmentation,

^{4/} See A.E. Havens, Estructura y Cambio Social en una Comunidad Colombiana: Tamesis, Antioquia (Bogotá: Facultad de Sociología, Universidad Nacional, 1966); and D.W. Adams and L.E. Montero, "Land Parcelization in Agrarian Reform: A Colombian Example," Inter-American Economic Affairs, Vol. 19, No. 3, Winter 1966, for examples of commercial minifundia.

^{5/} A.E. Havens, et al., Cereté un Area de Latifundio: Estudio Económico y Social (Bogotá: Facultad de Sociología, Univ. Nacional de Colombia, 1965).

^{6/} A Joint Land Tenure Center, Centro Interamericano de Reforma Agraria monograph in process of publication.

where many of the operating farm units are made up of a number of parcels and where the population pressure on the land is not extremely intense. The successful parcel consolidation programs carried out in Spain, Italy and the Scandinavian countries basically encountered these types of conditions. Although there are some highly fragmented small units in Colombia, the basic problem in Colombian minifundia areas is too many people for too little land under existing conditions. It is for this reason that INCORA has been able to do very little to date with the minifundia problems via the parcel consolidation technique.

There appears to be similar but less binding limitation on the use of parcelization projects to relieve the pressure of problems associated with minifundia. There is little doubt that some of the occupants of these small units can benefit from parcelization projects. As suggested earlier, however, a number of the minifundia in Colombia are of the independent type, and these are not closely associated with large landholdings. The possibilities for augmenting the amount of land available to operators of these units through parcelization projects is, therefore, sharply limited. Moreover, the transference of occupants of independent minifundia units to other areas where parcelization activities are possible is extremely difficult because of cultural and legal limitations.^{1/} Furthermore, the pressure of the completely landless in most areas of parcelization is so great that individuals who already have some land (occupants of minifundia) are given lower priorities for participation in parcelization projects. Additional factors such as age, education, and non-agricultural sources of income further limit the desire and ability of many occupants of dependent minifundia to successfully participate in a parcelization program.

Several other techniques have been suggested, or are being tried in Colombia, to resolve the problems associated with minifundia. An INCORA supervised credit program, for example, has been extended to over five thousand small farm operators in Colombia. Many of the recipients of this credit could be classified as commercial minifundia. A substantial improvement in the levels of income appears to be resulting from the infusion of supervised credit into this type of minifundia. Out-migration, cooperative efforts, expansion of off-farm work and home industries, and additional extension activities also appear to have some applicability to the problems of minifundia.

^{1/}Article 80 of the Agrarian Reform Law 135 of 1961 states that high participant-priority in parcelization projects should be given to people living in the general area of the project. For all practical purposes, no outside people have been brought into any of INCORA's parcelization projects.

In summary, then, the term minifundia includes a number of different types of small farm units in Colombia. None of the commonly suggested remedies of the "minifundia problem" is adequate to treat, singly, the problems at hand. The heterogeneity of these units must be recognized, and a bundle of agrarian reform tools applied in order to solve the different problems which exist.

III. A View of Absenteeism and Concentration in Colombian Landownership*

The Agrarian Reform Law in Colombia, as in many other Latin American countries, places heavy emphasis on the size dimension of land tenure problems. Three years of research by the Land Tenure Center in Colombia, however, suggest that the undesirable effects resulting from absenteeism are more pronounced than those attendant with large landholdings. This has partially resulted from a substantial reduction in the degree of landownership concentration in Colombia over the past 100 years. It appears that landownership concentration is substantially less important now in Colombia than in some of the other Latin American countries at the time they started their agrarian reform programs.^{1/}

In a number of cases there is a close relationship between size of holding and degree of absenteeism. A number of large landholdings in Colombia, nevertheless, are efficiently operated by live-on-farm owners. And a number of small farm units are owned by individuals who live at great distances from their holdings. It is important to distinguish between these two problems, since the treatments appropriate for the solution of the absentee problem may be quite distinct from those applicable to solving the landownership concentration problem.

Unfortunately, it is difficult to specify the exact extent of the absentee problem in Colombia. The 1959-60 Agricultural Census of Colombia showed that over one-third of Colombia's 27 million hectares

*This section was prepared by Dale W. Adams, Assistant Professor, Land Tenure Center.

^{1/} Dale W. Adams, "Landownership Patterns in Colombia," Inter-American Economic Affairs, Vol. 18, No. 3, Winter 1964, p. 78.

of land in farms was operated through a farm manager.^{2/} Thousands of other landowners 'manage' their farms, but only through weekend visits. Absentee ownership is especially common among the professional class. Doctors, lawyers, bankers, politicians, merchants and even priests often own rural lands. It is not uncommon for these owners to be isolated from the actual production decisions by two or three layers of separate tenure arrangements.^{3/}

In most of the areas studied by the Land Tenure Center in Colombia, outside of the areas where independent minifundia predominate, absentee landowners dominated a large proportion of the rural lands. An intensive study carried out in the municipio of Sopó, Cundinamarca, for example, showed that two-thirds of all of the rural lands in the municipio was owned by people living in the capital city of Bogotá. Since Sopó is an area which is quite highly commercialized and small to medium sized landholdings predominate, it is likely that absenteeism in other less commercialized areas of Colombia would generally be more pronounced.

Why is it important to understand the absentee landownership problem in Colombia? The heart of the problem revolves around the reasons for which absentee ownership comes about, and the undesirable impacts which result on agricultural production, local institutions, and farm laborers' well-being. Some absentee owners hold farm land to make a profit; mixed in with this, however, are the motives of speculation, inflationary hedge, use as a vacation home, income diversification, prestige, and loss-write-off for income tax purposes. Most of these absentee owners have other sources of income which take up a large proportion of their decision-making time. Moreover, it is generally true that hired farm managers have not acquired a good deal of technical training in agricultural practices, nor are they presented with incentives for changing the status quo of the farms which they manage.

It is common for absentee landowners to warp production decisions toward enterprises which require little close supervision, or toward enterprises which can be operated successfully through various tenure arrangements. Not only are less-than-optimum enterprises employed,

^{2/} Departamento Administrativo Nacional de Estadística (DANE), Directorio Nacional de Explotaciones Agropecuarias (Censo Agropecuario) 1960, Resumen Nacional (Segunda Parte), (Bogotá: February 1964) p.21.

^{3/} For an example see Dale W. Adams, "Colombia's Land Tenure System: Antecedents and Problems," Centro Interamericano de Reforma Agraria, Mimeo. No. 5, Oct. 1965, p. 14.

but poor techniques are generally applied to the enterprises carried out. Problems of disease, weeds, incorrect levels of fertilizer application, etc., sharply affect production levels and can be directly related to the lack of close owner supervision. Since the absentee owner's time is often divided among other activities outside of farming, he cannot properly learn and apply many of the production increasing techniques which are associated with modern agriculture. Moreover, not living on the farm, he is not present when on-farm extension visits are made and therefore their effect is diminished. Production generally suffers, then, because of the presence of a high degree of absenteeism.

Important local institutions also suffer because of the absentee problem. Most of the absent landowners have their interests firmly centered in the large cities where their families are located. Money and talents, as well as interests, therefore, are denied the rural areas. Community development programs, local leadership, taxes for local use, local educational improvement, security improvement, and programs to improve health facilities suffer because absentee interests do not directly benefit from these types of activities. Why should the absentee landowner be enthused about land taxes aimed at improving rural educational facilities, for example, when his children are comfortably settled in distant urban schools?

A less obvious impact of the absentee landownership problem in Colombia is the undesirable social conditions which it perpetuates. Landowners who only have an occasional, brief contact with their farm work force seldom know the conditions under which their workers exist. Farm laborers generally have little or no bargaining power vis-a-vis the landowner and it is difficult to arouse owner sympathy unless he clearly understands the existing conditions. The two-class system partially perpetuated through the absentee system is not conducive to arriving at this type of understanding.

If absentee landownership is a serious problem, what can be done about rectifying the situation? As mentioned earlier, techniques appropriate to eliminating the landownership concentration problem may or may not be adequate for solving the absentee problem. Parcelization projects may, under certain conditions, help to eliminate the absentee problem. Under at least two conditions, however, parcelization is not applicable. The first occurs when the law excludes relatively large holdings from expropriation.^{4/} The second

^{4/}The Colombian Agrarian Reform Law allows every registered owner to retain at least 100 hectares per department. Moreover, land classified as adequately exploited is generally not subject to expropriation. Article 58, Law 135 of 1961.

occurs when individuals participating in the parcelization project become absentee owners.

In Colombia a number of the absentee landholdings, for example, can not be expropriated because they are smaller than the legal limit set for expropriation. Operationally, moreover, the Agrarian Reform Institute (INCORA) is not attempting to expropriate holdings which are "more-or-less" exploited. As mentioned earlier, the Colombian Agrarian Reform Law was aimed at size and not absenteeism.^{5/}

Some provision is also made within the law for landowners to carry out voluntary parcelization projects. A voluntary parcelization project studied by the Land Tenure Center in San Vicente, Santander, suggests that many of the new owners within these projects may be absentee operators. Various professionals and merchants in the local towns are often the only individuals available who can meet the down payment requirements and repayment schedules set up under the law for this type of parcelization.

What other techniques might prove useful against the absentee landownership problem? Several programs which have been suggested, or are presently being carried out, could have an impact on the absentee problem. Any activity which increases the effective real land tax or the real wages of the absentee owner's work force tends to discourage this type of inefficient operation. Formal training for farm managers, plus improved production incentives for these individuals, could help solve the inefficient production aspect of this problem. The social, and the associated weak local institutional aspects of the problem, can only be solved by developing a new class of live-on-farm operators.

As can be seen by the above discussion, the absentee ownership problem exists in Colombia, but a comprehensive plan for solution does not. Part of the problem is inherent in the legal framework. The following section by Thome will deal with the role of law in agrarian reform.

^{5/} See Joseph R. Thome, "Limitaciones de la Legislación Colombiana para Expropiar o Comprar Fincas con Destino a Parcelación." Centro Interamericano de Reforma Agraria, Mimeo, No. 16, Oct. 1965; for further discussion of these points.

IV. The Role of Law in the Agrarian Sector*

It has been widely accepted that the agrarian structure presently existing in Latin America must be radically changed if these nations are to attain a reasonable level of economic development and social stability. The American nations, through the Carta de Punta del Este and the Alliance for Progress, have recognized this need and committed themselves to adopt meaningful agrarian reform programs.

Basically, "agrarian reform" means change and access: changing those elements in the economic and social organization of the agrarian sectors of Latin America which prevent increased production and perpetuate an unfair land tenure system, and providing the rural poor with access to those means necessary for improving their economic well-being -- e.g., land, water, credit, title security, better wages, etc.

How does law and legal research fit into this picture? In the first place, if these reforms are to be effectuated in a democratic and orderly manner, as we hope will be the case, they must of necessity be carried out through legal arrangements and institutions. And these legal arrangements must play a very difficult dual role -- while promoting the community's interests over those of the individual, they must at the same time protect basic individual rights from the arbitrary will of the state. The reforms must be subject to "due process of law." Secondly, any reform or change of a given social and economic structure presupposes a thorough understanding of that structure -- its culture, history, and institutions. We must know how it operates and what makes it operate in order to separate the wheat from the chaff, and to ensure that the reforms themselves will take hold. Inherent in this process is an evaluation of the legal framework under which the particular social and economic structure operates. By "legal framework" we mean both the formal rules, or legislation, which on paper would seem to regulate its activities, and the manner in which these rules actually function at the individual or community level.

There should be no question of the importance of legal institutions and precepts in the ordering of an agrarian society. Modern legal precepts, efficient expropriation procedures, for instance, will permit more campesinos to become landowners and reduce the social unrest in rural areas. On the other hand, laws reflecting the needs and circumstances of another age may severely restrict the agricultural development of a given country or area. Thus, a strict adherence in

*This section was prepared by Joseph Thome, Assistant Professor of Law.

dry areas to riparian principles of water regulation, adopted from the Napoleonic codes of the early 1800's, will result in a "water monopoly" in favor of lands adjacent to the water source, to the detriment of those lands not contiguous to a river or lake but which could be efficiently developed through irrigation.

Perhaps even more important than the legal precepts themselves are the institutions and manner through which these precepts are to be implemented. Collateral to this point is the "palanca," or influence, certain vested interests may have on the law implementing institutions. For example, adequate laws regulating the use of water and land resources are not difficult to find in Colombia. But in many cases they are ignored, inefficiently enforced, or implemented in a manner which unduly favors a given element of society. That is, model legislation per se is of little use to a campesino if he hasn't access to law implementing institutions (public officials, courts, administrative agencies) which will enforce the law in an impartial and reasonable manner. There is a Colombian saying which sums up this situation: "la ley es solo para la gente de ruana"--the law is only applied against the poor.

Law, then, is an inherent part of any economic and social reform. It is the instrument through which the goals are adopted (legislation, decrees), implemented (administrative agencies) and reviewed (courts). Consequently, the study of law as it affects the agrarian sector is very relevant to any land tenure research project.

What are the present laws relating to land and water use? Are they sufficient or theoretically good? If so, are they workable? And what relevance do they have to the social and economic realities of the areas they try to regulate? Do they conflict with ingrained local customs and practices? Or with its needs? Does there exist an adequate machinery to carry these laws into effect? Do the affected people have any say in how these laws or regulations are to be enforced? Are the administrative officials cognizant of the local situation? Do rural people have a real opportunity to voice their grievances, to have the law apply equally to all? How effective are the courts and judicial review? Are they influenced by vested interests? Are they sufficiently knowledgeable on agrarian matters, or do they tend to judge within an urban frame of mind? What is the background of the judges in rural sectors, how are they appointed, removed, etc.? These are but some of the general questions relating to legal factors which must be answered if we are to know how effective our proposed economic and social reforms are going to be.

Legal Research in Colombia: Its Implications

The central idea behind our legal research in Colombia was to study the role of law, as an ordering instrument of society, in hindering, neglecting or promoting economic development and social stability in the rural areas of the nation. Although much library research was required, the emphasis was always on the function of law at the implementing level-- its actual effect on the agrarian social and economic organization it tried to regulate.^{1/} With this in mind, we shall proceed to briefly discuss some of our legal research activities in Colombia.

A. Water Legislation Affecting Irrigation

The use of water regulation as a means of increasing agricultural production and effectuating changes in the land tenure structure has in recent years become increasingly important in Latin America. Chile's proposed new land reform statute, for instance, includes a whole section which would bring all of the nation's water resources under the control and administration of the State. And in Colombia, the Agrarian Reform Institute (INCORA) is concentrating its efforts on six large irrigation districts which will develop thousands of hectares of priorly unproductive land and make it available for distribution among landless peasants.

But certain prerequisites must be present if this policy is to be achieved on a nation wide basis. These include appropriate and complete legislation which sets clear standards, a co-ordinated water policy and adequate machinery to implement this policy. These prerequisites are, to a large degree, absent in Colombia's present system of water regulation.

Its history of water legislation is one of change and reaction.^{2/} During colonial times all water belonged to and was administered by the State (the crown), which permitted its use only through concessions or mercedes. But after independence, this administrative system was abandoned in favor of a riparian rights doctrine. While retaining the principle that almost all waters belonged to the state and were for the public benefit, the Civil Code gave riparians (those whose properties are contingent to the water source) the right to use up to 50% of the

^{1/} Joseph R. Thome, Gathering Survey Data for Agrarian Legal Studies in Latin America, LTC Training and Methods Series, No. 3, July 1965.

^{2/} See Joseph R. Thome, Brief History of Colombian Water Legislation Affecting Irrigation, Bogotá, Centro Interamericano de Reforma Agraria, mimeo., 1965.

volume of the stream passing through their property without the necessity of applying for a permit. Non-riparian uses were limited to domestic mining and other limited and specified purposes. Conflicts between water users were to be settled in the regular court system.

As land and water became scarcer, new legislation began to limit these riparian rights and move toward an administrative system of water regulation. Today, Colombia's water legislation is a curious amalgam of riparian and administrative regulation principles contained in various sections of the Civil Code and subsequent laws and decrees, the most important of which are Decrees 1381 and 1382 of 1940.

Under this legislation, the state reasserted its power to regulate the use of all public waters. Until the state exercises this power, however, riparians may still use water without a permit, but subject to new and fairly strict conditions. Non-riparians may obtain water, if any remains from prior uses, through permits obtained from the proper government agency. These permits are for a specified period of time and subject to various obligations.

When conditions so warrant it, the state may regulate the use of an entire water source, allocating the water among its various users, according to needs and the public benefit. For such purposes, riparian uses may be reduced through the payment of certain compensation.

While this system of water regulation is fairly rational as far as it goes, it is far from being a complete water code. Among its deficiencies, the following are the most obvious:

- 1) Lack of legislation concerning the administration of irrigation districts. This lack of guidelines has proved almost fatal in Colombia's large and publicly administered irrigation districts of Coello and Saldana. It is particularly crucial in view of the present emphasis on irrigation projects by INCORA.
- 2) Lack of legislation concerning the use of ground (subterranean) waters. Wells are becoming increasingly important as a means of irrigation in Colombia. But save for a sole and innocuous article in the Civil Code, no legislation exists regarding the use and regulation of this source of water.
- 3) There are no requirements that individual water rights be recorded in any registry.
- 4) No restrictions on the amount of land which may be irrigated.

- 5) Inadequate easement procedures. A water concession does not carry with it an easement, or permit, to build a canal through a neighboring property. Consequently, a non-riparian must bargain with his neighbor, or else initiate a civil "easement action" in the regular court system, the resolution of which could be delayed for years.
- 6) There are no guidelines regarding priorities among different water demands. Since, as explained below, the power to regulate water has been dispersed among various agencies, this leads to a lack of co-ordination regarding water policy. Moreover, the policy, if any exists, in a particular agency, may change overnight when new personnel is exchanged in its water department.

This lack of co-ordination becomes clearer upon the following enumeration of the different government agencies entrusted with the regulation of public waters within their specified areas of jurisdiction. These include the Ministry of Agriculture, the Regional Development Corporation for the Sabana de Bogotá (CAR), the Regional Development Corporation of the Quindío, the Agricultural Credit Bank (Caja Agraria), the National Electrical Development Institute (INAAFE), the Cauca Valley Corporation (CVC), the Colombian Institute of Agrarian Reform (INCORA),^{3/} and, until recently, certain Departmental (State) governments. With the exception of the Ministry of Agriculture, all of the above entities are semi-autonomous agencies. Some of their powers and jurisdictions overlap. There exists in Colombia no central water co-ordinating agency or committee.

Even more deficient are the methods for implementing or enforcing water legislation. Water users who are not regulated (riparians who don't require a permit) settle their individual conflicts through the regular civil court system. If they come within the area of jurisdiction of the Ministry of Agriculture, it is up to the local mayors or police chiefs to supervise their compliance with the conditions which enable them to derive their water without a permit. These officials, political appointees, are not generally very cognizant of the applicable water legislation. Furthermore, they are often subject to local pressures, and their sanctioning power is very weak. The Ministry of Agriculture does have a few water inspectors with police powers in two of the Departments. They too have been known to be influenced by local vested interests.

^{3/} Joseph R. Thome, INCORA and Water Rights, Centro Interamericano de Reforma Agraria, mimeo, 1965.

Non-riparians falling within the jurisdiction of the Ministry of Agriculture must generally submit their applications for water permits to the Ministry in Bogotá, which will then send a team to the area to study the application. Grievances must also follow this course of action, which tends to be very time consuming. Review may be had in the Administrative Court system of the nation (Tribunales Administrativos), which do not have to follow Civil Court precedents.

Water regulation tends to be more efficient under the regional agencies. But many of them have no police powers over riparians and must consequently depend on the local mayors or police chiefs to implement their decisions in cases regarding the unauthorized use of water by those riparians who don't require a permit.^{4/}

In some cases, possible legal problems are completely overlooked. INCORA, for instance, has undertaken the construction of several large irrigation projects without any consideration of the legal rights of downstream users with acquired rights. Once these projects are completed, their water demands may adversely affect these users, who then could possibly enjoin INCORA's water use. While these rights may be expropriated, this entails lengthy legal procedures, which would delay the efficient operation of these districts for some years, with concomitant damage to INCORA's agrarian reform activities.

In short, Colombia's entire water regulation system must be brought up to date. This entails new legislation, if possible, a comprehensive water code, new procedures and lines of authority, more efficient implementation, reducing the number of agencies entrusted with regulating water use (particularly the Caja Agraria and INAAFE, which don't belong in the irrigation field), co-ordinating water policy at the national level, and training facilities for lawyers, water inspectors and other personnel to be encharged with water regulation.

It should be noted that no Colombian law school provides separate courses on water law, river basin planning or other similar courses. Moreover, the last treatise on water law was published in the early 1940's. Consequently, this is a particularly rich field for legal research and counseling.

^{4/} Joseph R. Thome, Legal Basis for a Program of Irrigation in the Valley of Sopó, LTC Report, November 1964.

B. Land Title Problems in Rural Areas^{5/}

Title insecurity has long been a source of serious problems in Colombia. Absent in such a situation are the stability, security and opportunities necessary for promoting an adequate exploitation of the land and preventing social unrest. Many factors have contributed to the creation of this problem. Included among these are the difficulty in identifying the boundaries and ownership of lands; obsolescent and inefficient probate procedures and notarial and registry systems; and unrealistic land laws and judicial interpretations. In addition, land title problems in rural areas of Colombia have been further complicated during the last thirty years by colonization movements or invasions of idle lands by impoverished campesinos. These movements resulted in serious conflicts involving colonos (squatters)* owners, supposed owners and the state. These conflicts often degenerated into physical fighting.

Law 200 of 1936 tried to solve this situation by establishing clear criteria for distinguishing public domain lands from privately owned property, giving more legal protection to squatters, establishing land courts to settle title conflicts, and providing that title to lands not economically exploited for a continuous period of ten years would revert to the state. While this legislation ended most of the social conflicts of the time and terminated the endless litigation over titles created by the conflicting and unrealistic Supreme Court decisions, its most important provisions were neglected or abandoned over the years. Thus, the land courts were eliminated in the early 40's and their jurisdiction returned to the regular civil courts, and the reversion of title provisions were not applied until after the creation in 1961 of the Agrarian Reform Institute (INCORA).

In addition, colonos (homesteaders) and squatters have over the years been provided with other legal rights. A squatter, for instance, can obtain title to the privately-owned property he occupies through adverse possession (continuous possession for 20 years, or in certain cases, 10 years). Also, homesteaders have long had the right to obtain a free title from the government of the public domain lands they occupied. But these legal rights have not in the past been fully implemented or fairly administered. Obtaining title through adverse possession requires an expensive and drawn out civil action - a recourse beyond the means of most campesinos.

^{5/} See Joseph R. Thome, "Title Problems in Rural Areas of Colombia: A Colonization Example," Inter-American Economic Affairs, Vol. 19, No. 3, Winter 1965.

*In Colombia the term "colono" means squatter when referring to someone who has settled in private property; homesteader when he has settled in public domain land.

Moreover, civil courts often tend to favor large land-owners, and lawyers have been known to exploit campesinos without providing any services. Procedural complexities and related expenses also restricted the rights of campesinos to receive free titles to the public lands they exploited.^{6/}

As a consequence of this situation, social conflicts in rural areas again began to develop. The Agrarian Reform Law of 1961 (Law 135) which also created the land reform institute (INCORA) recognized the need to provide a comprehensive solution to the title-insecurity problem and provided INCORA with the power to administer the adjudication of public domain lands, to apply the reversion of title provisions of Law 200, and to acquire privately owned property through expropriation or purchase.

INCORA has been active in this field. It has, for instance, acquired 1,447,770 Hs. of land through the reversion of title provisions and has adjudicated 936,017 Hs. of public domain lands among 21,467 colonos. In order to end the former abuses connected with the distribution of public domain lands, it has created 30 title teams who undertake all the transactions, free of charge, for those colonos requesting title to 50 or less hectares of public domain land. Forty lawyers have also been contracted to provide these services in areas not covered by the title teams. In addition, INCORA recently established a new department (Land Tenure Division) whose general purpose is to clarify the ownership situation in areas of the country not covered by specific land reform programs.

The problems involved in a title-insecurity situation, however, are extremely complex, and INCORA faces a long and arduous task in their solution. The region of the Sabana de la Macarena in the Llanos Orientales, for instance, represents an area where intense colonization movements in recent years have resulted in serious title conflicts. Many problems plague these colonos. Most of the good agricultural land has already been occupied, access to markets is inadequate, the elements are unkind, basic necessities are very expensive and credit facilities are few. In addition, all the title-insecurity elements are present here: indeterminate boundaries, poor registry systems, invalid "hoarding" of public domain lands and inadequate enforcement of the laws. One particular land owner, for example, claims that his title covers 60,000 Hs. But campesino leaders state it only extends over 30,000 Hs. Some 1,000 colonos have settled on 12,000 Hs. of this hacienda and, as attempts to negotiate a peaceful solution have failed, fighting has broken out

^{6/} For a legal analysis of these problems, see Joseph R. Thome, Title Insecurity in Colombia, LTC mimeo, May 1964.

among the colonos and the owner's vagueros. The local police has aided the owner in his attempts to evict the colonos, without observing the procedures prescribed by law. It is obvious that INCORA's intervention is required to solve this problem.

Similarly, landless campesinos on the Atlantic Coast have for years attempted to occupy lands which by law were in the public domain. But neighboring land owners claimed title over the same lands and obtained the cooperation of the local authorities and the army in driving out and imprisoning the colonos, without any regard to due process of law. In some cases, they even managed to have the local courts declare that the land owners had obtained title to these lands through prescription or adverse possession, even though the law clearly states that public domain lands are not subject to prescription and may only be adjudicated through an administrative process. The colonos, however, organized agrarian unions and with the help of the national unions managed to have some of their claims recognized by law. But it was not until INCORA entered into the area that these conflicts began to be fully resolved.^{2/}

Although a concerted effort to eradicate land-title problems has been initiated by INCORA, many obstacles exist which will unduly complicate INCORA's task. Its legal powers, for example, remain insufficient. Thus, INCORA can only apply its reversion of title powers in areas which have been Departments over ten years. But colonizations are now most common in areas which are not Departments or have but recently acquired such status, as in the case of the Llanos Orientales. Also, INCORA could hold down the colonization movements into frontier areas to a more controllable level by applying its expropriation powers in the densely populated areas from which such movements derive. But the law severely restricts this type of action, making it very expensive, limited and time consuming.

In addition, INCORA lacks sufficient resources, and has little or no control over other factors, such as the lack of cadastral surveys, inadequate law enforcement and a political climate which inhibits its actions.

Many of these obstacles can be removed through new legislation. The increased assistance of international agencies would also be most beneficial, particularly to undertake accurate cadastral surveys of all the land resources in Colombia.

^{2/}See Geraldo Semenzato, et al., Sindicalismo y Reforma Agraria, CIRA mimeo No. 30, November 1965.

C. Problems in Purchasing or Expropriating Lands for their Subsequent Distribution^{8/}

Law 135 of 1961 states as one of its main purposes that of "re-forming the social agrarian structure through procedures which will eliminate and prevent the unequitative concentration of rural properties..." For such purposes, it authorized INCORA to obtain privately owned land through either purchase or expropriation for its subsequent distribution among landless campesinos. Unfortunately, the procedure established by law for such acquisitions is extremely cumbersome, time consuming and full of unnecessary legal safeguards. Thus, at least 12 steps are required for a full expropriation, which include the approval of the President of the Republic and Judicial review by both an Administrative Court and a Civil Court. Not until the initiation of the Civil Court review, the last stage, does INCORA enter in possession of the land. In one particular case, two full years after INCORA initiated the expropriation procedure, an administrative court determined that INCORA had to start all over again, as it had failed to post a certain notice on the main building of the farm to be expropriated, even though the landowner had been personally notified.

Because of these complications, from one to three years may elapse before INCORA can enter into possession of a farm it has decided to acquire.

Other factors which limit INCORA's actions are the following:

1. Unfriendly local courts, which are sometimes influenced by the powerful interests of the community.
2. Inability, in most instances, of acquiring land classified as "adequately exploited."
3. Right of owners to retain at least 100 Hs. within each Department (State).
4. Necessity, in most instances, of paying for the land in currency and within a short time period.

Obviously, INCORA was provided with inadequate means to reach the principles stated in Law 135. As a result, INCORA's parcelization activities have been very modest to date. In its seven parcelization projects (which don't include land reclamation projects) two of which were initiated in 1962, four in 1963, and one in May of 1964, INCORA has

^{8/} See Joseph R. Thome, Limitaciones de la Legislación Colombiana Para Expropiar a Comprar Fincas Con Destino a Expropiación, CIRA Mimeo No. 16, October 1965.

only been able to acquire 67 farms for a total of 25,188 hectares, or barely a third of the planned total for these projects.^{9/} Of these 25,188 hectares, only 11,946 were acquired through expropriation and the rest through negotiations with the owners, which are preferred as quicker even though higher prices have to be paid. Average price for the lands so obtained was \$1,300 (Colombian pesos) per hectare.^{10/}

At this rate, land distributions will only affect a miniscule portion of the thousands of landless campesinos in Colombia. But their expectations have been awakened by the land reform law and they are growing impatient. The law must be amended to allow INCORA to act in a more expeditious and comprehensive manner.

PROPOSALS FOR FUTURE LEGAL RESEARCH IN COLOMBIA

Below is a summary and brief description of some of the legal arrangements and institutions regarding the agrarian sector in Latin America which merit future study, that is, the basic legal problems and needs relating to land reform administration in Latin America, as well as some suggestions and possible solutions.

1. Problems Relating to Title Over Land

a) Need for developing new legal devices for the rapid clearing of land titles. Title insecurity is very common in most of Latin America. Obviously, a land reform law cannot be implemented until it is definitely known to whom the lands belong and what are the boundaries of those holdings. Furthermore, clear titles to land are generally necessary for securing credit, transferring the land and otherwise achieving the stability necessary for encouraging investments on the land and preventing social unrest. Any such legal device for clearing title should provide for the settlement of any conflicting claims, at or near the site of the land, by-passing the cumbersome and drawn out civil procedures now available.

b) Need for simple procedures for recording titles to land, preferably tied in with the results of the engineers who survey the

^{9/} INCORA statistics as of October 1965.

^{10/} Most of these obligations were incurred when the exchange rate was 10 Colombian pesos per dollar. Today, the rate is 19 to one.

land, and done at the site of the land. At present, recording title in most Latin countries is a complex and drawn out procedure carried out through a Property Registry which is generally located only at a large city or the capital.

c) Need for simplified probate procedures. Once title has been cleared, it should remain so by providing a probate procedure wherein title would pass simply and clearly from the decedent-owner to his heirs.

2. Problems Regarding Distribution of Land

a) Need for improved eminent domain procedures which will permit a rapid and effective application of the land reform laws, particularly as regards the following areas:

- 1) Determining the reach of the law--that is, deciding what land comes under the law and is to be taken.
- 2) Permitting land to be distributed before a final decision as to the compensation to be paid is adjudicated.
- 3) Determining the value of the land taken, including its improvements, and the compensation to be paid for same.
- 4) Determining the qualifications of the beneficiaries--that is, who is eligible to receive land.

The standards to be followed in making the above decisions should be clearly established. These decisions should be made at or near the affected land rather than at the capital or another far-away city. Any court review of those decisions should be made by a "traveling" circuit court at a community near the affected land. Court review should be limited to questions of law.

3. Problems Relating to the Financing of the Land Reform

a) Need for imaginative devices for financing land reform purchases. Most countries in Latin America cannot afford to pay in cash for the lands taken or expropriated. Financing by agrarian bonds seems to be the only practical alternative. An intensive study should be made of the different types of bonds which have or could be used. For instance, certain bonds could be used to pay taxes, others could be redeemed for cash only under certain circumstances, such as when the proceeds are to be invested in approved new industries, bonds could have different rates of interest and redemption dates, be negotiable or not, and so on, according to the particular conditions involved, such as the size of the holding taken, the extent of its prior exploitation, the financial policies of the government, etc. Bank underwriting of some kind should be provided for these bonds.

4. Impact of Restraints on Alienation Frequently Adopted in Land Reform Laws

Many land reform projects (e.g., Mexico) prohibit the beneficiary (recipient of land) from transferring his interest, the theory being that he would soon sell it for cash or have it mortgaged at very unfavorable terms.

There is a need to study the effects of such restraints on alienation or mortgaging, and to attempt to answer the following questions: Is the law evaded through the means of illegal rental contracts? Do such provisions tend to bind people to the land even when they want to abandon farming? Are the owners of such land able to get adequate credits, or do such restraints discourage or prevent investments or improvements on the land, etc.?

It would seem that if a land reform law is to contain any restrictions on alienation, renting and mortgaging, then special lending facilities should be established to provide easily available credit at reasonable rates to these landholders even though the only security they would give is their crops. Otherwise, these farms will likely never rise above mere subsistence production and the problem of rural poverty will remain unsolved.

5. Problems of Landlord-Tenant Relationships

The landlord-tenant and sharecropper relationships or arrangements prevalent in Latin America provide little or no security or expectations on the lessee or user of the land, thus depriving him of any incentives for improving the land or otherwise investing in the factors of production. This is due to short term contracts or oral agreements which may be terminated at any time, lack of any provisions on part of the landlord to pay or compensate for improvements made on the land, unfair sharecropping arrangements where the owner in some instances may take as much as 80 percent of the crop, and other similar situations. There is clearly a need for new legal devices or procedures establishing fairer and more stable landlord-tenant and sharecropping arrangements which will provide the users of the land with some security for the future and encourage and enable them to make improvements and investments on the land and thus promote increased production.

6. Problems Relating to Customary Property Rights in Latin America

While lawyers have published many studies on the property rights deriving from the statutes or codes, little or no research has been done as to the actual and popular concepts of property rights existing in rural areas and communities which are based on local customs and usage rather than on the formalistic codes. There is a

great need of studying the law as it actually functions on the particular community to be affected by land reform legislation. This includes the reach of the national law or codes within said communities, the enforcement of same and the possible existence of a local informal "law" which prevails over the national legislation.

7. Problems Involving Water Rights

A land reform which is only concerned with establishing a more equitable land tenure relationship may be self-defeating if it ignores the relation between the landholder and water. This relation, particularly in dry areas, is often more important than his bonds with the land. There is often little benefit derived from receiving a parcel of land if there is no water to go along with it. Furthermore, the regulation of water rights can be an effective instrument for effectuating changes in the land tenure structure.

A water law which is to complement a land reform law or by itself encourage better land tenure or use should include, among other things, norms which protect non-owners (lessees, sharecroppers), guarantee secure water rights to recipients of land under land reform or colonization schemes, favor or promote family-size units, condition grants of water concessions on a specified use being made of the benefitted land, etc.

8. Role of Regional Development Agencies in Land Reform

Several autonomous regional development agencies have been established in many Latin American countries, such as SUDENE in Brazil and CVC in Colombia. These agencies generally have a wide scope of operation, extensive powers and adequate financing.

While their specific or stated purposes are generally not those of land reform, their activities will vitally affect rural lands. For example, much previously unusable land will be reclaimed through flood control and irrigation projects.

There is thus a need to study the role and impact such projects could have in improving, to some extent, land and water tenure and uses within their areas of jurisdiction. It would seem that these agencies would use their extensive powers, if they so desired, as an instrument for such social or economic goals.

For instance, such agencies could condition their services (through the use of irrigation or drainage districts) on the land being put to a more beneficial use, or on part of the benefitted land being distributed to the landless, or other such conditions.

As can be seen, these regional development agencies could play a vital role in effectuating reforms in the land-tenure structure within their areas of authority, either in cooperation with the land reform agency, or on their own, particularly in such cases where the land reform agency is poorly financed or staffed or has very limited powers. It would also allow the land reform agency to concentrate its resources and activities in other areas, thus enabling a wider and faster implementation of the goals of land reform.

9. Problem of Inadequately Trained Lawyers

Law schools in Latin America have traditionally served as a training ground for people interested in politics or government service. For instance, INCORA, the land reform agency in Colombia, is 80 percent staffed by lawyers.

Unfortunately, however, law training in Latin America tends to be very conceptual and formalistic. Courses are taught through lectures with no class participation. These generally concentrate on theory and abstract concepts of what law should be. Consequently, law students acquire no feeling for the law as a social instrument, a living functioning force based on the customs, traditions and needs of society, but rather conceive of it as a logical set of rules which are to apply equally to all in every circumstance and which are superimposed from above through nationally enacted codes.

As a result, lawyers who go to work for land reform agencies or other similar government agencies which vitally affect the rural community life and structure tend to overlook the actual community needs and situations and to work out "logical" solutions or plans from their offices in the capital city. This makes it difficult for these plans or rules to be fully assimilated or accepted by the affected community.

In order to somewhat remedy this situation in a short time, there is a need to have these lawyers participate with the many sociologists, economists and anthropologists who are now conducting village studies, in order that these lawyers may better understand the actual operation of law (law in action) in such villages. Such a participation may, for example, disclose to them the fact that customary rights over land or water may actually control in such areas over the super-imposed national codes or statutes, and make them aware that new tenure laws must then have as a starting point those customary practices rather than the statute law.

10. Problem of Collecting Information on Land Reform

At present, a legal researcher who wants to study a particular land reform program must spend a considerable amount of time finding all of the laws which have an effect on land tenure. What is usually considered as the "Land Reform Law" generally is an enabling statute which provides a new agency with some new powers to expropriate land and so on, but which still leaves intact most of the old laws relating to land, through which the new agency must still operate. Consequently, finding what are the laws relating to land reform involves the tedious and time consuming task of determining which of the laws relating to land tenure, eminent domain, and so on, are still effective. If a comparison with the laws of another country is desired, this process must be gone through all over again. There is, then, a great need for establishing a procedure, for collecting the land reform experience from all over the world in an easily accessible form. This preferably should be a loose-leaf type of volume to permit the insertion of new laws or amendments which affect land tenure and land reform for each particular country. This source should include all of the laws and regulations relating to financing of land purchases, eminent domain procedures, qualifications of people eligible to receive land, credit devices, methods of clearing title, title recording and registration, landlord and tenant relations, and all other laws, decrees and regulations which affect land tenure.

The availability of this convenient source of information regarding the land reform experience from all over the world would not only enable researchers to easily obtain from one source the basic legal data for any particular land reform project and do comparative studies but, most important, it would enable countries planning a land reform to learn from the experiences of other nations who have adopted land reforms.

11. Rural Labor Laws

Many unfair labor relations exist in rural areas of Colombia, particularly in contract arrangements between landowners and sharecroppers or small lessees. The condition of hired labor is also far from desirable. Most of these conditions can be remedied by proper enforcement of the Colombian labor law. In other cases, new laws would be required. A rural or agrarian code, such as exists in many countries, would seem useful.

12. Enforcement of the Laws

Judicial enforcement of the laws is particularly poor in rural areas. A principal reason for this seems to be that most courts are located in cities, too far from the site of the dispute. These regular courts are not too cognizant of rural problems and are subject to the influence of vested interests. To correct this

deficiency, a body or circuit of traveling "land judges" should be created which would hold court sessions at the site of the controversy. This would be particularly useful for the application of labor laws and for the settlement of title conflicts.

13. Inadequate Notarial, Registry and Probate Procedures

A great need exists for more efficient, faster, cheaper and more accessible probate, notarial and property registry procedures and facilities. Notaries and registrars are particularly noted for their inefficiency, often degenerating into outright corruption.

14. The Rural Sindicalization Movement

The organization of sindicatos agrarios is becoming more prevalent in Colombia. They undertake land invasions, colonization movements, challenge many of the tenure arrangements campesinos have to enter into with large landowners and otherwise place great pressure on INCORA to solve their problems. This is an area with complex legal and social problems, but of great importance. A strong rural federation movement may be the only effective means of bringing about meaningful changes in the Colombian agrarian sector.

CONCLUSIONS

The present report has attempted to summarize most of the research done in Colombia by the Land Tenure Center. Obviously, in attempting such generalizations specific exceptions can be thought of and cited. And many of these specific exceptions have been detailed in the forty-plus research monographs, journal articles and research papers that have been produced by the Colombian research effort. Nevertheless, it is felt that these generalizations have been adequately supported by our research to allow their presentation. Lastly, we are convinced that future research in Colombia can build upon and refine these generalizations in the areas presented herein.

**COMMUNICATIONS RESEARCH IN CONNECTION WITH
LAND TENURE CENTER STUDIES IN LATIN AMERICA**

Herman Felstehausen, Marion Brown and James Grunig

December 1965

**LAND TENURE CENTER
310 KING HALL
UNIVERSITY OF WISCONSIN
MADISON, WISCONSIN 53706**

COMMUNICATIONS RESEARCH IN CONNECTION WITH
LAND TENURE CENTER STUDIES IN LATIN AMERICA

Herman Felstehausen, Marion Brown and James Grunig*

December 1965

The interest in agricultural communications research in the developing nations stems from the larger concerns for increasing food production, combating illiteracy, adjusting rural incomes and generally improving national welfare. This statement is an attempt to summarize briefly what has been learned from communications research supported through the Land Tenure Center and to suggest some of the more urgent questions for future study.

Investigations related to the problems of agricultural communications in Latin America date back only a few years. Most studies have been extensions of research approaches developed in the United States. They focus mainly on the means of information distribution, message difficulty and information availability and use.

Communications training is emphasized by a number of groups in Latin America. Studies of all kinds call for more or better training in the concluding pages of research reports. These statements, however, are usually catch-all recommendations and not the result of systematic analyses of training programs or the weighing of alternative solutions toward increasing trained personnel.

The communications research of the Land Tenure Center has usually been organized in connection with other Latin American research projects. Thus, the Land Tenure Center has been concerned with the organization of technical information services, the problems of reaching new land owners, preparing information for low-literate people and questions of more effective use of information media for rural audiences. The general purpose of this communications work is to study information problems in the context of agrarian reform and agricultural development, while the conventional approach has been to study the adoption of new technology or the development of a set of requirements for establishing an extension service. Work of the latter kind is also useful, of course, and is also being supported by the Agency for International Development (AID).¹

*All three authors are staff members of the Department of Agricultural Journalism working in the Land Tenure Center. Brown is currently in charge of the LTC program in Chile. The authors accept full responsibility for all conclusions and recommendations.

One of the important lessons growing out of recent research experiences is that hypotheses developed under United States conditions are usually inadequate for analyses of Latin American problems. Communications researchers have not given adequate attention to the wide differences which exist between the industrialized countries and the non-industrial parts of Latin America. Kearl lists six important differences between industrial and nonindustrial countries which affect communications.²

1. Literacy. The industrially developed nation is a literate nation. Not everyone who can read does read, but the vast majority of people can and do. Written messages and the printed word are potentially accessible to everyone.
2. Education. Most people have sufficient education to not only achieve literacy but also to piece together new bits of information, garnered from the mass media and other routes, into a meaningful mosaic of ideas.
3. Market orientation. An industrial society is a market-oriented society. People buy and sell, save, spend and invest. Consequently, they have accustomed themselves to giving attention to information that will help them make the inescapable economic decisions that a market-oriented society entails.
4. Nature of risk. The risks people take in an industrial society are more likely to be financial than physical. Bankruptcy is possible, starvation is not. This difference surely has some consequences for individual decision-making.
5. Availability of information. Media of communications in industrial countries are ubiquitous. For the average person the day is full of messages. Almost every study of American farm homes, for example, shows that half a dozen farm magazines are received regularly in addition to newspapers and general magazines. Every home has several radio sets; most homes are served by television.
6. Nature of communication media. Advertising pays the way for many of the media in industrial countries. The alternative is government ownership and operation. Many communications systems start this way even if they become more commercial as markets develop.*

*Some modifications have been made in these points compared to the way they were originally presented by Kearl.

In highly industrialized countries, information for society is a social overhead cost like police protection. It is available without any special cash expenditure for the services received. Information to the individual is free in much the same way drinking water is free.

This is not the case in underdeveloped countries. Information is not available--furthermore, it cannot be obtained without human effort and economic cost. The major questions or issues for research are thus not the same in nonindustrial countries as they are in the United States and Western Europe.

In developing countries the organization of information services involves broad questions of infrastructure as well as more limited questions on the types of messages and channels which are most effective for audiences of different size and special characteristics, questions on which most U. S. communications researchers focus their attention.

For purposes of discussion, communications research can be divided into four categories. These include studies of: (1) communications systems, (2) audience characteristics and capabilities, (3) communications behavior and effects and (4) language and message factors.

Land Tenure Center communications research has been directed primarily at information systems although some work has also been done in the behavior effects and message areas. The study of communications systems lends itself well to other research being carried on by the Land Tenure Center. The whole program is concerned with social, economic, political and legal aspects of reform. At the same time, concerns about information organizations and agencies are usually overriding questions in developing countries. Industrialized nations direct most of their communications research to the behavioral and historical areas because they already have well-established information systems. However, countries planning for development still have to decide whether to invest in radio networks, publishing facilities, extension services or other information systems.

Myren³ has prepared the first general bibliography of communications in agricultural development. He lists materials on communications planning as well as audiences, messages, effects and other areas.

Studies Concerned Primarily With Communications Systems

Communications systems are institutional or organizational arrangements serving as channels or vehicles for gathering, processing and distributing information. These channels may be established expressly for the purposes of information gathering, processing and distribution (such as a newspaper publishing company) or information may be a secondary or even incidental function. The latter is the case with many government agencies and private groups. Take as examples a city police department or a local recreation club. They are not operated for information reasons,

nevertheless, they have information functions. In nonindustrial societies these information functions may be of major importance--in fact, they may serve as the primary channels of communication and be of more significance in communications research than studies of mass media.

There are a number of questions which arise in studying information organizations and services including cost, control, coverage, local autonomy, and training and incentives for information workers. Some of these areas have only been touched in communications research in Latin America.

Brown* is now completing an analysis of the diffusion of technical information as it relates to agrarian reform in Chile. Much of the study applies directly to the areas listed above.

In brief, his study consists of the following:

1. A survey of organizations doing agricultural extension and technical assistance work.
2. A field survey to describe information seeking habits, attitudes toward change, level of technical knowledge and patterns of interpersonal communications among farmers and farm workers in Central Chile.
3. An experimental direct mail information service.
4. A second survey to describe changes resulting from the experimental survey.

From the survey of "extension" agencies it is obvious that bureaucratic proliferation and duplication of effort have slowed the diffusion of agricultural technology. There are many extension and other service agencies and a great deal of competition for scarce resources and personnel. For example, in 1962 the Department of Agricultural Extension of the Ministry of Agriculture lost 35 percent of its technical personnel to new agencies created that year.

In the 1950's, agrónomos working in Plan Chillán, a combined government and U. S. effort were hired away by Agro Servicio, a semi-private farm management consulting service with support from both the Chilean government and USAID.

The Instituto de Educación Rural and the 4-C Program of the Department of Agricultural Extension were for many years in open competition for members among rural youth, many times operating in the same areas.

The Extension Department had 56 vehicles in 1959. As of 1964, it had only 32, having lost the other to new agricultural service agencies created in 1962.

*The report on this work can also be found in, "Report to Land Tenure Center on Research Activities in Chile, December 1, 1964-December 31, 1965," by Marion Brown. Land Tenure Center, Madison.

One result of this bureaucratic proliferation has been a top heavy extension effort with many professionals in administrative jobs and few in the field. For example, as of June 1964, the land reform corporation (CORA) listed only 32 professionals stationed permanently in the provinces, compared with 537 in Santiago, 378 of whom had no field responsibilities whatsoever.

The reasons for this proliferation of agencies are many, among them the natural tendency of any bureau to become self-sufficient. The initiation of new service programs for farmers in Chile has always meant the creation of a new "extension" team. For example, rather than combine the efforts of the Banco del Estado and the Department of Agricultural Extension in a new supervised credit program, the government created the Institute for Agricultural Development, which is both a bank and an extension service. Later the agrarian reform corporation was apparently unable to work out effective cooperative arrangements with either the Department of Extension or with INDAP, and created its own extension and supervised credit services.

Another stimulus for proliferation has been the desire to sidestep red tape within the traditional public administration structure and especially to escape the central controller's office. This has led to the creation of autonomous institutes and private and semi-private organizations subsidized but not controlled by the government.

This tendency has been greatly stimulated by foreign aid, as loans and exports have been provided for programs in first one and then another agency in a search for bureaucratic agility and quick results. During a period of approximately 10 years, monies from the U. S. have supported, and in some cases helped to create, programs of extension and technical assistance in at least nine Chilean organizations. And where the foreign money and advisors had gone Chilean funds have followed, since these loans have nearly always been given on the condition that they be matched by local finances.

Another consequence of foreign aid to Chile has been a wholesale transplantation of extension philosophy and methodology from the U. S. This has been especially true of administrative arrangements for carrying out the extension function. Meanwhile there has been very little research to adapt U. S. methods and institutions to Chilean conditions or to evaluate the results of transplanted extension programs. Even less attention has been given to the possibility of creating Chilean solutions for Chilean problems through research in Chile.

There has been considerable discussion about the control of communications in developing nations, but usually this discussion centers around freedom of speech, censorship and political control of the organized press.

More subtle questions of control are being raised in studying information services and economic structures in rural areas of Latin

America. For example, how does the control over and dissemination of technical information change when landownership passes from the hands of a few landlords to a large number of small holders?

Land Tenure Center research in Chile suggests that more attention needs to be given to studying traditional paternalistic class systems when planning information programs for farmers--that the systems of free-choice information such as our U. S.-type extension programs may not work effectively with poorly educated farmers working small plots. Thiesenhusen⁴ found in studying Chile's Caja de Colonización that despite elaborate plans for technical assistance, the colonists received little help or advice.

In Chile,* the best extension and technical assistance programs provide not only information but a complete package of services for the farmers. Chile has three examples of highly integrated service organizations which are organized on a commodity basis. They give credit, distribute inputs, provide technical information, control the use of the technology and provide a firm marketing contract with the price fixed before planting time. Where service institutions are absent or geared to the needs of very large farms, this approach of integrated services on a commodity basis appears to be a fruitful one. Technical information is of little value, especially to small or medium size farmers unless accompanied by a program to overcome deficiencies in input and output markets thus enabling him to produce a surplus and sell it profitably.

This approach may be especially useful in an agrarian reform situation. Contracting the production of certain key crops with new landowners would seem to have several advantages. Colonists would have much needed security during the crucial first years. A more conventional extension program, even if it succeeded in raising production, would not provide a secure market. By concentrating on a single crop within a given area, agents would be able to give better advice and to develop more and better rapport with their clientele. Farmers in Chile seem to have very little respect for general extensionists, but a very high regard for the specialists who work in the sugar beet program. Apparently being part of an integrated program seems to make information service more effective, not only because the other services make it possible to use the information, but because there is more respect for the specialist than for the generalist as an extension agent.

Organizing a technical assistance program on a commodity basis will also permit the government to concentrate scarce service resources and personnel on crops most needed for import substitution.

*This conclusion is based on the work by Marion Brown and other members of the Land Tenure Center staff in Chile.

It is interesting to note that the three Chilean organizations that are now developing integrated technical assistance and marketing programs on a commodity basis are entirely Chilean in that they have had no influence or support from international agencies. Where international loans and advisors have participated in extension and technical assistance programs they have been of more conventional type. Meanwhile, a team of experts from California recently recommended to Chile that she maintain her extension program as a purely educational one with no relationship to such controversial or "political" issues as land reform or even supervised credit.

Fonseca* is currently conducting a study of farmers served by ACAR, the extension agency in Minas Gerais, Brazil, to learn which practices the agency has been most successful in getting established and the kinds of information and services provided. The results of this study are not yet available.

Many studies in Latin American countries have included questions about the coverage of mass media in rural, and in a few cases, lower class urban areas.

Bostian and Oliveira's⁵ survey in Southern Brazil is an example of results from an area where mass media are moderately well developed. They found that 60 percent of the farm families owned a radio--half of those who did not have a set listened with neighbors. Music, news and politics were subjects most listened to on radio. Agricultural programming made up a small part of their listening. About 40 percent of the families read a newspaper regularly. Magazines circulated even less.

In a new settlement region of the Eastern Colombian lowlands, Tinnermeier⁶ found less than 15 percent of the homes had radios and less than 5 percent received a newspaper. Diaz-Bordave⁷ reported similar results for lower class rural laborers in Northeast Brazil.

Use of the mass media is generally related to higher levels of education and social advancement. This is also the case in the United States and Western Europe. Even though one might expect radio to be of equal use by illiterates as by literates, other factors reduce radio use by illiterates. Bostian and Oliveira,⁵ for example, found that two-thirds of the literates had radios compared with one-third of the illiterates.

Cost considerations have not been given much attention in communications research in Latin America and should be brought into more studies. In his Chilean study, Brown⁸ experimented with a low-cost circular letter sent to farmers by mail and had good success.

*Luiz Fonseca will return to the University of Wisconsin in January 1966. A report of this study should be available in July.

Some cost estimating can be done quickly and provides at least a basis for general comparisons. For example, in 1958 this country spent \$50 per capita for telephone services alone. Less developed countries where total per capita incomes are not more than a few hundred dollars annually obviously cannot afford such a luxury. Nor can they afford a variety of communications systems, each with high capital requirements. What do we know about alternatives for these countries?

Farmer Behavior and Characteristics

Results of an experimental information service conducted in Chile⁸ indicate that illiteracy and lack of education among campesinos need not preclude the use of printed media for agricultural information work. In this experiment Brown sent highly simplified, illustrated circulars to 41 campesinos, among them permanent resident workers on traditional farms, colonists in land reform colonies and independent small farmers. These subjects were interviewed before the experiment and after receiving the weekly circulars for eight months.

Knowledge levels on topics treated in the circulars increased by an average of 13 percent--and the illiterates and subjects who had never attended school learned as much as those who knew how to read and write. Illiterate farmers learned the contents of the circulars from family members who knew how to read, a phenomenon which might be called "dependent literacy." The illiteracy rate in rural Chile is about 36 to 40 percent. However, in nearly every home there is at least one person over the age of 10 years who can read.

Brown⁸ working in Chile and Diaz-Bordenave⁷ in Northeast Brazil both conclude that views about irrational traditionalism and fatalism among campesinos are overstated. Diaz-Bordenave interviewed landowners and managers, renters and sharecroppers and wage laborers to study information seeking behavior. All groups actively sought many kinds of information but lack of resources and institutional restrictions often prevented decisions leading to positive action. Under the circumstances, behavior appears rational. Fonseca⁹ is also gathering information on the rationality of certain decisions by farmers being served by the agricultural extension service in Brazil.

There is some indication that compulsion speeds the use of new technology under some conditions.

INPROA, the Catholic Church's land reform agency in Chile,* takes a moderately authoritarian approach to practice promotion in its technical assistance program, which greatly limits the decision-making responsibilities of colonists during the first years of the reform. The tradition of

*Observations made by Marion Brown in Chile.

dependence and paternalism under which the campesino has always lived, seems to leave him poorly prepared for decision-making and at the same time amenable to this moderately authoritarian control over his use of technology.

INPROA's experience definitely suggests that compulsory practice promotion speeds adoption much more than would a voluntary U. S.-style program of agricultural extension or supervised credit. Where no choice was given, adoption was always 100 percent. Where a choice was given, to grow or not to grow one hectare of sugar beets, some colonists did not adopt even though excellent information, credit and marketing service were provided.

Compulsory practice promotion probably does not differ from conventional extension work in its effect on colonist's attitude toward technology. Evaluations, where they occur, seem to be based more on the results of the practice than on the fact of compulsion. In some cases, this kind of a program has led merely to indifferent compliances rather than to real evaluation of the practice. But such cases are probably the very ones who would not respond favorably to conventional extension programs and the indifference now evident may be transitory.

Voluntary Associations as Information Channels

Recent research experience in developing countries is raising a new kind of communications question. What kinds of alternative informational channels are available in areas not served by mass media and where institutional and physical limitations often severely restrict individual actions?

Groups of every kind have at least some information functions. It is partly for information purposes that individuals join together. In the absence of effective mass information systems possibilities need to be explored for distributing more information through informal and voluntary groups.

Powell¹⁰ calls the local campesino organizations in Venezuela, "the communications link between the campesino and the government and between the campesino and his political party."

Campesino unions provide an interested, forceful and already established channel to help farmer-members get specific information needed to improve farming or living conditions. In Venezuela local union leaders submitted nearly 900 letters in 1962 to the national syndicate spelling out specific community needs and asking for information and assistance. Powell recorded about 3,000 specific items from the letters and classified them according to the types of concerns.

"The results show that the overriding concern of Venezuelan rural communities is for improvements in living conditions of the type which we in the United States consider to be the responsibility of local government. As a corollary, then, this reflects a weakness of local government in meeting these needs and the potential appeal of an organization such as the FCV to act as the peasants' representative in the national political system to obtain the services desired from the central government."

Patch,¹¹ writing in Expectant Peoples: Nationalism and Development, says the Indians of Bolivia effectively made their interests in schools and land reform known in many parts of the country through their local sindicatos.

Havens¹² concludes that communications contacts are one of the necessary preconditions for economic development since individuals need to gain knowledge of new alternatives. To establish a communications channel is one of the reasons for organizing and participating in voluntary groups.

Diaz-Bordenave¹³ briefly described 40 information media and service organizations in Northeast Brazil in 1963 and found that the information services gave little real attention to rural areas.

In the rural areas of the less developed countries, the key communicators are often persons who have other major functions. This fact, coupled with the observation that voluntary groups often function as primary information channels where mass media are almost nonexistent, is probably an important point for future communications research in Latin America. How much do we know about the information role of the local manager of a cooperative, of the banker, the parish priest, school teacher, doctor or campesino leader? There may be some clues here also for reducing the costs of distributing information--for temporarily delaying the establishment of expensive information networks.

A Final Note

Research is also needed in the area of language and message factors to determine better ways to prepare simplified materials for rural audiences. A number of projects of this kind are being conducted by the Agricultural Journalism Department. However, language and message research has not and probably will not be an area of major research emphasis in the Land Tenure Center.

One additional area, however, which is of concern for the Land Tenure Center and similar groups is the need for better distribution and exchange of research results and descriptive materials among planners, policy makers, technicians, researchers, government administrators

and educators both in the United States and abroad. The need to improve the distribution of policy information to the administrator may, in some cases, be as urgent as the need to study information problems at the farmer level. Administrative material is like weather and market information--much of its value rests in its regularity and reliability.

But large agencies and organizations find it difficult to provide for information services when there are other pressing program needs. There is usually a limitation in funding and staffing. Most agencies, for example, find it difficult to justify the distribution of large quantities of material outside of their own country.

The Land Tenure Center itself faces a demand for about 20,000 pieces of information annually with no special provision for information services. The problems involved in organizing and efficiently using an information exchange need to be explored.

MATERIALS CITED

1. Michigan State University, "Accelerating the Adoption of Agricultural Innovations." Everett Rogers, project director. Support through contract with the Agency for International Development. July 1964.
2. Kearl, Bryant E., "Communications in Economic Development." Land Tenure Center Research Paper No. 7. September 1965.
3. Myren, Delbert T., "Bibliography: Communications in Agricultural Development." Rockefeller Foundation, Londres 40, Mexico 6, D.F. November 1965.
4. Thiesenhusen, William C., "Chile's Experiments in Agrarian Reform." Land Tenure Center Research Paper No. 10. November 1965.
5. Bostian, Lloyd R. and Fernando C. Oliveira, "Relationships of Literacy and Education to Communication and to Social and Economic Conditions on Small Farms in Two Municipios of Southern Brazil." Paper presented at the August 1965 meetings of the Rural Sociological Society, Chicago.
6. Tinnermeier, Ronald L., "New Land Settlement in the Eastern Lowlands of Colombia." Land Tenure Center Research Paper No. 13, December 1964.
7. Diaz-Bordenave, Juan, "Sociological and Psychological Factors Related to Information Seeking Among Farmers of the Brazilian Northeast." Draft, unpublished Ph. D. thesis, Michigan State University. 1965.
8. Brown, Marion R., Ph. D. thesis, University of Wisconsin. In preparation.
9. Fonseca, Luiz, "Information Patterns, Risk Orientation and Practice Adoption Among Brazilian Farmers." Unpublished Ph. D. thesis, University of Wisconsin. In progress.
10. Powell, John D., "Preliminary Report on the Federación Campesina de Venezuela: Origins, Organization, Leadership and Role in the Agrarian Reform Program." Land Tenure Center Research Paper No. 9. September 1965.
11. Patch, Richard, "Peasantry and National Revolution: Bolivia." In: Expectant Peoples: Nationalism and Development, K. H. Silvert (ed.). New York: Random House. 1963.

12. Havens, A. Eugene, "Social Factors In Economic Development." Land Tenure Center Research Paper No. 5. May 1965.
13. Diaz-Bordenave, Juan, "A Survey of Educational and Informational Institutions in Pernambuco, Brazil." Unpublished Land Tenure Center Paper. 1964.

AGRICULTURAL PRODUCTIVITY DEVELOPMENT AND LAND TENURE

Don Kane1

umber 1965

**LAND TENURE CENTER
310 KING HALL
UNIVERSITY OF WISCONSIN
MADISON, WISCONSIN 53706**

AGRICULTURAL PRODUCTIVITY DEVELOPMENT AND LAND TENURE

By Don Kanel*

The relation between tenure and size of farm on one hand and agricultural productivity or economic efficiency of farms on the other is a complicated question. Some of the recent emphasis on this matter has taken the form of studying the relationship between farm size and value of output per acre. Much of the recent work has been based on Indian data which shows a decrease in value of output per acre as size of farm increases. The CIDA studies of six Latin American countries and two Land Tenure Center studies included information about output per acre on farms of different size in Latin America.(2) The LTC studies were by Sund in Northeast Brazil and Morales in Chile. (6,7) In the Sund study and in the CIDA studies output per acre decreased as size of farm increased. However, in the Chilean data, analyzed by Morales, this was not true and output per acre increased as size of farm increased.

The economic organization of a farm firm can be viewed from two points of view, that of factor proportions or of the institutional arrangements for combining land, labor and capital. A farm is a combination of various resources and a great deal of substitution between different kinds of resources is possible. Utilizing economic theory one can analyze which combination of factors is the most profitable of production, the most profitable combination of enterprises and the impact of changing prices and technology on the optimum combinations. In the course of economic development, it can be expected that there will be a certain amount of substitution of capital for labor as employment opportunities increase outside of agriculture. Also, developments in agricultural technology provide new alternatives either in the way of new practices, new inputs, or new crops which make it profitable to reorganize the structure of farm firms. Thus, the organization of a farm can be looked at with respect to the following questions: is the combination of resources and enterprises such that no further change can increase the productivity of the firm? Is the farm firm being reorganized in response to changing alternative employment opportunities for the factors that it uses, and is the farm firm changing in response to the changing technology?

The other way of looking at the farm firm is to consider who provides the resources that make it up. The land and capital needed for the farm firm can be provided by the family of the farm operator or it can be provided by landlords and creditors. The labor can be furnished by the landowning farm family or it can be hired from the

*Associate Professor of Agricultural Economics, Land Tenure Center.

outside. Workers can be hired under a variety of arrangements. Thus, a reliance can be placed on permanent workers who are given some rights in land such as plots for their own cultivation, on permanent wage workers, or seasonal workers can be hired as the need arises.

The subject we are interested in is the interaction between the institutional structure and the resource and enterprise combination structure of farm organization. It is possible for the farm firm to have the same resource combinations under different institutional arrangements. There have been two basic approaches for studying the impact of institutional arrangements on the resource combinations in the farm firm. One of them focuses on the influence of alternative employment opportunities while the other puts the main emphasis on the way in which tenure and other arrangements influence the alternatives open to parties within the arrangement.

The first approach considers the alternatives made available through various tenure and credit arrangements to be competing with each other and with all other employment opportunities available within the economy and accessible to farm people and to owners of farm land. If resources are mobile, then income opportunities in any particular arrangement are approximately equal to income opportunities available elsewhere in the economy. This approach would tend to look on tenure and credit arrangements as specific ways for providing for mobility of capital; that is, making the capital of credit agencies and of landlords available to farm operators. Competition with other alternatives would force tenure and credit terms to reflect incomes available elsewhere. While tenure arrangements include many elements of long standing customary practices, change in alternative opportunities would put tenure arrangements under pressure to make available to landowners and tenants the kinds of incomes that were available to workers by employment elsewhere and to landowners by investing capital in other forms.

Tenure arrangements and the size of farm are subject to a great deal of experimentation and a great deal of adaptability to individual circumstances. Constant change can occur as inheritance passes ownership from one generation to another, as landowners and employers hire workers and as people migrate from farms to cities. In all of these diverse events it can be expected that to some extent the availability of alternative opportunities will have an impact on the kinds of agreements that people make with each other in buying and selling land, in leasing land and in being hired to work on farms.

The other approach tends to neglect the impact of available alternatives and focuses instead on the question of how people will act in relation to the opportunities made available to them by the tenure agreement itself. This is a very old approach in economics. It focuses on such questions as how much fertilizer will a tenant

use if he has to pay for the full cost of fertilizer but receives only half of the crop. Another typical question is how will the tenant's management of the farm be influenced by the fact that he has a short-term lease subject to termination by the action of the landowner. The latter question typically deals with issues of conservation of land and investments in long-term land improvement such as building fences, putting in irrigation wells, etc. There is considerable economic literature which applies the usual economic theory of income maximization and follows the logical consequences of the kinds of alternatives that face the tenant because of the specific provisions in the leasing arrangement. There are many more theoretical articles using this second approach than the first approach. However, attempts to test the hypotheses implied by the second approach with actual data have not been particularly successful at least in the studies made of farm organization in the United States.

The major point here is that we cannot take the tenure arrangements as given. They are shaped by alternatives available to the people who enter into these arrangements, and we should expect that when there are changes in alternatives, there will be attempts to modify the arrangements in such a way as to reflect changing opportunities. However, any attempt to study these two hypotheses is made particularly difficult by the great variability in the productivity and incomes obtained on different farms. Most studies report a very large range among farm units in such things as size, production and income per worker, yields per acre and other aspects of farm organization.

This great range in performance of individual farm units can be expected to continue in the future. Effective economic development and the successful development of agriculture can be evidenced primarily by the upward movement of the whole range. That is, we can expect that individual farmers will continue to differ in yields per acre that they achieve, but average yields should rise and the whole range should move up with the lowest and highest yields becoming greater than before. Similar changes should occur in incomes per worker. Since annual changes in farm organization are typically small, variability among farms is large and is additionally influenced by great variability in production from year to year due to weather; therefore, it is difficult to establish whether cumulative development is actually occurring.

The two LTC studies of farm organization on different sizes of farms show approximately the following results. In the study of Brazilian data Sund subdivided the farms into two groups: the small farms relying largely on family labor and the larger farms using considerable hired labor. Among the larger farms, when the value per hectare of land was kept constant, there was very little difference in relation to size in such factors as percent of land cultivated and the number of workers per hectare, and what differences there were were not significant. Without controlling the value of land there

were significant decreases in the percent of land cultivated as size of farm increased. This seems to suggest that at least some of the apparent data about the more extensive land use on bigger farms is due to the fact that the bigger farms are found more often on less valuable land.

On the large farms workers are not hired unless they can be profitably employed. The returns to employers from hiring additional workers depend on wages and on the additional return from intensifying land use as more workers are used on the same amount of land. Thus, the organization of large farms may indicate the intensity of land use and the man-land ratios which are profitable under the prevailing agricultural technology and wage levels.

On the other hand, on the smaller farms land use was much more intensive and acres per worker much smaller than on the bigger farms. The intensity of land use on small farms could not be explained by the statistical functions obtained from the data of the big farms. That is, even after taking land value into account, the land use on smaller farms was more intensive than could be expected. (7) The latter fact seems to reflect the situation that these smallest farms, where family labor is employed, are one of the major sources of employment and income for people who cannot find employment on a hired-wage basis, even at the very low wages prevailing in economies in the beginning stages of development. A good illustration of this is shown in a study by Thiesenhusen of the colonies established by the government reform program in Chile. On parcels in which originally 30 former sharecroppers and laborers were established, 104 families were supporting themselves on the same amount of land after a lapse of 12 or more years. (8)

It is to this crowding of the families on the land that much of the intensification of land use in the smallest farms can be ascribed. Thus, this difference between farms is a reflection of the scarcity of alternative opportunities. It is in the presence of such scarcities that the small farms serve as a shelter for the surplus population and it is the large amount of such labor in relation to limited land that results in intensification of land use.

The Chilean data studied by Morales gave different results. This study showed that value of production per acre increases with increase in size of farm. However, this study only included farms over 10 hectares and the results were not statistically significant, but they are still interesting in that they run counter to the results found in many other studies. Possibly the result might be due to the fact that this study included only farms over 10 hectares in size, and even in the smallest group of 10 to 20 hectares, family labor provided less than half of all the labor used on these farms. The Chilean data did show the typical decrease in the amount of labor used per hectare than has been found in many studies around the world. It differed from other studies, however, in showing an

increase in the amount of capital used per hectare.(6) We do not have all the data needed to explain the difference in the case of these Chilean farms from the data of other studies, but the following at least seem to be possible explanations. The typical results in studies of farms in India show a decrease in both the capital and labor per acre as size of farm increases and approximately constant capital per worker. Farms of all sizes rely almost exclusively on oxen and oxen-drawn implements. On smaller farms these indivisible units of both labor and capital are present in excess capacity and as size of farm increases, labor and capital are spread over larger acreages. In Chile, on the other hand, with increase of size of farm there is an increased amount of mechanization and probably also there is a greater use of yield-increasing capital such as fertilizer. Thus, the bigger farms probably maintain about the same intensity of land use as the smaller farms by using somewhat more capital per worker and they probably increase the yields obtained from individual crops by using more of the modern inputs of modern technology.

I believe it would be useful to provide somewhat more decisive documentation of the factors accounting for differences between size of farm. A common complicating variable is the fact that land is not homogeneous and that different sizes of farms tend to be associated with somewhat different qualities of land. Another issue is that there seem to be two kinds of relations working in opposite directions. On one hand, there is a crowding of labor on smaller farms. This in itself would lead to intensification of land use and higher production per acre. On the other hand, farms differ in the extent to which they have introduced new yield-increasing technologies by using more of certain forms of capital and by being more aware and more receptive to new techniques. At least some data would suggest that it is the bigger farms that have used more of the yield-increasing technology and therefore, this would tend to give higher output per acre on bigger farms.

It would be useful to look in greater detail at such variables of farm structure as factor proportions, enterprise combinations and yields of individual crops so as to be able to establish the separate effect of each. An example of this would be an estimate of output per acre on farms of different size that would have resulted from the actual enterprise combinations if all farms had the same yields of individual crops. Common observations about the extensive use of land on the bigger farms in Latin America would require better documented answers, not about what exists, but whether more intensive land use is profitable on these bigger farms, given the prevailing practices, yields and the prevailing wage of labor. It may be that within traditional technology, more intensive land use does not pay even with the low level of wages, and that the more intensive land use on the smaller farms is due solely to the fact that they have a great abundance of labor and thus in effect a much lower cost of labor than on

farms where workers are hired. Such answers can be attempted with such techniques of studying farm organization as budgeting and linear programming. In addition, farms seem to differ in the kinds of prices they receive for their products and in access to credit and other factors. Large farms are also effected by labor legislation including such things as minimum wage levels, severance pay, social security payments by employers, etc. All of these things can influence farm organization and we need studies which would document the impact of these provisions on farm organization and attempt through such approaches to account for differences in farm organization of different tenures and sizes of farms.

Additional information is needed about how innovations are accepted in agriculture and what relation, if any, exists between acceptance of innovation and size of farm and tenure. With respect to land reforms, it is important for countries that the present level of managerial performance not be decreased and that a reform if possible contribute towards improving the managerial performance of farmers. There is little doubt that some of the better management in agriculture is now found on the bigger farms. Also, studies of the process of acceptance of innovations in the U.S. generally indicate that bigger farmers play a role in this. There is a specialization in communication of information and experimentation with new practices which depends partly on agencies outside of agriculture and partly on bigger farms as the places where often some of the earlier experimentation is undertaken and where leadership for introduction of new practices is given. In developed countries such as the U.S. the process depends to a large extent on research extension and credit agencies which serve farmers. The bigger farmers play a role in providing the leadership and the earlier adoption of innovations but the larger farms in countries such as the U.S. are only moderately bigger than average farms in their community. This is in great contrast to Latin America where the contrast in size between latifundia and minifundia is so much greater. In the Latin American context one almost gets the impression that the innovations that may be accepted by larger farmers do not spread to the small farmers or spread with a much greater lag than is the case in the acceptance of innovations on larger and smaller farms in developed countries. We need to know much more about the process of communication and acceptance of innovations within smaller farms. It would seem possible that in the future medium size farmers can play the same role in the acceptance of new practices that they play in the developed countries and that the present large farms are not crucial from this point of view, though of course countries need to avoid losing the present level of performance on some of the better of the bigger farms.

It is rather significant in this connection that Erasmus, in his study of Northwestern Mexico, indicates that the smaller farmers participate much less in technological improvement of agriculture than bigger farmers. In this particular case, small farmers seem to act

so as to avoid cash expenses of farm production and irrigation and to avoid risky market crops such as vegetables. They even go so far as to rent land to bigger farmers and then become hired workers on their own land for these renters, thus in effect shifting cash expenses to others. Small farmers also seem to be very vulnerable to other large and unpredictable cash expenses as in the case of illness. (3) They are also widely reported to have lesser access to credit facilities. We very much need studies which would isolate the factors related to these patterns of behavior and would help to institute policies which would make it easier for smaller farmers in Latin America to participate in a more rapid rate of adoption of new technology and in greater participation in market opportunities.

The unsatisfactory state of the understanding of factors affecting agricultural development and the relation between development and size of farm is indicated by the contradictory nature of the following. There is some evidence that: a) small farms are technologically backward, b) many large farms are extensively farmed and inactively managed and are often owned by absentees, c) on the other hand, some large farms are efficiently managed and use the most advanced technology, and yet d) Chile, the country where a few of the large farms are among the most progressive, has an agricultural sector which shows less growth of output than most Latin American countries. Large variability in economic performance among farms can be expected. Yet if the better farms appear to be very well managed, then this seems to suggest that performance at the upper end of the range has been improving over time, and this, combined with some spread of advanced technology to the sector and no retrogression on any group of farms, should result in a measurable advance of the agricultural sector as a whole. On the above reasoning Chile should exceed other Latin American countries in rate of growth of agricultural production, yet it is quite otherwise. According to a recent study of six countries in the period 1948-1963, Chile ranked fifth in the rate of increase of yields, being exceeded by Colombia, Mexico, Argentina and Venezuela, while only Brazil was lower. (10)

One hypothesis to account for such performance is the possibility that efficient management of individual large farms depends on the activity and interest of the man who happens to own it. That is the class of those who own large farms is not generally made up of individuals who acquire ownership because of their interest in management and the potential they see in the return from management. Only a small group of such owners happen to be interested and active. But when they withdraw, ownership tends to move back to absentees and inactive management follows. This kind of a hypothesis is suggested by the study of a Colombia community by Fals Borda. The most active hacienda in this community was built up by one man. Following an accident and his retirement, this hacienda reverted to ownership by absentees, was rented out to several large tenants and was managed with a much smaller labor force than under its previous active owner. (9)

The rural population in most countries of Latin America is still growing. The CIDA studies of Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala and Peru showed that between 1950 and 1960 the following changes occurred. The rural population of these countries was approximately 59 million in 1950. Between 1950 and 1960 there was a natural increase of 19 million and an outmigration of 11 million, giving a net increase of about 8 million and a rural population in 1960 of approximately 67 million. In only two countries, Argentina and Chile, was there an actual decrease of the rural population in this period while in the other five the numbers increased. (2) Primarily such increases in the rural population reflect the fact that employment opportunities outside of agriculture are not increasing sufficiently rapidly to absorb population growth. Such lack of opportunities can be expected to be reflected in the changes in size of farms, tenure and employment conditions in agriculture. We do not have adequate information about where these additional numbers of farm people are being absorbed. In the LTC study by Hill, Gollás and Alfaro of a colonization area in Costa Rica, the increase in population was obviously leading to a settlement of a new area. Many of the settlers held land without title in very precarious forms of tenure and some were workers on bigger farms. The study suggests that the incomes in the most precarious forms of tenure were approximately equal to incomes earned by farm workers while other tenure groups received higher incomes. (5)

The increase in rural population in Latin America is leading to migration to cities, settlement of new areas and absorption of increased number of people in settled areas. The inability of non-agricultural employment to absorb all of the increase in the labor force suggests a worsening of opportunities facing rural people, (though this need not be the case where newly settled areas have greater potential than older regions). Some support for this conclusion comes from a paper by Hill giving impressions of changes in welfare of rural people in Latin America since 1940. (4)

We need additional information about the terms on which employment and income are becoming available to increased numbers of people in rural areas. Tenure rights may be important. Absorption of growing population by subdivision in minifundia areas may have different consequences than the situation in areas where employment depends on the decisions of large landowners.

Sustained and continuous improvement in the welfare of rural people depends on the development of the whole economy. Development can increase the productivity and wages of labor in the economy and the presence of improved employment opportunities can influence the wage levels and structure of agriculture as small and large farms adopt themselves to a situation created by changed alternatives outside of agriculture. Typically such increase in alternative employment decreases the crowding on the land and increases the bargaining

power of farm workers, leading in some cases to a reorganization of farms so as to employ fewer workers more productively. Where farm workers are self-employed they have a more direct access to greater income in as far as they can utilize improved technology to increase the production on their own farms. Here again tenure plays a role. By and large increased incomes to those farm workers who do not own their own land have to come largely through general economic development and its impact on the labor market. Where farmers own their own land, those progressive enough and with sufficient access to the knowledge and to the necessary inputs can reap more directly the rewards of participating in development. Because of this, we need to know to what extent technological innovations are relevant and available to small farmers and what factors account for the very conservative behavior of small Mexican farmers which was reported by Erasmus.

Population growth and limited alternative employment opportunities raise the question of security of tenure and employment of rural people. The traditional large scale tenure systems in Latin America such as the haciendas in Andean regions probably provided a great deal of security to workers without any legal rights of workers in access to employment. That is, the turn-over of labor force on these big traditional farms was probably very small, and in most cases workers succeeded to the positions held by their fathers. The land-owners of such farms were neither active managers nor investors; they did not seek to change land utilization, organization of work, terms on which labor would be employed and so on. With fairly inactive management, the labor force could continue in traditional tasks and workers could continue in their occupational roles at low incomes, but probably with considerable security. Such security is endangered where owners who have full legal right to terminate employment become interested in much more active management of their farms at a time when outside employment opportunities are scarce. Farm workers may be thrown out of employment or their status may change from relatively secure tenure or labor arrangement to very insecure daily labor. In other cases employers might change the employment terms of their workers because of provisions of labor legislation, also in such a way as to make the employment of workers less secure. Richard Adams in a study of rural labor in Latin America reports as follows: "The efforts of large rural commercial enterprises to rid themselves of responsibility for their labor and of entrepreneurs to initiate short-term speculative agriculture, have produced a rural population that must drift from one agricultural venture to another...Many communities in commercial agricultural areas house countless numbers of such individuals who are generally at the bottom of the social heap." (1)

The question of changes in security of employment under different tenure and labor arrangements is important and we need historical comparisons between the situation today and previously. It is not easy to find documentation for such changes. Tenures which were

previously satisfactory, at least from point of view of security of employment, may become less so in the presence of new opportunities and more active economic management by the landowners. Under such circumstances changes toward greater security of tenure or toward land ownership by farm families may be important for the sake of increasing security of tenure of many people in agriculture, particularly given the fact that employment opportunities outside of agriculture are growing so slowly. In such cases the security of tenure issue may be a more important reason for land reforms than the productivity benefits of changing tenure forms.

BIBLIOGRAPHY

1. Richard N. Adams, "Rural Labor in Latin America" in John J. Johnson, editor, Continuity and Change in Latin America, Stanford University Press, 1964.
2. Solon L. Barraclough and Arthur L. Domike, Evolution and Reform of Agrarian Structure in Latin America, ICIRA, Santiago, Chile, 1965, mimeo.
3. Charles Erasmus, Man Takes Control, University of Minnesota Press.
4. George Hill, "The Peasant and Agricultural Development in Latin America," Document 35, Workshop on Agricultural Financing in Latin America, Viña del Mar, Chile, March 18-25, 1965, sponsored by Inter-American Development Bank, mimeo.
5. George Hill, Manuel Gollás, Gregorio Alfaro, Un Area Rural en Desarrollo, Sus Problemas Económicos y Sociales, Costa Rica, San José, Costa Rica, 1964.
6. Hector Morales Jara, Productividad Presente y Potencial en 96 Predios de la Provincia de O'Higgins y su Relación con el Tamaño de las Propiedades, Tesis, Facultad de Agronomía, Universidad de Chile, 1964.
7. Michael D. Sund, Land Tenure and Economic Performance of Agricultural Establishments in Northeast Brazil, Ph.D. Thesis, University of Wisconsin, 1965.
8. William C. Thiesenhusen, Chile's Experiments in Agrarian Reform, LTC No. 10, November 1965.
9. Orlando Fals Borda, Cambio Social y Cambio Tenencial Agrícola, LTC y Centro Latinoamericano de Estudios del Desarrollo, Facultad de Sociología, Universidad Nacional, Bogotá, Colombia, Agosto 1965.
10. Changes in Agriculture in 26 Developing Nations, 1948 to 1963, Foreign Agricultural Economic Report No. 27, Economic Research Service, U.S. Dept. of Agriculture, November 1965.

**FINANCIAL ASPECTS OF AGRARIAN REFORM AND AGRICULTURAL DEVELOPMENT IN
LATIN AMERICA**

John Strasma

January 1966

**LAND TENURE CENTER
310 KING HALL
UNIVERSITY OF WISCONSIN
MADISON, WISCONSIN 53706**

**FINANCIAL ASPECTS OF AGRARIAN REFORM AND AGRICULTURAL DEVELOPMENT IN
LATIN AMERICA**

By John Strasma*

- I. Introduction: Resources for Reform and Development Programs**
- II. Increasing Resources Through Taxation**
 - A. Tax Reform and Improvements in Tax Administration**
 - 1. Aerial Photography and Valuation by Potential Yields**
 - 2. Market-Enforced Self-Assessment (MESA)**
 - 3. Land Tax Assessment and Land Reform**
 - 4. New Taxes Affecting Agriculture**
 - B. Taxation and the Motives for Holding Land**
 - C. Taxation in Relation to Farm Organization, Investment and Output**
 - D. Taxation and the Development of Local Democracy and Initiative**
- III. Cut-Backs in Other Programs that Compete for Resources**
- IV. Obtaining Resources From Abroad**
- V. Financing the Transfer of Land Ownership**
- VI. Other Financial Aspects of Agricultural Development and Rural Change**
 - A. Global Level**
 - B. Within the Agricultural Sector**
 - C. At the Level of the Farm**
- VII. Summary and Recommendations**

*Visiting Professor, Land Tenure Center and Dept. of Agricultural Economics.

January 1966

INTRODUCTION: RESOURCES FOR REFORM AND DEVELOPMENT PROGRAMS

Most low-income countries need land redistribution, supervised credit, irrigation works, better transport and marketing facilities, and more schools and teachers in rural areas. Unfortunately, they also need to finance low-income housing, urban schools, and water supplies for new suburban settlements. Many need to provide credit to help establish industries as well.

Even within the agricultural sector, financial problems abound. Cash paid in compensation to expropriated landlords cannot also be used for extending loans or technical assistance to the new owner-operators. Funds assigned to build roads or irrigation systems cannot simultaneously be spent on schools and teachers. In short, there are still only two ways in which new or expanded programs of agrarian reform and rural development can be implemented: the government must acquire more resources, or reallocate those it has (i.e., increase efficiency and/or cut back other programs).

Increased resources can be obtained in grants or loans from abroad, by increased taxation, and by other measures tending to reduce consumption in the private sector and to channel the resulting savings into investment. In many cases, the manner in which the needed resources are obtained can itself frustrate or aid in attaining program goals. Finally, efficiency demands both good management and careful evaluation of alternative projects and programs. This last analysis may be found in many LTC studies, however, such as those comparing the costs of alternative forms of colonization (see Thiesenhusen report). The present report will therefore concern itself largely with taxation in relation to agrarian reform and development.

Financial elements are at the very heart of the implementation of land reform programs. Apart from the financing of public expenditures, financial techniques or institutions are at the heart of profit-sharing, of the mortgage loans in Church and Government reforms, and in new ideas such as the Dorner-Collarte proposal for cooperatives in which ex-owners would still play an active role. (See the Chile report for details of all of these projects.) However, the most fundamental problem is both economic and financial: Where and how can government obtain the resources needed to carry out reform?

II. INCREASING RESOURCES THROUGH TAXATION

In 1954, Philip M. Raup said that the interdependence of land tenure reform and tax and fiscal policies "is frequently admitted but rarely analyzed."^{1/} The situation has not improved greatly since then; scholars have thus far devoted relatively little attention to the general question of increasing the resources available to or controlled by agencies undertaking programs of land reform and rural development, or to improving the form in which resources are obtained. A few modest efforts have concentrated largely on techniques and administration of land taxation, and especially on valuation methods and cadastral surveys. However, the structure and level of taxation may also influence land tenure, farm organization, investment, and output, as well as the development of local democracy and initiative.

While there is still ample room for better tax legislation and administration, I suggest that the Land Tenure Center now explore in depth the relationships between tax measures and the basic variables of agrarian and development programs. In particular, we need to test the hypothesis that changes in the form and level of taxation may be an economical and efficient way to help achieve objectives such as improved security in land tenure, community cohesion and greater output.

A. Tax Reform and Improvements in Tax Administration

One of the oldest forms of taxation known to man is the land tax; it is often considered the tax which offers the greatest possibilities for encouraging or forcing desired changes in land tenure and increased agricultural production, while raising sizeable revenues. The Land Tenure Center has begun the study of recent innovations and new ideas in land valuation and assessment.

1. Aerial Photography and Valuation by Potential Yields

One paper, for instance, explored the potential usefulness of aerial photography as an aid to the distribution of land titles along the new highway from Brazillia to Belem.^{2/} While extremely precise surveys would minimize future disputes, a simple system now would be better than a more precise one indefinitely postponed for lack of resources. Aerial photography, with highly visible posts or lime spots at parcel corners if natural landmarks are scarce, could be helpful in identifying parcels and in determining their approximate area and boundaries. The paper discusses costs and measurement techniques, including field methods as well as photogrammetry. The advantage of aerial photography appears to lie as much in speed as in lower cost.

This first paper was based on sources available in 1963, both in libraries and through interviews in the U.S.A. More recently, Chile has completed a reassessment of agricultural land, with values based on estimates of potential output and on distance to markets. This reassessment relied heavily on aerial photography and photo-interpretation; a detailed report and evaluation has recently been published by the Organization of American States, summarizing what was done, the costs and the results.^{2/}

However, the Chilean project was a very thorough job, carried out at a time when no major land reform effort was underway. What remains to be studied is the kind of close, rapid and inexpensive support for land reform that photography and photogrammetry could provide in Latin America now. For instance, there appears to be a need for research on the cost and usefulness of simpler photography of small areas in rapid processing of titles, and in rough mapping for planning the lay-out and farm plan for new units. Photo-interpretation may also be the cheapest method of determining present land use, for deciding whether to expropriate and for determining the amount of compensation to be paid.

Finally, it should here be noted that the Chilean reassessment was based on a detailed survey of the potential yield of various soils, adjusted for climate and the profile and inclination of the fields. A further adjustment was made for distance and type of road to the nearest city. These characteristics of the revaluation merit analysis, for relevance in determining compensation and in deciding the size of new units. Another problem, relevant both to taxes and to repayment schedules for land distributed in a reform, is the adjustment of payments when output falls below normal for reasons--e.g., drought--really beyond the control of the farm operator. Paulsen and Meyer, for example, suggest the maintenance of careful records on a sample or "typical" parcel in each farming area, to give reliable quantitative evidence of the impact of drought or disease.^{4/}

2. Market-Enforced Self-Assessment (MESA)

Another paper traces the history of recent thought on the reform of real estate taxes in Latin America.^{5/} This paper discusses procedures whereby any Finance Minister with the will and political security to reassess real estate at market values may do so rapidly and effectively. This technique requires two steps--an index adjustment of existing valuations, designed to put the average assessment at or above market value, coupled with a novel appeals procedure. Instead of traditional and costly court appeals, the owner may simply substitute a lower value by his own declaration, provided he is willing to sell the property at his declared price plus a small margin (say, 5 percent), or pay a fine should he receive a bona fide offer and refuse to sell.

This report includes detailed procedures, necessary to demonstrate the feasibility of the system, and to protect the rights of all concerned. In particular, the procedures ensure that all property owners will have incentives to declare values close to market levels, that other individuals will have ample incentives to make bona fide offers for undervalued properties, and yet that no owner will have to sell against his will. These provisions are designed to protect both the owner who genuinely does not know the value of his property, and the person who might otherwise be the victim of a vindictive neighbor trying to force him to move or to pay taxes on a value in excess of the market level. The proposed system could be used as a stopgap, pending traditional reassessment, or permanently.

This proposal, called "Market-Enforced Self-Assessment" (MESA), has been discussed in Latin America for years and especially since the Fiscal Policy Conference in Santiago in 1962.^{6/} The first part of the proposal has been applied in Chile (index adjustment of existing assessments); one version of the second part has just been introduced in the State of Florida.^{7/} Under a 1965 law in that State, owners unhappy about their assessments may submit their own values, provided that they also authorize the assessor to advertise and conduct a public auction of the property. The minimum acceptable bid is the exact amount declared by the owner; if no one bids it, the owner's valuation becomes the value for tax purposes. If there is such a bid, the owner must transfer clear title within a stated period or forfeit a 10 percent deposit required with his declaration. The owner also pays all costs.

Even mere discussion of the idea, however, may serve at least two purposes: First, by depriving finance ministers of the excuse that reassessment takes ten years or more, it helps force them to decide whether they are really prepared to move toward an effective tax on real estate. Secondly, some lawyers and appraisers have reacted by promising greater efforts to bring assessments up-to-date by traditional methods, hoping to forestall consideration of the MESA system, which would be a radical change threatening the status and earnings they enjoy under existing arrangements. However, adoption of the Florida Law suggests that at the very least, the market-enforced self-assessment system may be an improvement over traditional, costly and time-consuming appeals procedures.

3. Land Tax Assessment and Land Reform

Many scholars in public finance have long been convinced that landowners would not voluntarily declare market values for real estate even under the threat of payment at declared values in the event of expropriation. As Albert Hirschman argued, owners were confident that land reform agencies had no funds,^{8/} or that political influence would keep their land from being taken.

Recent evidence from Colombia tends to indicate the contrary-- that this threat can be effective. The owners of 12,294 rural properties (of 100 hectares and over), took advantage of a brief opportunity to set higher tax values by their own declaration. This was 1 percent of all rural property units on tax rolls; it has not been possible yet to determine the percentage of land area represented, which must be much larger. These declarations covered property in every state and department, which made up about 10 percent of total previous rural property valuation. The new values averaged 99 percent increase over previously assessed valuations.^{9/}

Surprisingly enough, the percentage of properties in each state for which new values were filed does not seem to be highly correlated with whether INCORA had begun work in the municipalidad in question. This would be consistent with the hypothesis that many owners live in Bogotá or other cities where there is greater awareness of INCORA's existence and program, whether or not it had yet reached the area where their land was located. This hypothesis is reinforced by the large number of declarations filed despite the fact that the Regulations were published on January 31, 1964, and the deadline for filing declarations was February 29, 1964. (One alternative hypothesis suggests extraordinary efficiency on the part of INCORA and the Internal Revenue Service in publicizing the opportunity to declare, and in getting tax forms into distant areas.)

The new values declared took effect at once, both for modest property taxes (4 to 8 per thousand, depending on the region) and for the more important progressive tax on personal net wealth (2 to 15 per thousand, with the top rate reached in 1964 at net taxable wealth equal to about US \$80,000). Real estate is included at its tax valuation, so increased assessments mean higher tax liabilities. To the extent that actual land expropriation is delayed, the new tax values will thus help to finance Colombian government programs.

Naturally, without field work it will be impossible to determine whether the new values, averaging double the former assessments, are actually near market values. Since no declarations were accepted at lower values than those on the tax rolls before, the new figures are at least a step in the right direction.

It should be noted that the threat is limited strictly to a decree prohibiting compensation at values in excess of current tax assessments, in land reform expropriations. Owners are not guaranteed the price declared, should the expert appraisers named by the parties and a court, set a lower value. Owners need fear only the land reform agency, INCORA; there is no provision for additional enforcement by private bidders as proposed in this research paper. (The paper on MESA discusses in detail the way in which prospective land reform beneficiaries could make offers and obtain land even when an official reform agency has not yet reached their region.)^{10/}

4. New Taxes Affecting Agriculture

New tax measures affecting landowners were enacted in late 1964 by Brazil and in early 1965 by Chile; the Chilean taxes are already being collected, while Brazil is just beginning the nationwide assessment which is a prerequisite to implementation.

The Brazilian tax is incredibly complex and may have to be modified considerably before it can be implemented. A summary was prepared by Robert E. Price for the Land Tenure Center.^{11/}

Chile, in addition to the reassessment already described, reinforced the regular tax on declared personal income with a new tax on the presumed minimum income derived from capital.^{12/} In essence, all personal net wealth as of Oct. 31, 1964, however invested, is presumed to yield 8 percent per year to its owner. This presumed income is taxed on a progressive scale from 20 to 35 percent (after an initial exemption equal to about US \$325 at the "brokers" rate in force in late 1965).

The top rate of 35 percent applies to presumed income in excess of some US \$6,000, which corresponds to an 8 percent presumed yield on wealth over US \$75,000. Such wealth is thus taxed at 2.8 percent per year ($.08 \times .35$), plus the land tax. However, 50 percent of actual Chilean income taxes paid (under the global "complementary" tax) may be credited against the wealth tax payable. The net impact of the new tax is thus concentrated on those wealthy individuals who claim to have little or no income from their land or other investments, or who have invested in the myriad activities exempted from income taxation under laws enacted by previous governments.

Efforts over the last four or five years to limit or reduce these exemptions have failed, as influential parliamentarians always appeared to defend every specific privileged industry or area for which the Executive proposed an end to exemptions. The new tax maintains these exemptions under the regular income tax--but all wealth is included in the new tax regardless of the form or place of its investment, except farm buildings, machinery, livestock, plantations and similar on-farm investments. (Agricultural property is included at its assessed value, and Chile's land tax specifically exempts most improvements from the tax valuation.)

There are no other significant exemptions in the wealth tax except for household furniture, bank deposits and one taxi or truck, if operated personally by its owner.

In 1965, the first year of application, wealth declared came to E^o 8,304,700,000.^{13/} Some 180,000 Chileans filed declarations. 619 of these admitted individual net worth in excess of E^o 1 million (about US \$250,000) apiece, and actually paid taxes averaging about

E° 40,000 (US \$10,000) ^{14/} The total first-year yield was E° 121 million (US \$30 million) ^{15/} This is only 3.75 percent of total fiscal revenues expected in 1965; it is one-sixth of the yield of the sales tax, 30 percent of the yield of the tax on the foreign-owned copper mines, or about equal to the yield of the stamp tax on legal papers and actions ^{16/}

Given its modest yield, which seems unlikely to increase much even as administration is tightened with experience, the new tax must be considered largely as an apparently successful effort to make the tax system somewhat more progressive. Naturally, it will still be difficult to "catch" deposits in Swiss banks, so some evasion will remain. However, since there is an offset for income taxes paid, this yield does appear to represent almost entirely payments by persons who heretofore took advantage of loopholes, income tax holidays for a myriad of industries and zones favored under previous governments or of the impossibility of verifying declared incomes, particularly of agricultural landowners.

Since the tax on wealth as of Oct. 31, 1964 is actually paid in late 1965, the effective rate was reduced about 25 percent by inflation, between the base date and actual tax payment. In 1966, the tax paid in 1965 will be due again, but increased according to the difference in the average level of the Santiago consumer price index for 1964 and 1965. For 1967, the 1965 tax will be increased by the index for 1964 to 1966. To the extent that inflation slows down, the real value of the tax payable will thus tend to rise. The base of the tax is always the net wealth as of Oct. 31, 1964, so capital accumulation may not be greatly discouraged. However, the tax ends in 1967 and potential investors may feel that a renewal may well specify a later base date.

Chile is the second Latin American country, following Colombia, to enact and enforce an annual progressive tax on personal wealth. The so-called "substitute for the inheritance taxes" in Argentina and Uruguay is actually a low-rate, proportional tax on business capital, treated as a current cost by taxpaying firms. A second-best way of coping with the prevalence of unregistered bearer shares, the "substitute" taxes destroy the progressiveness of inheritance taxes in Argentina and Uruguay. Chile, on the other hand, bans bearer shares, thereby eliminating a major form of evasion of various taxes.

The present writer proposes to investigate the application, administration and effects of this tax, and of the reassessment of rural property, in field research in Chile during 1966 and 1967. This would be the first phase of a general survey of experiments and tax innovations affecting land tenure and agricultural development in Latin America. While in Chile, I also hope to explore the extent to which landowners understand the new taxes, as well as their

reactions to them. The research will also evaluate the merits of exempting improvements; this exemption becomes potentially more attractive as the new wealth tax nullifies the exemption heretofore enjoyed by the owners of many other kinds of capital.

B. Taxation and the Motives for Holding Land

It is a commonplace assumption in development literature that some of the agricultural land in low-income countries is owned by persons who hold it for reasons having no relation to a desire to produce food and fiber thereon. Land is allegedly purchased or held because:

- 1) Population growth or future urbanization makes land an attractive speculation as a financial investment.
- 2) Land prices tend to rise as fast as any other "secure" investment during inflation, and the purchase of land is thus an easy way to protect the real value of personal wealth.
- 3) Land ownership in many societies is expected of the social and economic elite, and land is sometimes bought by the newly-rich seeking to assert their arrival in that status.
- 4) Land is inherited, and respect for the deceased as well as the other motives here listed encourage the heirs to "keep the land in the family," whether or not any of them cares to manage it as a farm. Some persons holding haciendas so large they cannot utilize all the land, may nevertheless retain the excess for their children or grandchildren.
- 5) Under the preferential tax laws (or inefficient tax enforcement) of some countries for agriculture, land is sometimes purchased by industrialists in order to reduce income taxes through alleged losses in farming, or to conceal profits earned elsewhere.
- 6) Under preferential credit regimes often found in countries with tight monetary policies (e.g., Chile), industrialists and distributors may acquire or hold land solely as a means of obtaining bank credit, which they actually use in non-agricultural activities.
- 7) Land conveys psychic benefits not always associated with ownership of other capital assets. For many wealthy persons, a country estate is a source of pride and pleasure quite apart from any income they may derive from the land.

For example, it has been alleged that landowners in Brazil have "land hunger," and use savings to buy more land instead of intensifying cultivation of land they already own, when the return to the owner and the economy would be higher on intensification.^{18/} A heavy tax based on unimproved land could perhaps discourage this practice. The arguments have been explored by Mason Gaffney in a paper on urban renewal, but the conclusions may also fit rural land use. A heavy land tax would spur development by

'arousing sleeping landowners, bypassing credit rationing, substituting a visible explicit cost for an invisible implicit one, reducing the liquidity of slow landowners, compelling a more rational attitude toward heirloom land and in general needling landowners to do what their self-interest would seem to have dictated anyway.'^{19/}

However, we should not lose sight of the fact that the preponderant problem is not with idle land, but rather with arable land that is "badly exploited" in some sense. Much land is owned or leased by people who are farming it, sometimes very well by any standard. The medium-sized and large modern commercial units, the traditional haciendas, and the large plantations all use at least some of their land. Even the small parcel is unlikely to be completely idle; its ownership at least assures its owner that he and his family will not starve, if he cannot find work elsewhere. Although much of the land is not idle, then, the agricultural sector has not been performing at all well. Agricultural exports fell to US \$30 million in 1965, compared to US 32 million in 1964; all other export sectors rose.^{20/} Imports of food which apparently could be grown in Chile run to about US \$122 million per year.^{21/}

I suggest that the material on present land use, as determined by the aerial photogrammetric study in Chile, be collected and tabulated as promptly as possible, together with the estimated potential yield used in the reassessment, in order to estimate the true extent of underutilization of agricultural land (in 1961, at the time of the photography). Likewise, a survey of owners might attempt to determine the real and relative importance of the unproductive motives for land ownership. Admittedly, the interviews would have to be planned and executed with care to avoid a tendency by respondents to claim falsely productive reasons for owning land, lest they endanger tax or credit privileges or become a target for early expropriation.

One of the basic objectives of traditional agrarian reforms is to discourage all landholding that is based on motives 1 through 7, and to re-motivate owners to farm it well or to get the land into the hands of persons whose primary interest lies in farming it. There is much debate as to whether it suffices to oblige the non-farming owner to lease the land to someone who will farm it, or whether productivity and social development require that the farmer actually

have or acquire ownership as well. The merits of retaining or abolishing tenancy have been dealt with elsewhere, however.^{22/} The main reason large amounts of agricultural land in low-income countries in Latin America could be held principally for motives 1 through 7 is that the annual carrying cost is far lower than it would be in most high-income countries. The opportunity cost (potential profits if the land were intensively farmed) may be dwarfed by speculative considerations; at any rate, it is far less obvious than the fact that actual land taxes tend to be nominal or non-existent in most of Latin America.^{23/}

Naturally, a heavy annual tax on land value (or potential yield) is not the only remedy. If the tax service can enforce an effective capital gains tax at high rates, this will help. The problem of speculation in lands on the urban fringe has been explored at length by the Urban Land Institute and others.^{24/} However, changing national values so that high status is accorded those who produce instead of those who possess land, is a major task that can hardly be accomplished by tax measures alone, although they help "signal" the government's attitude. And if credit policies favor landowners as such, they should be reexamined and at the least, favor henceforth only the owners whose land is intensively and productively managed. Incentives and enforcement are both enhanced when land taxes are based on estimated potential yield rather than actual income. However, experience in Latin America shows that when this is done, care must be taken to prevent landowners with other business interests from putting farm costs on the books of their other enterprise and assigning all actual profits to the farm.

Traditional economic analysis assumes that a significant tax on landholdings would oblige owners to farm the land, to sell it, or at least to lease it to others who would do so. If this is so, the sharp tax increase in Chile in 1965 should lead to more intensive use of agricultural land, to the subdivision of holdings too large for one family to administer, to more leasing of land, and to an increase in the supply of farm land in the market that would tend to lower land prices and rentals to a level appropriate for the lower after-tax net incomes from land. I hope to collaborate with the Institute of Economic Research of the University of Chile in the testing of these hypotheses during 1966 and 1967.

I shall also consider the tax factors that encourage or discourage private land division. Admittedly, the imminent prospect of rural union organization and land reform, including expropriation and redistribution of holdings in excess of the equivalent of 80 to 320 hectares of irrigated first-class land per person, may also affect all of these variables. (See the report by Peter Dorner.) One of the most challenging aspects of the proposed research is the problem of separating and distinguishing the causal factors in any changes discovered.

C. Taxation in Relation to Farm Organization, Investment and Output

The research should also consider another hypothesis, to the effect that taxation (and charges to beneficiaries in reforms) will also affect the size of holdings, farm organization, and production. For instance, some Bolivian campesinos have felt so insecure with land titles given gratis by the state, and with no land tax to pay, that they have reportedly sought out the ex-owner and paid him a modest price for a quitclaim deed of any interest or rights he might still have.^{25/} They achieve tenure security, but the state gets no revenue.

It has already been established that special surcharges or discriminatory rates can discourage absentee ownership, corporate ownership, the holding of large amounts of land, if and only if the taxes are enforced and if the rates are high enough, including surcharges, to be significant to the owner.^{26/} In general, it appears that such measures succeeded in Australia but failed in Argentina, chiefly because the Argentine taxes are levied with rates so low that even with all of the penalties added in, the owners scarcely notice the tax bill.^{27/} Progressive or not, a policy of holding agricultural taxes to a minimum may handicap rather than aid agricultural development, as Wald has insisted.^{28/} This raises the question, as yet unanswered, of how to determine an appropriate level as well as structure of taxes for this sector.

The Brazilian land reform statute (Law 4,504 of Nov. 30, 1964), establishes a highly complicated tax structure, which seeks to penalize extremely large holdings, as well as owners who leave land idle, or who fail to comply with certain desired practices such as the planting of trees on a certain percentage of their land. This statute has been analyzed by Robert E. Price for the Land Tenure Center.^{29/} It is modeled fairly closely on the progressive land tax enacted by the State of Sao Paulo in 1960. (This tax was repealed by the Federal Congress in 1961, through a constitutional amendment assigning the land tax to county governments (municipios). However, a new constitutional amendment in 1964 made the tax a federal levy, with revenues to go to the municipios, but assessment to be federally directed.

The Brazilian Institute for Agrarian Reform has begun the recruitment and training of 120,000 officials for the reassessment process (most are employees of state and local governments).^{30/} The first step is to consist of a questionnaire survey of some 3 million owners and occupants of land in the entire country. At least at the start, owners will be permitted to assess the value of their land.^{31/} They will not be intimidated by fear of expropriation at the declared value, as tax values are but one of several factors to be considered by the courts in any expropriation under the reform law.^{32/} However, landlords at least may be intimidated by the fact that rents are

henceforth limited to 15 percent of the tax value declared.^{33/} Unfortunately, landlords elsewhere have successfully evaded rent ceilings, and one wonders whether Brazil will have any better luck.^{34/}

While there may be some "announcement effects" of the tax survey and of the law itself, it seems unlikely that significant effects of the 1964 law will be discernible before 1967 or 1968. Nonetheless, it would be helpful if scholars working in other aspects of Brazilian agricultural development and rural society would be alert to indications of effects of this prospective tax increase, as well as to the extent to which rural landowners and prospective reform beneficiaries understand its sophisticated terms and intentions.

One of the crucial factors in the effectiveness of any real estate tax is the efficiency and promptness with which the state seizes, sells, and conveys secure title to land upon which land taxes are unpaid. One study of the property tax in Rio Grande do Sul, reports that delinquency was widespread while the tax was administered by the state.^{35/} The state relied chiefly on the sales tax for revenues; for this reason, as well as (perhaps) the presence of urban and industrial power groups seeking cheaper food and quite willing to crack down on rural landlords, the states could consider progressive and incentive taxes.

The counties, on the other hand, tended to keep taxes simple and to get more revenue. They also did a better job of enforcement, perhaps because the revenue involved was relatively much more important to them than it had been to the states. Even so, owners generally found it profitable to delay payment as long as the only penalty was 10 percent interest. Only when a new law required delinquent tax payments to be made in purchasing power equal to the taxes when originally due, did owners rush to pay up. The publication of a table of monetary coefficients for all years back to 1938 was apparently sufficient to induce many owners to pay up in January and February of 1965, before the inflation adjustments were applied.^{36/}

Given the difficulties inherent in organizing to expropriate privately-held land for reform purposes, the least that a reform-minded government should be able to do is persuade the tax service to take tax-delinquent land expeditiously and turn it over to the land reform agency with a clear title. Likewise, state banks should foreclose at once on overdue mortgage loans to the owners of large estates.^{37/} To the best of my knowledge, this aspect has not been investigated systematically by anyone in Latin America as yet. It will of course be included in the proposed study in Chile, but I suggest that LTC trainees might be asked to determine the current state of land tax delinquency control in each country.

One aspect of farm land taxation which is still being debated is the taxation of improvements. Either in the income tax or in land taxes, many countries exempt or subsidize investment at least for some years. In the Chilean land tax, most kinds of productive improvements (but not luxurious hacienda houses nor swimming pools nor vineyards) have been excluded from the tax base since 1956. This means exclusion from the tax on personal net wealth, as well as from the land tax (see above p. 7).

Jamaica is in the process of converting a real estate tax that includes improvements into one which taxes the land value alone. This change has been criticized by Professor Hicks, on grounds that it is unnecessary to give such a rebate for existing buildings and that a selective exemption for productive new investment would be as stimulating, with less loss of revenue at existing rates, which the Jamaican Government is loathe to raise.^{38/} Professor Holland, however, has argued that there is merit in a general measure, whereby all builders may benefit without the necessity of obtaining a bureaucratic decision in their favor.^{39/} There is no obvious dramatic benefit for agricultural development in the Jamaican tax change, however, as any incentive to improvements may be offset by reduced public services or higher rates on land to make up for the loss in tax base by the exclusion of buildings, chiefly in the cities and towns.

D. Taxation and the Development of Local Democracy and Initiative

Scholars from Anglo-Saxon countries tend to presume, sometimes without even formally stating it as a hypothesis, that local determination of property tax rates as a function of the local government budget, decided by a representative and democratic process, encourages local initiative and community development.^{40/} In most of Latin America, this decentralization of decisions is largely absent. The rate of taxes on real estate is set by the state or national legislature, even in those countries where assessment, collection and spending of the revenue is a local matter. In a few countries, including Chile, the property tax is assessed and collected by the central government, though lower levels may share. The level of local government activity may thus be limited by a decision taken in the distant capital, where wealthy property owners may have more influence than small holders and non-property owners.

One attempt to study the possible benefits of a change toward local taxation was made by Kenneth Cann, who conducted research in the State of Rio Grande do Sul, Brazil, on the 1962 constitutional change assigning assessment, collection and spending of the property tax entirely to local governments. Cann prepared a detailed study

of the structure of local finances in Brazil in 1964.^{41/} Unfortunately, his report on his field research has not yet been completed. In any event, the problem was complicated by the anti-land reform inspiration of the 1962 tax change, and by its subsequent reversal under the present government, in the agrarian law of 1964.

Like so much of our published material on public finance in the low-income countries, our belief in the merit of local tax determination is largely armchair speculation. Like most of the topics here discussed, it should now be tested empirically in field studies.

III. CUT-BACKS IN OTHER PROGRAMS THAT COMPETE FOR RESOURCES

One of the crucial issues in development planning is the allocation of resources (both funds and skilled manpower) to competing government programs and projects. The Alliance for Progress, for example, commits Latin American governments to a wide range of programs, from better housing and drinking water to land reform and universal primary education, yet no government is in a position to move rapidly on all of these fronts at once.

It is therefore necessary that social scientists examine dispassionately the circumstances in which priority should be given to specified types of land reform and agricultural development measures, in preference to other specific reforms and developmental programs. However, it is not sufficient that the scholars involved not be partisan advocates of universal agrarian reform--it is also necessary that they not be biased against it, through ignorance as to the variety and effectiveness of its many forms, or through lack of experience and first-hand knowledge of the situations requiring reform. Scholars must beware the economist's predilection for measures that increase the measurable national income per capita solely because he can measure it; the distribution of income and the quality of life are equally relevant variables.

Again, Chile offers a promising field for research, and many scholars from various countries and disciplines are already cultivating it. The government of President Eduardo Frei campaigned on a platform calling for many kinds of reforms and for major development programs; even some Christian Democrats have suggested that it will not be possible to carry out all of these promises promptly, though the specific quantitative targets set in the campaign were more modest than many of those of Frei's principal opponent. Political expediency, particularly with a rebellious Senate not controlled by the Christian Democrats, will doubtless have much to do with the order in which reforms are taken up. However, researchers working in Chile should be alert to all of the factors which seem to influence the hard decisions actually taken between competing programs and rival reforms.

The Land Tenure Center did reproduce and circulate for comments one study on the problems for reform finance which may be raised by regional economic integration in Latin America.^{42/} Essentially, the problem is that if a real common market is attained, competition to attract capital and investors could drive tax levels down to the lowest common denominator. In a "Gresham's Law of Taxation,"^{43/} one government controlled by an oligarchy with no intention of making tax or other reforms could force others to forego tax reforms and thus lack fiscal resources with which to carry new public programs, including land reform.

IV. OBTAINING RESOURCES FROM ABROAD

Little specifically has been done thus far to pull together the financial implications of land tenure research for foreign aid programs; presumably, this is done mostly within AID. I would hope that a careful review of the files, particularly as to information and advice requested by country missions of members of LTC research projects in Latin America, would yield useful generalizations as to the extent to which countries in various circumstances can absorb external resources productively in agrarian programs, and the forms in which such external resources can most effectively be provided.

Dale Adams, before joining the LTC team in Colombia, did one such study concerning the use of P.L. 480 commodities in that country.^{44/} Another report, by the present writer, discusses a proposal that AID lend money to the Peruvian Government, with which to allow ex-landlords to convert their bonds to cash or shares in industrial undertakings.^{45/} Basically, the report concludes that land expropriation is a domestic matter for each nation (see next section), and that foreign aid would more appropriately be channeled directly to industrial or agricultural development.^{46/} Landowners, if as qualified as other applicants, could pledge bonds as security for such loans--there is no obvious need to allow them to cash in the bonds prematurely. The report also contains a summary and analysis of the Peruvian land reform law and regulations.

Other recent proposals would have existing banks or a new World Land Bank lend dollars to enable underdeveloped countries to buy up land at market prices for resale on long credit terms. Since many low-income countries are already close to their limit in external borrowing capacity, this would hardly seem a high-priority object for loans. It might be added that international bonds or guarantees are equally problematical, though one can understand the large landowners' desire to have compensation controlled by an entity to which they have easier access (through contacts, ability to speak English, and money with which to travel), than do the reform beneficiaries.

V. FINANCING THE TRANSFER OF LAND OWNERSHIP.

The financial aspect of agrarian reform that usually most alarms landowners concerns the compensation, if any, which they will receive for the land which is taken from them.

In cases where the price has been fairly close to pre-reform market values and payment has been in cash or in negotiable securities regarded by the landowners as sound, there appears to have been less landowner opposition to reform programs. In Venezuela, it appears that this was largely the case--but this was possible largely because about two-thirds of the needed land was confiscated outright from a deposed dictator. Also, the contentment of the landlords was not offset by discontent among the campesinos over having to repay high prices for the land: Venezuela has thus far distributed the land gratis, a luxury few countries could afford if former owners are to be compensated. Venezuela also has no tax on rural land, although one may soon be enacted.

If landowners are too pleased with the prices and terms being given, they may instigate their tenants or laborers to demand expropriation. Their haste to sell their land could also be based on fear that a future government will insist on obtaining more land for its money, or on paying a lower price so that repayments by beneficiaries may also be lowered. The tenants and laborers may not even dare protest the price set, because the landlord is permitted to keep a certain area, and would choose to keep that otherwise assigned to the protester.

The alternatives in the valuation and payment for land, with examples from many countries, were recently explored at length for the United Nations by the present writer.^{47/} That report also discusses the factors involved in determining the charges to be levied on the beneficiary; these are closely related to the expected level of income of the new units, and to the taxes and loan payments they will be facing. This material is being brought up-to-date and focussed more directly on Latin America; completion as a Land Tenure Center paper is expected for February, 1966.

Another recent article, echoing Edmundo Flores,^{48/} argues that land reform should be seen as fiscal redistribution of a very appropriate sort for low-income countries unable to administer a modern income tax.^{49/} Compensation, at market value, would of course negate the redistribution.

An excellent survey of the compensation question from a legal viewpoint, with emphasis on the Mexican case, has been published by Kenneth Karst.^{50/} This study emphasizes the "restitution" concept, whereby the dispossessed landowner is not compensated because his

"title" was itself originated in fraud, deceit or the violation of Spanish law centuries earlier. Nonetheless, Karst points out, most contemporary reforms at least go through the motions of some compensation, giving greater "legality" by conventional standards to a process which in fact goes far beyond the scope of ordinary constitutional law on expropriation.

Rent reductions and labor legislation are closely related to land redistribution, and often precede it. The discussion of land reform in Latin America has often centered largely around the "compensation," if any, to be paid the landowner. Sometimes we forget that the laborer and the sharecropper or tenant is also entitled to some kind of "just compensation for his work"--or is he to be left to the mercy of a "free" market where the supply of laborers and would-be tenants often greatly exceeds the demand at a "living wage"? Before land reform, monopolistic conditions are said to exist in the land market, and monopsony often seems to exist in the hiring of labor or choice of tenants. For that matter, "debt peonage" is a well-known manner of depriving generations of workers of any bargaining power they might otherwise have.

Even governments unwilling to go so far as to expropriate some or all of the land in large holdings often do intervene in the market to counter-balance some of the economic power of the landowners. Argentina, for example, has frozen land rents for many years in most provinces. Ecuador, dusting off old labor legislation never before enforced in the rural areas, has obliged estate owners to give their workers clear title gratis to the small parcels the workers have been permitted to till in their spare time--as liquidated damages for non-payment of legal minimum wages, vacations, etc., during the last decade. This step, described as just the initial phase of land reform, has the advantage of involving no problem of valuation or compensation for the land taken, and of showing the workers that the government does intend that labor legislation be enforced at last.^{51/}

It also seeks to lift the workers' attitudes from the abject, hopeless humility induced over decades by knowledge that they could be evicted at any moment from job, garden and house, for the slightest disrespect toward the landowner. Security in their own home, however humble, is the first step in changing the expectations and attitudes of families whose sons might become enterprising farmers --or city workers--in a more open society. Obviously, research as to the reactions of all concerned and the feasibility of similar measures in other Andean countries would be quite valuable.

Legal reduction of rent and raising of wages has a further advantage, when it precedes outright land redistribution. By removing the sources of "exaggerated" profits based on what is now regarded as exploitation of the workers and tenants, it permits valuation and

land indemnization at prices related to the profitability of the land when it counts as costs a reasonable level of wages and of profits for the manager (tenant). Particularly when beneficiaries are to repay whatever price is paid the ex-landowner, expropriation at pre-reform market prices would condemn the new owner to continue living at about the pre-reform level for another generation. Present net incomes from land ownership are in many cases higher than they would be if workers were paid more than a bare subsistence wage; should compensation be based on this profitability, or on that which would prevail if higher wages were paid?

This reasoning might be tested in the case of the Church-owned land being sold to farm workers in Chile (see Dorner's report).^{52/} Was the price set too high? From Thiesenhusen's report,^{53/} it appears that they could live better than before--but not as well as they seek to right now--and still pay off the land. Thiesenhusen also points out the fact that the price set by the church was somewhat below commercial values (which reflect both the availability of labor at bare subsistence wages and the non-agricultural demand for land). Since the church lands were given to support charitable programs, the church might betray the intent of the donor if it accepted much less than "commercial" values.^{54/}

To the extent that some types of farming are to continue on the basis of hired labor, even after land reform, one must beware of labor laws and payroll taxes that make labor much more expensive to the employer than the wages and benefits received by the worker. Such a discrepancy will lead to premature mechanization, unemployment, and high costs of production. Peter Dorner's report suggests that profit-sharing plans in Chile may have had this effect.

Whatever the price assigned, in countries with prolonged inflation it is customary to adjust the principal and interest of land payments. The agrarian reform bill sent to the Chilean Congress later in 1965 contemplates such adjustments. However, a certain amount of wealth distribution is built into the proposal, since payments to the owners are to be adjusted by some fraction of the movement of an index of agricultural prices. The more land originally held, the lower the fraction by which principal and interest will be adjusted.

VII. OTHER FINANCIAL ASPECTS OF AGRICULTURAL DEVELOPMENT AND RURAL CHANGE

A. Global Level

The principal planning problem at the level of the national economy is setting priorities for the development effort. Shall fiscal resources, technical staff, and the private sector's resources as well, be channeled first into the promotion of industrial development or into agriculture? The literature is extensive and we will not attempt to summarize it here. A second question, however, involves the means by which resources of the private sector are to be shifted into or out of agriculture, and further research in this area is definitely required.

Those who hold that private investment in agriculture is urgently needed, for instance, often oppose the slightest discussion of land reform programs on grounds that it frightens off potential investors. Whenever delay in reform (or whatever other reason) induces the landless laborer to seize privately-owned farm land, the landowners immediately warn that no one will invest money in agriculture until such lawlessness is stamped out. Implicitly, they assume that the only important investment is that of financial capital, overlooking improvements that even illiterate laborers could make with the idle time that is inherent in the rhythm of agricultural production, if they had the incentive of secure ownership of house and land.

One rather obvious conclusion seems to be that reform objectives should be determined quickly and stated clearly if at all possible, and that whatever land is to be excluded should be identified and protected in order to encourage investment in it. For the rest, the sooner the change in possession is effected, the sooner the new owners can be encouraged to get about their investment and improvements. Obviously, little can be expected of those who know they will lose their land during the period while government is getting organized to acquire the land. The land reform bill submitted to the Chilean congress in November 1965 provides full compensation in cash for improvements made after the date when the bill was introduced, while earlier improvements are paid in cash and in bonds just as is farm land in general. The purpose, obviously, is to encourage at least some continuing investment on land which may later be affected. Still, no one is likely to undertake projects with payoffs more than a year or two away, when the best he can be sure of is his money back.

Recent trends in Colombia and Nicaragua show another approach to development under the threat of reform: urban-based investors, who employ skilled technicians, have been reported as leasing large

tracts of land and planting cotton or other crops on a strictly commercial, intensive basis.^{56/} They leave the risk of land expropriation to the owner, and do not tie up their own capital in land. A priori, the chief drawback would appear to be the lack of incentive for long-term improvement of this land, but it does appear to prove that talk of land reform does not preclude all intensification of cultivation, nor increase in agricultural output. However, this kind of development depends on the existence of profitable markets abroad, and it may or may not be a basis for stable growth.

In this case, which needs verification in the field, capital appears to shift from urban sectors into agriculture, attracted by profit opportunities. For the next generation or so, population growth is likely to continue to outrun industrial and other urban employment.^{57/} To employ the added workers in agriculture, substantial capital will have to be invested in land-saving forms; the capital may or may not be generated in agriculture itself. At some future stage in development, however, it is likely that growth strategy will call for a shift in the opposite direction. This comes fairly easily when land is owned by wealthy people who live in the city and perhaps have other investments there; it will perhaps be much harder in areas where landholdings are dispersed and most families that own land have relatively minor and low-level contacts with industry and commerce.

At some future date, then, economists and other social scientists will want to consider institutional means for transferring capital out of agriculture. The solution may lie in depressed prices for foodstuffs, but recent New York Times accounts suggest that the U.S.S.R. (compulsory deliveries) and African countries (using export marketing boards as revenue sources) are dissatisfied with the results of such taxes. The disincentive effect on production would probably be less if another form of taxation could be found that did not depend on the quantity of products marketed. One obvious form is the land tax; both to ease acceptance of the tax and as a strategy appropriate at present stages of development, land taxes should at first be devoted largely to government programs which visibly help the rural population and increase food output. However, at some future time the proceeds might be destined to other sectors.

Similarly, credit institutions set up to serve farm families should take care to encourage financial savings as well as to extend loans. For instance, some cooperatives require borrowers to purchase shares with a small part of each loan. The result is a form of forced saving, but in time it should help make the cooperative more independent of government subsidies. While the loans granted may be more important for the present, in time these credit institutions may also serve to channel investment funds to other sectors.

Differential exchange rates have also been used in Argentina, Brazil and Colombia, with results considered discouraging by many critics. For Argentina, the criticism is valid.²⁸ For Brazil and Colombia, however, it must be recalled that coffee production is already too high, so a more attractive price to the producer would be a dubious policy. However, it appears that the revenue potential of present exchange rate discrimination has often been thrown away by reselling the foreign exchange for imports at the same low rate, discouraging domestic industry and making non-traditional exports unprofitable.

B. Sectoral Level

Whatever the level of resources to be assigned to programs in the agricultural sector, further hard decisions must be made as to their allocation among projects and programs. For example, the main reason that expropriated land is generally paid for in long-term bonds is that hardly any government is willing to devote substantially all of its current resources to buying land. Rather, payment is generally adjusted to a rate which is covered, at least in part, by payments made by the beneficiaries.

Should priority be given to building schools or crop storage facilities? To hiring teachers or extension agents? To remodeling rural society, or to helping those landowners who are already modern in outlook to increase their output rapidly? The choices to be made are bewildering; the normal reaction by governments seems to be to try to do some of all of the possible programs. Further research is needed to determine the "payoff" of outlays in each direction--complementary and competing. It may be, for example, that information about new varieties of seeds is wasted without marketing and credit programs; on the other hand, simultaneous efforts by rival agencies to get small holders to grow different crops, e.g., sugar cane and african palm, may lead to waste, indecision, and less output than if each agency were arbitrarily assigned a certain region in which to promote its crop.

Fiscal revenues obtained from agriculture, as well as the needs of the sector for public services and investment, may vary widely during the process of reform and growth. Some scholars assume that reform inevitably cuts output and tax revenues just when they are needed most, but the evidence is meager. Some reforms, such as those of Bolivia, Cuba and Mexico, were associated with disorder and violence that would have cut tax revenues sharply in any case. I suggest a greater effort to complete a comparative study of the movement of fiscal revenue before, during and after the land reforms now underway or beginning, in Latin America.

The consideration of financial aspects of development and reform programs at the sectoral level must also include production, long-term investment and consumption credit. Many interesting hypotheses could be advanced in this area, and Land Tenure Center research in Colombia has already investigated the availability and use of credit in various areas.^{59/} Bernard L. Erven has also prepared a brief paper on farm loan repayment policy research in Rio Grande do Sul, Brazil.^{60/} His current work in Brazil includes study of the effects of inflation on borrowers and lenders, a complicating factor for any credit policy in Brazil or Chile. Agricultural credit is being studied intensively by the Agricultural Finance Center at Ohio State University, under another USAID contract, and hence will not be discussed further in the present report.

Another sectoral-level policy problem concerns the relative prices set for agricultural products, and the policy regarding guarantees, floors, ceilings, etc. Chilean experience (see Dorner's report) suggests to me that a guaranteed minimum price for two or three successive years is the most effective single stimulus to the planting of a given crop. Price policies should be studied with great care, however; the setting of a high price for a given crop may not increase total physical output, but merely reduce the output of another crop until a new shortage is created.

There has been considerable debate over price levels for food in Latin America. Landowners claim that with higher prices they would produce more. Some critics reply that higher prices without land reform would merely increase landlord income and land prices, but not output. These critics assume that the tiller does not now know how to increase output and in any case has no incentive to do so, while even with higher prices the owner will stay in the city, attending to his other activities and managing the land at a distance.^{61/} However, Land Tenure Center research in Chile found that smallholders do indeed know what to do to raise output. Unfortunately, they usually cannot (or think they cannot) afford the fertilizers or pesticides which they know are needed.^{62/} Higher prices could help them.

Above all, price and related policies should be preserved from impulsive measures for short-term purposes. The growing of onions in Chile for export has at times in the past been discouraged by arbitrary and sudden prohibition of exports at peak market times. The government sought thereby to force the onions onto domestic markets to hold down the consumer price index, in which onions are a significant commodity.^{63/} While illustrating the relationship of wages, policy and agricultural development, this was no way to stimulate exports.

In some countries, control of land means virtual ownership of government--the right to tax, the right to judge, and the power to enact and enforce laws.^{64/} Such power and status would imply certain

responsibilities; it would be interesting to establish whether landowners in Latin America agree. Do they feel that their obligations are taken care of if they devote some time to the ceremonial, legislative and judicial functions of government? Do Latin American hacendados also accept taxation that is effectively progressive with respect to income and wealth, recognizing that their relatively privileged situation enables and perhaps morally obliges them to assume most of the cost of government? Or do they use their status and power to limit the activities and hence the costs of government, and to shift the remaining tax load onto others? If landowners are in power, the need not oppose reform outright. Rather, they may find it expedient to starve the land reform agency for funds and insist on technical perfection, establishing model farms on public lands at a unit cost too high for their number to be significant.

Some clues to landowner attitude and power may be found in the fate of punitive taxes on the owners of idle land--levied in Guatemala and Chile, but poorly enforced in the former and never enforced in Chile. Other clues may appear in incentives provided under the income tax favoring investment in machinery, though at least in the case of Argentina the motivation of the legislature appears to have been more an effort to increase the sales of the farm machinery industry, an important source of urban employment and incomes in some cities.

The taxation of personal net wealth and of estates and inheritances in Latin America was discussed in two essays by the present writer, emphasizing examples from Argentina, Chile, Colombia and Central America, which were recently brought up to date for use by Land Tenure Center trainees and other students.⁶⁵ In brief, the findings are that death taxes nowhere in Latin America make a significant contribution either to revenue or to the redistribution of wealth, and that annual taxes on land and other personal wealth are only significant (i.e., over 1 percent of market value) in Chile and Colombia. A "substitute inheritance tax" which purports to tax capital every year in Argentina and Uruguay is actually an elegant way to avoid death taxes entirely. It applies to the capital of companies that issue bearer shares, including corporations so organized in order to transfer landownership without taxes. The rate of 1 percent on net worth applies to almost all companies, and therefore is more easily shifted to workers or consumers than the inheritance tax would be.

At the Level of the Farm Unit

In the design of taxation, subsidies, incentives and credit programs, it is particularly important to have budget studies and other records of the finances and financial decisions of a sample of farm units. Only with such research can we really have much confidence in the usefulness of even fairly costly programs, such as the distribution of free fertilizer or pesticides, or supervised credit. Experience in Perú, however, suggests that even such studies are useless if the respondents feel that the studies will be used to make decisions on taxes, or that through lying as to their incomes they may obtain lower charges or longer terms for payment for their land or loans.^{66/}

One of the important questions asked about the finances of land reform beneficiaries is the level of savings they may achieve, and the uses to which they will put such savings.^{67/} More important than this hypothetical question, however, is the possibility that the rural family increase its income and investment simultaneously, as a result of acquiring secure title to its parcel. Farm laborers suffer a good deal of seasonal unemployment in many low-income countries; so long as they have no security of tenure, they naturally enjoy the unwanted leisure as best they can. Given property rights, however, Raup suggests that the rural family will apply much of its available labor not needed for crops and not wanted in off-farm employment, to improvement of both the farm and its dwelling.^{68/}

A better dwelling means a better living for the inhabitants, whether or not the methods used to estimate national income per capita reflect it promptly. The security of ownership could thus raise national investment even though the individual investment is small, and the "quality" of family living may improve through greater privacy and better sanitation. Best of all, this investment is made almost entirely with labor, previously dedicated to "consumption" in idleness or recreation; there is no "import component," nor reduction of other investment. (This last point is based on the assumption that the landlord, before reform, was content to collect a rent and did not himself invest on or off the farm.)

As Georgescu-Roegen suggests, the most efficient "feudal" exploiter of all may be the head of a peasant family if he has secure tenure and children with idle time.^{69/} It would be useful to have studies comparing the actual improvements made, their cost and the difference made in the lives of the families, by families who own small parcels and otherwise identical families who live on large estates as "permanent" workers subject to dismissal at any time.

Similarly, some reform governments (e.g., Bolivia) have insisted on exemption of beneficiaries from taxes as well as from charges for land received. We already mentioned the insecurity induced among the Indian beneficiaries, who are accustomed to the idea that landowners must pay taxes, and that land is sold, not given away. It would be useful to try to determine the way in which imposition of various levels and types of taxes might affect attitudes, security, receptiveness to ideas, social structure, investment, area and crop cultivated, etc.

Finally, however, we must admit that neither land ownership nor higher productivity will itself guarantee an increased level of welfare for the rural masses. The monopoly and monopsony power of middlemen, moneylenders and storekeepers (themselves sometimes victimized by monopolists in the big cities) may well siphon off the increased income, leaving the poor campesino producing more but no better off. As Paulsen and Meyer wrote, the solution to this difficulty--which must be solved--lies in the area of industrial organization, not in the area of taxation.^{70/} However, a realistic land payment schedule, land taxes, and some form of forced savings (e.g., in shares in a marketing cooperative) would leave less margin for the moneylenders and middlemen to take. It would also gradually finance the new institutions that would break their monopoly.

VII. SUMMARY AND RECOMMENDATIONS

Reform and development programs can only be implemented if governments acquire more resources or reallocate those they have, increasing efficiency and cutting back other programs. New resources may come from foreign aid or from reduced private consumption with the resulting savings channeled into the development program; the bulk of new resources in most cases must however come from tax reform and from increased production and incomes following reform.

Thus far, the Land Tenure Center has only explored recent innovations and new ideas in land valuation and assessment. Furthermore, our knowledge is largely speculation and generalizing on the basis of a few isolated instances. It is recommended that the Center now explore empirically, and in depth the relationships between tax measures and the basic variables and goals of agrarian programs. We need to test the basic hypothesis that changes in the form and level of agricultural taxation are an economical and efficient way to help achieve objectives such as increased output, improved security of land tenure, and local democracy and initiative, as well as a source of revenues with which to finance government programs.

It is particularly opportune to begin such studies now, as Chile, Colombia and Brazil have enacted measures which link taxation and land reform, and the Land Tenure Center already has considerable experience and field data in these countries. Chile has just begun collecting land taxes based on aerial photography, photogrammetry, and photo-interpretation combined with field work. This experience should now be evaluated carefully, in order to determine the feasibility and costs of repeating the process elsewhere. Since the Chilean reassessment classified the land according to its potential output as determined largely by photo-interpretation, the experience should indicate the feasibility of land reform measures that require a rapid decision as to whether a given piece of land is being farmed reasonably well in relation to its potential.

Chile and Colombia link compensation for expropriated land to the value on the tax rolls; Brazil plans to use tax values as the basis for rent ceilings. Again, experience with these approaches over the next several years should be studied and evaluated in the field. The first indications from Colombia are that the approach was far more successful than had been predicted by economists: the owners of 12,294 properties took advantage of a brief opportunity to declare higher values for their land.

A logical extension of these approaches would raise out-of-date assessments by an index, and replace traditional and costly appeals procedures with owner declarations of market value. Such property would, however, be subject to bids by other citizens and agencies

that felt that the property was worth more. If the owner refused to sell, he would be fined and the fine shared with the bidder. This proposal, called "Market-Enforced Self-Assessment," could perhaps be adapted to help prospective land reform beneficiaries obtain their land from eligible large estates with a minimum of effort by land reform agencies. As an appeals procedure from valuations made by assessors and adjusted by the State Equalization Board, MESA is already in use in Florida.

Chile also enacted and implemented a tax on personal net wealth in 1965, with a tax credit for income taxes paid. The wealth tax specifically exempts most agricultural improvements, implements, plantations and livestock, but it taxes land and almost every other form of investment, including many industries and areas long exempt under the income taxes. The effects of this "stick" (the wealth tax) and "carrot" (the relatively privileged status of agricultural investment except the purchase of land) approach should be examined carefully.

The information gathered by photo-interpretation should be correlated with continuing farm management studies and surveys, to determine rigorously the extent to which land is still idle or underutilized in Chile.

Land taxes in many Latin American countries are levied by national governments; future research should continue the effort begun in Rio Grande do Sul to test the hypothesis that transfer of this tax revenue to local governments will achieve greater local democracy and initiative, and greater justice in taxation.

Chile also offers ample opportunity to study the determination of priority for competing reform and development programs, as the new government moves to fulfill a variety of campaign promises that amount to a "Revolution in Liberty" as sweeping as the pledges of Punta del Este.

The indemnity to be paid former landowners and their laborers when land is expropriated is another knotty issue. Interests are directly opposed; the price assigned owners will have to be repaid by beneficiaries in most cases, and resources used for payment of compensation cannot be used to increase agricultural output by the new owners. The irregular way in which some land was originally acquired from the indigenous population may warrant some tempering of landowner demands for generous compensation. If the laws concerning expropriation compensation are enforced, then laws on minimum wages, paid vacations, etc. should also be enforced; Ecuador is now obliging estate owners to pay workers in land the labor benefits owing for decades. Under similar reasoning, Perú pays 70 percent of the compensation for expropriated land, to the owner. The remaining 30 percent goes to the workers and is applied on their land account.

Sooner or later, development in primarily agricultural economies will require the shifting of capital and laborers out of agriculture and into other sectors. Further study of Latin American experience is needed, to find ways of doing this with less disincentive effect on production than that of some measures used until recently in Argentina.

Finally, research in agricultural finance also includes credit, budget studies, surveys of farm saving and investment, etc. These topics will be treated in future research; they are also mentioned in the reports by my colleagues.

FOOTNOTES

1/ Philip M. Raup, "Agricultural taxation in relation to land tenure reform in underdeveloped countries," paper presented to the 1954 Harvard Conference on Agricultural Taxation and Economic Development. The Proceedings were edited by Haskell Wald and Joseph Froomkin, and published in 1954 by the Harvard University Law School.

2/ Frank Osterhoudt, "Giving Land Titles in Northeast Brazil-- The Possible Use of Aerial Photography," mimeographed, Land Tenure Center, February, 1964, 17 pp.

3/ Luis Vera, "Agricultural Land Inventory Techniques: The OAS/Chile Aerophotogrammetric Project," Washington, Organization of American States, 1964, 123 pp.

4/ Arnold Paulsen and Charles W. Meyer, "The Use of Taxation As a Device to Promote Agricultural Development, With Reference to Iran," Conference on land and tax reform in the less developed countries, Milwaukee, 1963, mimeographed.

5/ John Strasma, "Market-Enforced Self-Assessment for Real Estate Taxes," Research Paper no. 6, Land Tenure Center, 1965, 42 pp. Also published in the Bulletin for International Fiscal Documentation, Amsterdam, Sept. and Oct., 1965, and available in the LTC reprint series.

6/ Papers and Proceedings of the Conference on Fiscal Policy, Santiago, 1962. (Published in English by the Johns Hopkins University Press, 1965.) See especially the paper by Arnold C. Harberger, "Some Aspects of a Tax Reform for Latin America," and the ensuing discussion.

7/ I am grateful to Dr. Felix J. Weil, of Pacific Palisades, California, for calling my attention to the Florida law. Dr. Weil also reports having used a similar technique to enforce honesty in customs declarations by importers in Argentina in the early 1930's.

8/ Albert Hirschman, Journeys Toward Progress (New York, 1963), p. 124.

9/ I am indebted to Professor Richard Bird, of the Harvard University Development Advisory Service, for assistance in obtaining these figures. See also his paper at the 1965 Conference of the National Tax Association.

10/ See note 5, above.

11/ "The Brazilian Land Reform Statute," mimeographed, Land Tenure Center, 1965, 19 pp.

12/ Laws 16,250 and 16,282, of 1965. For the definitive text of this tax law, see the Boletín del Servicio de Impuestos Internos, República de Chile, August, 1965.

13/ Budget message to the Congress by Finance Minister Sergio Molina, reported in El Mercurio, November 28, 1965.

14/ Radio address to the nation by President Eduardo Frei, Nov. 3, 1965, reported in El Mercurio, November 7, 1965. The exact amount was E^o 121,417,427, for 88,203 taxpayers, according to a report attributed to the Finance Ministry, printed in the same paper, October 2, 1965.

15/ Finance Ministry report cited in note 14.

16/ Budget message cited in note 13.

17/ The basic sources on the taxation of Chilean agriculture are the reports by the Instituto de Economía of the Universidad de Chile: La Tributación Agrícola en Chile, 1940-1958 (by J.L. Pistono), Agricultura y Tributación (by K. Ullrich and R. Lagos), and the OAS report cited in note 3, above.

18/ CIDA "first round" report on Brazil.

19/ M. Mason Gaffney, "Property Taxes and the Frequency of Urban Renewal," Proceedings of the 1964 Conference of the National Tax Association, P. 280.

20/ El Mercurio (Santiago), January 9, 1966, p. 1.

21/ Message of President Frei, in presenting the agrarian reform bill to Congress in 1965. For 1964, agricultural exports were US \$39 million. Imports were US \$159 million, of which only US 37 million were tropical products. El Mercurio, November 28, 1965.

22/ See United Nations, Fourth Report on Progress in Land Reform (1966).

23/ See the papers and discussion of property taxation in the Proceedings of the Conference on Tax Administration (Buenos Aires, 1961) and on Fiscal Policy (Santiago, 1962). (Spanish edition, Pan-American Union; English edition, Johns Hopkins University Press.)

24/ John E. Rickert, "Open Space Land, Planning and Taxation: A Selected Bibliography," Urban Land Institute, 1965. (Supt. of Documents, Washington.)

25/ This was reported by a trainee in the LTC program; I also heard this from UN staff members of the Andean Mission in La Paz, Bolivia in 1961.

26/ Arthur Domike, "Tax Policy and Land Tenure in Argentina," FAO Information on Land Reform, No. 2, 1964.

27/ ibid. On the Australian case, see Richard M. Bird, "A National Tax on the Unimproved Value of Land: The Australian Experience, 1910-1952," National Tax Journal, December 1960.

28/ Haskell P. Wald, "Reform of Agricultural Taxation to Promote Economic Development in Latin America," Proceedings, Conference on Fiscal Policy, Santiago, 1962.

29/ See note 11, above.

30/ Alvaro Carneiro, in the Latin American Times, August 25, 1965.

31/ ibid.

32/ Price, op. cit. (see note 11).

33/ Carneiro, op. cit.

34/ See, for instance, President Nasser's own admission of failure to prevent landlords from forcing tenants to pay more than legal rents. Doreen Warriner, Land Reform and Development in the Middle East, 2nd edition (London: Oxford University Press, 1962), p. 210.

35/ Kenneth T. Cann, "Real Property Taxation in Rio Grande do Sul, Brazil," unpublished manuscript, 1965, p. 110. This study includes considerable detail on the legal concepts used in assessment of the tax, as well as some highly tentative estimates of the level of the tax. This study is currently being revised.

36/ Ibid., p. 186.

37/ In Venezuela, a high official of the Government-owned Banco Agropecuario assured me in 1964 that his bank would for the moment rather renew an old loan to an insolvent large landowner, than foreclose. He explained that foreclosed land had to be turned over to the Agrarian Reform Institute, which might pay in bonds, through a procedure not yet worked out.

38/ J.R. and U.K. Hicks, Report on Finance and Taxation in Jamaica, Kingston, 1954, pp. 138-140.

39/ Daniel M. Holland, "The Taxation of Unimproved Value in Jamaica," paper presented at the 1965 Conference of the National Tax Association, New Orleans.

40/ See, for a thorough treatment in an African setting, Ursula K. Hicks, Development From Below.

41/ "The Structure of Local Government Finance in Brazil, With Comments on Its Relationship to Community Development," mimeographed, Land Tenure Center, 1964, 62 pp., bibl.

42/ John Strasma, "Reform Finance and a Latin American Common Market: Some 'Harmonization' Problems in Tax Policy," contribution to a forthcoming book on Latin American integration, edited by Dr. Joseph Grunwald of The Brookings Institution.

43/ The "Gresham's Law of Taxation" was coined by John F. Due.

44/ Dale Adams, "Public Law 480 and Colombia's Economic Development," Bogotá, 1963.

45/ Fred Mann and Melvin Blase, "A Potential Institution and Procedure for Financing Agrarian Reform and Stimulating Industrialization in Perú," mimeographed, Iowa Universities --AID contract group, Lima, 1964.

46/ John Strasma, "Agrarian Reform, Land Purchase and Industrialization in Perú," mimeographed, Land Tenure Center, 1965. Spanish version published in El Trimestre Económico, July 1965.

47/ This report appears as chapter 2 in the Secretary-General's Fourth Report on Progress in Land Reform, 1966.

- 48 48/ Tratado de Economía Agraria (Mexico: Fondo de Cultura Económica, 1961).
- 49/ Charles T. Stewart, Jr., "Land Reform as Fiscal Policy for Agrarian Nations," Social Research, Spring, 1965.
- 50/ Kenneth L. Karst, "Latin American Land Reform: The Uses of Confiscation," Michigan Law Review, Dec. 1965.
- 51/ Meritor Poveda P., "Principales Instituciones Jurídicas de la Reforma Agraria Ecuatoriana," Curso de Capacitación en Reforma Agraria, ERAC/FAO/ICIRA, Quito, 1965. This explanation was confirmed by Economist Juan F. Casals M., Executive Director of IERAC, in a visit to the Land Tenure Center in mid-1965.
- 52/ Peter Dorner, "Policy Implications for Chile as Derived From Land Tenure Center and Related Research," mimeographed, Land Tenure Center, 1966.
- 53/ William C. Thiesenhusen, "Research on Recent Colonization in Latin America," mimeographed, Land Tenure Center, 1966.
- 54/ Personal comment by Thiesenhusen.
- 55/ See, for instance, Philip M. Raup, "Land Reform and Agricultural Development," chapter in a forthcoming book on Agriculture and Economic Development, edited by Bruce Johnston and Heeman Soutleworth.
- 56/ Dr. Lauchlin Currie, in a seminar at the University of Wisconsin, November 1965.
- 57/ Gunnar Myrdahl, "The United Nations, Agriculture, and the World Economic Revolution," Journal of Farm Economics, November 1965.
- 58/ Domike, op. cit. (see note 26).
- 59/ A. Eugene Havens, Dale W Adams and Joseph R. Thome, "Summary of Colonization Research Activity of the Land Tenure Center," mimeographed, Land Tenure Center, 1966.
- 60/ Bernard L. Erven "Farm Loan Repayment Policy Needs in Rio Grande do Sul, Brazil--A Framework for Investigation." November 1964, mimeographed, p. 40.
- 61/ A. Eugene Havens, in the Land Tenure Center Annual Report --Substantive, Part II, 1964, p. 21.
- 62/ Dorner, op. cit. (see note 52).

63/ I do not have the index at hand, but onions represent about 1 percent of the total "basket." Food is 49 percent of the total.

64/ Raymond J. Penn, "Understanding the Pressures for Land Reform," statement in Hearings before the Subcommittee on Inter-American Economic Relationship of the Joint Economic Committee, Congress of the United States, May 10 and 11, 1962.

65/ John Strasma, "The Keystone of Tax Reform: The Annual Tax on Net Wealth" and "Estate and Inheritance Tax Reform; Proposals for a More Effective Redistribution of Wealth in Latin America." (From Tributación, Para el Desarrollo, Escolatina, University of Chile, 1966, chs. 5 and 9.)

66/ In the San Lorenzo project in Perú, for example, project managers were at one time extremely concerned about marketing and other financial records indicating that beneficiaries were not getting the corn yields and the net incomes upon which the land payments had been based. The beneficiaries were demanding the forgiveness of part of the land price, and might have gotten it, had not someone learned suddenly that the beneficiaries were picking much of their corn while it was still soft and selling it in the city as sweet corn--thus reducing their apparent yields, and concealing a large part of their true incomes. (First-hand experience reported to me in Perú by the agronomist who discovered the attempted fraud.)

67/ A. Eugene Havens (op. cit., note 61) reports the replies of a sample of Colombian campesinos to the hypothetical question; better education for children and home improvements headed the frequency distribution. William C. Thiesenhusen studied the actual investment of sizeable lump-sum payments received by colonists in San Dionisio; see his Report, cited in note 53.

68/ Raup, op. cit. (note 36).

69/ N. Georgescu-Roegen, "Economic Theory and Agrarian Economics," Oxford Economic Papers, February, 1960.

70/ Op. cit. (see note 4).