

AGENCY FOR INTERNATIONAL DEVELOPMENT WASHINGTON, D. C. 20523 BIBLIOGRAPHIC INPUT SHEET	FOR AID USE ONLY Batch #20
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1. SUBJECT CLASSIFICATION	A. PRIMARY Agriculture	AE10-0000-G302
	B. SECONDARY Agricultural economics--Latin America	

2. TITLE AND SUBTITLE
 AID policy toward land reform and rural poverty in Latin America

3. AUTHOR(S)
 Adams, D.W.

4. DOCUMENT DATE 1968	5. NUMBER OF PAGES 25p.	6. ARC NUMBER ARC
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7. REFERENCE ORGANIZATION NAME AND ADDRESS
 AID/PPC

8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)

9. ABSTRACT

10. CONTROL NUMBER PN-RAB-243	11. PRICE OF DOCUMENT
12. DESCRIPTORS Foreign aid Land reform Latin America Rural sociology	13. PROJECT NUMBER
	14. CONTRACT NUMBER AID/PPC
	15. TYPE OF DOCUMENT

AID POLICY TOWARD LAND REFORM
AND RURAL POVERTY IN LATIN AMERICA

-- ABSTRACT --

The "Alliance for Progress" proposed land reform as the policy cornerstone for easing rural poverty. Nevertheless, by most measures the results to date have been disappointing. Surprisingly, A.I.D. has not stressed land reform as a major development tool, nor has it enunciated an alternative approach to lessen rural poverty in Latin America.

Several economic arguments are often cited within A.I.D. as justification for not supporting land reform: (1) it decreases production, (2) urbanization is more practical than parcelization, and (3) colonization is more feasible than land reform. The merits of these arguments are evaluated in this paper.

Recent studies of land reform and agricultural growth do not indicate that land reform has caused decreases in agricultural production. Rather, more-often-than-not parcelization has been associated with substantial increases in output.

A number of A.I.D. programs imply urbanization as the major instrument for resolving rural poverty. Along with this, A.I.D. has emphasized commercialization and mechanization of agriculture with the hope that some benefits will filter down to rural poor. A careful examination of the assumptions and theoretical analysis associated with these policies suggest that major weaknesses exist in this line of thinking. The paper concludes that it is doubtful if the "filter-down effect", or rapid industrialization will materially assist in eliminating rural poverty.

A.I.D. has actively supported colonization programs in a number of Latin American countries. It has been argued that abundant "free" lands are available and that their development is much less painful than carrying out land reform. Despite some bright spots, the results from colonization activities have been disappointing. Although a few individuals will continue to settle themselves in spontaneous colonization areas, it is argued that large scale colonization programs can offer only limited assistance in resolving rural poverty.

A series of issues which might be included in an Agency dialogue on land reform and rural poverty in Latin America are presented in the latter part of the paper. A major question asked is should A.I.D. place more emphasis in Latin America on increasing agricultural production by improving the distribution of productive resources?

AID POLICY TOWARD LAND REFORM AND RURAL POVERTY IN LATIN AMERICA

by

Dale W Adams
AID/PPC/PGL/SMAD

I. INTRODUCTION

The "Alliance for Progress" proposed land reform as the policy cornerstone for easing rural poverty in Latin America. Most agree that results to date have been disappointing. Parcelization of privately held land has only inched forward in areas where landownership problems are most pressing: Brazil, Central America, Chile, Colombia, The Dominican Republic, Ecuador, Paraguay and Peru. ^{1/}

In spite of the stress placed on land reform by the Alliance and regular prodding by some congressional leaders, A.I.D. has done little to encourage redistribution of landed property rights. A survey of A.I.D. activities shows a dearth of pressure in loan programs toward this end, little or no pressure by A.I.D. to force counterpart currency into land reform activities, only a trickle of technical assistance, and only a few U.S. funds allocated for this purpose. Since the late 1950's A.I.D. and predecessor agencies have granted or loaned approximately 100 million dollars in the very general area of colonization and land reform in Latin America: roughly 30 percent for penetration roads into colonization areas; an additional 20 percent directly for colonization; another 30 percent for agricultural credit which has at least partially supported colonization or parcelization activities; and 20 percent for mapping, land tilling, and land tenure research. It appears that something over 70 million dollars has gone into support for colonization, and less than 30 million dollars into programs which might be interpreted as support for land reform.

Since the early 1960's the Inter-American Development Bank (IDB), through the U.S.-Funded Social Progress Trust Fund, has loaned approximately 25 million dollars in this general area, almost exclusively for colonization. Even by combining A.I.D. and IDB financial commitments the total outlay by the U.S. for colonization and especially land reform has been modest.

Why A.I.D. has shied from land reform is not entirely clear, but one frequently verbalized feeling among Agency officials is that parcelization cannot be economically justified. The scope of this paper will be restricted to this topic, and as a result a number of other important related issues will not be covered. For example, the vital role which land reform can play in socio-political development is not treated. The possibility that A.I.D.'s lack of interest in land reform is due to a "philosophical hang-up" (that private landownership is inviolable) is also not explored. Nor, is an attempt made to present a comprehensive list of economic benefits which can be related to land reform. Rather, the following discussion will focus on the merits of several economic arguments often cited against land reform: (1) it decreases production, (2) urbanization is more practical than parcelization, and (3) colonization is more feasible than land reform.

I hope that the following discussion will cast serious doubt on the validity of these deeply-rooted arguments, and that positive discussion will be stimulated within the Agency on ways to aggressively address land reform and rural poverty in Latin America.

II. A Note On Definition

The usage of the terms 'agricultural development', 'agrarian reform', 'land reform', and 'colonization' have become rather "fuzzed" in Latin America. Currently agricultural development and agrarian reform are almost synonymous, and this usage

will be followed in this paper. The meaning of land reform will be restricted to the redistribution of property rights in land--mostly privately owned--in areas where a good deal of infrastructure exists; and where such redistribution may result in parcelization, or joint ownership among small farm operators or landless workers. Colonization on the other hand will denote settlement on lands which are usually public domain where little or no infrastructure exists.

III. Does Land Reform Cause Production Decreases?

It is repeatedly asserted that land reform decreases overall production.^{2/} Three types of arguments regularly surface in support of this assertion: (1) historical evidence based on the experience of countries such as Bolivia, Italy, and Mexico where land reform has occurred; (2) a priori assumptions related to farm operating efficiencies following land reform; and (3) projections that parcelizations will block future modernization of agriculture.

Recent studies of land reform and agricultural growth strongly suggest that land reform has not caused decreases in agricultural production. In Bolivia, for example, Clark reports that the "apparent" decline in agricultural output following land reform in 1952 was due to increased home consumption by farmers, disruption of marketing and transportation facilities due to the social upheaval, and the unseasonably dry weather experienced for several years following the reform.^{3/}

Even more positive results are reported in recent studies of Mexico's land reform by Doving and Flores.^{4/} Doving's data show that most of the changes in landownership in Mexico took place during 1927 to 1939. Yet, in

the 1934-38 to 1962-65 period, Mexican agricultural production more than tripled. As Doving states, "It would be difficult to show any other country, with acceptable agricultural statistics, that has maintained a similar rate of growth over a comparable stretch of years in modern time." He concludes that it is doubtful that agricultural output fell even temporarily in the 1925 to 1939 period.

For Italy, Barbero and Shearer both report increases in agricultural production and rural employment following land reform.^{5/} In Venezuela during the first four years (1960-1964) following initiating of land reform activities farm output--excluding coffee and cacao--grew at an average rate of 6.3 percent annually, compared with a 3.8 percent yearly average during the preceding decade.^{6/} Well documented increases in agricultural output also followed land reform in Nepal, Taiwan, Japan, Yugoslavia, and Egypt.^{7/}

Those who argue on a priori grounds that land reform will decrease output often extend their argument on the following: that land reform (1) substitutes a lower quality management factor; (2) may reduce farmer access to credit, markets, and transportation; and (3) may reduce participants access to new inputs.

In my opinion a strong argument for land reform in Latin America is that it can replace inefficient absentee management. Recent Comite Interamericano de Desarrollo Agricola (CIDA) studies suggest that three-quarters of Latin America's best agricultural lands are operated by absentee owners.^{8/} A study of absentee landownership in one Colombian area, for example, showed that three-quarters of the cultivable lands are managed by part-time operators.^{9/} Much of the land is owned by bankers, lawyers, merchants, priests, government employees, etc. Few of these people depend on agriculture for a major part of their income. Moreover, many hold the land primarily as an inflationary hedge, or for income tax evasion. Most owners spend only a small fraction of their time managing the farm operation. Few of the mayordomos hired to administer the farms are qualified to do more than

guard the livestock, crops, and property. Landowners warp their production toward activities that can produce some net return under this weak management system. Similar conditions can be found throughout Latin America.

Some improvement in land utilization can result from share-tenant arrangements, but the inefficiencies in this system are also very apparent: few long-term investments in land, insecurity, overutilization of labor, and economic blocks to use of variable inputs.

While there are some large farming units in Latin America, which are operated in a socially efficient manner, they are few in number. In most cases simply transferring landownership to share-tenants will substantially improve the quality of on-farm economic decisions. In other cases some training and supervision of new operators will be necessary. This assistance can and is being provided by current land reform programs. A review of available empirical studies on specific parcelization projects in Latin America does not show a single case where a change in management through land reform led to actual decreases in production.^{10/} In most cases employment increased, farmers' incomes went up, and production also expanded.

Transfer of landownership is not a panacea for rural ills in Latin America; in a few cases land reform can disrupt credit, marketing and transportation channels formerly provided for or by the large landowner. Nevertheless, a review of the parcelization projects evaluated to date shows that these services can be very satisfactorily replaced and improved along with land reform.

Additional arguments have emphasized that even if parcelization does not decrease short-term output, it will in the future seriously hinder agricultural modernization. It is further argued that large farms are more efficient than small units, potential economies of scale will not be realized if large units are parcelized, and additional fragmentation of parcelized units will surely follow.

A survey of the changes which small operators world-wide are adopting, given accessibility and profitability, does not support the contention that smallness is a block to modernization or commercialization. The increases in agricultural output in Egypt, Japan, Taiwan, Thailand, Pakistan, and the Philippines have come mainly from small units. Moreover, as Long points out, large farms are usually only more "efficient" with respect to use of labor.^{11/} That is, output per unit of labor is high. However, in most LDC's when the opportunity costs of land, capital, and labor are considered it becomes obvious that output per unit of land, or per unit of capital are more relevant indications of "efficiency" than labor output.

In most cases mechanization, land, labor, and management are divisible inputs in agriculture. Currently, it is the exception rather than the rule that indivisibilities lead to substantial economies of scale in Latin American agriculture. Where indivisibilities do occur, they often need not entail large landholdings. Cooperative landownership, contract rentals, joint land operation, cooperatives, and separation of the indivisibility from landownership are but a few of the ways of getting around this problem in the few cases where it does exist.

There is little doubt that 50 to a 100 years from now many of the parcels currently resulting from land reform will have been recombined by the market into larger units. Hopefully a large number of the second and third generation rural residents will have been sufficiently "capitalized" by that time to successfully integrate into the urban economy.

In summary there appears to be little reason why land reform should block future increases in production if appropriate collateral programs are also undertaken. There is also little evidence to prove the fable that land reform decreases production. Rather, parcelization can result in substantial increases in production. This can be expected for several reasons: (1) new landowners who were formerly share-tenants have incentives to apply more variable inputs, especially labor; (2) participants in land reform may have more incentives to invest in and improve their land resources than original owners; ^{12/} (3) new operators may use criteria for making production decisions which result in more output than was the case with part-time absentee operators.

In addition, land reform can boost as well as substantially improve the distribution of rural incomes. This, in turn, can create more effective demand for industrial goods as well as agricultural commodities, draw rural people into the marketing system where market policy can influence actions, and facilitate the human capitalization process in rural areas.

IV. Is Urbanization A Viable Alternative To Land Reform?

A.I.D. programs in Latin America display a good deal of frustration with regard to what-to-do about rural poverty. As suggested earlier land reform has been largely bypassed as an alternative solution. Most A.I.D. programs currently imply urbanization as the major means of resolving rural poverty. Also, emphasis has been placed on modernizing agriculture without structural change, with hopes that some benefits will filter down to rural poor. ^{13/}

A number of development doctors have argued in favor of urbanization, e.g., Currie, Higgins, Berlin. Since Currie's views are representative of the "urbanists" and include many of the views held by A.I.D. officials, an analysis of his proposals may be useful in assessing urbanization as an alternative to land reform.

Currie proposes that, instead of carrying out parcelization, agrarian problems can be resolved best by placing more emphasis on urbanization, industrialization, rural to urban migration, farm consolidation and mechanization. In evaluating this proposal, it is necessary to outline Currie's diagnosis of the agrarian problems in Latin America.

Unlike many critics of land reform who associate parcelization with decreases in production, Currie assumes that small farm operators can substantially increase output. He goes on to argue that the following problems confront agriculture in many less developed countries (LDCs): (1) the sector faces a price inelastic aggregate demand schedule for its commodities, (2) there is a lack of effective demand for agricultural production; underconsumption rather than lack of production is the major problem, (3) there are too many human resources in agriculture, (4) agricultural incomes are low and poverty is widespread in rural areas, and (5) small farmers are unable to compete in commercial markets with large operators.

He goes on to argue that agricultural development programs which substantially increase production in LDCs will decrease total farm income, and that the poor in agriculture will be no better off, and most likely worse off

after additional production has forced prices down. He therefore places little faith in stimulation of agricultural output as a means of eliminating rural poverty.

As an answer to these problems he proposes that LDCs emulate the experience of the developed countries, i.e. the U.S., where massive rural to urban migration, increases in farm size, and substitution of mechanization for labor have characterized agricultural changes. He goes on to suggest that LDCs focus their agricultural development policy on telescoping this experience into a relatively short time period. He concludes that an anti-parcelization program is necessary: movement of large numbers of "marginal farmers" to the city, combining their small parcels into larger units, and fully mechanizing agriculture.

A careful perusal of Currie's assumptions, his theoretical analysis, and policy recommendations suggests some problem areas. For example, will an increase in agricultural output in LDCs necessarily result in decreases in net farm income? As Currie notes, this has generally been true in the U.S. A number of rather important qualifications, however, should be included in this assertion with respect to LDCs. Some of these qualifications are: (1) a major portion of the rural population in LDCs are seriously undernourished. A substantial increase in output can be consumed by producers without affecting market price. (2) Additional production for export would have little or no impact on the domestic price levels. (3) likewise, increasing production of certain agricultural goods which can substitute for imported

products will have little impact on prices. (Chile and Colombia, for example, are both major importers of agricultural goods which they also produce.) (4) Although the aggregate demand schedule for some agricultural commodities in LDCs is inelastic, some important products have relatively high price elasticities of demand. These are often products which are labor intensive, and can receive early developmental emphasis on small farms: milk, various other animal products, fibers, vegetables, fruits, edible oils, tobacco and sugar. In a relatively short time period major increases in production of commodities such as these can be absorbed without a significant decrease in market price.

Although most observers would agree that aggregate demand schedules for agricultural commodities in LDCs and DCs are both price inelastic, Currie ignores the fact that there are likely substantial differences in their magnitudes. Unfortunately, estimates of price elasticities are generally not available. Estimates of income elasticities are available however. Since income elasticities for necessities such as agricultural products are closely related to price elasticities (where the overall substitution effects are small) they do give some indication of the relative magnitudes of price elasticities. In the U.S., for example, income elasticities for basic agricultural commodities cluster around $.2$ or less.^{15/} In contrast similar elasticities in Colombia cluster around $.6$ or more. This is suggestive that the aggregate price elasticities may be of the same order. What this means for Currie's analysis is that, other things equal, a given percentage increase in agricultural output in LDCs will have much less impact on price and gross farm income than would be true in DCs.

Currie also overlooks the fact that the demand schedule in most LDCs for agricultural commodities, although price inelastic, is shifting rapidly to the right. This is, of course, caused by (1) the population explosion, (2) high average and marginal income elasticities of demand for agricultural commodities among a large part of the population, and (3) rapid growth of industries requiring raw materials from agriculture. Even with conservative estimates of the necessary parameters most LDCs must increase agricultural output by 5 percent or more per year to simply match the expansion in demand and keep agricultural prices relatively constant. Many LDCs are finding it difficult to realize this rate of increase in output. It had been estimated that the demand for agricultural commodities in Latin America will be 80 percent higher in 1980 over current levels without any improvements in income distribution.^{16/}

Still another serious shortcoming in Currie's analysis is his failure to focus on net farm income rather than gross income. It is plausible to assume that aggregate agricultural prices may be lowered somewhat by increases in output, and that gross farm income might not increase, yet have farmers realize more net income because of lower costs of production. Output price and quantity are only two of the elements in the profit equation. The crux of agricultural development is reducing costs of production through structural changes, development of new technology, better combinations of inputs, and improving general operating efficiencies so that farmers can realize more net income despite possible lower prices.

With intelligent development programs there is a greater capacity for farmers in LDCs to tolerate lower relative agricultural prices than is true in DCs. Conditions are such that a larger proportional decrease in the average costs of production of agricultural goods can be realized in LDCs than is possible in similar time periods in DCs.

From the above analysis it does not appear to necessarily follow that increasing agricultural output in LDCs would necessarily result in lower net incomes to farmers as Currie asserts. On the contrary, given the nature of the aggregate demand schedule in LDCs, its movement to the right, and the potential for major improvements in cost decreasing techniques, it is likely that net incomes of small farmers can be substantially increased. This in turn will cause rural people to eat more, have better diets, and spend more money on products produced by industry.

Although space does not permit a complete evaluation, there are a number of other serious limitations in the urbanists proposals. For example, some studies have suggested that the rural-to-urban migration process in many LDCs is quite selective, and that a large proportion of the "best quality" human resources are already flowing into the cities. The so-called "marginal farm family" does not make up an important segment of this flow. Aside from programs of coercion aimed at forcing people out of rural areas, could the migration process be substantially accelerated in LDCs without sharply lowering the quality of individuals entering the urban area? Could an illiterate small farm operator of advanced age, and poor health make any economic contribution in an urban center? Also, what adverse effects would the loss of still more of the better quality people have on the agricultural sector?

Of primary importance is the question of how a Latin American country could finance urbanization and farm mechanization at the same time. Both of these activities require a large foreign exchange component. This need alone would likely strangle the program at even the earliest stages of development. Most Latin American countries find themselves strained to more than capacity to provide foreign exchange needed for current modest rates of industrialization.

Urbanists are also much too optimistic about the capacity of even the most dynamic industrial sector in Latin America to absorb rural labor. Only between 10 and 15 percent of the work force in Latin America is currently occupied in manufacturing.^{17/} Over the 1948-61 period industrial employment only expanded at two percent per year.^{18/} As Domike points out, 1966 factory production in Bolivia was worth twice as much as in 1950-54, but industrial employment actually declined over that period.^{19/} Even if industrialization accelerates, it is doubtful if increases in manufacturing employment can be pushed much above an annual rate of one percent of the total labor force in Latin America. Much of the industrial machinery currently being imported by LDCs requires only small amounts of skilled labor. It is likely that near-future industrial labor requirements in Latin America can be met conveniently with only the natural increase in urban population.^{20/}

Finally, are the urbanists too optimistic about the possibilities of replacing rural labor with machines? Again using Colombia as an example, can substantial increases be made in mechanization of major agricultural

exports: coffee, livestock, bananas, sugar cane, tobacco, and even cotton? Aside from the use of automatic cotton pickers, I doubt it. Can much of Colombia's agricultural land which lies along steep mountainsides be mechanized more than presently? Can absentee farm operators be induced to adopt crop enterprises requiring mechanization when their systems of management make it very difficult to operate these?

To this point, it should be obvious that I have serious doubts about the urbanists diagnosis of, and prognosis for agrarian problems in Latin America. If their diagnosis is incorrect their prescription for solution must be held as suspect. Likewise, I have serious reservations about depending on the "filter-down effect," or rapid industrialization for elimination of rural poverty in Latin America. Rural poverty must be largely resolved in rural areas, and urbanization will only offer substantial help in the distant future.

V. Is Colonization An Economic Alternative To Land Reform?

Some have held that colonization of public land is a better economic alternative than land reform in Latin America. They argue that abundant "free" lands are available, and that their development adds to the production base. A number of Latin American countries have emphasized colonization in early stages of their agrarian reform. Accordingly, during the late 1950's and early 1960's the U.S. supported this type of activity with loans and technical assistance. A I.D. Missions in Bolivia, Brazil,

Paraguay, Ecuador, Costa Rica, and Colombia have paid a good deal of attention to frontier settlement. Other countries have experimented with new settlements largely on their own impetus. As mentioned earlier, the Inter-American^{Development}/Bank has also stressed colonization through loans from the "Social Progress Trust Fund."

Unfortunately, only a few detailed studies have been made of colonization in Latin America.^{21/} To some extent the paucity of research indicates the hardships associated with work in these frontier areas. However, despite some bright spots, research paints a picture of frustration in resettlement projects.^{22/} Health conditions, for example, are generally very bad. Transportation is usually a bottleneck for a number of years after the start of the project. Soils, climate, and diseases often sharply limit agro-economic possibilities. Basic infra-structure such as schools, marketing systems, etc. are almost always seriously lacking. A large number of colonists also abandon their parcels. It is very difficult to get technicians to work in these areas, and projects are often administratively abandoned. Settlers usually find that clearing land is very time consuming as well as expensive.

With these types of problems the production and income of settlers increase very slowly, and it is next to impossible for them to repay credit or obtain additional funds and technical help necessary for expanding production. Sketchy information suggests that capital investments in colonization are of at least the same magnitude as most parcelization projects when computed on a per family or per hectare basis. Furthermore, many frontier lands are found to be largely settled, or the land is of too poor a quality to be put into crops. These types of factors have discouraged some decision makers from emphasizing colonization activities.

A few rural poor in Latin America will continue to settle themselves in spontaneous colonization areas, and at least minimal assistance should be provided to them. It is clear to me, however, that large scale colonization activities will offer little help in resolving rural poverty. ^{23/} More results can be achieved by assisting rural people in their present setting.

VI. Policy Implications for A.I.D.

To this point it has been argued that land reform is not synonymous with decreases in production, and that urbanization and colonization are not realistic means of reducing rural poverty in Latin America. It is apparent that A.I.D. has not actively supported land reform, and that it has not developed a substitute approach. Since influential Congressmen have regularly prodded A I.D. and the Alliance for Progress on this issue, some rethinking of Agency policy seems in order.

Issues that might be included in this;rethinking are as follows:

- (1) Does A.I.D. need to change its agricultural development approach in Latin America? Should emphasis be placed on increasing agricultural production and productive rural employment by recombining land/^{and}labor resources?
- (2) Is it appropriate for A I.D. to assist agriculture in Latin America when very poor usage is being made of resources already at hand? Are structural changes needed before A I.D. can substantially help agriculture?

- (3) Can A.I.D. materially assist in easing rural poverty by inducing structural changes in Latin American agriculture? Has A.I.D. allotted sufficient staff time to exploring possibilities in this regard?
- (4) Should land reform be given a leading role in A.I.D.'s development strategy in countries where it is a major economic and political issue: Brazil, Chile, Colombia, The Dominican Republic, Ecuador, Paraguay and several Central American countries?
- (5) Where and how might A I D apply pressure on the land reform issue? Is it feasible to force counterpart funds into land reform? Could levels of performance in land reform be established as prerequisites for at least some of A.I.D.'s assistance? Could this performance be measured in terms of key legislation passed, number of hectares expropriated or purchased for parcelization, numbers of families settled on privately owned lands, or amounts of domestic funds spent on land reform activities
- (6) Lacking adequate country performance in land reform, should A I D consider limiting funds for activities such as colonization and irrigation which tend to take the spotlight off land reform?
- (7) Can additional pressure be applied on land reform through specific loan programs? Would it be effective, for example, to

require that a major part of A.I.D. funds allotted for agricultural credit in appropriate countries be given to land reform participants? Is it possible to tie agricultural research and technical assistance programs financed by A I.D. more closely to resolution of rural poverty?

- (8) Most recent land reform in Latin America has been carried out on practically a commercial basis. That is, the land-owners are paid a market price for their land on terms roughly equivalent to cash. Should this be accepted as the major way to effect land reform? Can an argument be made in favor of A.I.D. providing matching funds for use in carrying out commercial parcelization? Could these monies be placed in a revolving fund for use by agrarian reform agencies? Might a major part of the local currencies generated by PL 480 be used in this way? Could PL 480 commodities also be used?
- (9) Can Title IX objectives be obtained in rural areas of a number of Latin American countries without land reform?
- (10) Looking further into the future, what should be A.I.D.'s strategy for agricultural development in Latin America during the next 20 years? If initial emphasis were placed on structural change and improving rural welfare, could A.I.D. also assist in complementary programs? What posture should A.I.D. adopt on agricultural pricing policy, taxes, and subsidies? Should rural education and regulation of rural migration be an integral part of

agricultural development policy? At what point should policy emphasis shift from rural poverty to marketing and production problems? When should parcel consolidation and mechanization be stressed? Can a set of policies be adopted which will substantially increase the net flow of capital from agriculture to non-agriculture? What contributions can be expected from agriculture during the process of development?

Answers to these types of questions might help clarify A.I.D.'s role in land reform and elimination of rural poverty in Latin America.

FOOTNOTES

- 1/ In Colombia, for example, less than 2 thousand families have been settled by land reform in seven years. Most of the 66,511 titles to land given by the Agrarian Reform Institute (INCORA) from 1962 to 1967 were on public lands, or de facto recognition of legal claims to land held by squatters.
- 2/ Several examples of this are: USAID Mission to Colombia, Program Memorandum FY 1970; Colombia, (Washington, D.C.: AID, 1968) pp. 52-53; USAID Mission to Chile, Program Memorandum FY 1966: Chile Pt. #1 (Washington, D.C.: AID, 1964), p.84; and P.B. Diebold, "How Planners Should View Land Reform", Development Digest, Oct. 1966, pp. 98-102; Montague Yudelman, Agricultural Development in Latin America: Current Status and Prospects (Washington, D.C.: Inter-American Development Bank, 1966) pp. 66-67; Lawrence H. Berlin, "A New Agricultural Strategy in Latin America," International Development Review, Vol 9, No. 3, Sept. 1967, p. 13.
- 3/ Ronald J. Clark, "Land Reform and Peasant Market Participation in the North Highland of Bolivia", Land Economics, May 1968, pp. 153-172, also Land Tenure Center Reprint No. 42, Imports to Bolivia of agricultural commodities were stimulated during 1953-55 by favorable exchange and price policy. Some of these imported commodities, especially wheat, were reexported: UN, ECLA, Economic Bulletin for Latin America, Oct. 1967, p. 79.
- 4/ Folke Doving, "Land Reform and Productivity: The Mexican Case" Unpublished Manuscript, Dept. of Agricultural Economics, University of Illinois, Nov. 1966; Edmundo Flores, "Land Reform and The Alliance for Progress", Woodrow Wilson School of Public and International Affairs, Center of International Studies, Princeton University, Policy Memorandum No. 27, May 1963.
- 5/ G. Barbero, Land Reform in Italy: Achievements and Perspectives (Rome: FAO, 1961), p. 5; and Eric B. Shearer, "Italian Land Reform Re-Appraised," Land Economics, Vol. 44, No. 1, Feb. 1968, pp. 100-106.
- 6/ Eric B. Shearer, "Letter to the Editor," New York Times, September 10, 1967.

- 7/ Quentin W. Lindsey, "Budabari Panchayat: The Second Year After Reform," Land Reform in Nepal, published by Nepal Land Reform Department, May 1966; Raymond P. Christensen, Taiwan's Agricultural Development: Its Relevance for Developing Countries, USDA, ERS, Foreign Agricultural Economic Report No. 39, April 1968; Takekazu Ogura (ed.) Agricultural Development in Modern Japan (Tokyo, Japan: Japan FAO Association, 1963); A.H.E. Nasharty, Agrarian Reform in the United Arab Republic, Rome, Italy, World Land Reform Conference, United Nations, FAO, June 20-July 2, 1966; and V. Stipetic and B. Milosavijevic, Agrarian Reform and Economic Development, Rome, Italy, World Land Reform Conference, United Nations, FAO, June 20-July 2, 1966.
- 8/ S/L. Barraclough and A.L. Domike, "Agrarian Structure in Seven Latin American Countries", Land Economics, Vol. 42, No. 4, Nov. 1966, pp. 391-424, also Land Tenure Center Reprint No. 25.
- 9/ D.W. Adams and S. Schulman, "Minifundia in Agrarian Reform: A Colombian Example," Land Economics, Vol. 43, No. 3, Aug. 1967, pp. 274-283, also Land Tenure Center Reprint No. 47.
- 10/ See, for example: Food and Agricultural Organization (FAO), and Instituto de Capacitación e Investigaciones En Reforma Agraria (ICIRA) Evaluación Preliminar de los Asentamientos de la Reforma Agraria de Chile, (Santiago, Chile: ICIRA, 1967); D.W. Adams and L.E. Montero, "Land Parcelization in Agrarian Reform: A Colombian Example", Inter-American Economic Affairs, Vol. 19, No. 3, Winter 1965, pp. 67-71, also Land Tenure Center Reprint No. 16; W.C. Thiesenhusen, Chile's Experiments In Agrarian Reform (Madison: University of Wisconsin Press, 1966); and a number of land reform case studies which are in process of publication by Inter-American Committee on Agricultural Development (CIDA) and the Land Tenure Center
- 11/ Erven J. Long, "The Economic Basis of Land Reform in Underdeveloped Economies," Land Economics, May 1961, pp. 113-123.
- 12/ See Philip M. Raup, "Land Reform and Agricultural Development," in H.M. Southworth and B.F. Johnston (eds.), Agricultural Development and Economic Growth (Ithaca, Cornell University Press, 1967) pp. 267-314, for a detailed discussion of this topic

- 13/ For a review of the "Alliance" agricultural policy see: W. W. Thiesenhusen and Marion Brown, Survey of The Alliance for Progress: Problems of Agriculture, A study prepared for the Subcommittee on American Republic Affairs of the Committee on Foreign Relations U.S. Senate, Dec. 22, 1967, also Land Tenure Center Reprint No. 35.
- 14/ Lauchlin Currie, Accelerating Development (New York: McGraw Hill, 1966); Benjamin Higgins, "The City and Economic Development," in The Urban Explosion in Latin America: A Continent in Process of Modernization, ed Glenn H. Beyer (Ithaca, Cornell Univ. Press, 1967) pp. 117-155; and Lawrence H. Berlin, in article cited previously
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- 21/ A list of some studies on colonization in Latin America can be found in: Special Operations Research Office, The American University, A Selected Inventory of Latin American Agricultural Colonies with Annotated Bibliography, (Washington, D.C.: American University. 1965).

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- 23/ New jungle clearing machinery being tested in Peru may be able to alter somewhat the economics of large scale colonization projects. These machines can knock down and crush heavy jungle at the rate of one hectare per hour. Trees up to 5 feet in diameter can be handled. Land can be sufficiently burned off and cleared so that a crop can be harvested within one year. Mechanized clearing would make colonization projects quite capital intensive, but the reduction in production lag time may partially offset this disadvantage.