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AGRARIAN REFORM AND ECONOMIC DEVELOPMENT IN CHILE:

SOME CASES OF COLONIZATION

BY

WILLIAM C. THIESENHUSEN

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AGRARIAN REFORM AND ECONOMIC DEVELOPMENT IN CHILE:
SOME CASES OF COLONIZATION*

William C. Thiesenhusen**

Whether there is a link between agrarian reform and agricultural development in Latin America has been discussed repeatedly since the beginning of the decade. In Chile this debate is especially heated: the traditional latifundio-minifundio structure of agriculture is largely intact and campesino-based pressures for reform are increasing. This article attempts to bring a study of some colonized farms -- experimental programs of reform -- to bear on the issue.

Many Chileans, including the Christian Democrat government of Eduardo Frei that took office in November 1964, are worried about the present state of their country's agriculture. To explain this pre-occupation, they often single out the following factors:

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**Assistant Professor of Agricultural Economics, Land Tenure Center, University of Wisconsin. This article is based on studies by the University of Wisconsin Land Tenure Center and supported in part by the Agency for International Development.

1. Agricultural productivity continues to lag behind population growth. From 1955 to 1960 population increased by 2.7 per cent a year while agricultural production grew by 2.29 per cent.^{1/}

2. Although the number of people in the agricultural work force remained constant, the value of agricultural production reached a peak of E°510 million in 1960 and, from 1960 to 1963, dropped off at an average of 2.3 per cent a year totaling only E°475 million in 1963.^{2/}

3. Agriculture has not shown a positive export surplus since 1939. Although available statistics probably overstate the case, the net annual agricultural deficit from 1959 to 1963 averaged US \$82.9 million.^{3/} The value of agricultural imports now stands at a level four times that of exports.

Several factors compliment this description of the disappointing economic growth of Chile's agriculture, characterized structurally by a small number of very large farms (called fundos), encompassing a great percentage of the agricultural land; a large number of very small farms, accounting for a miniscule area; and an increasing number of landless workers:

^{1/}Ministerio de Agricultura, La Agricultura Chilena en el Quinquenio 1956-1960, Santiago, 1963, p. 3.

^{2/}Corporación de Fomento de la Producción, Cuentas Nacionales de Chile, 1958-1963, Mimeographed, June 1964, p. 17. Figures expressed in 1961 escudos.

^{3/}Ministerio de Agricultura, Sinopsis de la Agricultura Chilena 1961-1963, Mimeographed, Santiago, August 1964, p. 23.

1. In real terms, the minimum agricultural wages set by the government dropped about 1/3 between 1953-54 and 1960-61.^{4/} In fact, many patrones (landlords) do not pay the legal minimum and it has been estimated that even if the average inquilino (resident farm laborer) spent between 70 and 80 per cent of his income on food, he could not provide the minimum nutritional requirements for his family.^{5/} This generalization could probably be extended to sharecroppers and other non-resident laborers as well.

2. Given present lack of organization, farm workers find it impossible to make their demands for improved wages and living conditions effective. The current labor law limits legal sindicato (union) organization to fundos having more than 20 workers over 18 years of age with more than one year of consecutive service on the same farm and representing at least 40 per cent of the fundo's labor force. At least 10 members of the union to be organized must be literate. Because of these impediments, it has been estimated that the legal organization of agricultural labor unions is practically prevented on 96 per cent of the fundos in Chile.^{6/} There is no such thing as a legal strike in Chilean agriculture, and federation of agricultural unions is also prohibited by law, although illegal strikes and de facto

^{4/} La Agricultura Chilena en el Quinquenio 1956-60, op. cit., p. 77.

^{5/} Ministerio de Agricultura, Departamento de Economía Agraria, Aspectos Económicos y Sociales del Inquilinaje en San Vicente de Tagua Tagua, Santiago, 1960, p. 57.

^{6/} Hernán Troncoso, Trade Union Freedom, Dittoed English translation of a pamphlet originally published by Acción Sindical Chilena (ASICH) and prepared for the Congreso Nacional de Abogados de Concepción, 1957, p. 1.

federations have become more common in Chile lately. Even removing legal restrictions (which the present government has promised to do) may not bring hoped-for strength to the agricultural labor movement. Differing interests of the workers themselves, the heterogeneity of agricultural enterprises in Chile, and the current rigid social structure will complicate the well-functioning of sindicatos.

3. Based on a small sample, it has been shown that the largest landowners in the agriculturally resource-rich central zone save and invest only half as large a percentage of their income as do similar groups in developed nations. "The large landholder consumes over 60 per cent of his disposable income, 75 per cent of which goes for luxury consumption. Twenty-five per cent or more of his consumption expenditures are for imported products."¹⁷

A developing market economy can no more depend on people who spend their earnings out of the country and demand domestic items with few internal multiplier effects than it can on those at subsistence levels.

The resultant low internal demand is only one of the reasons industry has drawn people off the land slowly, roughly at the rate of population growth. Others are the difficulty of industry obtaining the imported goods it needs (since large export outlays are going for agricultural

¹⁷ Marvin J. Sternberg, Chilean Land Tenure and Land Reform, Unpublished Ph.D. Thesis, University of California, September 1962, p. 151. Sternberg drew his hypotheses from the work of Kaldor. See Nicholas Kaldor, "Problemas Económicos de Chile," El Trimestre Económico, Mexico City, No. 102, April-June 1959, pp. 170-221.

produce), the large amount of capital required for each new job created, and the great numbers of now idle or underemployed city residents.

Workers are thus held to the fundo by few alternative opportunities for employment and the impossibility of buying property of their own. Lack of an adequate education (and often even of the ability to read and write), the weight of tradition, and poor communications tend to contribute to the immobility of labor. Their access to better social services and their proximity to whatever job opportunities exist tend to give city dwellers an edge in the slow growing industrial labor market.

Rural people who attempt to migrate to the city are probably motivated more by sheer desperation in the countryside than by the attraction of higher wages in town. And some rural workers are driven out of the countryside by mechanization. The government gives duty and/or exchange rate "breaks" to those importing labor saving machinery, and farmers purchase it because it gives them a hedge against inflation. Besides its ownership carries a prestige value. More important, a landlord's social problems with workers are lessened when some capital has been substituted for labor, since then least cooperative workers can be discharged.

Chile's ten year National Program for Economic Development (1961-70) admits that increased production is feasible -- it projects a 5.5 per cent yearly growth in the agricultural sector. Research has shown that increases in agricultural production from 15 to 20 per cent are possible in the short run in Chile and could save at least US \$75,000,000 yearly

by substituting for imports.^{8/} If this amount was saved through intensifying and diversifying agriculture,^{9/} Chile could import more of the capital equipment which it sorely needs for industrial development. Besides, inflationary pressure should be reduced. And as agriculture intensified, labor and other resources would be more productively employed on the farm and the market for industrial goods should be somewhat widened.

II

Coupled with this description of a lagging agricultural sector is a growing unrest in the countryside which is beginning to be felt -- indeed is often spearheaded -- by politicians. Policy makers realize something must be done; foremost on the list of campesino desires and possible remedies is agrarian reform, an avowed part of the present government's program.

^{8/} Peter Dorner, "Problems in Chilean Agriculture and Land Reform", (prepared for AID, Santiago), Unpublished, 1964. See also Héctor Morales Jara, Productividad Presente y Potencial en 96 Predios de la Provincia de O'Higgins y su Relación con el Tamaño de las Propiedades, Unpublished thesis, Escuela de Agronomía, Universidad de Chile, Santiago, 1964.

^{9/} There is little arable land in the public domain to which expansion of agriculture is practical; most of it would require large outlays for expanding irrigation facilities.

This approach, which implies colonization,^{10/} has proceeded up to now with disappointing slowness. The government program under the direction of the Corporación de Reforma Agraria (CORA) settled only about 1,100 colonists between November 26, 1962 (when it was established under The Agrarian Reform Law and took over from its predecessor, the Caja de Colonización Agrícola) and the end of 1964. Optimistic projections by the pre-Frei government were that from 10,000 to 12,700 landless would be established on plots in this period.^{11/} Half-hearted political support

^{10/}"Colonization", as the term is used in Chile, means the government agency's acquisition and subdivision of estates heretofore owned privately or by another public organism, and subsequent sale of parcels to settlers.

^{11/}There have been serious errors in the North American press lately as program projections have been mistaken for accomplishments. The Yale Law Journal, "Notes and Comments, The Chilean Land Reform: A Laboratory for Alliance for Progress Techniques," Vol. 73, No. 2, December 1963, cited the Pan-American Union, The Alliance for Progress Weekly Report, No. 25, February 18, 1963, and the New York Times, April 21, 1963, for its erroneous statement that 5,000 were being settled each year by CORA. The same numerical error was repeated in James Nelson Goodsell, "Chile: Parcelling out the Land," Christian Science Monitor, July 21, 1964. Projections were given in the Chilean press, El Mercurio, June 13, 1962 (about 5,000 a year) and El Diario Ilustrado, January 1, 1963 (12,700 in two years). Accomplishments reported above are the result of the author's examination of CORA records and field visits.

severely hampered progress under the complicated Agrarian Reform Law of 1962. Financing for the program has been inadequate and the cumbersome bureaucracy CORA inherited from the Caja made it difficult to utilize effectively even the limited funds available. The legal system also retarded the program. Once his property is expropriated an agriculturist may appeal his case through the courts. And if the expropriation is finally approved, land payments to owners must be made "cash on the barrelhead." To circumvent this problem, (Chile simply does not have the public funds for the large outlays this implies) the government agency has been for the most part limited to real estate transactions -- voluntary arrangements with landlords who want to sell their farms. The price and terms set are still usually favorable to the owner since he is under no compulsion to sell. But he often agrees to deferred payments if the government makes a relatively large downpayment and if mortgages are strictly adjusted for inflation each year.

The land reform agency has also acquired some farms from other governmental organisms. The Servicio Nacional de Salud (National Health Service) holds a number of properties willed to it through the years which it leases out, using rental payments to supplement its budget. (As a general rule, when a property owner has no heirs he bequeaths his land to the Church if he is one of the faithful. If not, he may prefer to leave his farm to the Servicio.) The health service has recently been transferring some of its farms to CORA. But even land transfers internal to the government draw on CORA's budget, since according to law the National Health Service must receive approximately the commercial value of the property in the exchange.

Purchase of land is not the only capital outlay required for the government land reform budget. On CORA's largest colony, Presidente Kennedy, infrastructure -- houses, sheds, fences, roads, electrical installations, irrigation system adjustments, and general improvements -- represented nearly 60 per cent of the total cost of the project. Per family capital cost for the 366 settled was about US \$2,200 for infrastructure and US \$1,570 for land. Land recipients are expected to pay for their parcels (with infrastructure) over a thirty year period with four per cent interest, mortgages being adjusted annually for inflation. A major part of the infrastructure is paid for with "hard" loans from the Inter-American Development Bank. But it was not until March 1963, that CORA was eligible to receive this funding since although the 104 article law passed Congress in late 1962, all of its 26 enabling acts did not emerge from parliament until several months later. There were subsequent delays in the submission and approval of the detailed colonization plans required by the IADB.

III

The current government in Chile is pledged to move reform along more quickly, giving land to 100,000 peasants in the next six years. But even when Chile has achieved the gigantic task of amending the constitution to provide for deferred payment with fewer court appeals and streamlining the bureaucracy, it will still face a whole battery of other agrarian problems.

As T. Lynn Smith has asserted, the task of bringing about a widespread distribution of land is 'merely child's play in comparison with the one of developing necessary managerial skills on the part of heads of families whose only roles previously have been the limited ones of agricultural laborer.' ^{12/} This is documented not only by the experience of countries that have undergone thorough-going reforms like Mexico and Bolivia, but by a record of the difficulties of 'reform' on fundos within Chile which have been parcelled out under the Caja.

Since this colonization plan took place in a traditional society, we are not arguing that all the problems encountered would be repeated in wider programs of reform in Chile. But neither will these experiences all be irrelevant. Economists interested in land problems would do well

^{12/} T. Lynn Smith, Agrarian Reform in Latin America, Alfred A. Knopf, New York, 1965, p. 11.

to study ever more carefully how existing colonization programs have worked, for when a larger reform comes their expertise will be vital to its success.

Beginning in 1929 to 1962 the Caja de Colonización Agrícola settled 4,206 colonists on farms from Arica to Magallanes. A study of eight colonies, selected for their varying sizes (vis-à-vis number of settlers) and dispersion throughout the central part of Chile, containing a total of 544 parcels, shows that only 108 or 19.8 per cent of the farms were awarded to former inquilinos or medieros (50-50 sharecroppers) ordinarily considered to be the prime object of reform.^{13/} The remainder of the parcels went to professional people (4.6 per cent); government workers (20.7 per cent); businessmen (8.4 per cent); higher level fundo employees (10.7 per cent); landholders elsewhere or those with college training in agriculture (16.7 per cent). The percentage of these parcels reserved for use of the entire colony was 9.2, and 9.9 per cent of the original farm recipients were remembered by informants simply as "they came from elsewhere," or "they had never worked in agriculture previously," but were neither inquilinos or medieros. Of those 108 colonists who were former inquilinos or sharecroppers, 82 remained in 1964.

^{13/} William C. Thiesenhusen, Experimental Programs of Land Reform in Chile, Unpublished Ph.D. thesis, University of Wisconsin, 1965, pp. 299-378. To be published as a monograph of the Land Tenure Center.

A closer study of a sample of farms awarded 12 or more years ago and owned by former inquilinos or medieros shows that:

1. There has been a fragmentation of the basic farm and a great deal of labor is used to work the 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.

The 30 cases studied -- farms averaging a central zone equivalent of 40 irrigated acres -- lend themselves to the following land tenure classification:

1. Parcels farmed as a unit: singular management. (18)
 - a) Family: in community without inquilinos, medieros, or other permanent workers. (7)
 - b) Family: acting as medieros of owner (their father or mother). (3)
 - c) Non-family 50-50 sharecroppers. (2)
 - d) Family: with inquilinos or other permanent workers who are not 50-50 sharecroppers. (6)
2. Parcel farmed in divided fashion: pluralistic management. (9)
 - a) Heirs farming separately with medieros or inquilinos in at least some fragments of the parcel. (5)
 - b) Mediero from outside the family farms at least one parcel fragment while owner works the remainder. (1)
 - c) Owner has mediero (not from the family) and his sons work as mediero of the mediero. (1)
 - d) Family: acting as medieros of owner. (2)

3. Family has reached no agreement as to disposition of parcel
upon death of owner

In our sample, 18 parcels are farmed as one management unit; nine are physically divided in some manner with each section of the parcel under different management. In three cases, the family is in a state of indecision over the disposition of the farm due to the owner's recent death.

Of those parcels worked under singular management, seven are farmed by the family without other hired workers. The most general case is that there are older but unmarried sons who provide much of the labor while most management decisions are made by the parcel owner. Usually, operating expenses are all paid by the owner and he receives all of the income. He provides for his sons during the year and possibly pays them something extra at harvest time.

A 50-50 sharecropping arrangement is a more formal variation of the same system. We found three cases where family members are sharecroppers for their father or mother (the parcel owner) while the farm remains undivided. Married sons are likely to sharecrop since this system gives them a more formal claim on the parcel's income. In this arrangement, the parcel holder expects his sons to provide all of the labor, most of the management, and half of the operating costs. The owner gets 50 percent of the gross income at the end of the year and the sons divide the other half. Since parcel holders need not supply labor, this system is often used in cases where the landowner is too old for physical labor,

but still wants to maintain control over his land. In two of these cases, labor and management is provided by non-family sharecroppers.

We found six undivided parcels utilizing the labor pattern of traditional Chilean fundos. The former mediero or inquilino is now fulfilling a "patronal" role, making all of the management decisions and acting as overseer. Labor is supplied by resident or non-resident permanent laborers who are paid in cash and often get about the same perquisites (i.e. bread, a small plot of land for growing vegetables, pasturage rights, etc) that might be given on a fundo. It is the general case, however, that inquilinos working for colonists get a lower cash salary and fewer perquisites than inquilinos in the neighborhood working on fundos.

Of the nine farms worked in divided fashion, seven also involve some labor by either inquilinos or medieros and, hence, retain the traditional structure, but on an even smaller scale than above.

Five of these parcels had been divided because of the owner's death. In some cases, sections of the parcels are farmed personally by heirs who built a house on their part; on others, families still live together in the original parcel house but farm their land as completely separate accounting units. In some cases, parcel fragments are managed separately, while working capital -- like horses or a simple plow or harrow -- are owned in common. Women heirs, if they had some management experience previously, may have set up an inquilino on their part. If they had no management experience or if they don't live on the parcel themselves, they may have a sharecropper who supplies the labor, management, and

half of the operating expenses and collects 50 per cent of the income. There are combinations of these systems within the same parcel. For example, upon the death of one parcel holder, his wife took over half of the 52 acre unit, part of which she farms personally and the other half which she works with a mediero. Each of the three children got a sixth of the parcel. A son farms his sixth personally. One daughter set up a sharecropper on her portion and another daughter rents out her fraction.

We found one instance of a mediero from outside the family farming one section of a parcel while the owner farmed another section.

In another case, the farm is physically divided among all sons but to relieve the owner of responsibilities, he has put a mediero from outside the family in charge and each of his sons is a sharecropper to the mediero. This case is most difficult to classify within our system of "unitary" or "pluralistic" operation since some management functions are retained by the trusted mediero from outside the family and some by the sons.

In still another two cases, we found sons operating their own sections of the parcel but acting as sharecroppers for their father. Thus, they made management decisions and paid 50 per cent of the operating expenses, collecting the other half from the owner. Gross income was split 50-50.

But 12 of the 30 parcels were farmed with only family labor, in seven of these cases by 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.

This shows that more families than the one originally assigned land now live on the parcel.

Indeed, on the 30 parcels originally assigned to 30 families, 104 families (including families related to owner, inquilinos, and medieros) now earn the major part of their income. There is some evidence that this is a continuing trend: the older colonies have more families supported per parcel than newer ones. The 14 parcels on six colonies studied founded between 1931 and 1942 were supporting 55 families or an average of 3.93 families per parcel. The 16 parcels on five colonies founded between 1945 and 1953 were supporting 49 families or an average of 3.06 families per parcel.

This suggests that the parcel holder may be 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 may feel his status so improved by land ownership that he can hire laborers just as his former patrón made use of a contracted labor force.

2. 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 (not even averaging one cow per acre). Improved pasture was found only on two parcels. Water for irrigation, the market system, and input prices do not seem to be the bottlenecks that account for the limited seeding of annual crops. Most colonists use either an inadequate amount of fertilizer or none at all.

While the tendency toward extensive land cultivation 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 governmental agency. Management training seems indispensable to good land (and labor) use.

Hence the parcel holder merely copies the system he knows best -- that of the extensively farmed fundo (which also uses abundant labor). His former fundo experience has been undimmed by new learning. And when a new crop or practice has been tried, it usually has failed to bring expected profits in the absence of proper management techniques.

Indeed, the Caja de Colonización Agrícola did not staff itself to deal with the needed educational effort. Amortization schedules due from colonists paid in a rapidly depreciating currency with no provisions for inflation adjustment (annual revaluation of mortgages was not added to the program until the 1962 law) soon made repayments nugatory. This began to paralyze the colonization program, since little funding emanating from debt liquidation of settlers was available for supplying

services to colonists and purchase of new lands. The entire program soon became dependent on scarce public appropriations. Government funds, when available, tended to add lands to the colonization program rather than to pump funds into existing projects (which might have served to improve their productivity). Political rewards for the Caja, seem to come via the "numbers game:" program quantity counted more than quality.

Even in early 1964, agricultural technicians on the land reform agency staff were few and far between. Of a total CORA staff of 537 in June 1964, only about 15 per cent had any university training in agriculture. The majority of these were Ingenieros Agrónomos, holders of a degree roughly equivalent to a Bachelor of Science in Agriculture. And the greater part of them were based in Santiago and not in the provinces. Necessity for technicians working in the field is greater now than during Caja days -- the land reform legislation of 1962 has established a point system which makes colonist selection more objective and gives an advantage to former fundo workers.

There are, of course, good reasons why trained agriculturists tend to gravitate to Santiago. Salaries are higher there. Besides, schools are best in the central city and technicians' family responsibilities tend to draw them to the capital. College trained technicians who are employed in the provinces tend to run up against social barriers when dealing with former inquilinos or sharecroppers. Some are city born and raised and have little or no practical farm experience. Many are very well trained in farm management, but not in extension methods. Their former relationship with farm laborers has been to give orders. To become

a person who teaches rather than commands -- divorcing himself from the attitude of noblesse oblige -- is no small task, and not all are equal to it.

3. The cooperatives, organized at the time each colony was founded to encompass all settlers on the fundo, are all but non-functional today.

Some lack of technical help could presumably be made up by a strong co-operative organization which could bargain to obtain cheaper inputs and sell production advantageously. Furthermore, a well organized co-op could be a vehicle through which technical help for each colony might be channeled.

On the colonies studied, 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. 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 or even being totally ostracized by it. In most cases the "manager" regarded his co-op position a sinecure, and his major interest was in farming the land promised him.

The co-op had no control over its 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.

4. Income for families living on parcels is low but, better than wages of fundo workers. All families living on parcels (excepting inquilinos and sharecroppers) have an average net cash income around US \$525 a year, three to four times greater than that of the average Inquilino working on fundos. Besides this, parcel holders consume a portion of their farm produce and inquilinos usually receive an additional 1/4 to 1/3 of their salaries in fundo products or privileges. Of course, this does not say that parcel holders are producing up to the farm's potential or even that they are doing well.

IV

One could expect that any land reform in Chile would encounter the same difficulties as these projects experienced unless precautions are taken and proper investments made. Intensification of agriculture can not be expected to follow automatically from the distribution of property rights; it can be achieved through reform only at a cost.^{14/} Yet it is

^{14/} But it is often implied that reform pari passu results in intensification, "If the tenant is made into an owner-farmer, even without any change in the level of technology available to him he may switch to a more labour-intensive crop which also increases his income. An example

possible, economically feasible, and highly desirable from the standpoint of the economy as a whole. After intensification and diversification, farmers will be better able to make use of the cheap labor factor and more food will be available to the economy. Substituting capital for labor probably won't be practical for some time to come; land-saving highly divisible capital would be profitable immediately if coupled with the knowledge of how to use it.

14/ (continued) is the switch from wheat to cotton in the Laguna region after the Mexican land reform'. United Nations, Progress In Land Reform, Fourth Report, E/4020/add 2, May 14, 1965.

On the other hand, the Italian reforms, which resulted in intensification, involved high capital outlays partially since the beneficiaries of the Italian land reform were former agricultural workers and sharecroppers. Progress in Land Reform, pp. 10-11. Chile may be in danger of underestimating the capital needed for intensification after a reform. Some studies have grouped all parcel recipients on a colony and concluded that "...the value of production was 90 per cent greater in the sum of the parcels than on the old estates." Progress In Land Reform, p. 12. 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. This leaves aside the pesky variable of colonist background. As we have seen, the Caja Program included very few former farm laborers or sharecroppers while the CORA Program is based on allowing this group to receive land.

If managerial ability is not developed, it would seem that subsistence agriculture would become the predominant pattern of farming on new parcels and that current problems centering about the productivity of agriculture would be accentuated rather than helped by "reform". Extensive land use patterns may continue, implying that less produce than before will reach the market as campesino's consumption rises.

The slow-moving governmental land colonization effort indicates that Chile has barely taken the first step in the direction of agrarian reform. Yet even this effort is suggestive of a few conditions that must be met if Chile opts for a wider restructuration:

1. Large doses of technical assistance and credit will be needed to help reform succeed. Through a sound program which trains most promising reform beneficiaries who, in turn, train their fellow campesinos, scarce technical resources may be stretched. Unifying colonist organizations -- usually called cooperatives in Chile -- may facilitate this process, in part by transmitting campesino needs and desires to the reform agency, and providing the vehicle through which the reverse flow of information can take place. The difficulties these organizations usually encounter in their initial stages must not be underestimated and must be dealt with as they occur, however. Credit should probably be tied to technical assistance, being available only if colonists use certain improved practices and inputs. Offering in-kind inputs is one way to couple credit and technical assistance.

2. Only one extension man is available for each 5,000 agriculturists in Chile.^{15/} Most of these devote little of their time to campesinos, who are separated from extensionists by a vast gap of education, experience, and social distance. Technicians usually prefer to work with large landlords. Furthermore, the majority of "agrónomos" work at administrative duties in the central city rather than in extension type jobs. A reform must at the very least revise the salary and perquisite schedule so that more agriculturally trained people are encouraged to work in the provinces. There are indications that CORA, under the new government, is taking the first steps in this direction as some of their best agricultural technicians are being placed in charge of regional offices.

3. It is not necessary that the country rely solely on Ingenieros Agrónomos for technical agricultural assistance. Lower level technicians with but one or two years in college or even trade school and with as

^{15/} FAO, El Estado Mundial de la Agricultura y de la Alimentación, 1961, reported in Jacques Chonchol, El Desarrollo de América Latina y La Reforma Agraria, Santiago, 1964, pp. 74-75.

heavy an emphasis on extension methods as on technical agriculture could perform an invaluable service and would not be separated by such a vast social gap from the people served.^{16/} The number of *Prácticos Agrícolas* (Chileans with the equivalent of a high school degree in vocational agriculture) should be vastly increased.

4. The reform agency should channel some of the campesino's new earnings into productive investments in other sectors of the developing economy, while offering incentives to campesinos for investing in their own property and holding consumption to certain limits. Campesinos could pay for their property regardless of how land was obtained for the reform. Some of this payment might be excused if the campesino invests in land improvements on his farm, and the annual amount due could be delayed in bad crop years. This payment could successfully substitute for a real estate tax (whose benefits to campesinos would be less obvious)

^{16/} Lately the U.S. has found that subprofessionals can be effective antipoverty workers. About 15,000 slum residents who show promise have been recruited from welfare roles or ranks of the unemployed, put through short courses, and set to work doing jobs for which professional social workers are not essential. This helps to fill the gap of about 10,000 needed social workers. Besides, since their knowledge of poverty is firsthand, they seem to have a special ability to communicate with the poor. Since training funds are so scarce, utilizing subprofessionals for training in cases of agrarian reform should be carefully explored.

and would tend, through mechanisms as sure as taxation, to draw surplus production from the farm. Of course, if land is taken by a series of peasant uprisings this may be impossible. Parenthetically, it should be noted that until Chile is able to defer payment for expropriated properties (a measure which the CD government is currently discussing), reform will not be able to progress very far.^{17/}

5. 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 a careful study, of course.) Colonists can erect their own fences and even construct their own houses and graneries. These should not be provided for colonists at no effort to them.

^{17/} Chonchol, op. cit., pp. 96-98, calls this one of the fundamentals of agrarian reform in Latin America. "The more paid for land the less agrarian reform can do." He sets up his case for low payments to landlords by noting (1) Productivity has little to do with land values in a land market in which there is prestige to land ownership and speculation in land is rampant. (2) Landlords will tend to use the land payments for investments outside of the country, thus aggravating balance of payment difficulties. (3) Commercial values are four or five times higher than the evaluation on which land owners have been paying real estate taxes. (4) Latin American countries simply do not have funds to pay for land without necessary remuneration completely halting the land reform.

Besides, supplying all this social and economic overhead capital immediately will be tremendously expensive and add unnecessarily to the immediate debt burden of the colonist.

6. To succeed, an agrarian reform effort must be part of an overall development program. Industries must be capable of drawing people from the land and employing them productively while offering goods campesinos are willing to raise their own production to purchase. But this is a long run goal, and in the short run the reform should aim at employing people more productively on the farm, aiming, at the same time, to close the gap between the demand and the supply of food. If both of these aims are not met, it is difficult to imagine that an agrarian reform in Chile will result in anything but a minifundio problem, subsistence farming, and havens for unemployed or underemployed.