

# **Agrarian Reform in Costa Rica: The Impact of the Title Security Program**

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In Latin America, among those peasants fortunate enough to possess a plot of land, security of tenure is a goal which many find illusive. As a result of a number of factors, many landed peasants in Latin America are unable to obtain clear title to their property. The absence of title has a number of serious negative implications for the peasant. In this paper, an effort will be made to examine the problem of tenure insecurity as it has been dealt with in the realm of public policy. The paper first briefly discusses the causes and consequences of tenure insecurity in Latin America, and then goes on to focus on the titling program in Costa Rica, which has attempted to resolve this problem. The nature and accomplishments of the Costa Rican program will be described. Finally, survey data will be employed to determine the impact of the program, measured against its putative benefits. The implications of these findings for titling programs will be highlighted.

## *Tenure Insecurity in Latin America*

While the topic of land reform has dominated much of the dialog and research on rural Latin America over the past thirty years, the focus has been almost entirely upon land redistribution. During this time, hundreds of thousands of peasants have received millions of hectares of land in Mexico, Cuba, Guatemala, El Salvador, Nicaragua, Costa Rica, Colombia, Peru, Chile, and Venezuela, to name the best known reforms, although in some cases the reformed land has reverted to its former owners as a result of violent shifts of

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regime policy. While the reforms have provided many peasants, either individually or collectively, with access to land, they have often exacerbated problems of insecurity by failing to provide secure title to the newly acquired land. Hence, the reform process has unwittingly contributed to peasant insecurity.

Insecurity of title arises as a result of three sets of circumstances. The first of these, the land redistribution process, has already been mentioned. Many land reforms fail to make provision for titling the land distributed to small holders. In Bolivia, for example, as Thome (1967) has shown, titling has gone on so slowly that many peasants who had received land as a result of the massive 1953 reform were still without secure title 15 years later. The same difficulties have been noted in Mexico, the Dominican Republic and Costa Rica, among other nations. While in some cases the delays in titling are a result of administrative inefficiency, in many more they are a direct result of policy decisions which set up an unofficial waiting period during which time the mettle of the new settler is tested. Should he prove reliable after 10 or 15 years, then titles could be issued to him. In still other cases, however, the restrictions on title are formal, and preclude the granting of title until after full payment is made on the land.

Migration is the second factor which produces title insecurity. In many areas of Latin America peasants have migrated to remote regions in search of land. In those areas it is a rarity to find the land registrars, topographers, and lawyers that are needed to complete the titling process. These problems are further compounded by non-existent or incomplete national cadastres. The limitations in the cadastres are often most serious in areas of new settlement and therefore place a major obstacle in the way of peasants who wish to title land in these areas.

The legal obstacles to titling, however, are the most serious and ubiquitous. The legal system which Latin America inherited from Spain includes complex, expensive and inefficient procedures for obtaining title to land. Although the laws vary somewhat from country to country, the problems associated with the titling laws are common throughout Latin America. As a result of these obstacles, much rural land,

especially that in the hands of peasants, is transferred without recourse to the legal system. Informal sales and purchases are arranged with the understanding that few peasants are capable of financing the complex titling process.

The impacts of title insecurity are numerous and severe. In one of the few studies of the problem, Thome (1971:229-330) outlines five such impacts. First, insecure title severely restricts the owner from obtaining institutional credit. Since land titles are the primary source of acceptable collateral for agricultural loans in Latin America, few banks are willing to extend credit to untitled owners. Moreover, in some countries, legal restrictions prevent credit being issued to anyone but the titled owner.

A second impact concerns water rights. In many countries use of water is legally possible only if one has valid title to the property in question.

A third impact concerns the effect of title insecurity on the land market. Those without legal title will often be unable to sell their property because potential buyers justifiably fear paying for properties which may be owned by a third party. As a result, the value of untitled land is far below the market price, and peasants who need to sell their property are forced to do so at a very low prices.

Fourth, Thome points out, the system of land taxation is made inefficient if large areas of land are untitled. As a result, revenues are artificially low, depriving national and local government of the funds needed to improve rural infrastructure. Finally, tenure insecurity often leads to serious disputes over land ownership which cause considerable community tension and therefore severely limit the possibilities for community cooperation.

Another problem, one not noted by Thome, is the overall impact which title insecurity has upon peasant decision-making. The absence of title adds significantly to the insecurity of peasant life and must directly affect the decision-making process. For example, smallholders who do not possess title might be expected to forego opportunities for increased production through the planting of permanent crops.

In an effort to deal with the problem of title insecurity, a

number of Latin American governments have initiated programs designed to provide title efficiently and inexpensively to smallholders. Such programs have been initiated in Bolivia, Colombia, Honduras, Paraguay, Peru, Chile, and Costa Rica, among others (Thome, 1971). A review of United States Agency for International Development (AID) loans and grants in the 1974-1980 period reveals numerous programs in Latin America and elsewhere which have attempted to assist host governments in dealing with the problem of tenure insecurity. The programs have generally sought to mitigate the legal and administrative obstacles to the titling process by assisting in the development of modern cadastres and by conducting research which would permit the modernization of legal systems with particular attention to titling. In addition, direct assistance has been given to some governments to finance the titling costs themselves (AID, 1980b). The Costa Rica program has been one of the most extensive and is certainly one of the oldest. After briefly describing some of Costa Rica's distinguishing features the program in that country will be discussed.

#### *Costa Rica: An Overview*

One of Latin America's smallest nations, Costa Rica, with its 2.1 million inhabitants, is a West Virginia-sized nation of merely 51,000 Km<sup>2</sup>. As of the latest census (1973), 59.4 percent of the population lived in rural areas, with 38.2 percent of the economically active population engaged in the agricultural sector. Not unlike many other Latin American countries, Costa Rica depends heavily upon export agriculture. As of 1976, 40.8 percent of the cultivated land area was dedicated to the production of export crops, principally coffee and bananas, although sugar cane and cacao are also exported in quantity. These crops together produced 80.2 percent of agricultural income (OPSA, 1978).

Despite the many similarities Costa Rica shares with its Latin American neighbors, three characteristics distinguish it from them. First, it is one of Latin America's few political democracies. By any measure, Costa Rica stands out as a territory in which civil and human rights are respected, and the normal functioning of constitutional democracy is the norm (Johnson, 1977; Bollen, 1980). Second, the widespread

availability of public education over the past 100 years has produced one of Latin America's most highly educated populations. As Stycos (1980:3) points out:

In 1886, only ten years after Great Britain's first law requiring school attendance, and 80 years before the state of Mississippi did so, Costa Rica declared schooling to be obligatory . . . The government channeled close to one fifth of its revenues to education during the late 19th century educational reforms; and in the early decades of this century was investing four to five times as much in education as in the health sector. By the 1960s, it was investing over a quarter of its national budget in education. Its per capita expenditure was . . . three times that of other Central American countries. . . .

Third, Costa Rica has in the past thirty years made major improvements in public health. While in 1931 Costa Rica had a specific mortality rate due to diarrheal disease of 431 per 100,000, by 1942 this rate had dropped to 282, by 1962 to 120, by 1972 to 55, and by 1978 to 11.2. By way of international comparison, whereas in 1970 Costa Rica's mortality from diarrhea per 100,000 was 69.1, the rates for some other countries were as follows: 469 for the United Arab Republic, 417 for Guatemala, 205 for El Salvador, 151 for Mexico, and 92 for Colombia. Infant mortality, which in 1920 had stood at 250 per 1,000 births, in 1978 was down to 22.3 (Costa Rica, 1980; Mata and Mohs, 1976; Mata *et al.*, 1980).

Unfortunately, these major advances in political and social life have been marred by vast inequities between the peasant and non-peasant sectors of society. In 1976, GNP per capita stood at \$1,163, whereas the per capita GNP of the agricultural sector was only \$410 (OPSA, 1978:45). Since the peasantry comprise the poorest group in the agricultural sector, their incomes were considerably lower. A national survey conducted in 1973 found that peasant incomes were only 15 percent of urban incomes, and peasants had only one-fourth as many years of education as did their urban counterparts (Booth, 1974).

There is little question that the fundamental factor producing the great disparities between peasant and non-peasant in Costa Rica is the agrarian structure. The 1973 agricultural census showed that the largest farms, constituting 1 percent

of all farms, contained over 37 percent of the land in farms; while at the other extreme, the smallest farms, 39 percent of the total number of holdings, contained only .2 percent of the land in farms. A Gini index of 79.6, ranks Costa Rica among the world's top 10 to 15 nations with the most inequitable distribution of land (Taylor and Hudson, 1972; Seligson, 1979a). Not only is property inequitably distributed among the landed, but most Costa Rican peasants own no land at all. Although estimates vary, somewhere between three-quarters and two-thirds of all economically active Costa Ricans who work in agriculture are landless. The link between poverty and the agrarian structure has been clearly made by Céspedes *et al.* (1977), whose study of poverty in Costa Rica revealed that three-quarters of Costa Rica's poor (defined by AID criteria) live in rural areas, and between 55 and 60 percent of the rural poor are landless. Among the landless poor, 25 percent of heads of family have no formal schooling, and only 4 percent have more than primary school education. In addition, the landless poor have dependency ratios higher than that for any other group.

In an effort to deal with the problem of rural poverty, in 1961 Costa Rica embarked upon its first serious efforts at land reform. Although the program accomplished little during its first decade of operation, considerable progress has been made, especially since 1975. Although the details of the reform program have already been reported (Seligson, 1979a; 1980a; 1980b), suffice it to note that 5,528 families (an estimated 32,438 people) have received 167,134 hectares of land. However, the land redistribution program is only one of several components of the reform effort. Other programs include settling of squatter conflicts, providing land to Costa Rica's small indigenous population, and land titling. The focus of this paper is on the last mentioned program.

#### *The ITCO Titling Program*

*Background of the Titling Program.* In the 1960s it became increasingly clear that one major problem facing Costa Rican peasants was insecurity of tenure. As Costa Rica began opening up new lands to settlement and colonization throughout the last part of the 19th century and the first part of the

present century, appropriate institutional structures for providing title to lands being settled failed to be developed.

The judicial titling process was, and still is, extremely complex and costly. Landowners who wished to title their land first had to engage the services of a civil engineer, paying the cost of his transportation from San José to the farm, as well as his room, board and professional fees. Few engineers, it should be noted, found it worth their time to make the long, hard trip out to some remote spot simply to survey a small piece of land. Then the landowner would have to hire a lawyer to prepare the necessary legal documents. Lawyers, too, were hard to come by in the countryside, and also very expensive. Neighbors whose land bordered on the property in question would then have to travel to the county seat (*cabecera cantonal*), at the expense of the landowner, and testify on his behalf regarding the location and limits of the property in question. The landowner would then have to publish in the *Gaceta Oficial*, on three separate occasions, an announcement regarding his intention to title the property. Finally, the local judge would have to instruct a representative to make a visual inspection of the property, again at the owner's expense. When all of these steps were properly completed, title would then be granted (Seligson, 1980b:31-32; Hill, *et al.*, 1964:46).

As a result of this complex procedure, by the late 1960s it was estimated that approximately 1.2 million hectares (nearly one-half of the 2.7 million hectares of farmland recorded in the 1963 census) were occupied by untitled owners. An estimated 45,000 farms (out of a total of 64,621 farms recorded in the 1963 census) were thought to be without title (A.I.D., 1970:VI, 6). Ten years later the situation had not improved much. In a survey sample conducted in 1973, it was found that 44 percent of the land owners did not hold title to their land (Seligson, 1980b). The AID-sponsored University of Costa Rica Agrarian Law Project determined that an average of four years elapsed from the time individuals initiated titling procedures until they actually received title. Many titles were still pending ten years after the initial petition had been filed. Moreover, many farmers were defrauded by unscrupulous lawyers who charged for procedures never com-

pleted. In addition, unlicensed surveyors, would survey land and present the plats to the peasants, who, in turn, only later would find out that surveys done by uncertified engineers were not valid.

The Agrarian Law Project uncovered two major negative consequences of tenure insecurity. First, untitled owners are excluded from most of the major sources of banking credit in Costa Rica. Second, farmers whose land is untitled are less likely to plant permanent crops on those lands because of their fear that a claimant to the land might come and evict them from it (see Saenz P. and Knight, 1971).

A 1970 USAID loan of \$15.9 million to the agricultural sector in Costa Rica included funds for the agrarian reform agency, ITCO (Instituto de Tierras y Colonización), to permit it to embark upon a major titling program. The goal of the program was to provide title for approximately 660,000 hectares, or an estimated 55 percent of the untitled farm land in Costa Rica. It was estimated that about 27,000 small-to-medium farmers would receive title during the four-year lifetime of this project (1971-1975). The effort was to be directed toward national reserve lands and that after the initial four-year period, with cost recovery provided in the loan program, the remaining untitled portions of the country would then be subject to the titling program.

The AID loan provided 2.7 million dollars (17.8 million colones at the 1971 exchange rate of 6.6) to cover photogrammetric surveying and related costs for the 660,000 hectares over the four-year period. The estimated cost per hectare was 39 colones. In this program a total of 7.9 million colones (1.2 million dollars), or 12 colones per hectare, was supported by the government of Costa Rica to pay for salaries, per diem, and travel expenditures of those involved in the program.

#### *Accomplishments of the First Titling Program*

During the period 1971-1975 the titling program was able to achieve only a part of its goal. As is shown in table 1, up through the 1975-1976 period, 14,764 titles were granted in national reserve lands. Titling activities prior to 1971 were largely concentrated in ITCO colonies (settlements) and on land involved in squatting disputes which ITCO had been able



to resolve. There were, however, 1,031 titles granted in national reserve lands prior to the initiation of the AID-funded program. Since the initial goal of the program was to provide 27,000 titles in four years, it can be seen that the program fell short of meeting those goals by 45 percent.

A number of factors help explain why the titling program was unable to achieve the initial goal. First, not all of ITCO's titling efforts went into the national reserve lands. ITCO had titling demands pressing on it which absorbed some of the time and effort of the titling division. As is shown in table 1, there are numerous other titling efforts going on in ITCO simultaneous with the national reserve program. These include titling in peasant settlements, titling in lands squatted on by peasants in both state lands and privately-held lands, ordering of lands held in ITCO reserves, and, finally, titling in Indian reservations. If all of these programs are combined for the period 1971-1976, it is seen that 17,400 titles were granted, or 64 percent of the AID loan goal. Other factors which help explain the shortfall in achieving the goal relate to conflicts among prospective title holders, errors in the topographic work, and disputes with third parties over ownership of the land. In addition, from time to time, peasants for one reason or another were unable to attend meetings called for the purposes of signing documents to process titles. In some cases peasants were ill, in others they could not attend because of other obligations, and in some cases they simply did not know about the meetings.

Despite the failure to achieve the goals set out for the 1971-1975 period, by September 15, 1979, ITCO had accomplished 76 percent of the original goal, having granted a total of 20,462 titles. This meant that an estimated 122,772 individuals had received title to 339,761 hectares (ITCO, 1980). At the present time (1980), the Institute is granting an average of 425 titles a month, although this number fluctuates greatly depending on a number of circumstances related to field work and problems in the central office. It is believed that under ideal circumstances ITCO could produce as many as 900 to 1,000 titles per month.

*The Second Titling Program.* In 1979 ITCO elaborated an ambitious program for titling in five geographic areas of the

TABLE 1  
Titles Granted by ITCO, 1965-1978

PROGRAM	1965-1978 TOTAL	1965-66	1967-68	1969-70	1971-72	1973-74	1975-76	1977-78
<b>TOTAL</b>	<b>24,510</b>	<b>363</b>	<b>1,225</b>	<b>959</b>	<b>2,992</b>	<b>8,962</b>	<b>5,446</b>	<b>4,823</b>
Peasant settlements	1,757	—	217	100	12	132	232	1,014
Squatting on private farms	819	—	161	1	27	577	53	—
Squatting on state farms	2,480	172	665	141	1,120	36	125	221
Ordering on ITCO reserves	1,661	—	—	—	—	—	189	1,472
Titling of national reserve lands	17,710	131	182	717	1,750	8,217	4,797	1,916
Indian Reservations	89	—	—	—	83	—	—	—

Source: ITCO files

country. These areas include: (1) Valle de el General (cantons of Pérez, Zeledón, and part of Buenos Aires); (2) Coto Brus (part of Buenos Aires, Osa, Golfito, Corredores, and Coto Brus); (3) Chiriquí (cantons of San Carlos and Los Chiles); (4) Puriscal Parrita (cantons of Turrubares, Puriscal, part of Desamparados, Dota, León, Cortés, Tarrazú, Aserrí, Parrita and Aguirre); (5) Atlantic zone (entire province of Limón). Details of the number of hectares and number of beneficiarios in these zones are contained in table 2. To these five zones has been added a program to title land redistributed by ITCO. As can be seen in table 2, the titling program will ultimately involve 1.5 million hectares and a total of 36,469 titles. As a result of the work in the past few years, some of these titles have already been granted so that 19,356 titles remain to be processed under this program. Based upon past experience, ITCO may be able to complete titling in these zones in anywhere from 2 to 6 years.

#### *The Impact Study*

In an effort to determine if the titling program has brought about its intended benefits, interviews were conducted with 126 beneficiaries of the program during the second and third weeks of March 1980. Limitations of time and funding made it impossible to expand the study to either a large number of beneficiaries or to include a wider range of questions in the survey.

*Methodology.* In order to minimize the possible effect of idiosyncracies peculiar to a single area of Costa Rica on the overall results, it was decided to interview in two regions, each of which was divided into two subregions. Moreover, the sample was further divided into those farms which were located close to major highways and those which were located in more remote regions. The sample was drawn from two of ITCO's ten titling zones.

The sample itself was selected in three stages. First, ten quadrants (of 4 Km<sup>2</sup> each) were selected at random from each titling zone. Second, from these twenty quadrants, a total of four was chosen at random from each zone, after first eliminating those quadrants in which there were few farms that have been titled by ITCO. In those cases where fewer

than five farms per quadrant were found it was decided to eliminate the quadrant as being too cost-inefficient for the study purposes. It should be noted, however, that this does not mean the elimination of remote sectors, but the elimination of only those sectors in which the titling density of the quadrant was rather low. ITCO was then asked to locate on each map, the position and name of the owner of each farm that was titled in that quadrant. In addition, a master list was prepared for the quadrant, giving the names of each beneficiary of the program.

The survey team, therefore, had a list of all possible respondents. On the average, there were approximately thirty titled farms per quadrant, yielding a total of approximately 120 cases per titling zone. These 240 cases formed the sample frame. The final stage in sampling involved systematically selecting from each quadrant twenty cases so as to form the target sample. In total, then, 80 farms were to be sampled in each of the two titling zones, making up a target sample of approximately 160 respondents. It was anticipated that there would be approximately a 25 per cent non-response rate (including refusals, blanks, etc.) leaving an estimated completed sample size of approximately 120.<sup>1</sup>

Two problems were encountered in the field work. In some cases the interviewers found that the person who had received title no longer lived in the area and had sold his plot to the present occupant. At times, the new owner had not legalized the land transfer through ITCO or the national land registry office, had hence had a "carta de venta" (bill of sale) for the property. Since these respondents stated that they did not have an ITCO title, the remaining questions in the

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<sup>1</sup> The field work itself was supervised by Lic. Miguel Gómez, professor of statistics at the University of Costa Rica. Professor Gómez is generally recognized as Costa Rica's foremost sampling and survey research specialist, an individual who has had years of experience conducting survey research for the Office of the Presidency and for other organizations, both national and international. Professor Gómez selected three highly experienced interviewers, individuals who had worked with the author of this report in 1976 on his earlier study of ITCO's settlement programs. Each of these interviewers, therefore, has had at least 5 years of experience in conducting interviews. These individuals therefore were no strangers to working in rural Costa Rica on surveys of this nature.

survey were skipped. In total, of the 126 completed interviews, seven respondents were owners who had not transferred the ITCO title. Their interviews, therefore, were unusable. The second problem involved difficulties in locating some of the owners. In some cases the individuals lived on farms other than that which was selected in the sample, and were not locatable. In other cases some title recipients worked in professions unrelated to agriculture, such as managing a small store or engaging in construction work. As a result, it was sometimes necessary to interview a relative or spouse of the titleholder, who sometimes provided incomplete information. Of the 126 interviews, a total of 25 proved to be unusable as a result of the two problems discussed above. In total, then, of the 126 interviews, 101 proved to be of use for this study.

#### *Findings*

*Size of farms.* The size of farms titled by ITCO in the sample drawn for this study is reported in Table 2. Several facts need to be highlighted. First of all, the mean size of the farm is 10.8 hectares. This figure coincides with ITCO's target of providing its land reform beneficiaries with approximately 10 hectares per family. However, this statistic is misleading. As noted, the standard deviation is 21.7 hectares. Therefore, we note that among those farmers who have received ITCO titles there are many who have considerably less than 10 hectares, and some who have much more than that amount. Specifically, little over one-fifth of the sample has less than 1 hectare in its ITCO titled land. An additional 30.9 percent of the sample have between 1 and 3.9 hectares. Indeed, fully 73.1 percent of the sample has less than 10 hectares of land. At the other extreme, it is found that nearly 10 percent of the respondents have between 20 and 70 hectares and 3 percent (3 respondents) have between 70 and 130 hectares. Clearly the number of respondents who have much above the average size farm is quite small, but since some of these respondents have such comparatively large farms that the mean is weighted upward toward the 10.8 figure.

It would appear that the 12 percent of the sample in the 20 to 130 hectare range is problematical from the point of view of the land titling program, since it tends to justify

TABLE 2  
Size of Farms Titled by ITCO

Hectares	(N)	Percent
.1 to .9	(20)	20.6
1.0 to 1.9	(13)	13.4
2.0 to 3.9	(17)	17.5
4.0 to 6.9	(14)	14.4
7.0 to 9.9	(7)	7.2
10.0 to 19.9	(14)	14.4
20.0 to 99.9	(9)	9.3
100.0 to 130	(3)	3.0
	(97)*	100%

\* A total of four respondents did not report on farm size.

Statistics for ungrouped data: Mean = 10.8 S.D. = 21.7  
Mode = 1.0

those critics who have charged that the titling program legalizes and solidifies the already inequitable distribution of land in Costa Rica. The present survey lends credence to those claims since a significant proportion of all of the land titled in the present sample is either at the *microfundio* level or at the larger end of the scale. In support of that contention, although the data on the distribution of all of the land which ITCO has titled is not available, there is information about the 6,220 farms titled in the period of May, 1978 to September 15, 1979. According to the titling division of ITCO, during this period the distribution of land was similar to that found in the present study. For example, ITCO reports that 18.8 percent of these 6,220 titles were for plots of one hectare or less, and 5 percent were for 100 hectares or more.

One important factor which may serve to alter the conclusions drawn from table 2 is the finding of the survey that 43 percent of the respondents were owners of other plots of land in addition to land which had been titled by ITCO. If this land was owned largely by *microfundistas* then it would serve to reduce the impact that the titling of the *microfundios* appears to be having. On the other hand, if this land is owned by those who have the largest farms shown in table 3 then it would reinforce the conclusion that the titling program is expanding the number of large holders in Costa Rica.

In order to determine the total land owned by each respondent the landholdings reported in table 3 were added to

other land owned. The results are reported on in table 4. It can be seen that the number of farms in the smallest category (those less than 1 hectare) has been cut in half from a little over 20 percent to a little over 10 percent. The farms in the category of less than 4 hectares has also dropped from a little over 51 percent to 36 percent of the total farms in the sample. Finally, the farms in the category of 10 hectares and less has dropped from 73 percent to a little over 60 percent. At the other extreme, in the largest farms (those of 100 hectares or more) it is noted that there is an increase of from 3 percent of the total sample to 7.2 per cent of the sample. Indeed, 3 of the farms are in the category of 200 to 300 and one of the farms is over 400 hectares in size. The data in table 3, therefore, do not seriously undermine the conclusions drawn on table 2. That is to say, the bulk of all those who received title under the ITCO program still own less than 10 hectares while at the other extreme there are several farmers who have received title from ITCO despite their having owned more than 100 hectares.

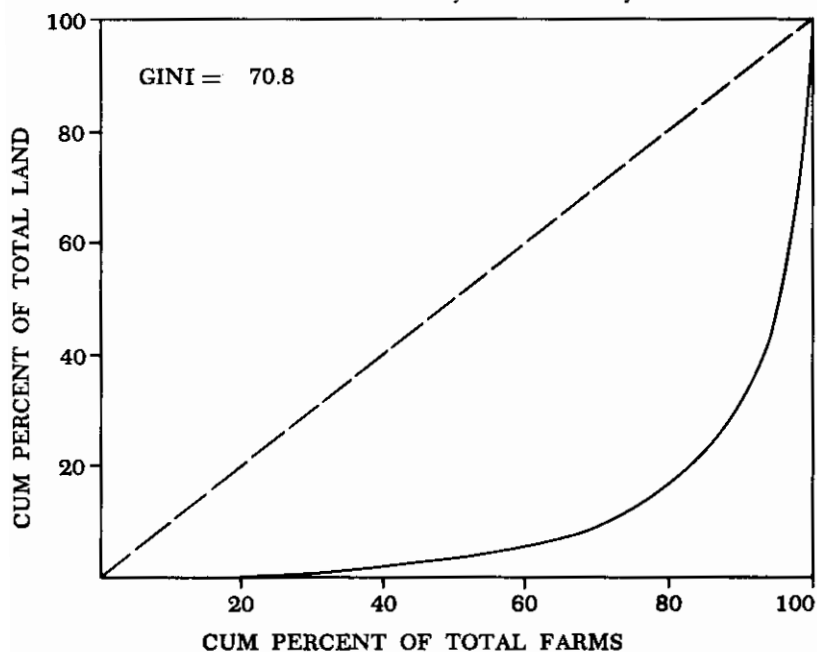
**TABLE 3**  
Total Land Owned By Respondents Receiving ITCO Titles

Hectares	(N)	Percent
.1 to .9	(10)	10.3
1.0 to 1.9	(14)	14.4
2.0 to 3.9	(11)	11.3
4.0 to 6.9	(16)	16.5
7.0 to 9.9	(8)	8.2
10.0 to 19.0	(15)	15.5
20.0 to 99.9	(16)	16.5
100.0 to 199.9	(3)	3.1
200 to 300	(3)	3.1
301 to 408	(1)	1.0
	(97)*	100%

\* A total of four respondents did not report on farm size  
 Statistics for ungrouped data: Mean = 58.8 S.D. = 97.8

Another way of looking at the data on farm size is to compare the distribution of farm land in the sample with that of Costa Rica as a whole. Computing the Gini index of inequality for the land in the sample which has been titled by ITCO (table 2) produces a coefficient of 70.8 (Figure 1). For all of Costa Rica the index was 79.6; it initially appears that the titling program results in a distribution of land which is some-

FIGURE 1  
Distribution of Land Titled by ITCO in Study Zones



what more equal than that of Costa Rica as a whole. However, one should keep in mind that 48 percent of the respondents in the survey owned land in addition to that which was titled by ITCO. Using the combined data reported in table 3 of this report, it is found that the Gini index reaches 78.1, almost equalling the overall national figure (Figure 2).<sup>2</sup>

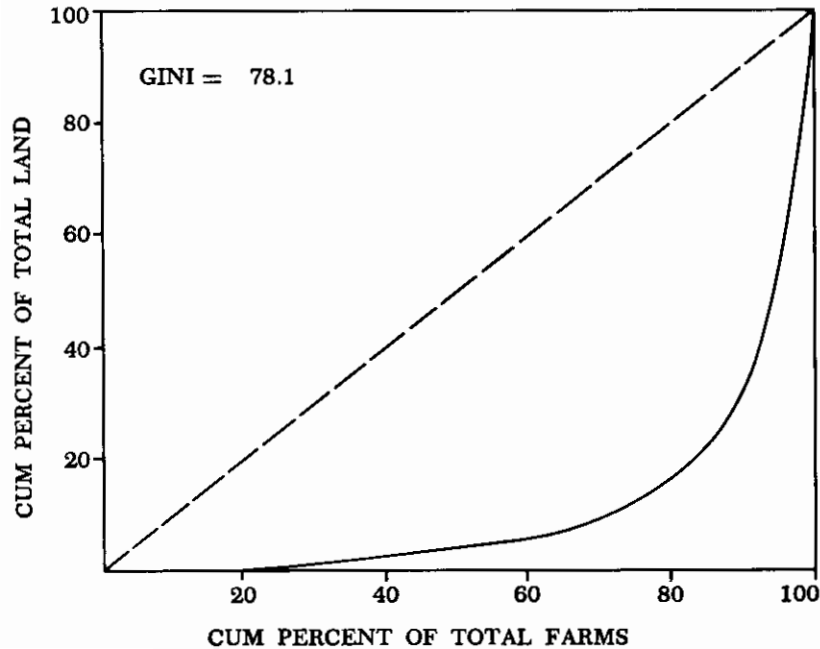
<sup>2</sup> The interpretation of the data presented in Tables 2 and 3 is complicated by the fact that in some cases the land titled by ITCO was not farm land, but semi-urban property. Although this fact had not been realized during the design of the sample, subsequent conversations with ITCO personnel made it clear that their titling program covers all of the land in any given quadrant. Therefore, in some cases non-agricultural land used for residential or commercial purposes was included in the titling program. For the most part, these plots were quite small. It was determined that in 8 cases the respondent used the titled land only for his/her dwelling rather than for farm purposes. Hence, eight of the microfundios which were titled by ITCO were really not microfundios at all. This fact tends to mitigate somewhat the conclusions drawn above. The basic conclusions, however, remain unaltered.



*Impact of Title on Credit.* The titling has had a dramatic effect on the availability of credit to the respondents in this sample. There has been a major increase in the number of respondents reporting having obtained credit since they received title as compared to the number having received credit before obtaining title. Specifically, before obtaining title 18 per cent of the respondents had received credit, whereas after the titles were granted 31.7 percent report having received credit. This increase represents a 44 percent jump in those receiving credit. It is also clear from the data that most of those who obtained credit before receiving title continued to do so afterwards. Only 2 respondents of the 18 who had received credit before they were given title failed to continue receiving it afterward. On the other hand, fully half of those who received credit after receiving title had not been given credit before obtaining their title.

In order to determine if the increase in credit received by the titled beneficiaries was a result of a general increase in

FIGURE 2  
Distribution of All Land Held by Beneficiaries of Titling Program.



credit availability rather than a result of having obtained title, a study of the banking system's credit flows was conducted. The survey data gathered for this study found that in each of the four cantones the percent of respondents receiving credit after having obtained title increased. The bank data, however, show that in three of the four cantones the number of bank loans to small farmers *declined* in the period 1974-1979. Since this is the period during which most of the respondents received title, it is clear that the increase among title beneficiaries occurred in spite of the decline in credit availability. In one canton there was an increase both in the number of loans and in the amount of credit to title holders. These data make clear that the title program has served to increase the flow of credit to its beneficiaries in spite of a general deterioration of credit availability. Consequently, it is appropriate to conclude that the titling program has indeed had a beneficial impact on credit use.

Not only is it the case that having title increases the likelihood of obtaining credit, but it is also clear that the longer one holds title the more likely it will be that credit will be obtained. Those who have received credit have held their titles for an average of 7.2 years, whereas those who have not yet received credit have held their titles for an average of 4.5 years.

Length of time during which title was held, however, is only one factor which influences whether or not the respondent is a recipient of credit. Another important factor is the size of the farm to which the respondent has title. Those who have received credit have an average of 19.0 hectares in their titles, whereas those who have not received credit, despite having title, have an average 7.3 hectares. Respondents with less than one hectare are very unlikely to obtain credit, even with title. Although 20 of the titled farms were of this size, only 2 had received credit. While 51.5 percent of the farms were smaller than 4 hectares, only 25 percent of those who received credit owned farms this small.

Clearly, then, two factors help determine whether or not a titled owner will receive credit: length of time title is held and size of farm. Those who own their farms for a longer period of time and those with larger farms are more likely

to obtain credit. More precisely, length of time title is held and amount of land owned have a multiple correlation (R) of .43 with use of credit (explaining 19 percent of the variance). Length of time the title has been held is the stronger predictor of credit use ( $r = .38$ ), but size of farm titled also makes a significant contribution to the equation (simple  $r$  of .27).

*Impact of Titling Upon Technical Assistance.* The titling program has also had an important effect upon the ability of the respondents to receive technical assistance from the government. Prior to receiving title only 1 respondent reported having received any technical assistance from the government. After having received title, however, 9 respondents reported having received such assistance, even though the overall availability of assistance has not increased. In each of the four cantones studied the Ministry of Agriculture (MAG) maintained an office, but the number of agronomists (one per office) has not changed since at least 1974. Since all technical assistance reported by the respondents comes from MAG, the increase in assistance cannot be attributed to an increase in MAG resources in these areas. While this represents a nine-fold increase in those having received technical assistance, it should be kept firmly in mind that only 9 of the 100 respondents received such technical assistance. Consequently, it should be emphasized that fewer than 10 percent of all recipients of titles from ITCO report having received technical assistance.

It will be recalled that those who have received credit were respondents who have both held their title longer and those who have larger farms. The same pattern is uncovered with respect to those who have received technical assistance. Among those who have received technical assistance the title has been held for an average of 7.8 years whereas those who have not received technical assistance have held title for only 5.1 years ( $t$ -test significance = .05). Similarly, it was found that among those who have received technical assistance the average size of land titled was 15.5 hectares compared to 10.3 hectares for those who have not received technical assistance, but the difference is not statistically significant ( $t$ -test).

*Impact of Title Program on Farm Income.* Two approaches can be taken to the estimation of the impact of titling on farm income. One of these, the far more complex, would involve obtaining income data across time, including information on farm income prior to obtaining title and income after title had been held for some years. Such a procedure would involve controlling for the impact of inflation as well as any overall growth in the general farm economy of the country. The other approach is to ask the respondent about his perception of improvements of farm income. Obviously, given the limitations of the present study and the unavailability of data prior to the granting of title, no assessment of the actual income obtained could have been made. Therefore, by necessity, the second alternative was used. While this procedure is a great deal less precise than the former, it has an important advantage. That is, it permits an understanding of the farmer's *perception* of his economic situation. The perception of the respondent can be as important as the actual economic situation when evaluating the success or failure of ITCO's programs. After all, the success of such programs needs to be judged from the point of view of the beneficiary of ITCO's efforts.

While a much more extensive assessment and evaluation of the program needs to be made, and specific areas of satisfaction with the program need to be pointed out in future studies, the replies to the question on the respondent's perception of improvement in his/or her economic situation are encouraging. The data in Table 4 reveal that a substantial percentage of the respondents feel that since they have received title their economic situation has improved. Specifically, 66.3 percent of all those who have received title in the present study felt that their situation has improved, while only 33.7 percent felt that it had not. In investigating the reasons why some respondents felt that the situation had improved and others felt that it had not, it was determined that those who had held their title for a longer period of time are more likely to feel that their situation had improved. Respondents who said that their situation had improved held their titles for an average of 5.6 years, whereas those who said that their situation had not improved had held their titles somewhat less period of time, 4.8 years. Among those

who own 4 hectares or more, the percent reporting that their situation as having improved rose to 71.6. These differences, however, are small, and statistically insignificant.

TABLE 4

Impact of Title Program on Farm Income

Question: Since you have received title, has your economic situation improved?

	(N)	Percent
Yes, improved	(67)	66.3
No, not improved	(34)	33.7
Total	101	100%

*Impact of Titling on Land Sales.* One of the major criticisms leveled against the titling program is that once peasants receive land, they will try to sell that property because of the much higher value of titled land as compared to untitled land. This criticism suggests that ITCO's titling program is inflating the value of land while stimulating greater inequality in land distribution.

It was possible to investigate this claim with the present data. As is shown in Table 5, the respondents were asked, "Are you planning to sell the farm?" Only 14.9 percent of the respondents were planning to sell their farms whereas 82.2 percent were not. The remaining 3 percent were undecided. The overwhelming majority of those who have received title from ITCO were not planning to sell their land, despite claims to the contrary.

TABLE 5

Impact of Titling Program on Land Sales Plans

Question: Are you planning to sell the farm?

	(N)	Percent
Yes, planning to sell	(15)	14.9
No, not planning to sell	(83)	82.2
Don't know	(3)	3.0
Total	101	101%

What of the respondents who are planning to sell? What can account for their decision? Respondents with smaller farms were more likely to sell. Those planning to sell owned an average of 9.5 hectares. This difference, however, was statistically insignificant. Since there is some tendency for those with small farms to be more anxious to sell than those

who have larger farms it would appear that providing title on such small farms might result in a somewhat increased tendency towards sale than would be obtained if larger farms were titled. However, even so, the difference is rather small and should not be exaggerated. The overall conclusion is that irrespective of farm size peasants who have received title from ITCO are very unlikely to sell their farms.

#### *Summary and Recommendations*

This paper has attempted to evaluate the impact of the land titling program run by ITCO. To recapitulate, the major findings of this study are as follows. The distribution of land titled by ITCO in the present sample is slightly more equal than the distribution of land in Costa Rica as a whole (Gini index of 70.8 vs. 79.6). However, when land owned by the respondents not titled by ITCO is added to the titled land, the inequality in the distribution is nearly identical to the national figure (Gini index of 78.1). Hence, the titling program serves to reinforce the already badly skewed distribution of land in Costa Rica. It was also found that since receiving title, there has been a 44 percent increase in the number of respondents having received bank credit. Despite the increase, slightly less than one-third of owners of ITCO titled farms have received credit. Peasants who have possessed title longer and whose farms are larger are more likely to get bank credit. It was also found that there has been a major increase in the number of peasants receiving technical assistance since receiving title, but even so, less than 10 percent of the titled owners have received such assistance. Finally, two-thirds of the respondents who have received title feel that their economic situation has improved since receiving title, and only a small proportion (less than 15 percent) of those who have received titles from ITCO are planning to sell their property.

Assuming that the results of this study can be generalized to the 21,000 farms which have already been titled by ITCO, it is possible to draw the following overall conclusions. The titling program has had a positive impact in improving farm production, increasing the use of credit and technical assistance, and stimulating the planting of permanent crops. However, it is also clear that many recipients of titles have not benefited from either credit or technical assistance.

Ten years ago, in the first and indeed only other study of land titling in Costa Rica that has ever been done, Carlos Saenz P. and C. Foster Knight (1971) determined that title in and of itself was not the answer to the problems of the Costa Rican peasant. Specifically they concluded,

. . . the presence of tenure security alone will not necessarily be accompanied by higher farm production; other factors of production such as access to capital (through credit), and technology must also be present in order for farm production to rise. But if access to capital, technology and other factors will raise farm production, they will raise it even higher if they are made available in combination with tenure security.

. . . a land title by itself will not significantly raise the subsistence farmer's agricultural production. Tenure security must be given an opportunity to operate through other factors of production; in this sense, tenure security (the provision of legally sanctioned titles to land) is a necessary but not a sufficient condition to agricultural development.

Clearly, the findings of the Saenz and Knight study are as applicable today as they were 10 years ago. The land titling program has provided many peasants with secure title. It does not appear, however, to have been carefully coordinated with a program of technical assistance and agricultural credit. The primary recommendation that this study makes is that any program which is embarked upon in the future involving the granting of title must be intimately coordinated with credit and technical assistance programs. Whatever impact title is having upon those people who have received it through ITCO's programs, that impact undoubtedly would be substantially enhanced if credit and technical assistance were made available.

The second major recommendation that needs to be made is that before titling is begun a careful study needs to be made of the total amount of land owned by each potential recipient. In those cases where the recipient owns only a small amount of land (less than 5 hectares, in most areas of the country) it would be very important to consider not providing title until a reform program can be effectuated whereby that individual would be given access to more land. Providing title to *micro-fundios* only entrenches the already unequal distribution of land in Costa Rica, tying individuals to farms which will never

provide a decent living for the owner. Moreover, it has been shown in this paper, small farms are the ones least likely to obtain credit and technical assistance, or to embark upon new agricultural activities. The *microfundista* who receives title from ITCO will have to live off of income generated outside of the farm, or eventually sell the property. On the other hand, it is necessary to determine if those who are to receive title through this administrative procedure also have large areas of land, titled or untitled, in the nearby area. Such individuals may be exploiting ITCO's resources by having it title small pieces of their property, while at the same time becoming large landowners themselves. The administrative titling procedure was set up primarily to help the small farmer and not to entrench the large landholder.

The land titling program has been and continues to be an important element in the land reform program operating in Costa Rica. It does not, however, serve to redistribute land. What it does do is provide tenure security so that smallholders may thereby obtain bank credit, improve farm productivity, and raise incomes. Without a coordinated program involving credit and technical assistance many of the benefits of the titling program will go unachieved. Therefore, future efforts must take into account the findings of the present study so that a more effective reform can be administered in Costa Rica.

The titling program, like the land redistribution program analyzed in a separate paper (Seligson, 1979b), has brought with it some unintended and unexpected consequences. Despite its obvious benefits, the negative aspects of the titling program give one cause for thought. Costa Rica's inequality in land distribution is a fundamental factor maintaining the vast social and economic gap which separates the landless poor from the rest of the society. The titling program does nothing to alter this situation, but does serve to assist the fortunate few who are small landholders. But even for these individuals, when the property is *minifundio* sized, titles do not resolve the basic problems of the economic nonviability of the plot. In many ways, then, the titling program can be seen as a conservative reform, one which helps resolve pressing problems of peasant insecurity, but one which exacerbates the



long-term fundamental problem of inequality in land distribution.

There is no escaping the conclusion that the redistributive aspects of the agrarian reform need even greater emphasis. In another study (Booth and Seligson, 1979) it has been shown that Costa Rica's landless poor comprise the one sector of the peasantry most likely to engage in mobilized unconventional political participation (e.g., strikes and land invasions). The titling program will do nothing to reach these people. Moreover, each time ITCO provides title to 100 to 200 hectare plots, it is, in effect, denying ten to twenty landless peasants a plot of land. Clearly the land reform agency needs to make a careful assessment of the long-term problem of supply and demand for land, something which it has never done, so that effective, rational public land policies can be elaborated.

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#### REFERENCES

- AID (United States Agency for International Development). 1970. "Costa Rican Agricultural Development Program Projects." San José. Mimeo.
- \_\_\_\_\_. 1980a. *Agrarian Settlement and Productivity* (loan project paper). San José and Washington: USAID.
- \_\_\_\_\_. 1980b. Development Information System, Development Support Bureau. Washington, D.C.
- Bollen, Kenneth A. 1980. "Issues in the Comparative Measurement of Political Democracy," *American Sociological Review* 45 (June): 370-390.
- Booth, John A. Características socio-gráficas de las regiones periféricas de Costa Rica. San José: Instituto de Fomento y Asesoría Municipal.
- \_\_\_\_\_. and \_\_\_\_\_. 1979. "Peasants as Activists: A Reevaluation of Political Participation in the Countryside," *Comparative Political Studies* 12 (April): 29-59.
- Céspedes, Victor Hugo *et al.* 1977. *La pobreza en Costa Rica*. San José: La Academia de Centro America.
- Costa Rica. 1974. *Censos nacionales de 1973, Agropecuario*. San José: Dirección General de Estadística y Censos.
- \_\_\_\_\_. 1975. *Censos nacionales de 1973, Poblacion*, vols. 1 and 2. San José: Dirección General de Estadística y Censos.
- \_\_\_\_\_. 1980. *Anuario Estadístico de Costa Rica, 1977*. San José: Dirección General de Estadística y Censos.
- Gómez B. Mikuel. 1972. El descenso de la fecundidad en Costa Rica. San José: Ciudad Universitaria Rodrigo Facio.

- ITCO. 1980. "Instituto de tierras y Colonizacion, Versión Preliminar, Informe de la Jefatura Departamento de Proyectos." San José. Mimeo.
- Hill, Geore W., Manuel Gollás Quintero and Gregorio Alfaro. 1964. *Un area rural en desarrollo: sus problemas económicos y sociales, Costa Rica*. San José: Instituto Universitario Centroamericano de Investigaciones Sociales Económicas.
- Johnson, Kenneth F. 1977. "Measuring the Scholarly Image of Latin American Democracy." In James W. Wilkie and Kenneth Ruddle, eds., *Quantitative Latin American Studies: Methods and Findings*. Los Angeles: Latin American Center, University of California.
- Mata, Leonardo, Richard A. Kronmal and Hugo Villegas. 1980. "Diarrheal Disease: A Leading World Health Problem." In Orjan Ouchterlony and Jan Holmgren, eds., *Cholera and Related Diarrheas*.
- and Edgar Mohs. 1976. "Cambios culturales ynutricionales en Costa Rica," *Boletín Médico del Hospital Infantil 33* (Mayo-junio): 579-593.
- OPSA (Oficina Planificación Sectorial Agropecuario). 1978. *Información básica del sector agropecuario de Costa Rica*. San José
- Saenz P., Carlos Joaquin, and C. Foster Knight. 1971. "Tenure Security, Land Titling and Agricultural Development in Costa Rica." University of Costa Rica, School of Law, Agrarian Law Project. Mimeo. (Also available in Spanish).
- Scott, James C. 1976. *The Moral Economy of the Peasant: Rebellion in Southeast Asia*. New Haven: Yale University Press.
- Seligson, Mitchell A. 1977. "Prestige Among Peasants: A Multidimensional Analysis of Preference Data." *American Journal of Sociology 83* (November): 632-5.
- . 1979a. "The Impact of Agrarian Reform: A Study of Costa Rica." *Journal of Developing Areas 13* (January): 161-174.
- . 1980a. "An Institutional Analysis of the Instituto de Tierras y Colonización of Costa Rica." Report prepared for AID/Costa Rica and Cornell University Rural Development Committee, March 15, 1980.
- . 1980b. *Peasants of Costa Rica and the Development of Agrarian Capitalism*. Madison: University of Wisconsin Press. (Also available as *El campesino y el capitalismo agrario de Costa Rica*. San José: Editorial Costa Rica, 1980).
- Stycos, J. Mayone. 1980. "The Decline of Fertility in Costa Rica: Literacy, Modernization, and Family Planning," Ithaca: Cornell University International Population Program. Mimeo.
- Taylor, Charles Lewis and Michael C. Hudson. 1972. *World Handbook of Political and Social Indicators*. New Haven: Yale University Press.
- Thome, Joseph R. 1967. "Problems Which Obstruct the Process of Title Distribution under the Bolivian Agrarian Reform." Madison: Land Tenure Center, University of Wisconsin.
- . 1971. "Improving Land Tenure Security." In Peter Dorner, ed., *Land Reform in Latin America: Issues and Cases*, Madison: Land Tenure Center.