

PN -AAD -940

SPRING REVIEW

COUNTRY PAPER

**AGRARIAN REFORM
IN
CHILE**

JUNE 1970



SPRING REVIEW

AGRARIAN REFORM

in

CHILE

by

William C. Thiesenhusen
Land Tenure Center
University of Wisconsin

June, 1970

Country Papers represent solely the views of their authors. They are not intended as statements of policy of either A.I.D. or the author's parent institution.

SR/LR/C-8

Mr. Thiesenhusen's paper is followed by a critique prepared by USAID in Santiago, Chile.

TABLE OF CONTENTS

	<u>Page</u>
The Extent of Reform	2
The Asentamiento System	3
Campesino Unions	12
The Macro-Economy and Its Relation to Reform	13
A. The Agricultural Economy of Chile	13
B. Recent Developments in Other Economic Sectors	17
C. Population and Employment	19
D. Redistribution of Income and Resources	20
Micro Studies of the Frei Reform	28
Implications for Policy	33
Selected References	

AID Spring Review
May 1, 1970

CURRENT STATUS OF AGRARIAN REFORM IN CHILE

William C. Thiesenhusen*

When Eduardo Frei took office as President of Chile in 1965, he pledged to direct a frontal attack on the developmental problems plaguing agriculture. As he defined it, rural development was to include not only an increase in agricultural production but also a more socially desirable distribution of income and provision for more secure jobs on the land to ease the growing employment problem. The government's emphasis, therefore, involved landless laborers and small acreage farmers to an extent unprecedented in Chile, a country where a few of the people own most of the land and the rest subsist either with no land at all or on plots too small to permit them a decent level of living (minifundios). From platform to policy the Christian Democrats were consistent: they called for agrarian reform for a substantial number of landless laborers and, since there wouldn't be enough land for all to receive some, adequate wages and improved living conditions for the others. Unionization of farmers was to be encouraged. And minifundistas would be helped, mainly through credit and cooperatives.

This paper will attempt to describe the accomplishments of the Frei Administration's rural development program and to provide some

* Associate Professor, Land Tenure Center, University of Wisconsin.

analytical comments drawn from the few existing in-depth studies of the reform in its evolutionary stage. In general, evaluation is premature since the policies being followed by the Frei government tend to have medium-term and long-run payoffs. But since no country in Latin America has tried what Chile is determinedly attempting through democratic means and in an incremental fashion, extrapolation from short term results is possible and may even ward off later difficulties.

The Extent of Reform

The predecessor government settled fewer than 1,250 families, but President Frei established 18,618 on farms through December 31, 1969. Recent estimates are that about 20,000 had been settled by the end of February 1970. The bulk of these--over 65 percent--were settled in the rich heartland of the country, the Central Valley (from Aconcagua to Nuble Provinces), an area traditionally dominated by the hacienda or fundo.¹ Nearly 85 percent of the more than 192,000 irrigated hectares on which there are settlements (about 41 percent of the total area in the entire reform program) is also

¹This paper will not describe the traditional fundo. For a classic coverage see George McCutchen McBride, Chile: Land and Society (New York: American Geographical Society, 1936). A more recent and excellent source is Comité Interamericano de Desarrollo Agrícola (CIDA), Chile: Tenencia de la tierra y desarrollo socio-económico del sector agrícola, 2nd ed. (Santiago: 1966). The author's Chile's Experiments in Agrarian Reform (Madison, Wisconsin: The University of Wisconsin Press, 1966) contains a brief description together with some analyses of pre-Frei reform efforts which will likewise not be included here.

located there. About 10 percent of "farmland"--and over 15 percent of the irrigated land--in Chile is now part of the agrarian reform.

Indications are that the nearing presidential elections may quicken the pace of the program--at least this was the major thrust of a speech in February 1970 by the director of the agrarian reform agency (CORA--Corporación de la Reforma Agraria) which was widely circulated by the Chilean Embassy in Washington. There are other hints that the rate at which agrarian reform is taking place is not about to be retarded. The appropriation for CORA has continued to rise and, in real terms, the budget for 1970 will be about 30 percent higher than it was in 1969. Furthermore, one can detect no appreciable change in the speed at which expropriations are taking place; if anything they are quickening (Table 1).

Yet there is no possibility that Frei's campaign promise to settle 100,000 in his term will be fulfilled, a fact recognized by the present administration. Consequently, the government has retained the goal but indicated that it needs more time to achieve it.² At present there are approximately 250,000 families which are either landless or which hold too little land to even enable them to earn the modest minimum daily wage set by the government.

The Asentamiento System

Under the Chilean agrarian reform law (16,640), the most important reasons a fundo can be expropriated are because it is abandoned by its owner, because it is badly worked (according to

²If the goal is realized, it will mean expropriation of about half of the irrigated land in the country, CORA officials believe.

TABLE 1. EXPROPRIATIONS OF CORA THROUGH JANUARY 1970
TOTAL PROPERTIES, ACREAGE, AND PERCENT OF TOTAL

<u>Exprop. Dates</u>	<u>Exprop. Properties*</u>	<u>% of Total Exprop. Properties</u>	<u>Irrigated Hectares Exprop.</u>	<u>% of Total Irrigated Hectares Exprop.</u>	<u>Dry Hectares Exprop.</u>	<u>% of Total Dry Hectares Exprop.</u>	<u>Total Hectares Exprop.</u>	<u>% of Total Hectares Exprop.</u>
June/65-July/68	693	60.8	169,990.1	67.5	1,315,194.4	46.0	1,485,184.5	47.8
Aug./68-Oct./68	36	3.2	4,859.6	1.9	20,044.2	0.7	24,903.8	0.9
Nov./68-Jan./69	90	7.9	21,947.6	8.8	544,461.8	19.1	566,409.4	18.3
Feb./69-April/69	75	6.6	14,200.3	5.7	94,525.7	3.4	108,726.0	3.5
May /69-July/69	66	5.7	11,888.4	4.7	223,069.8	7.8	234,958.2	7.6
Aug./69-Oct./69	87	7.7	14,505.7	5.7	251,123.5	8.8	265,629.2	8.5
Nov./69-Jan./70	93	8.1	14,332.2	5.7	405,152.8	14.2	419,485.0	13.4
TOTAL	1140	100.0	251,723.9	100.0	2,853,572.2	100.0	3,105,296.1	100.0

*Some expropriated properties are not yet settled.

criteria the legislation sets up), or because it contains over eighty basic irrigated hectares.³ Besides, owners may try to sell their land to CORA. CORA claims that 36 percent of the land expropriated between the signing of the current law and October 1969 was offered to it by landlords (in which cases 10% of the land was paid for in cash with the balance paid over a 25-year period), while 45 percent was expropriated for reasons of size.⁴ Badly exploited land is usually taken for size reasons because the latter is an easier criterion to apply than proving that the land isn't farmed well. Still, well over one-third of the properties taken for size reasons were badly worked.

If a property is well-farmed and its workers well-treated, an owner is allowed to keep a reserve which usually includes his house and some of his out-buildings. His compensation will also be on more favorable terms.

The authors of Law 16,640 attempted to design it so that CORA could take immediate possession of the expropriated property without waiting for the final decision on all appeals. This intent was often frustrated in practice, however, and an amendment passed in January 1970 now makes the procedure somewhat similar to "quick

³A set of tables, included in the law as Article 172, provides the coefficients for converting all Chilean farmland to 80 basic irrigated hectares.

⁴CORA, Cuatro Años de Reforma Agraria (Santiago: 1968), p. 26. Land that is held by a corporation, rented land on which any legal provisions regulating leases and sharecropping contracts are violated, minifundios for regrouping purposes, and property in government-sponsored land improvement schemes may also be expropriated.

taking" in U.S. land condemnation proceedings.⁵ Furthermore, the original law establishes a special series of courts to expedite expropriation.

Under the Chilean plan of agrarian reform the old fundo is converted into a cooperatively worked asentamiento--about 575 were in operation as of January 1970.⁶ On the usual asentamiento the production structure of the fundo is not changed; large fields continue to be operated intact. Work is accomplished communally in "field crew" fashion, much as it was before the reform. But now the old owner and usually his on-farm representative, the administrator, have left. Many field foremen also elect not to take part in the reform.

In the selection of settlers, preference is usually given to former permanent workers on the expropriated estate, but others may be admitted also, providing they have had experience as an agricultural worker, renter, or sharecropper; do not own a parcel of land larger than an "economic unit" (as defined in Chilean law); and are over eighteen years old and the head of a family.

Settlers elect a five member "settlement committee" (president, vice president, etc.), and CORA and the committee draw up a contract which formally establishes the asentamiento organization or the

⁵Law No. 17,280, January 17, 1970.

⁶There is somewhat of a lag between expropriation and asentamiento organization; estimates in January 1970 showed that about one-third of expropriated land had not been so constituted. (Note: The number of asentamientos cannot be easily compared to the number of properties expropriated as of January 1970, shown in Table 1; sometimes several expropriated properties are combined into one asentamiento.)

Sociedad de Reforma Agraria (SARA). Each SARA is governed by an administrative council--the settlement committee and, where CORA desires, two members of its staff.

A prime function of the administrative council is to draw up plans for what will be grown--and where--which are later formalized in a general assembly of all campesinos on the property.

Settlers agree to live on the farm, carry a share of the work as directed by the administrative council, not cede their rights to another, and market all cooperatively-grown produce through official SARA channels (except those crops grown individually on each member's houseplot and privately-owned animals, a certain number of which are granted free grazing rights on co-op property).⁷

The settlement committee divides work responsibilities among members. Some are appointed as field work overseers, for example, but contrary to the old system of supervision by a field foreman, all are expected to do physical labor. At the end of the year the asentamiento is supposed to market its produce as a cooperative venture.

During the year, campesinos are advanced a lump sum each month. If they have a special skill, a bonus is added to this basic amount. Male family members of working age usually work under the same arrangement (in some cases, however, they are paid wages as hired laborers and sometimes hired workers aren't family members), and at the end of the year the farm's net income is divided by a

⁷On some asentamientos where houseplots on the old fundo were exceptionally small, or where there has been pressure for individual ownership, additional private acreages have been allocated.

pre-agreed-upon formula. Family allowance payments that used to be paid through the government social security program are also subtracted as an operating cost. These payments are available through the government to hired workers, but asentados are considered self-employed. The usual case is that CORA takes from 10 to 20 percent of the net farm income for administrative expenses and leaves 80 to 90 percent to be divided among campesinos according to days worked. Of course, the living expense advances are subtracted from the campesino portion before it is divided up.

Meyer reports that a small number of SARA's have chosen to assign a portion or all of the farmland to a subgroup of operators or to individuals:

In the former case a group of asentados rents a particular field or fields and farms it jointly, splitting the profits according to some pre-arranged formula. In the latter case, individual asentado families assume responsibility for a tract of land. The rental fee set by SARA tends to be a portion, usually 10 percent, of gross production payable to CORA.⁸

But this system has its special problems: "Since their land rental is a per cent of gross output, [asentados] often report a lower-than-actual total production."⁹

Under the asentamiento system, productive inputs for the agreed-upon farm plan are supplied by CORA. A team of mobile

⁸ See Richard L. Meyer, Debt Repayment Capacity of the Chilean Agrarian Reform Beneficiaries, Ph.D. thesis, Cornell University, January, 1970, p. 61.

⁹ Ibid., p. 65. In Santiago province, where an asentamiento might have consisted of part communitary and part rented property, rental was determined by taking 10 percent of the average production on the common land, thus circumventing the under-reporting problem.

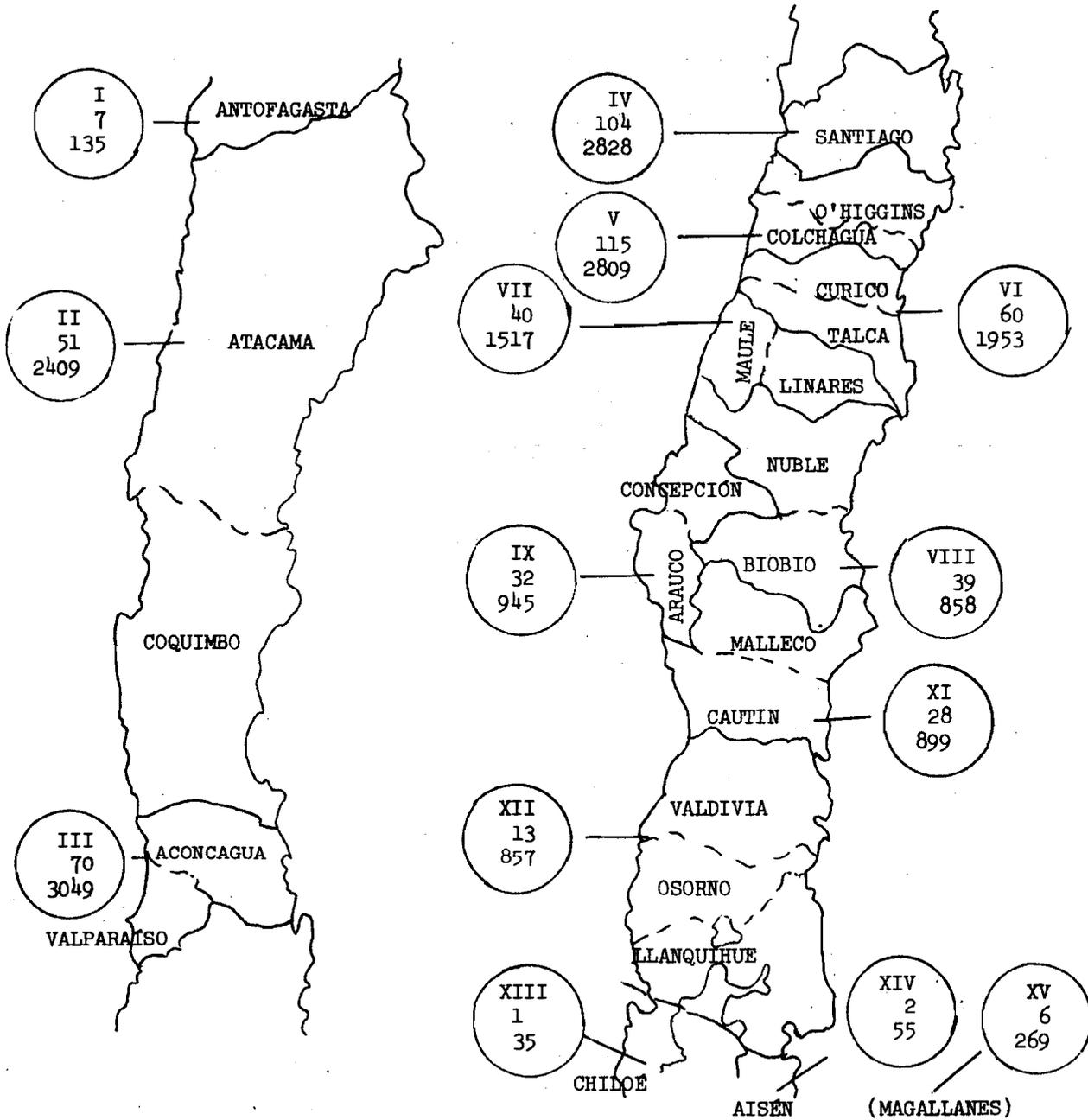
supervisors--often two production and marketing extensionists and one concerned with social development--usually visit each asentamiento weekly. Just over the "mobile team" in responsibility is the area chief; his administrative superior is the zonal director (there are now fifteen zones in the country--see Chart 1). CORA also supervises some investment projects; for instance, it is bringing in nursery stock for orchards and helping peasants to buy dairy cattle.

The asentamiento is an intermediate step in reform which will last for three to five years,¹⁰ after which time the settlers decide whether the asentamiento will be divided into individual farms or whether the former work pattern will continue. Judging from early experience (only a few SARA's have completed their asentamiento phase), an intermediate alternative may become quite general: commonland farming may continue on part of the old asentamiento while plots are given out on the remainder. In this case a "co-operative title" will be given on part and an individual title on the remainder.

The main objectives of the asentamiento are to train the campesinos in farm management and marketing, to maintain full production during the first crucial years after expropriation, and to encourage the asentados to retain a cooperative type of operation once the land is distributed to them--or, at the very least, to foster a "spirit of cooperativism."

¹⁰This is one distinguishing characteristic of the Chilean asentamiento when compared to the Venezuelan asentamiento. In Venezuela all agrarian reform settlements are called asentamientos--they are not temporary arrangements.

CHART I



Zonal offices of CORA (Top number refers to the zone; the middle one to the number of asentamientos and the bottom to the number of beneficiaries in the zone). Zone X is undefined at present.

The asentamiento period also serves to test the capacity of the asentados. They are graded each year by a committee of three of their colleagues and one CORA official, each with equal vote. Once the proving period has elapsed, only those who meet certain requirements will be eligible to receive land titles to the property. In practice it is difficult (but not impossible) to drop asentados, whatever the charges against them.

At the end of the asentamiento period actas de asignación--certificates of eligibility for land--are given to each asentado. As soon as possible, titles and mortgages are delivered. The first actas were distributed in November 1968. As of September 20, 1969, titles had been granted to 1,621 families on twenty-four asentamientos.

Beneficiaries are expected to pay off their land debt within thirty years after this assignment. Payments are based on tax assessed value of the land the year of assignment, CORA's infrastructure investment, and a 2 percent fee to CORA. It has been shown that debt installments are adjusted in such a way that the deflated value of total installments will be somewhat less than the original debt even if a fairly conservative 20 percent inflation rate is assumed.¹¹ A three-year grace period on these payments will be offered (but a downpayment of half an annual installment will

¹¹Meyer, op. cit., pp. 75-79. Installments are readjusted to only 70 percent of the rise in consumer's price index. No interest is charged on the first three installments, but in the seventh year (the first three years constitute the grace period) it is charged at 18 percent and rises by 3 percent per year thereafter. Interest is charged on the base installment plus half of the adjustment for inflation.

presumably be required immediately) during which time the livestock and machinery (plus a 2 percent CORA fee) are to be paid off; these latter payments may be extended over a five-year period. Payments that settlers make while they are asentados will lessen their later debt burden.¹² Regardless of the post-asentamiento type of tenure decided upon, a cooperative to purchase inputs and sell produce will continue.

Campesino Unions

Perhaps better than in the agrarian reform program per se, the expanding power of rural groups in Chile is illustrated in the spread of unionization and organization in Chile's countryside. The unionization law of 1967 (16,627) may prove to be the most important facet of the present government's rural development program. Even if a new government tries to reverse gears on reform--or even tries to slow the program appreciably--pressure from rural unions may make it impossible to do so.

Before the Christian Democrats came to power, it was virtually impossible to unionize peasants. In 1964 there were only 24 weak and docile unions with 1,658 members. By early 1969 there were over 3,500 union organizations involved in bargaining (to a greater or lesser degree) with landlords at the fundo level. They united, according to government figures, more than 190,000 farm workers. In 1960-64 there were only 97 strikes of agricultural workers. In

¹²Ibid. But the result could be paradoxical. There seem to be some built-in pressures for waiting as long as possible to pay. High rates of inflation will progressively lighten the debt burden.

1965 there were 141, and in 1966 there were 586, indicating that the government was allowing action that was, by the strict letter of the law, illegal. After Law 16,627 passed in 1967, there were 693 strikes, and in 1968 there were 618.

Another 500 unions--again according to government count--were comprised of small landholders, many of them organized by INDAP (The Institute of Agrarian Development), which has also organized campesino cooperatives made up of small holders for the purpose of purchasing inputs and selling produce. INDAP is the government agency charged with apportioning credit to small holders who are not beneficiaries of land under CORA programs. INDAP credit is given through cooperatives which serve as guarantors for the credit disbursed to individual borrowers.

The Macro-Economy and Its Relation to Reform

A. The Agricultural Economy of Chile

However determined the effort, when judged by the total number employed in agriculture, the agrarian reform program in Chile cannot be considered very extensive to date. And it must be regarded as a long run investment. To look for short term effects of reform in the macro-economy by examining such indicators as production, employment, and income distribution is a premature exercise. Hence, most of this report will deal with the economic effects at the micro level--and even these will have to be highly qualified since the time period from the inception of reform to the present is short. While the government utilized the law passed by the

previous administration to settle 6,000 families, legislation under which agrarian reform now operates in Chile was not passed until July 16, 1967.¹³

Besides the impossibility of assessing the importance of agrarian reform in Chile on total agricultural production because the program is too small and the time horizon too short, a great many other factors have been operating at the same time to influence agriculture. It will be worthwhile to enumerate a few of them since some undoubtedly had positive effects on agricultural production and employment while others affected economic performance adversely:

1. Chile is only now pulling out of one of its worst two-year droughts in history. The 1968 drought was considered the worst in 100 years, and 1967 wasn't much better.¹⁴ Most trace the decline of agricultural production in the Central provinces--where without water the land becomes a virtual desert and with it is one of the most agriculturally rich pieces of real estate in the world--to shortages of water. Indications are that the return to near normal rainfall conditions in the Central Valley in 1969--at least from

¹³From the beginning of its term through July 31, 1967, the government expropriated 479 farms and organized 156 asentamientos. Payment for property during this period had to be negotiated with owners, some of whom feared less favorable terms were they to await passage of the law. This applied with special force to those who held notoriously badly exploited or abandoned property.

¹⁴In Central Chile precipitation falls in the winter months, and melting snows in the Andes flow down to provide irrigation water for the valleys during the growing season. Hence, the winter drought in 1968 affected the harvest in 1969.

Santiago southward--will boost production substantially for the harvest which began in January 1970.

2. Chilean wheat production in 1970 will likely be influenced for the better by the favorable forward price which was announced during the planting season, and it was promised that this figure would be adjusted upward with inflation.

3. Chile's agricultural planning office (ODEPA) has completed an agricultural development plan that covers the next decade. In addition to spelling out the need for continued agrarian reform, it calls for an increase in truck crops, orchards, and vineyards; a doubling of improved pastures, more irrigation facilities, and doubling the cattle and sheep population.

The government claims a 4.6 percent annual growth rate in its agricultural sector during the Frei presidency. This compares with a 1.8 percent rate of growth in the years immediately preceding 1965. These figures are open to much dispute. In 1969, rice was only 39 percent and corn 41 percent of 1968 production. Slightly less wheat was harvested in 1969 than in 1968. Furthermore, yields per hectare of major crops that Chile grows do not show a clear upward trend of late (Table 2). Besides, Chile had a negative trade balance for agricultural products amounting to \$96 million in 1967 and \$141 million in 1968; the figure for the 1969 drought harvest will likely be higher. The country still imports many products--

TABLE 2. YIELDS OF VARIOUS CROPS: CHILE

Product	Quintales Per Hectare			
	64/65	65/66	66/67	67/68
Wheat	15.4	17.3	16.7	17.4
Oats	n.a.*	16.2	16.8	15.0
Barley	19.3	22.8	23.3	21.9
Rye	11.9	16.1	13.0	11.4
Rice	29.1	20.8	30.2	28.8
Corn	30.8	35.4	39.3	36.2
Beans	10.1	10.6	13.1	10.9
Lentils	3.9	4.4	5.8	5.1
Peas	7.7	13.0	10.5	6.8
Chick Peas	6.0	4.9	8.6	4.7
Potatoes	77.2	105.3	92.6	90.6
Sugar Beets	379.7	n.a.	n.a.	378.7
Sunflowers	14.1	13.3	14.8	14.9
Rapeseed	12.5	12.5	13.5	12.8
Onions	n.a.	n.a.	260.0	325.0
Garlic	n.a.	49.2	50.0	n.a.

Computed from Government of Chile statistical sources.

*n.a. = not available.

some economists put the figure at 60 percent of the total--which could be grown domestically.

One problem with a reform of this nature is that it may cause a certain amount of disinvestment and malaise in the large-farm

sector which, admittedly, contains some well-worked properties. The extent to which this may be happening is, as yet, unknown. But as mentioned previously, legislation does provide that best worked farms can keep largest reserves and that payment for what land is expropriated will be on fairly good terms; this pressure will certainly have a palliative effect. Preliminary results of a recent field study of a sample of 43 privately operated fundos in Santiago Province show that investments per hectare in every category (in real terms) rose in 1968/69 when data are compared with the same farms in 1963/64.¹⁵

B. Recent Developments in Other Economic Sectors

If it is difficult to assess the impact agrarian reform to date has had on agriculture, it is likewise impossible to determine what effect it has had on the whole economy. But the progress of reform will depend, to some extent, on how well the economy performs, and the expansion of the Chilean economy was less at the close of the decade than in either 1965 or 1966. In 1966 per capita growth of GNP in real terms was 6.5 percent.¹⁶ The Chilean economy did not grow in terms of GNP per capita in 1967 and 1968 and, when official figures are out, the 1969 situation is not likely to show much, if any, improvement.

¹⁵Personal correspondence with Wayne Ringlien, Ph.D. candidate, University of Maryland, February 19, 1970. Ringlien compares data he gathered with that secured in the early period by the Ministerio de Agricultura y Pesca.

¹⁶All these figures are subject to the usual doubts and reservations economists express on the accuracy and appropriateness of data on national income accounts.

Industry, which generally shows the most buoyant growth as an economy expands, has shown enormous fluctuation of late. Industrial production increased 6.4 percent in 1965 and 8.6 percent in 1966, but it rose only 2.8 percent in 1967 and 2.0 percent in 1968. Some early and provisional data for 1969 show a decline of 1.1 percent for the first half of 1969 compared with the first half of 1968. As Frei assumed office, there was a great deal of idle capacity in industry: manufacturing output could be expanded without setting off as much inflation as Chile had experienced under Jorge Alessandri, the former president. But the economy failed to generate new capacity by the middle of Frei's term, so industrial production slowed and, as a partial result (but only partly for this reason), inflation boomed again.¹⁷

Because of the high price of copper on the world market, Chile's foreign exchange earnings continue high. They are likely to increase even more in 1970 as a result of the agreement between Chile and the Anaconda Cooper Company, but the precarious nature of this dependency on the world price of copper should be obvious. Exports rose from U.S. \$783 million in 1965 to U.S. \$1042 million in 1968. But imports rose to U.S. \$1040 million in 1968. A balance of payments surplus resting on a very high copper price could easily become a deficit.

¹⁷Officially, inflation was 17 percent in 1966 and about 40 percent in 1969. Both of these figures probably understate the true rise in the cost of living since many government-controlled items are included in the index.

C. Population and Employment

While high, the rate of population growth in Chile is well under the Latin American 1963-67 annual average of 2.9 percent. And it dropped from about 2.3 percent in 1961 to slightly under 2 percent in 1967. The total population of the country was estimated at about 9.4 million on July 1, 1969, and is expected to increase to between 12.5 and 15.6 million by 1991. The potential work force (the population aged 15 to 64 years) will likely increase at a slightly faster rate than the entire population, reaching between 8.5 and 9 million in 1991.¹⁸

This is disturbing because one of the most important problems currently confronting the Chilean society is unemployment and underemployment. Official data showed that the unemployment rate rose to 7.1 percent in greater Santiago by June 1969, compared with 5.9 percent a year earlier,¹⁹ and these data grossly understate the true dimensions of the issue. The UN has suggested that if all underemployment were converted to unemployment equivalents in Latin America, the rate might be as high as 25 percent of the work force. Because its economy is so sluggish, this estimate is not at all unrealistic for Chile.

Almost 70 percent of the total population increase of Chile's major cities (Santiago, Valparaiso, Concepción) is currently accounted

¹⁸ Steve W. Rawlings, Population of Chile: Estimates and Projections, 1961-1991, Bureau of the Census, U.S. Department of Commerce, Series P-96, No. 1, December 1969.

¹⁹ Bank of London and South America Review 3 (September 1969), p. 590. This information is usually compiled by the Instituto de Economía, Universidad de Chile, Santiago.

for by natural increase and 30 percent by migration.²⁰ The step-wise nature of migration patterns (from rural areas to towns to cities)²¹ in Chile probably indicates a higher unemployment strain is being placed on towns than on cities by rural-urban migration. The unemployment problem in the three largest cities seems mostly due to the high birth and low death rates there. But this is somewhat of a moot point and still does not make the unemployment problem due to migration a negligible one in metropolitan complexes.

In addition to production targets, then, any economic program of the government must have employment objectives. Off-farm migration is continuing to such an extent that the active labor force in Chilean agriculture is either remaining constant or dropping slightly--at the very least the natural increase is being siphoned off. Until the urban economy is functioning at a much higher level, this implies that underemployment and unemployment are being transferred from farms to cities and towns.

D. Redistribution of Income and Resources

There are conflicting reports on how much actual redistribution toward poor sectors there has been during the current administration. There was a notable rise in the minimum wage after Frei

²⁰E. E. Arriaga, "Components of City Growth in Selected Latin American Countries," Milbank Memorial Fund Quarterly 46 (April 1968), pp. 241-253. See also John R. Weeks, "Urban and Rural Natural Increase in Chile," Milbank Memorial Fund Quarterly 48 (January 1970), and United Nations, Population and Vital Statistics Report, data available as of July 1, 1968, Statistical Papers, Series A, Vol. 20, No. 3.

²¹The step-wise nature of migration is documented in B. H. Herrick, Urban Migration and Economic Development in Chile (Cambridge, Mass.: The MIT Press, 1965).

assumed power, and in 1969 he claimed that real income for white collar and blue collar workers rose 54 percent during his administration.²² Ringlien reports that in his sample of private fundos, when 1963/64 and 1968/69 are compared, farm workers' real wages nearly doubled when a value is imputed for in-kind payments.²³ AID figures (Table 3) show that the minimum wage dropped slowly between 1966 and 1969, demonstrating how quickly gains can be turned into losses as inflation erodes them.

TABLE 3. LEGAL MINIMUM AGRICULTURAL DAILY WAGES^a

	<u>Nominal</u> (Escudos)	<u>Real^b</u> (Escudos)
1965	3.264	3.264
1966	4.104	3.340
1967	4.800	3.285
1968	5.851	3.100
1969	7.483	3.067

Source: AID Memorandum, November 28, 1969, Santiago, Chile, p. 9. The escudo in 1969 averaged about U.S. \$0.13.

^aSince 1965 agricultural and industrial minimum wages for workers were fixed at the same level.

^bDeflated by General Price Index 1965 = 100. For 1969 it is assumed G.P.I. will increase by same percent as for 1968.

²²President Eduardo Frei, "Fifth Annual Message to Congress," May 21, 1969, Santiago.

²³Ringlien, correspondence.

The reform to date has not changed the basic structure of Chilean agriculture where, as revealed by the last census--in 1965--13,478 farms (5.3 percent of the total) of 200 hectares or more constituted nearly 87 percent of the country's farmland. As of January 30, 1970, after 1,140 properties had been expropriated, approximately 5.0 percent of the properties still comprised 76.7 percent of the land area. (This observation does not, of course, consider the likely possibility that there has been some private subdivision of land in the 1965-69 period.) The other end of the spectrum, of course, was unchanged by reform; in 1965, 123,693 farms of under 5 hectares, or 49 percent of the total number of farms, occupied 0.7 percent of the land. And 45,233 farms of less than one hectare or 17.8 percent of the total number, held 0.1 percent of the land (Table 4).

Another indicator of redistribution might be found by examining the amount of agriculture credit going to agrarian reform beneficiaries or small-plot agriculturists over the past years. This means looking closely at disbursements of CORA and INDAP as opposed to those of Banco del Estado and CORFO, both of which direct the bulk of agricultural loans to large farms.

Agricultural credit trebled between 1964 and 1968 (see Tables 5 and 6); likewise, the number of farmers receiving loans increased three times. Banco del Estado credit disbursements were up 300 percent while CORFO credit rose slightly. Meanwhile, INDAP credit more than trebled, and CORA disbursements rose by more than 60 times from an exceedingly low level.

TABLE 4. CHANGE IN SIZE OF FARMS CONSIDERING ONLY AGRARIAN REFORM AND NOT ALLOWING FOR PRIVATE SECTOR SUBDIVISION, 1965 - JAN. 30, 1970

Farm Size Groups	Number of Properties 1965*	Number of Properties Jan.30, '70	% of Total Properties 1965	% of Total Properties Jan.30, '70	Number of Hectares 1965	Number of Hectares Jan.30, '70	% of Total Hectares 1965	% of Total Hectares Jan.30, '70	Average Number Hectares/Property '65	Average Number Hectares/Property Jan.30, '70
Less than 1 hectare	45,233	45,233	17.8	17.8	22,378.5	22,378.5	0.1	0.1	.495	.495
1-4.9 hectares	78,460	78,460	31.0	31.0	184,480.2	184,480.2	0.6	0.6	2.351	2.351
5-49.9 hectares	92,412	92,386	36.5	36.4	1,556,049.7	1,555,234.7	5.1	5.1	16.838	16.834
50-99.9 hectares	14,785	14,699	5.8	5.8	1,022,655.9	1,016,150.9	3.3	3.3	69.168	69.131
100-199.9 hectares	9,164	8,993	3.6	3.5	1,261,513.3	1,235,187.6	4.1	4.0	137.660	137.349
200 and more hectares	13,478	12,621	5.3	5.0	26,597,053.1	23,525,402.7	86.8	76.7	1,973.368	1,863.988
Reformed Sector*		1,140		0.5		3,105,296.1		10.2		2,723.944
TOTALS	253,532	253,532	100.0	100.0	30,644,130.7	30,644,130.7	100.0	100.0		

*1965 Agricultural Census

Note: This table has been constructed by subtracting all properties taken over by CORA, 1965 to December 1969, from each size category in the 1965 census.

TABLE 5. NUMBER OF FARMERS RECEIVING LOANS
BY INSTITUTION, 1964-1968

<u>Institution</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
CORA	465	1,089	4,980	8,347	23,000
INDAP	20,360	49,340	52,446	45,475	78,000
Banco del Estado	31,217	38,344	48,866	55,000	47,000
CORFO	3,918	2,842	3,619	2,841	4,330
Total	55,950	91,815	109,911	111,663	152,230

AVERAGE SIZE OF LOAN BY INSTITUTION
1964-1968 in 1965 ESCUDOS

CORA	5,161	3,398	6,927	10,015	6,457
INDAP	702	582	606	811	699
Banco del Estado	7,275	9,049	12,655	12,636	14,543
CORFO	10,311	17,628	24,316	28,159	14,273
Total Average	5,079	4,678	7,034	8,019	6,229

Computed from AID sources.

TABLE 6. AGRICULTURAL CREDIT EXTENDED BY INSTITUTION, 1964-1968
IN MILLIONS OF 1966 ESCUDOS

<u>Institution</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
CORA	2.4	3.7	34.5	83.6	148.5
INDAP	14.3	28.7	31.8	36.9	54.5
Banco del Estado	227.1	347.0	618.9	695.0	683.5
CORFO	40.4	50.1	88.0	80.0	61.8
Total	284.2	429.5	773.2	895.5	948.3

PER CENT OF TOTAL AGRICULTURAL CREDIT CONTRIBUTED
BY INSTITUTION, 1964-1968

CORA	0.8	0.9	4.5	9.4	15.7
INDAP	5.0	6.7	4.1	4.1	5.7
Banco del Estado	79.9	80.8	80.0	77.6	72.1
CORFO	14.3	11.6	11.4	8.9	6.5
Total	100.0	100.0	100.0	100.0	100.0

Computed from AID sources.

It is also revealing, however, that 72.1 percent of all institutional agricultural credit in Chile is still granted by the Banco del Estado (as compared to 79.9 percent in 1964). The CORA share rose from 0.8 percent in 1964 to 15.7 percent in 1968 while the CORFO share dropped from 14.3 percent to 6.5 percent. Average loan size to Banco del Estado recipients doubled while average loan size to INDAP receivers remained at a rather stable level.

All of this seems to indicate that the government is tending to favor agricultural development programs and that the major part of all credit is still going into the large farm sector. But vastly more low income farmers than in 1964 are now benefitting from official credit.²⁴ And this somewhat understates the institutional credit going to small farmers: asentamientos are increasingly being encouraged to turn to the Banco del Estado for credit. Also, CORA is favoring contract farming to channel private-sector funds to asentamientos.

Regardless of reservations and qualifications, for the first time in history one can now at least begin to question the validity of McBride's classic 1936 statement, "In so far as a middle class has existed at all, it has existed only in the cities. In rural life it must be master or man. There has been no alternative."²⁵

But reform is a difficult process in the Chilean context. One author expresses it:

²⁴It has been shown that CORA was allocated 2 percent of the national budget from 1964-1968; this compares with 7.5 percent for the government's housing program and 10 percent for defense.

²⁵McBride, op. cit., p. 183.

Those groups that wish to oppose change are strong and well entrenched. . . . Moreover, it is perhaps misleading always to speak of the Christian Democrats as a reformist party: while reform elements certainly predominate numerically and often control the party, President Frei's ministerial choices have given plenty of power and opportunity to those supporters who come from and feel more comfortable with the right wing of the Chilean political spectrum.

Nor, of course, do the Christian Democrats enjoy a monopoly of reformist sentiment. They won the elections of 1964 and 1965 only because of the support of the right. It is very difficult to wield a reform coalition in a country like Chile; those groups who want reform often tend to want partial reform in their own interests; these interests may clash with those of another group.²⁶

Yet this author goes on to claim, "It remains problematic whether a turn to the right could reverse the changes in Chile. Many peasants and small landowners have much to be grateful for...."²⁷

Some social scientists are inclined to write off any accomplishments of reform. One has recently claimed that both in the past and in the present "inequality has been a basic feature of the Chilean society....The cost of industrialization and social welfare has been borne largely by the lower classes."²⁸

This judgment seems premature and overly pessimistic. Nonetheless, any program which involves redistribution of opportunities and resources must be examined as it evolves on the basis of the contributions it makes to development. One explicit purpose of President Frei's rural development program is to give campesinos

²⁶Alan Angell, "Christian Democracy in Chile," Current History (February, 1970), p. 84. See also Angell's article, "Chile: the Difficulties of Democratic Reform," International Journal (Summer 1969).

²⁷Ibid., p. 113.

²⁸James Petras, Politics and Social Forces in Chilean Development (Berkeley: University of California Press, 1969).

the claim on resources they need to be productively employed while encouraging them to invest and increase their productivity. Where there are idle land resources--as there are in a country like Chile-- they must be made to contribute to overall development, defined broadly to include increased employment, more production, and a better distribution of income.

Using these dimensions of development, the effects of the reform in Chile to date on the macro economy have not been significant. But micro studies of reform at the asentamiento level may give clues as to its future probable impact and to possible problems and bottlenecks as the reform becomes more widespread. Only by constant study, evaluation and reappraisal can any program--especially one as complex as agrarian reform--be improved so that it serves the long run interests of a country.

Micro Studies of the Frei Reform

Meyer has studied six asentamientos in the Central Zone that had been in operation for at least two full crop years.²⁹ He picked them to represent as wide a range of resource endowment and profitability as possible and found that net farm returns (gross farm returns minus cash operating expenses) and returns to capital and management (net farm returns minus labor payments and fixed costs) increased on all but one in 1967/68, the second year of operation, when compared to the first. If debt installments would have been charged in 1966/67, three asentamientos could have paid both land

²⁹Meyer, op. cit.

and working capital payments without reducing consumption. A fourth could have paid half of its land installment; the two others could have paid neither. In 1967/68 five of six could have paid the land debt installment, but two of these five could not completely have paid the working capital assessment.³⁰

To determine how this performance could be improved, Meyer paired each asentamiento with a nearby well-managed privately operated fundo of fairly similar physical resources but, unlike the newly-founded asentamientos, with a fairly long history of good management. From coefficients calculated with these data, he prepared enterprise budgets and used linear programming techniques to show that output and efficiency of resource use could be bettered. The private farms he analyzed use more fertilizer but have lower machinery costs and use less labor per hectare. Assuming improved management and an optimum output mix (that is, selecting an optimum combination of enterprises using budgeted input-output coefficients to determine maximum farm income), he showed that net farm income could be increased on all six asentamientos such that the poorest asentamiento could almost pay the land installment. But maximizing net income with an optimum enterprise combination required a decline of 70 or 80 percent of current labor use. When this labor is retained, net farm income declines, but five of the six could still pay debt installments.

³⁰See pages 11-12 for details on land payments and working capital assessments.

If capital investment in profitable labor intensive enterprises is planned for each asentamiento, the poorest property could not pay debt installments and retain the present labor force, but three of them could increase farm employment while two could earn sufficient income to maintain present labor and pay all debts. If this latter alternative were selected, area devoted to forages, beef cattle, poultry, sheep, fruit, and nuts would increase while that currently devoted to cereals, fallow land, and natural pasture would decline. Meyer's analysis indicates that in this case operating capital requirements would rise by 13 to 25 percent (primarily in the form of such items as nursery stock and livestock and not machinery). Gross value of production would increase by more than 25 percent over current levels.

A CORA study of 95 percent of all 1966-67 asentamientos shows that most asentados made incomes between two and ten times the salario agrícola (the government-set minimum wage for an agricultural worker in Chile; see Table 7).

TABLE 7. EARNINGS OF ASENTADOS, 1966-67

Percent of Asentados	Number of Times the Salario Agrícola Earned
0.69	Negative Income
13.48	0-1
27.75	1-2
43.12	2-4
14.25	4-10
0.71	10-26

Source: CORA

An FAO sample study in 1966/67 showed that the average income per asentado is between 2.8 and 4.6 times that of the agricultural minimum wage.³¹ As a group, those who previously had administrative positions on the fundo do poorer after than before the reform. Apparently, within the beneficiary group, the effect of reform on distribution of income is to shift down former high-income receivers and move those who formerly received lowest incomes on the fundo toward some higher position.³²

A CORA census of 226 settlements in 1967-68 showed yields of the major crops grown (in terms of yield per acre) to be somewhat above the national averages despite the drought conditions (Table 8).

TABLE 8. YIELDS OF FOUR CROPS
ON 226 ASENTAMIENTOS 1967-68

	Chile: Average Yield in Quintals Per Hectare ^a	226 Asentamientos: Average Yield in Quintals Per Hectare ^b	Difference in Favor of the Asentamientos
Wheat	17.4	21.2	+3.8
Corn	36.2	37.8	+1.6
Barley	21.9	27.3	+5.4
Potatoes	90.6	127.8	+37.2

From: F. Broughton, Chile: Land Reform and Agricultural Development, Thesis, University of Liverpool, 1970, p. 220.

^aFrom Table 2.

^bCORA

³¹FAO/ICIRA, Evaluación Preliminar de los Asentamientos de la Reforma Agraria de Chile (Santiago: 1967).

³²Also shown in Rogelio Imbale, "Asentamientos de Choapa: Cambios en la tenencia de la Tierra y en los Ingresos de los Campesinos," Economía (Journal of the Faculty of Economic Sciences), No. 39 (1967).

Jolly surveyed sixteen asentamientos in 1966-67, the harvest year before the passage of Law 16,640.³³ He found that when operating costs, settlers' advances, a 10 percent interest on capital and credit, and an imputed value for a land amortization were subtracted from total gross income on all the asentamientos taken as a group, the result was slightly negative. This, he claims, is not too unsatisfactory considering that most of these asentamientos were in their first year of operation. However, the interest rate he charged was negative (considering inflation), and he allowed only a minimum amount for cash advances, a figure that may grow as settlers acquire bargaining power. As one might suspect, these gross figures conceal a great deal of variability between asentamientos. Nine settlements produced a surplus after all above subtractions were made while seven could not have covered them. Four of these seven showed negative incomes even before land amortization was subtracted.

In order to determine whether progress was being made over a two-year period, five settlements were chosen from the sample because they displayed overall characteristics of the sixteen and were in operation the previous year. This comparison showed that when the second year was compared to the first, there was:

1. An increase in total area devoted to crops (from 2.9 hectares per settler to 3.3 hectares per settler).

³³Arthur L. Jolly, An Economic Evaluation of the Asentamientos of the Agrarian Reform, Instituto de Capacitación e Investigación en Reforma Agraria, preliminary version, April 1968.

2. A 25 percent increase in area directed to irrigated crops at the expense of grazing land and non-irrigated cropland.
3. More planting of crops with a higher value per hectare (total land in crops increased 14 percent; less intensive crops increased by 9 percent compared to a 17 percent increase in more intensive crops).
4. A rise in real income from livestock although less area was devoted to pasture.
5. An increase of gross income on four of the five asentamientos.
6. An increase of labor use.
7. A rise of debt repayment capacity in only two settlements, indicating that operating costs rose at a higher rate than gross income on most asentamientos.
8. A continuing wide range of economic performance between the best and poorest asentamiento.

The study further concluded that asentamientos with high operating costs don't necessarily receive the least net income; the crucial factor is how the mix of inputs combines to produce a high gross.

Implications for Policy

The data in most of the above-cited studies show that asentamientos exhibit a wide range of economic performance. This is hardly surprising: there are wide ranges in agricultural performance everywhere in the world, from the mid-west family farm to the Israeli Kibbutzim. Besides, each asentamiento begins its history with a

differing resource endowment. CORA and the campesinos must create viable, flexible "going concerns" in this pre-ownership period, and this is no easy job in any country. But the overall task is even more complex. Each new firm will attempt to act in its own self interest, and in some matters the sum of private interests may not be entirely congruent with the public interest. For example, under existing arrangements asentamientos may not want to provide employment to an extent that is socially desirable. CORA's policies--and those of other governmental agencies--must be designed to meet such national developmental priorities. Whether all of this can be done will depend on at least some of the following matters:

1. The tendency toward use of more and more labor saving capital equipment on asentamientos--as well as in the private sector of agriculture--must be closely examined in terms of the pressing employment problems which confront the economy. Jolly found that rental of machinery (and some draft animals) made up 23.5 percent of total operating costs of the asentamientos in his sample. One-third of a \$23 million AID sector loan signed October 23, 1967, went into importing capital equipment, and three-quarters of that went to CORA. The projected expenditures on the 1969 sector loan likewise show capital equipment as a prominent expenditure, making up about 36 percent of the \$10 million. The government of Chile reports that there has, in partial consequence, been a 30 percent price drop for tractors sold in Chile.

This has serious employment repercussions on an economy where industry is not able to absorb those who must leave agriculture. In the Central Valley, where double-cropping is not practiced, use of more capital equipment has little impact on increasing yields per hectare or on gross agricultural production. Meanwhile, improving irrigation works, use of more fertilizer, better management, and use of improved stock and seed could have a major impact. Jolly found that only 9 percent of the operating expenses of the asentamientos he studied went into fertilizer. Ten percent of the 1969 loan is planned for fertilizer imports for CORA, a percentage very similar to the one in 1967.

The number of workers that can be and are released from the private sector of agriculture seems to be growing as labor problems increase and machinery becomes cheaper. Their only recourse is to try to become asentados, work on asentamientos as hired labor, or migrate to urban areas. Chile has no new frontiers. While the private cost of using capital equipment drops, the social cost is rising as unemployment and underemployment problems become more acute.

2. The number of asentados needs to be very carefully matched to the carrying capacity of a farm. This is difficult because early in the process, when CORA has more prerogatives, CORA itself may be unable to rationally calculate how many campesinos should be settled on a fundo; later (and sometimes even early in the process if campesinos are already organized), the

campesinos themselves are understandably reluctant to take on new families as asentados: they see the land as creating a long run opportunity for their own families, and in the short run they cannot see need for dividing profits among more people. Jolly reports the highest single operating cost on the asentamiento he studied was for hiring labor (28.7 percent of the total operating cost), and many of the most successful asentamientos hired most labor; meanwhile the least successful asentamientos were probably overpopulated. Yet it has been shown that over 70 percent more asentados could be accommodated on existing asentamientos in the southern part of the Central Valley than are actually settled there.

There are disturbing signs, therefore, that in some cases the asentados themselves may be becoming a closed group with no more willingness than a latifundista to pay decent wages to labor. Of course, if this system results in more employment than would be the case in the absence of the asentamiento, the net social result may still be positive. However, there are indications that asentados will not only become a progressively more privileged group, but as soon as possible and to the extent they are able, they will tend to substitute capital equipment for hired labor. It may be possible to rectify problems like this with imaginatively organized and skillfully managed regional organizations in which all asentamientos participate along the lines attempted in the Talagante "area" in Santiago province (an "area" is a

CORA-zone subdivision). The area chief (a CORA employee) together with each asentamiento president and one asentado elected at large from each settlement designed a joint cropping plan for the region that would be labor intensive and would involve high-price crops which would hit the market at its peak. Tractors, when needed, were shared area-wide so each asentamiento didn't need to have a great number of tractors and other equipment. If these institutional mechanisms were to become widespread and viable, settlers would realize that their self-interest soon becomes closely intertwined with the public interest of the region. And asentados from underpopulated asentamientos might be willing to accept those from overpopulated ones within an area. Furthermore, this might provide the needed organizational matrix to encourage underpopulated settlements to take on other landless laborers in the region as asentados. One advantage of this form of land tenure is that it provides a good school for learning interpersonal cooperation, after which the needed set of inter-asentamiento cooperation should be easier.

3. More thought must be given to the incorporation of younger-than-eighteen and some young, unmarried settlers who are now barred from becoming asentados. While the current method of settler selection provides community stability, it also means that most asentados are middle-aged. Because they are likely to be better schooled than their fathers, younger settlers may well add needed ingredients of flexibility and imagination to the asentamiento.

4. Administration of the reform program and campesino skills must be constantly improved. Furthermore, incentives must continually be built in to avoid the attitude, "If I don't work very hard, the job will be done by someone else anyhow."

CORA has attempted a mammoth task and, in general, is doing an admirable job. But CORA technicians are under certain pressure to make some management decisions centrally in order to make certain short run production does not fall. One problem is that no agency has unlimited skill, and a small mistake by a technician who isn't completely familiar with local conditions--or even an input delivered too late--can be serious.

Even more important, campesinos--who may have merely taken orders of superiors prior to reform--must become entrepreneurs as quickly as possible. And if they aren't permitted to become fairly skilled in decision making, short run gains in marketable surplus might be followed by long run problems--reform does result in "independence" from CORA's tutelage at the end of three to five years.

An example of this problem (which has now been partially solved) is that although CORA provides inputs to farmers, it does not always inform the asentados why they are to use them and how much they cost. Or it may have subsidized inputs and credit at too high a level.³⁴ Furthermore, final accounting

³⁴In at least one case in which there is an area-wide organization, a representative of each asentamiento travels with a CORA official to the seed granaries to pick the variety and the quality best suited to conditions on each farm.

has arrived very late--sometimes well into the next planting season. Entrepreneurs, whether working individually or as a group, must have operating cost information (that reflects true market value) and price data promptly to make rational decisions.

Some of these problems remain; their resolution importantly depends on increasingly decentralized administration but also on the personality of the technical and administrative personnel involved, many of whom find it difficult to overcome the paternalistic spirit which dominates labor relations on the private fundo.

The CORA administration has not been slow to learn over the past years and beginning in May 1968 drastically reduced its own supervisory role on the settlements. It also placed more responsibility for keeping accounts with each asentamiento. As the program expands, it will be necessary to reduce CORA's role and decentralize its organization still further. The asentamiento period on exceptionally successful settlements should be shortened.

INDAP has proven very skillful in organizing some regional marketing cooperatives which also make bulk purchase of correct inputs possible for small holders. The co-op grants credit; and since other members must pay if the credit receiver does not, each borrower is under the pressure of his peers to increase his production. This is a form of technical assistance in which it is difficult for paternalism to develop. CORA might well consider a similar arrangement during the asentamiento

period on those settlements which show most promise. Currently the asentamiento as a whole is liable for all credit granted, but the technical assistance component is much larger in CORA than in INDAP programs. In many cases the CORA technical assistance component is vital since CORA works with farmers who are not as accustomed to decision making as small holders would be.

5. Complementary reforms must be made in secondary level institutions to prevent, say, the market from assuming the exploitive role of the old landlord. The difficulties of the Chilean agricultural marketing system are well documented;³⁵ and if they are anachronistic in the traditional setting, they seem to become doubly difficult after reforms have been introduced at the farm level. A regional organization of asentados together with INDAP cooperatives in the area would help shape the market structure so that it lessens dependency on middlemen and on the huge and monopolistic central market in Santiago. It might also facilitate obtaining contracts for such crops as sugarbeets, sunflowers, barley, and wheat. This type of contract is available in Chile and usually includes credit, inputs, technical assistance, and an offer to buy the crop at a guaranteed price.

³⁵See, for example, Carlos Fletschner, "Structural Patterns in the Marketing of Selected Agricultural Products in Chile: The Position of Small and Large Growers," Ph.D. Thesis, University of Wisconsin, 1969. In 1968 the government agency in charge of planning stated, "In Chilean agriculture what seems to be insufficiency of demand for some crops is usually only a difficulty in marketing."

It would seem as though labor-utilizing innovations might also be introduced at this level, e.g., asentados and their families could process more goods for the market either on the farm or in nearby towns, especially in those where unemployment is most severe. In 1967 some asentamientos bagged their own potatoes for retail and delivered them directly to a Santiago supermarket. It was estimated that this cut 60 percent from the usual marketing margin--an amount which remained in the local community, while employing people at the farm level who would have been jobless otherwise. This plan could easily be extended to other vegetable crops, but it calls for coordinated planting schedules at a regional level: retailers need assurances that they will receive a constant supply through the harvest season. Installation of processing plants for canning, dehydration, or even freeze drying fruits and vegetables would certainly be another local-level possibility.

6. Some infrastructural investments now being made might be effectively postponed until later. Certainly the construction of dwelling units, now underway on some asentamientos, could be delayed for a time while peasants live in the meager and admittedly inadequate housing that currently exists. This investment technique would free funds for higher priority investments--say, fertilizers, hybrid seeds or education facilities. Later the campesinos could purchase construction materials cooperatively or even build houses under a shared labor plan, which would lower costs.

The past five years in Chile have shown that reform is a difficult task. It is perhaps doubly so in a context where an anachronistic social structure is largely still intact; institutions based on democratic principles prevail and are honored, though sometimes in the breach; coalitions form and reshape themselves; legalisms abound; and strongman tactics are generally abhorred. Add these political intricacies to increasing production, training a new class of entrepreneurs, providing employment, stepping up economic growth of the economy as a whole, lessening dependence on the export sector, and devising a sholly new tenure form in agriculture, and the problems that emerge are formidable. Still, CORA's position to date has been generally open, pragmatic, and self-critical.

Furthermore, there is an air of determined change in the Chilean countryside. Foreigners should not attempt to interfere with this course which can be and must be set by the Chileans alone. But judiciously given, outside assistance can help to make reform successful.

Spring Review Paper
Chilean Land Reform
W. C. Thiesenhusen

SELECTED REFERENCES

Aldunate, Paul V. "Labor and Capital Sectoral Allocation in the Chilean Economy: A Linear Programming Macro-Economic Model." Ph.D. Thesis, Purdue University, 1967.

_____. Sistemas de Participación en las Empresas Agrícolas: Características Económicas y Determinación de Tipos. Universidad Católica de Chile, Santiago, 1968.

_____. Study of the Use of Resources and the Economic Result of Agricultural Firms from the Central Valley of Chile. Universidad Católica de Chile, Santiago, 1967.

Amunategui Solar, Domingo. Historia Social de Chile. Santiago: Editorial Nascimento, 1932.

Angell, Alan. "Chile: The Difficulties of Democratic Reform." International Journal 24 (1969): 515-528.

_____. "Christian Democracy in Chile." Current History 58 (1970): 79-84.

Arriaga, E. E. "Components of City Growth in Selected Latin American Countries." Milbank Memorial Fund Quarterly 46 (1968): 241-253.

Barraclough, Solon L. "Employment Problems Affecting Latin American Agricultural Development." Monthly Bulletin of Agricultural Economics and Statistics 18 (1969): 1-11.

_____. and Arthur L. Domike. "Agrarian Structure in Seven Latin American Countries." Land Economics 42 (1966): 391-424.

Becket, James. "Land Reform in Chile." Journal of Inter-American Studies 5 (1963): 177-211.

Bray, James O. "Demand, and the Supply of Food in Chile." Journal of Farm Economics 44 (1962): 1005-1020.

_____. "La Intensidad del Uso de la Tierra en Relación con el Tamaño de los Predios en el Valle Central de Chile." Revista Finis Terrae, No. 24, Santiago, 1960, pp. 47-62.

_____. "Mechanization and the Chilean Inquilino System: The Case of Fundo 'B'," Land Economics 42 (1966): 125-129.

Selected References, p. 2

- Broughton, F. Chile: "Land Reform and Agricultural Development." Ph.D. Thesis, University of Liverpool, 1970.
- Brown, Marion R. "Diffusion of Technical Agricultural Information in Chile." Ph.D. Thesis, University of Wisconsin, 1968.
- Burgos Mujica, Hernan. Análisis Económico Agrícola para un Plan de Crédito Supervisado: Comuna de Navidad Año Agrícola 1960-61. Ministerio de Agricultura, Departamento de Economía Agraria, Santiago, 1962.
- Butland, Gilbert J. Chile: An Outline of Its Geography, Economics and Politics. London: Oxford University Press, 1951.
- Carvallo Drien, Marcello. "Land Tenure and the Development of Chilean Agriculture." Master's Thesis, University of Wisconsin, 1963.
- Cohen, Alvin. Economic Change in Chile, 1929-30. Gainesville, Florida: University of Florida Press, 1960.
- Collarte, Juan Carlos. "Análisis de una Alternativa de los Sistemas de Tenencia de Tierras en Chile." Ph.D. Thesis, Universidad de Chile, 1964.
- Comité Interamericano de Desarrollo Agrícola. Chile: Tenencia de la Tierra y Desarrollo Socio-Económico del Sector Agrícola. Santiago, 1966.
- Corporación de Fomento de la Producción. Geografía Económica de Chile. Santiago, 1965.
- Davis, Tom E. "Ocho Decades de Inflación en Chile, 1879-1959: Una Interpretación Política." Cuadernos de Economía 4 (1967): 65-74.
- Davis, Tom E. and Marto A. Ballesteros. "The Growth of Output and Employment in Basic Sectors of the Chilean Economy, 1908-1957." Economic Development and Cultural Change 11 (1963): 152-177.
- Dirección de Estadística y Censos. IV Censo Nacional Agropecuario, Año Agrícola, 1964-1965. Santiago, 1966.
- Dominguez, Oscar. El Condicionamiento de la Reforma Agraria. Université Catholique de Louvain Collection De L'Ecole Des Sciences Politiques Et Sociales, Number 173, E. Warny, Louvain, Belgium, 1963.

Selected References, p. 3

Dorner, Peter. The Influence of Land Tenure Institutions on the Economic Development of Agriculture in Less Developed Countries. Land Tenure Paper No. 55. Mimeographed. Madison, Wis.: Land Tenure Center, University of Wisconsin, 1968.

_____. Issues in Land Reform: The Chilean Case. Land Tenure Center Discussion Paper No. 5. Madison, Wis.: Land Tenure Center, University of Wisconsin, 1965.

_____. "Land Tenure, Income Distribution and Productivity Interactions." Land Economics 40 (1964): 247-254.

_____ and Juan Carlos Collarte. "Land Reform in Chile: Proposal for Institutional Innovation." Inter-American Economic Affairs 19 (1965): 3-22.

Echeverria, Roberto. "The Effect of Agricultural Price Policies on Intersectoral Income Transfers." Ph.D. Thesis, Cornell University, 1969.

Ellsworth, P. T. Chile: An Economy in Transition. New York: The Macmillan Company, 1945.

Fletschner, Carlos. "Structural Patterns in the Marketing of Selected Agricultural Products in Chile: The Position of Small and Large Growers." Ph.D. Thesis, University of Wisconsin, 1969.

Foland, Frances M. "Agrarian Reform in Latin America." Foreign Affairs 48 (1969): 97-112.

Food and Agricultural Organization/Instituto de Capacitación y Investigación para Reforma Agraria. Evaluación Preliminar de los Asentamientos de la Reforma Agraria de Chile. Santiago, 1967.

Gazmuri, Jaime. Asentamientos Campesinos: Una Evaluación de los Primeros Resultados de la Reforma Agraria en Chile. Santiago: Desarrollo Económico y Social de América Latina, 1968.

Gongora, Mario. Origen de los Inquilinos de Chile Central. Santiago: Editorial Universitaria, 1960.

Hirschman, Albert O. Journeys Toward Progress. New York: The Twentieth Century Fund, 1963.

Imable, Rogelio. "Asentamientos de Choapa: Cambios en la Tenencia de la Tierra y en los Ingresos de los Campesinos." Economía 25 (1967): 3-13.

Selected References, p. 4

- Jobet, J. D. Precursores del Pensamiento Social de Chile. Santiago: Editorial Universitaria, 1955.
- Jolly, A. L. "An Economic Evaluation of the Asentamientos of the Agrarian Reform." Preliminary draft. Santiago: ICIRA, 1968.
- Kaldor, Nicholas. "Problemas Económicos de Chile." Trimestre Económico 26 (1959): 170-221.
- Kaufman, Robert R. The Chilean Political Right and Agrarian Reform: Resistance and Moderation. Washington, D.C.: Institute for The Comparative Study of Political Systems, 1967.
- Lambert, C. J. Sweet Waters, A Chilean Farm. London: Chatto and Windus, 1952.
- Mamalakis, Markos. "Public Policy and Sectoral Development: A Case Study of Chile." In Essays on the Chilean Economy by Markos Mamalakis and Clark W. Reynolds. Homewood, Ill.: Richard Irwin, Inc., 1965.
- Martin, Gene Ellis. La División de la Tierra en Chile Central. Santiago: Nascimento, 1960.
- McBride, George McCutchen. Chile: Land and Society. New York: American Geographic Society, 1936.
- McCoy, Terry L. "Agrarian Reform in Chile, 1962-68: A Study of Politics and the Development Process." Ph.D. Thesis, University of Wisconsin, 1969.
- . The Politics of Structural Change in Latin America: The Case of Agrarian Reform in Chile. Research Paper No. 37. Madison, Wis.: Land Tenure Center, University of Wisconsin, 1969.
- Medina, Rubens. "Some Aspects of Legal Control over Water for Agriculture in Central Chile: A Case Study." Ph.D. Thesis, University of Wisconsin, 1970.
- Meyer, Richard L. "Debt Repayment Capacity of the Chilean Agrarian Reform Beneficiaries." Ph.D. Thesis, Cornell University, 1970.
- Ministerio de Agricultura, Departamento de Economía Agraria. La Agricultura Chilena en el Quinquenio 1956-1960. Santiago, 1963.
- . Aspectos Económicos y Sociales del Inquilinaje en San Vicente de Tagua Tagua. Santiago, 1960.

Selected References, p. 5

- Estudio de la Colonia Pedro Aguirre Cerda (El Tambo) de la Caja de Colonización Agrícola. Santiago, 1959.
- Moral Lopez, Pedro, Marcelino Gavilar Estelat, and Rodrigo Santa Cruz. Exposición Metódica y Coordinada de la Ley de Reforma Agraria de Chile. Santiago: Editorial Juridica de Chile, 1968.
- Morales Jara, Héctor. Productividad Presente y Potencial en 96 Predios de la Provincia de O'Higgins y su Relación con el Tamaño de las Propiedades. Santiago: Escuela de Agronomía, Universidad de Chile, 1964.
- Moreno Rojas, Rafael. "The Chilean Agrarian Reform." Paper submitted to the FAO World Conference on Agrarian Reform, Rome, 1966.
- Morris, James O. Elites, Intellectuals and Consensus: Chile. Ithaca: Cornell University Press, 1966.
- Nisbet, Charles T. "Supervised Credit Programs for Small Farmers in Chile." Inter-American Economic Affairs 21 (1967): 37-54. Also Land Tenure Center Reprint No. 29. Madison, Wis.: Land Tenure Center, University of Wisconsin.
- Ossio, Silva. "El Credito Agrícola Supervisado en Chile." Memoria, Universidad de Chile, 1964.
- Petras, James. Politics and Social Forces in Chilean Development. Berkeley: University of California Press, 1969.
- _____ and Hugo Zemelman. Peasant Politics in Chile: A Case Study. Land Tenure Center Paper No. 65. Madison, Wis.: Land Tenure Center, University of Wisconsin, 1969.
- Pike, Fredrick B. and Donald W. Bray. "A Vista of Catastrophe: the Future of the United States Chilean Relations." Review of Politics 22 (1960): 393-418.
- Pinto, Santa Cruz, Anibal. Un Caso de Desarrollo Frustrado. Santiago: Universitaria, 1959.
- Rowan, Waldo S. "Chile: Agricultural Situation." Agricultural Attache's Report. Santiago: United States Department of Agriculture, 1970.
- Sadie, Johames L. Población y Mano de Obra en Chile 1930-1975. Santiago: Corporación de Fomento/Centro Latino Americano de Demografía. 1962.

Selected References, p. 6.

- Silvert, K. H. "A Political Sketch of Chilean History from 1879." American Universities Field Staff Letter 4 (1957).
- _____. Chile, Yesterday and Today. New York: Holt, Rinehart and Winston, 1965.
- Sternberg, Marvin. "Agrarian Reform and Employment, with Special Reference to Latin America." International Labour Review 95 (1967): 1-26.
- _____. "Chilean Land Tenure and Land Reform." Ph.D. Thesis, University of California, 1955.
- Stewart, Daniel L. "Aspects of Chilean Water Law in Action: A Case Study." Ph.D. Thesis, University of Wisconsin, 1967.
- Strasma, John. "Property Taxation in Chile." In Land and Building Taxes: Their Effect on Economic Development. Edited by Arthur P. Becker. Madison, Wis.: The University of Wisconsin Press, 1969.
- Subercaseau, Benjamin. Chile: A Geographic Extravaganza. Translated by Angel Flores. New York: The Macmillan Company, 1943.
- Thiesenhusen, William C. "Agrarian Reform and Economic Development in Chile: Some Cases of Colonization." Land Economics 42 (1966): 282-292.
- _____. "The Chilean Agrarian Reform: The Possibility of Gradualistic Turnover of Land." Inter-American Economic Affairs 20 (1966): 3-22. Also Land Tenure Center Reprint No. 23. Madison, Wis.: Land Tenure Center, University of Wisconsin.
- _____. Chile's Experiments in Agrarian Reform. Madison, Wis.: The University of Wisconsin Press, 1966. Also published in Spanish as Reforma agraria en Chile: experimento en cuatro fundos de la Iglesia. Santiago: Instituto de Economía y Planificación, Universidad de Chile, 1968.
- _____. "Population Growth and Agricultural Employment in Latin America, with Some U. S. Comparisons." American Journal of Agricultural Economics 51 (1969): 735-752.
- _____. "Profit Margins in Chilean Agriculture: A Reply." Land Economics 43 (1967): 243-249.
- _____. and Marion R. Brown. "Problems of Agriculture." In Survey of the Alliance for Progress. U. S. Congress, Senate Committee on Foreign Relations, 90th Cong., 2nd sess., 1968.

Selected References, p. 7.

Thome, Joseph. "The Bolivian Agrarian Reform: The Need for a Faster Title Distribution Process." Land Tenure Center Newsletter No. 24. Land Tenure Center, 1966.

Universidad de Chile, Instituto de Economía. La Economía de Chile en el Período 1950-1963. Santiago, 1963.

Vilensky Marinot, Edmundo. La Caja de Colonización Agrícola. Santiago: Editorial Jurídica de Chile, 1951.

Weaver, Frederick S., Jr. "Regional Patterns of Economic Change in Chile." Ph.D. Thesis, Cornell University, 1968.

Weeks, John R. "Urban and Rural Natural Increase in Chile." The Milbank Memorial Fund Quarterly 43 (1970): 71-89.

"The Chilean Land Reform: A Laboratory for Alliance for Progress Techniques." Yale Law Journal 73 (1963): 310-333.

CRITIQUE

by

USAID/CHILE

May, 1970

Note: Page references in the Critique refer to Dr. Thiesenhusen's draft, not the final paper printed here. The editor apologizes that time did not allow him to conform pagination or even assure that the draft language subjected to criticism was repeated in the final. Time also did not allow Dr. Thiesenhusen to respond to USAID before this document went to press.

USAID Chile considers the draft to be a reasonably accurate description of the physical achievements of agrarian reform to date in Chile as well as a thoughtful discussion of important aspects of the Chilean program. The author has made a useful and stimulating effort to meaningfully measure progress which is difficult to establish at so early a stage of the reform.

At the same time, USAID has some reservations about what it thinks are the author's tentative conclusions. In general, the paper seems to emphasize the social aspects of land reform (particularly employment) at the expense of others, such as production and incentives, which the Mission considers to be of equal (but not necessarily greater) importance. The author's concentration on the employment aspects of agrarian reform appears to deemphasize the importance of inter and intra sectoral relationships. For example, the paper does not state (on p. 19) that removal of import duties may have an unfavorable short-run impact on the industrial sector. In addition, the paper seems to say (p. 36) that A.I.D.'s agricultural sector loan was harmful to the agrarian reform effort because it resulted in the import and lower cost of capital equipment, specifically tractors, thus contributing to assumed increases in unemployment. The paper does not demonstrate the real unemployment effect nor consider the other effects of such imports.

The paper also does not take adequate note of the fact that the Government of Chile has chosen to operate expropriated properties in the same general unit size as before expropriation. Also, the Government of Chile has made, as a part of its agrarian reform policy, a deliberate effort to apply modern technology, including machinery, in order to increase production per unit of land thereby achieving appreciable increases in incomes of the "asentados" working these properties and, indirectly, workers in other sectors. The Government of Chile is not convinced that turning to more primitive, or even maintaining existing, approaches of relatively intensive labor input is as appropriate to overall economy as increased production and improved distribution of income.

The paper contains elements of contradiction. For example, it seems to approve of Chilean agrarian reform policies, while at the same time expressing concern over capitalization which is an integral element of those policies, as discussed above. The author generally praises the Frei government in implementing agrarian reform, yet he recognizes (on p. 29) that "One explicit purpose of President Frei's rural development program is to give "campesinos" the claim on resources they need to be productively employed while encouraging them to invest and increase their productivity." This implies encouragement of capitalization. The author further states (pp. 29-30) that "where there are idle land resources ... they must be made to contribute to overall development, defined

broadly to include increased employment, more production, and a better distribution of income." In certain instances, such as in extensive agriculture, increased production may not necessarily entail increased employment. The broad assumption throughout the paper (as on p. 39) that an improved solution of employment is more labor intensive "asentamientos" tends to overlook the fact that the Chilean market is already heavily supplied with labor intensive type agricultural products and that Chile's negative agriculture trade balance is chiefly in extensive production type products, such as wheat and beef, where substitution of hand labor for machines is not usually desirable.

Finally, the paper seems somewhat weakened by some imprecision in statistics. For instance, on p. 19 the author states "Officially, inflation was 17% in 1966 and about 40% in 1969. Both of these figures probably understate the true rise in the cost of living since many government-controlled items are included in the index." Actually the consumer price index increased 29.3% while the general price index increased 34.5% in 1969.

In sum, the paper demonstrates the need to evaluate changes in this sector or elements of this sector in the context of the whole economy, i.e. of the classic short run conflict between pressure for more production and less unemployment in modern society. Despite these reservations, however, the Mission feels the paper provides stimulating thought and discussion of agrarian reform in Chile in its early stages.