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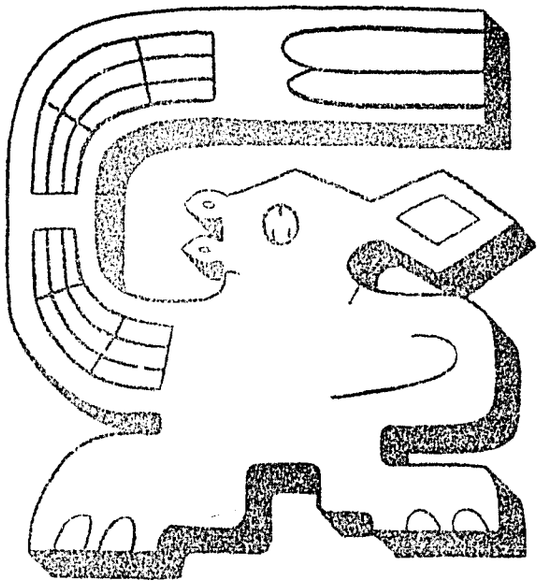

Land Reform in Chile: Proposal for an Institutional Innovation

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By Peter Dorner and Juan Carlos Collarte

On November 3, 1964, the new government of Christian Democratic President Eduardo Frei took power. He was elected on September 4 after a hard fought campaign in which he firmly committed his government to a far reaching program of land reform. This program won a clear endorsement at the polls (58 percent of the popular vote), and almost one million Chileans (38 percent) voted for Salvador Allende who proposed even more drastic measures of reform. Not all of Frei's supporters really want land reform. Many were simply voting against Allende. Still, there would appear to be wide popular support for basic changes in the organizational structure of Chilean agriculture.

No one should underestimate, however, the difficult political decisions that remain to be made, and the complexity of implementing a land reform. For it is not *land* that needs reforming. Nor is it people. It is the institutionalized relationships between people that must change. Land reform refers to changing the customary and formal legal rights, duties and privileges that govern transactions between people and regulate their control over

*Professor of Agricultural Economics, and Research Assistant, respectively; both with the Land Tenure Center, University of Wisconsin working in cooperation with the Instituto de Economía, Universidad de Chile. We wish to thank our colleagues William Thiesenhusen, Marion Brown, and Daniel Stewart for their helpful comments. However, we alone assume full responsibility for all statements in this article.

resources. It deals with power relationships between individuals and groups. In this meaning of the term, the US Civil War was a great struggle over land reform—a struggle over human rights and equal opportunity that continues to this day. In this article, we shall, however, concentrate less on the political difficulties than on the problem of devising new forms of economic organization. We begin with a statement of the existing economic and social conditions and the restraints they impose upon organizational alternatives. This is followed by a brief section on present land reform activities in Chile. Based on this analysis, we propose an institutional innovation with operational guidelines for its implementation.

A. *A Statement of Conditions and Problems in Chilean Agriculture*[1]

Chile's agricultural system has some characteristics common to most developing countries, particularly those of Latin America. These features are well known to professionals working in economic development. We present this summary to clarify the restraints they impose on the introduction of alternative forms of economic organization. The points that follow contain some of the "realities" to be taken into account in any land reform proposals.

(1) *Paternalism, Class Structure, and Managerial Skill.* Tracing its origin to the Spanish pattern of colonization, the organization of Chilean agriculture is characterized by the *latifundia-minifundia* complex—a small number of very large farms, a large number of very small ones, and a growing number of landless laborers. The labor force used to operate the large can be classi-

[1] In this and the next section, we draw on the research in process by our colleagues Thiesenhusen, Brown, and Stewart. We wish also to acknowledge our debt to Solon Barraclough and Hugo Trivelli and the CIDA land tenure studies conducted under their supervision. Collarte participated in the research of the CIDA Chile *Estudio sobre la tenencia de la tierra en Chile* now being reviewed in preparation for publication.

fied as: (a) permanent resident workers (called *inquilinos* if part of their wages are paid in kind or *inquilino-mediero* if they share crop), or (b) non-resident hired laborers called *afuerinos*. These workers usually own no land or own very small minifundia surrounding the large farms.[2] These agricultural workers, sharecroppers, and minifundia owners live near a subsistence level. Illiteracy rates of 40 percent are common. The image of a *patrón* and the class distinctions it implies run deep in the thinking of farm laborers. Conversely, a subservient worker class is one of the most basic assumptions of large land owners. With little opportunity for economic decision making, managerial ability among workers is low.

(2) *Inequality in Income Distribution.* This inequality is of about the same magnitude as that of land ownership distribution. In 1954, for example, the working class in Chilean agriculture (over 92 percent of the total) received less than 35 percent of the total agricultural income while the upper-class (a little under 8 percent) received over 65 percent of the income.[3] While they are indeed an integral part of the production process, the agricultural workers have very little purchasing power and thus have little influence in directing the type of investments made and goods produced. This inhibits the expansion of internal markets

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[2] Solon Barraclough, "Agrarian Structure and Education in Latin America," (New York, New York: UNESCO, 1961, ED/CEDES/30 ST EC/A/Cont. 10/L. 30, PAU/SEC/30, mimeographed) "In Chile, over 73 percent of all families gainfully employed in agriculture either own no land or own units of less than 5 hectares." p. 30. According to Sternberg's calculation, Chile ranks near the top of Latin American countries in terms of land ownership concentration. See Marvin J. Sternberg, *Chilean Land Tenure and Land Reform,* Ph.D. Thesis, University of California, September, 1962.

[3] Cited in CIDA report, figures taken from Helio Varela Carmona, *Estratificación social de la población trabajadora en Chile y su participación en el Ingreso Nacional, 1940-1954,* (Memoria de Prueba, inédita, Universidad de Chile). [Resumen en *Revista de Economía* (Santiago) No. 62, pp. 75-80].

and the consequent development of industrial and manufacturing capacity.[4]

(3) *Requirement of Increased Agricultural Production.* Less than 10 percent of Chile's gross national product is produced by the 30 percent comprising the agricultural population. In recent years, net agricultural imports have exceeded $100 million annually, representing a large drain on foreign exchange earnings. Although agricultural production has been expanding approximately 2 percent per year, population has been increasing at a rate of slightly over 2.5 percent per year. Given these circumstances, efforts to achieve land reform must not only deal with the problem of resource ownership re-distribution, but also with the urgent need to increase productivity.[5] As much as 65 percent of agricultural imports, according to an estimate by CORFO, could be produced domestically.[6] In several studies made by the Land Tenure Center on potential productivity for specific areas and cases within the Central Valley of Chile, it was concluded that short-run increases in agricultural production of 30-40 percent are feasible, an

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[4] The study cited in the preceding footnote shows that distribution of income in urban areas is skewed almost as much as in rural areas. For example, the working class, 76.5 percent of the total received 30 percent of the income, the middle class, 14 percent, received 27.1 percent of the income, while the "Patronal-Empresarial", 9.5 percent, received 42.9 percent. Of course, land reform may not directly affect this distribution within the urban sector. It may, however, reduce the migration to the cities and relieve unemployment problems there, and stimulate manufacturing and industrial output thus creating more jobs. Both of these influences may work to reduce the present skewed distribution among the urban population.

[5] Ministerio de Agricultura, Dirección de Agricultura y Pesca, *Sinopsis de la Agricultura Chilena 1961-1963,* Departamento de Economía Agraria, Sección Comercialización y Precios, Agosto, 1964 (Mimeo); and República de Chile, Ministerio de Agricultura, *La Agricultura Chilena en el Quinquenio 1956-1960,* (Dirección de Agricultura y Pesca, Departamento de Economía Agraria, 1963).

[6] Corporación de Fomento de la Producción, "Chile: National Economic Development Program 1961-1970," January, 1961, (Mimeographed) p. 16.

increase which would produce an exportable surplus.[7] This estimate of potential is not based on a concept of an economic optimum, but rather on levels of production actually realized by farmers in the top 25 percent of the sample (ranked by value of product per hectare).

(4) *Shortcomings of conventional policy prescriptions.* A number of prescriptions are frequently proposed for the improvement of agricultural production and income. Among them are incentive creating price policy, credit programs, research and extension services, subsidized inputs, market improvements, and establishment of cooperatives. These programs assume widespread ownership of resources and decision making ability among farmers, and a responsiveness to market factors. While these measures have proved highly successful in the United States, for example, they do not necessarily give the same results under different types of land ownership systems. These programs are designed to favor resource owners, and with resources concentrated in relatively few hands, the benefits of these programs accrue to these few. Strong rural labor organizations which might be able to obtain a share of these benefits for the workers do not exist in Chile. A strong and willing government, sufficiently independent of the large landowners whose power is to be counteracted, might be able to equalize access to these higher incomes. Thus far this has not been achieved. This is, of course, at the center of the political dilemma. Without special redistributive measures, higher farm prices (and the other programs mentioned) would simply result in large income transfers from urban consumers to present rural asset holders.[8] This may add to the discontent and social conflicts within both urban and rural areas, and may actually strengthen the present system of inequality. Furthermore, there is no assurance

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[7] See especially 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," Facultad de Agronomía, Universidad de Chile, 1964. Copies are also in file at the Land Tenure Center library, University of Wisconsin.

[8] For a good discussion, see Arthur Domike, *Land Tenure and Agricultural Development in Argentina,* CIDA Argentina report, pp. 88-89, in process of publication.

that production would rise. In Chile, where land is often held for purposes of prestige and as a hedge against inflation, new economic incentives would produce little effect. Though a common complaint of landowners is that agricultural prices are too low, we have interviewed some farmers with large, well-managed farms who are realizing high returns under the existing price structure.

(5) *Shortage of government funds and trained personnel.* In the absence of these restraints, (budget and technicians) the government could buy the land and subdivide it, along with an appropriate re-allocation of water rights. With sufficient technicians and supervised credit, lack of managerial capacity among present workers could be overcome, income and resource ownership distribution would be achieved, productivity could be maintained and gradually increased, and the conventional policy prescriptions would become applicable. Unfortunately, budgetary limitations and scarcity of good technicians exist. Parcelization is a very costly process. The cost of re-designing irrigation systems to meet the needs of small parcel holders and the construction of roads, fences and individual farmsteads frequently runs as high as the cost of the land itself.[9] And unless sufficient technical assistance is available, experience to date has shown that the new landowners, while they may survive, are seldom economically successful. They do not become "good" entrepreneurs merely because they are given a piece of land of their own.

(6) *A Large Scale Reform.* In spite of existing limitations of budget and technicians, reform must be carried out on a relatively large scale. Population growth increases the pressure for development and reform, and unless the economy can rapidly provide wider opportunities for the masses, the prospects for non-violent evolutionary changes seem dim. Furthermore, reform carried out on fiscal lands scattered throughout the country result in little islands within the traditional system dominated by the large hold-

[9] Peter Dorner and William Thiesenhusen, "Relevant Research Programs to be conducted in Developing Countries," *Journal of Farm Economics,* December, 1964.

ing. Unless great efforts are made to give special attention to these reform projects, the necessary supporting institutions do not develop. Providing this special attention, creating the new marketing, credit and educational facilities for small colonies spread throughout the land is a very costly undertaking.

(7) *Conflicting interests within the rural population.* Any land reform program carried out on a broad scale must make provision for the landless laborers and small minifundia holders. Reform is not only a matter of turning over the land to the present permanent workers attached to the large farms. Provisions must be made for absorbing a large number of the outside laborers. Here a basic conflict of interest is involved which is too often ignored. The internal resident workers do not have a common interest with the outsiders. These resident workers would often prefer to own land themselves and maintain a pool of cheap landless laborers for hire. Bringing outsiders in for land distribution is bound to create frictions, especially if reliance is placed on establishing producer cooperatives. Such conflicts make it difficult to achieve a viable cooperative organization. Another aspect of this conflict is between present land owners and the landless. On such matters as higher product prices, small owners (i.e. those with family sized units who market a substantial amount of their produce) will have common interest with the large owners. Likewise both will favor keeping down the minimum wages paid to hired labor. But those without land may be opposed to higher product prices since such rises diminish the real income value of some of their payments in kind, and they will favor increased levels of minimum wages. Thus it is a mistake to assume a homogeneity of interests within the rural working class, and that liberalizing labor legislation will automatically result in strong rural labor organizations. That the present legislation restricts such organization is not denied. However, given the conflicting interests within rural groups, merely changing the law will not resolve these difficulties.

(8) *The need for a constructive reform.* "Getting rid of the landlords" is not a sufficient goal. New institutions, new forms

of economic organization in agriculture must be created to replace the old. Such new institutions in agriculture must be created to replace the old. Such new institutions must be built on Chilean experience and take into account the rural people with their specific skills or lack of them, the attitudes and beliefs generated by unique historical antecedents, the physical resources with peculiar capacities, obstacles, and locations, etc.[10]

These are some of the conditions and problems that exist in Chilean agriculture which place restraints on the type of land reform that is feasible. Given these characteristics, one must suspect all simple formulas and solutions. *Any attempted approach to these problems will be complex.* This is especially true if we think in terms of peaceful, evolutionary means.[11] It is not merely a matter of creating new settlements by colonization, nor of simply splitting up large farms. It is insufficient as a policy to say that the government will "establish" cooperative organizations to operate the large farms, and the goal of converting the existing system into one of family farms is not very useful. It is a matter of *constructing viable new institutions* that will provide a wider array of opportunities, and the capacities to exploit them, for the mass of people who find their alternatives so greatly restricted under the present system.

In total, the above points indicate the need for a specific kind of land reform consistent with Chilean conditions and possibilities. They show that a successful reform must take due account

[10] Peter Dorner, "Land Tenure, Income Distribution, and Productivity Interactions," *Journal of Land Economics,* August, 1964.

[11] Whether or not such basic changes in a society can be brought about by peaceful, evolutionary means remains an open question. The assumption underlying the Alianza Charter of Punta del Este is that they can. However, the three prime examples in Latin America of basic structural changes were brought about by revolution—Mexico, Bolivia and Cuba. But even where revolutions have broken the old power structure, this complex task of building new institutions remains. Even the Russians, after almost 50 years, continue to struggle with this question. Likewise the U.S. has not been able to incorporate its Indian population into the main stream of economic life, and has not resolved all the issues over which it fought the Civil War more than a century ago.

of the present low level of managerial experience of the agricultural labor force, the need for a wider distribution of resource ownership and income, the need to maintain and preferably increase agricultural production, the need for these changes in order to make the conventional policy prescriptions more effective,[12] the need to carry out reform on a large scale yet within limited governmental budgets and shortage of trained technicians, the need to reconcile reform with present conflicts within the rural labor force, and the need to be constructive.

B. *Land Reform Activities in Chile*

The government of Chile has engaged in colonization activities since 1928 when the "Caja de Colonizacion Agricola" was established. Through 1962, it settled a total of only 4,480 families, either on family-sized parcels or on small garden plots called *huertos*. This was carried out by splitting up large farms owned by various governmental agencies.

In November 1962, an agrarian reform law was passed establishing a series of new agencies. To date slightly over 1,100 families have been settled; about 65 percent received parcels and the remainder received small huertos. This parcelization procedure is slow and costly. Constructing individual farm dwellings and farmsteads, building roads and fences, and readjusting the irrigation system comes to about 50 percent of the total cost per parcel holder.[13] Given the characteristics and requirements outlined in section I, this approach to land reform is inadequate.

In addition to government sponsored land reform, several leaders of the Catholic Church in Chile have created INPROA (Instituto de Promoción Agraria) to carry out land reform on

[12] That is, to make the institutional and incentive structures consistent with the assumptions on which these conventional policy prescriptions are based.

[13] Data from the land reform agency indicate a total cost of about $5,000 per parcel holder, only half of which is for land. Some of these initial infrastructural costs could be reduced. This would lower costs to the reform agency and the debt burden of the new parcel holder. Parcel holders could make some of the investments as their income permitted, giving them a greater sense of participation in their new farms.

Church lands.[14] INPROA has experimented with several types of economic organization. On one former Church farm, a large part is operated cooperatively. On several others a system of sharecropping has been instituted. Two Church farms have been divided into parcels. At all locations, INPROA has emphasized the establishment of a strong cooperative organization among the members. All farms will be divided into parcels, however, when INPROA feels the members are ready for individual ownership, and if the members vote in favor of a parcelization plan. Although INPROA has been able to sub-divide at a lower cost than the government, it has the same weaknesses of being too slow and too costly. Nevertheless, it is a significant experiment in alternative economic organization in Chilean agriculture.

There is a third source of land reform activity in Chile which is on some of the large farms where worker participation and profit-sharing plans have been adopted. This effort is mainly being made by a group of large landowners, usually on well operated farms, in an effort to demonstrate that labor conditions can be improved without the drastic action implied by expropriation. Based on our field surveys, we conclude that there may be about 70 large farms in Chile's central zone on which such plans have been adopted.[15] On these farms, a large part of the administrative staff has been replaced, and this function turned over to delegates elected by the workers. A committee is elected whose function is to rate all workers on the basis of their work performance. This rating determines their share in the profit participation. In no case, however, has there been a transfer of ownership rights. Furthermore, the profit-sharing itself can be annulled at the wish of the owner. Thus workers are still dependent on his continued good will, without any recourse to a public authority.

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[14] Thiesenhusen's thesis is a detailed study of these programs. About 200 families have been settled on 5 farms comprising approximately 3,000 hectares of irrigated land.

[15] The junior author has studied in detail a sample containing some of these farms, and our proposals in sections III and IV are based largely on his thesis, *Análisis de una alternativa de los sistemas de tenencia de tierras en Chile,* Facultad de Agronomía, Universidad de Chile, 1964. Copies are also on file at the Land Tenure Center library, University of Wisconsin.

Our proposal which follows is designed to develop the steps whereby farms would move from the mere profit-sharing stage to a new system of ownership and security.

C. *A Proposal for Institutional Innovation.*

In making this proposal, the reader must keep several points in mind:

(1) We are not advocating this as the only land reform activity in Chile. For example, some large farms are operated by sharecroppers who have developed some independence and managerial skills. In some of these situations, parcelization may be the most feasible and least costly approach. But there are many other cases where transforming irrigation systems and providing the necessary infrastructure for individually operated small farms is very costly, or where certain enterprises make large scale operation most effective (such as large dairy herds, vineyards, orchards). The bottleneck has been a system of economic organization which would permit operating some of these large farms as a unit. The present Chilean government has general plans for a continuation of parcelization, and for the establishment of worker cooperatives on some of the large farms. But past experience with cooperatives is not encouraging, and to date there have been few details proposed as to how these cooperatives would function.

(2) We view the profit-sharing experience as a transitional stage to the adoption of our proposal.

(3) This proposal is not simple, it is complicated. But the present system is complicated too. Although it is nowhere spelled out in detail, people more or less understand it, not analytically but functionally. But as a look at the Chilean legal system will prove, it is an intricate arrangement of rights, duties, liberties and restraints, with the cards stacked in favor of the present resource owners with little *public* protection for the disadvantaged. Our proposal is a statement of a start that could be made within the next several years that could introduce irreversible courses of action with the potential for continued evolution and a gradual transformation of the system.

(4) In order for our proposal to have a chance to succeed, an intense educational program must accompany it so that all individuals understand precisely their rights and obligations.

(5) Finally, the objective of this proposal is not to insist that this is *the* system which should be adopted in Chile. Rather, it is *one* possibility and an illustration of the kind of specific organizational details which must be worked out before land reform can proceed intelligently. In these intricate matters of organizational change, generalizations must give way to specific and concrete suggestions.

With these thoughts in mind, we propose that the government declare all farms, within a designated region, of more than 80 hectares of irrigated land or its equivalent subject to expropriation.[16] In all farms over this size limit the entire farm will be expropriated, not only that part above the 80 hectare limit. For it will not be economical to leave a farm with 80 hectares when fixed capital in buildings and other facilities exist for a farm of 500 or 1000 hectares. In all cases of expropriation, the first 80 hectares equivalent will be expropriated at commercial market value, and the remainder at tax declared value.[17] All capital, other than land and permanent improvements, will be paid at commercial market value. Payment at tax declared value for land above the 80 hectares limit is justified in that much of the present commercial value of land and permanent improvements is the result of labor employed over the years at very low wage rates.

At this point a distinction must be made between two classes of large-farm owners:

(a) Absentee landlords who neither reside on the farm nor participate in its management will have no option but to accept expropriation. They will receive government bonds to be paid off

[16] We use 80 hectares in our illustration since this is the size limit which is being discussed as a proposal by the Frei government. In the discussion that follows, we shall ignore those farms to be designated for parcelization and concentrate on those to be organized under the new system.

[17] In Chile this is about 30-35 percent of market value.

over a period of 20-25 years with interest and adjustment for inflation.

(b) Farm owners who reside on the farm and actively participate in its management will have the opportunity to retain ownership rights in the 80 hectares equivalent,[18] provided they have or will establish within a set time period a profit sharing plan meeting specified requirements.[19] In the event that these requirements are not met, they will be subject to complete expropriation.

The government, then, (always to be understood as operating through its agrarian reform agency), will issue bonds to the former land owner. In addition it will issue stock shares which will represent the new legal titles to ownership. The former land owner will now hold government bonds, and the government will hold the previous title as well as the stock shares which represent future ownership titles. At this time (or after "future owners" have been selected) the farm will be incorporated and issued a corporate charter.[20]

D. *Operational Guidelines.*

In this section, "former owner" always refers to those who actually reside on the farm and actively participate in the management, this being their major occupation.

(1) *Number of shares.* The number of shares to be issued will be equal to the number of hectares of irrigated land (or its equivalent in non-irrigated land). Thus a farm with 300 hectares of irrigated land or its equivalent will be issued 300 stock shares. Although this calculation of equivalence is difficult, it is not an

[18] An additional incentive of a slightly larger acreage may be applied to these cases.

[19] Special treatment for farms with profit-sharing plans is actually being proposed by the Frei government. Under the chairmanship of the junior author, a committee has worked out the procedures and specified requirements to be met. Thus far, however, there are no plans for moving beyond this profit-sharing phase.

[20] Whether this is called a corporation or a cooperative or by some other name is not of great importance. It is quite likely that present laws for establishing corporations or cooperatives will have to be amended to accommodate the system we propose.

impossible task since Chile has photo maps for practically all of its agricultural areas, along with four separate overlays showing property lines, land use, soil classes, and major irrigation canals. Obviosuly for purposes of repayment by the new owners, a value has to be placed on these shares. The formula for determining the value per share is:[21]

$$\text{Value per share} = \frac{\text{80 hectares equivalent at commercial value plus other expropriated land at tax declared value plus commercial value of capital}}{\text{Number of hectares equivalent (or number of shares)}}$$

(2) *Distribution of shares.* Three different parties will be entitled to receive shares:

(a) The former owner will be entitled to 80 shares, the maximum allowed any landowner and equivalent to the 80 hectares set as the expropriation limit.[22] In the case of a non-participating owner, the shares will go to the remaining two parties.

(b) The present workers on the farm, and new people who will be brought into the organization, will be entitled to eight shares each.[23] This will determine the number of people who can be supported as new owners,[24] and this man-land (man-share) ratio must be maintained and will be specified by law.

(c) The state will retain a small number of shares (for illustrative purposes let us assume 2 percent).

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[21] The numerator in the equation defines the total value owed any landowner whose land has been expropriated. For those not participating, this is the value of government bonds to be issued to them.

[22] This will, however, need to be adjusted by size of farm. For example, on a farm of 1000 hectares equivalent, the former owner can retain 80 shares. But if the farm contains only 100 hectares equivalent, the former owner can retain no more shares than any other member. The formula above, however, assures him of payment at market value of 80 hectares equivalent.

[23] This eight shares (eight hectares equivalent) per owner is an average. This may have to be modified to fit specific production and marketing circumstances. In some areas of extremely fertile land producing high value crops, the average may be 5 or 6. In others with less favorable conditions, it may be 10 or 12.

[24] We shall henceforth refer to owners as members (of the corporation or cooperative).

Initially, the former owner will receive all his shares, returning to the government enough bonds to offset the value of these shares. Each of the other members will be issued 2 shares which will entitle him to a proportionate share of the profits the first year of operation under the new system. The government, in addition to its 2 percent will hold the remaining shares in trust for the members.

(3) *Repayment plans.* As the profits of the farm over the years are used to re-pay the former owner (or a non-participant) he will trade his government bonds for the payments thus received. The government in turn will release stock shares of an equivalent value to the members. That is to say, the government (through its land reform agency) will in the early years control the major part of the farm earnings. To the extent that shares are released to the new owners, farm earning under government control will diminish. Unless the members, as individuals, decide to buy additional shares with their increased earnings, the number of years required to repay the original owner will be extended.[25]

(4) *Selection of new members.* On some farms there are no internal resident workers, only an administrative staff with all labor hired from outside. In this case the reform agency will have to select the members, just as it now selects candidates for parcels under its parcelization program. In all cases, an attempt will be made to select landless workers or small minifundia holders from within the community, preferably those who have been working as the hired labor on this farm. This will make it easier to construct a cohesive organization, and these local people will be most familiar with the types of crops produced and farming systems practiced. In the more common case where there is a substantial body of inquilinos but where new people have to be brought in, all members, including the former owner, will have

[25] A number of alternatives are available. For example, two shares are issued initially, two more after sufficient earnings have accrued to pay the former owner for their equivalent, and the remainder after the former owner has been paid in full. Corporation (Cooperative) records will be maintained to show individual member standing with respect to shares.

one vote, and a majority vote by secret ballot will decide who gets membership.

(5) *Management Council.* A management council will make the management decisions for the farm, and appoint individuals and committees for carrying out specialized functions. In the case of a participating former owner, he will automatically serve on this council until such time as all his government bonds are redeemed. Where there is no participating former owner, the members will vote to hire an agricultural technician or former farm administrator to serve in this capacity. The agrarian reform agency will retain a list of interested and qualified people for this purpose. This individual will be elected for two year terms, and election for two consecutive terms entitles him to purchase stock in the corporation (cooperative).[26] Three members will be elected to serve as voting members on the management council. Additionally, two non-voting members will be elected.[27] An agricultural technician from the agrarian reform agency will serve as a voting member on this council. He will have veto power on certain technical production questions for a specified number of years. This same technician can serve in this capacity on a number of farms in the area. In addition, another agricultural technician from the reform agency will engage in extension work on a number of farms, working both through the management council and with individual members. Finally, the management council will hire an accountant who will be in charge of the accounting on this farm. (On smaller farms, this same accountant may be employed to keep the accounts on several farms in the area).

(6) *Incentives.* Three separate groups or individuals must be considered in any incentive program.

(a) Members (other than the former owner) will be rewarded for extra effort. The system to be followed is similar to that

[26] A block of shares can be reserved for this purpose in those cases where there is no participating owner.

[27] Non-voting members become voting members when, after an election, one of the former voting members is defeated and a new non-voting member is elected. This would provide a period of training before actually becoming voting members of the council.

being employed on some of the existing profit-sharing farms where it functions reasonably well. It can operate as follows: the management council will each year rate members on the basis of their work performance and cooperation in the common enterprise. Each member will be placed on one of three lists, with those on list one receiving the larger remuneration and those on list three the lowest. The latter will be subject to expulsion if they appear on this list three consecutive years, and if a majority of the members vote to expel. (See stock transfers below for system by which such a member would be paid). In addition, individual members will retain their houses (or in the case of new members, will be given a site to construct a house as their individual finances permit). New members from outside the fundo can, in the early years, retain their outside residences until such time that they can finance the construction of a house on the fundo. Likewise each member can retain for his private use and management a small parcel of land. This house and land will be his private possessions, but he can not sell or alienate except to the corporation (cooperative) itself.

(b) The former owner will have incentive to keep productivity high, since not only will this determine the rate of earnings on his shares, but it will also determine the rate at which his government bonds will be redeemed.

(c) The two state technicians will receive a base salary from the government. In addition, a predetermined percentage of the earnings on the two percent of stock shares owned by the state will accrue to the technicians.

(7) *Source of earnings.* All members will receive minimum salaries as specified by law, plus special payments for skilled workers. This is a common practice on Chilean farms today, where mechanics, tractor drivers, supervisory personnel, dairy herd specialists, etc., receive extra wages. All wage rates will be determined by the management council.[28] In addition to payment

[28] The former owner's (member) minimum salary will be determined by the agrarian reform agency, within a range to be specified by law and consistent with the functions he performs.

for special skills, differentials will be introduced on the basis of the rating a worker received (see 6). Members will also have income from their individually operated land, plus the year-end distribution of profits corresponding to the earning power on their two stock shares. (This latter will increase as workers accumulate more shares). The former owner will receive the earnings on his stock shares in addition to his salary.

(8) *Stock transfers.* In the event that a member wishes to leave or is expelled, the corporation (cooperative) stands ready to pay him for values of stock-shares accumulated plus compensation on improvements and investments that he has made in his home or on his individually operated land. The membership will in turn elect a new participant, (to keep the number of members required by law) who will have to buy the stock-shares and improvements (either on credit extended by the corporation or by outside credit agencies). A member can transfer his stock share to a son on retirement, provided other members vote favorably for entrance of the son.

(9) *Initial financing.* The new organization will need initial financing for operating costs. Later it will need a reserve fund for buying up member stock if such necessity arises (see 8). Credit can be extended to the new organization by the state bank or directly by the agrarian reform agency. External sources of financing can also be used.

(10) *Settlement of conflicts.* As some conflicts are due to arise which cannot be resolved within the procedures outlined, provision must be made for their resolution. Here we suggest a three man arbitration board.[29]

(11) *Future modifications.* At such time when the former owner (or the non participant) is completely paid off, state con-

[29] Means of selecting this board might be to have one member selected by the management council, one by the agrarian reform agency, and one by the membership at large. Only if such a board can not resolve the conflict will the case be taken to the courts to avoid the long and costly delays this might entail.

trol will be removed and the corporation (cooperative) can purchase the stock shares held by the state. These can be purchased by individuals who have received the highest ratings by the management council over the years, providing an additional source of incentives. The membership at that time can vote for modifications in the organization consistent with the general law under which it is authorized.

The general accounting can be illustrated with an actual Case farm.[30] This farm contains 500 hectares equivalent (500 shares), and is one of the profit sharing farms in the central zone, with wages above the average. The 500 shares will be distributed as follows: 80 to the former owner, 10 to the state, and 410 to 51 other members (an average of 8 shares).

Gross farm income (Escudos 1962) .....E°	206,607
Production and depreciation expenses (including all salaries)	94,126
Net farm income	112,481
Earnings distributed: (E° 112,481 + 500 = E° 225 earnings/share) (E° 225 × 192 shares = ...	43,200
(192 shares = 80 for former owner, 10 for state and 102 for other members at the rate of 2 each)	
Remaining for repaying former owner interest and redeem his bonds	69,281

In applying this system, on paper, to several large farms on which we have detailed interview information, we conclude that present owners can be paid off in 10-15 years. The exact time will depend on the rate of interest and the rate at which stock shares are released to indivduals (point 3 above).

E. *Conclusions*

We have attempted to formulate a proposal consistent with all the requirements and restraints discussed in section I. We believe this proposal accomodates those requirements. Of course, such

[30] See Collarte thesis, *op. cit.*, Case farm A., p. 93.

programs as market improvements, government price policies, credit programs, etc., all remain relevant and indeed crucial as they do under any agricultural development program. But they will, we believe, be more easily administered under this proposal, and the underlying assumptions on which they are based will be more consistent with the institutional-organizational structure.

This proposal is designed to develop the steps whereby farms will move from the present profit-sharing stages to a new system of ownership and security. Of course, all special cases and local circumstances cannot be foreseen, thus modifications will have to be made, and the administrative flexibility to make them must be assured.

Finally, we wish to point out that evolution of this system is an alternative open to any large landowner willing to take the steps to carry it out. McBride's prediction of thirty years ago seems especially relevant today.

> "Few, even among Latin American countries, have drawn such a sharp distinction between upper and lower class. The great group of the laboring class has been held in economic subjection for longer than has been possible in most parts of the world. The situation suggests the plight of Russia with its stubbornly maintained autocracy and its eventual far swing to the left, or, more strikingly, the pent-up forces of unrest in Mexico which finally plunged that nation into ten years of destructive revolution. It would seem that Chile can avoid what Mexico suffered and the fate of Russia only if her landowners are wise enough to help promote a modification of the present agrarian basis of society. Strongly repressive measures might hold the populace in subjection, but not for long. If revolt is finally forced, the excesses of Mexico will pale in comparison." . . . "To an outside observer agrarian reform seem inevitable. The statement already quoted from one of Chile's own economists seems none too strong: 'The Chilean landowners are face to face with the alternative of giving up a part of their lands voluntarily and without compensation, or losing them entirely'."[31]

[31] George McCutchen McBride, *Chile: Land and Society* (American Geographical Society, Research Series N° 19, New York, 1936) pp. 378-79.