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**ECONOMIC RESULTS
OF LAND REFORMS**

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SPRING REVIEW OF LAND REFORM

ECONOMIC RESULTS

of

LAND REFORMS

by

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AID Spring Review 1970 - Land Reform

Economic Results of Land Reforms

Folke Dovring

Economic effects can be traced to land reforms mainly in the cases where they have been carried out on a substantial scale. Abortive reforms leave no direct effects, and the tracing of indirect effects to the absence of reform is often problematic. Pilot-scale reforms may sometimes be studied for some of the most direct economic effects which would be expected from large-scale reform. For analytical purposes such results are at best tentative and often inconclusive, because they are achieved in a general economic setting which still is essentially that of the pre-reform land system. Reforms carried out halfway, i.e., on a substantial scale without becoming comprehensive, thus creating a dual-sector farm economy, are perhaps those most conclusive as to the relative merits of alternative land tenure systems.

The empirical evidence about the economic effects of land reforms in recent time is therefore restricted. Several of the country reports for this Review relate to countries with no post-reform effects to speak of (the Philippines, South Viet Nam, Nigeria, Brazil, Peru), some others to countries with very limited reform programs to date (Indonesia, Turkey, Ecuador, Guatemala, Paraguay). It is therefore sometimes useful to refer also to reforms somewhat more remote in time, or to such as were for other reasons not included among the country studies for this Review.

This paper aims at summing up land reform experience in both the short, the medium, and the long term. More than just an extended time dimension, the dynamic approach to the effects of reforms also takes into account the general stage of economic development at which the reform was tried, and the stages through which the national economy has moved since then.

Such a dynamic analysis does not have to be tied to any specific theory of stages of development. For our present purpose it is sufficient to point to the relative place of agriculture in the national economy, and to the perspective of future sector changes as indicated by past and current growth trends in population and labor force as well as in the whole national economy and its main sectors.^{1/} When evaluating successes and failures, we should of course also distinguish those effects which stem from the design of the reforms, those which occurred by default because the implementation was inept, and side effects not present in the design of the reform.

The following will treat economic effects mainly under two principal headings: effects on agriculture as a sector in the national economy, and effects on the welfare and level of living of people in the farming communities. Prior to both of these, something will have to be said about the types of tenure situations created by the reforms, so that we know "effects of what?"

1. The Land Tenure Structure and the Reforms' Impact upon It

Under this heading we need to examine two principal classifications: a) by size of farm (operational holding) and b) by tenure conditions. The limit between these two classifications is sometimes uncertain, as when plantations may be characterized either as large owner-operated farms or as clusters of small share-cropper holdings. The dilemma is dissolved by the distinction between "operational tenure" and "Production planning tenure."^{2/} The possible further classifications of tenure structures in relation to market power and political power will be disregarded here as they belong mainly in the analysis of political effects of the reforms.

Let us first view the farm size systems resulting from land reforms which may be classified as either (1) egalitarian, small-scale family farm systems, (2) bipolar systems where small family farms co-exist with residual large farms or (3) collectivized systems and similar forms. Transitional cases will also have to be recognized.

Egalitarian farm-size systems

Equality is never absolute, and we intend to designate a farm-size system as "egalitarian" if inequalities are narrow enough so that most farm families live by own-account work and hired labor is a minor feature. Tenancy is not in all cases contrary to an "egalitarian" situation, specifically not if landlords are remote from the rural scene; when they are close, powerful, and engaged in some aspect of managing the farm business, the situation is different. The degree of equality, as discussed here, has a bearing upon productivity (incentives), income distribution (obvious reasons) and several other issues such as farm cooperation, access to schooling, etc.

Systems approaching this definition of the "egalitarian" are sometimes the direct result of a land reform as in Ireland around 1900, Bolivia and North Viet Nam in the 1950s, and Iran quite recently. Usually there has been some substantial peasant-farm sector before, so that a land reform only supplied the remaining parts of a complete system by removing the more striking inequalities. Such were the cases in most East European countries before collectivization, Greece in the 1920s, Japan, South Korea and Taiwan after 1945, East Pakistan and parts of India after independence, the United Arab Republic (Egypt) to a lesser extent. Most countries in tropical Africa have inherited strikingly egalitarian access to farmable land from their traditional societal systems, and their land reform problems are on the whole in a different category from those in other parts of the world.

Bi-polar systems

By this expression we refer to situations where a substantial ^① part of the land has been distributed by egalitarian rules, while another portion is in holdings much larger than the peasant holdings. This is not to be confused with the unegalitarian farm size distributions antedating many land reforms and still prevailing in some countries, for in these traditional "aristocratic" distributions, middle-sized farms usually occupied more land than the small farms. Bi-polarity would come into being where large holdings were not distributed altogether, only curtailed under some "ceiling" size far above the upper limit for the family farms among which the excess land was distributed.

The model case of a bi-polar system might be Mexico with its sharp distinction between the ejido sector and the remaining large private farms. Other cases are northern Yugoslavia 1920-45, Hungary during the same period, and to a lesser degree Iraq, West Pakistan and at least parts of India (typically in Bihar where the small zamindars were really abolished while the large ones evaded redistribution).

In a different sense, the system is bi-polar in socialist countries where a socialized sector and a private (smallholding) sector in agriculture coexist. This is the case above all in Poland, Yugoslavia, Cuba, Algeria, and Tunisia, and there is a small beginning in the same direction in Iran. In a way, all the European Communist countries (including the USSR) are "bi-polar" because of the contrast between their microfundia "family plots" (often very high productive) and the huge State and collective farms.

Collectivization and similar forms

Where the land reform aimed at large-scale land socialization, original smallholding reform is but a transitional measure. Such has been the case in

most Communist countries (in all, really - in Poland and Yugoslavia, the transitional period is more prolonged). The length of the transitional period varies but seldom exceeds a decade. It was less than that in North Viet Nam, while in Cuba there was hardly any transition period at all for the land that was socialized.

Transitional cases

This includes mainly those countries where a departure was made in the direction toward egalitarianism without achieving it, and without going to clear bi-polarity. Such piecemeal reformed but still essentially traditional systems are found in many countries, above all several of those in Latin America (including the cases of "colonization" as in Guatemala, Colombia, Paraguay, etc.), and also, for instance, Indonesia, the Philippines, and Turkey.

Turning now to changes in the tenure situations other than farm size, we can distinguish (1) conversion of tenant holdings into owner-operated holdings, (2) regulation of tenancy terms, (3) collective tenure, and (4) introduction of special tenure arrangements.

Tenant holdings converted to owner-operated holdings

This may technically be one of the simplest reforms to implement, but this depends also on how stable the tenure conditions were before. Old-fashioned sharecropping arrangements were thus converted in western and southern Yugoslavia in the 1920s, in North Viet Nam in the 1950s, in Iran in the 1960s. Ecuador's huasipungueros were also given the small patches on which they had subsisted before.

Conversion of tenancy into ownership was the main feature of land reform in Japan and it was an important component also in South Korea, Taiwan, and elsewhere.

In a different sense, the abolition of zamindari and jagirdari dependency in India and Pakistan created ownership or at least ownership-resembling conditions - the revenue is now payable to the State rather than any private person.

Regulation of tenancy terms

This approach requires a relatively more advanced economy and society than exists in most land reform countries. It has been the main feature of land tenure reform in western Europe in recent time (even the Danish rural reforms started in this way). In Japan, remaining tenant farmers are also protected with secure tenancy and low regulated rents. Lowering of farm rents was initially the largest component in the Egyptian land reform, a feature again lost in more recent years. Tenancy regulation has had more scope in Italy and Spain than redistribution of land.

Collective and State tenure

The legal constructs of collective tenure vary from country to country, but essentially these exist on a large scale in Communist countries, generally in ways that make it impossible for the people on the collective farm to use the land in any other way. State farms, a secondary feature in most Communist countries, are the model chosen for the socialization of the ranches and sugar estates in Cuba and the former French holdings in Algeria and Tunisia. An attempt at organizing the whole country's agriculture as State farms in Tunisia collapsed after a short try.

Special tenure arrangements

These include above all the Mexican ejido: tenure vests in the village community, land is used as members agree ^{on} - usually in individual peasant farms. Similar constructs are used elsewhere at least temporarily to prevent peasant ownership from being eroded by market forces. Thus in Chile, newly transformed estates are held collectively for the time being. In Italy and elsewhere, premature sale of newly created peasant holdings was sought, prevented by prohibition to sell until all the installments had been paid. The Japanese land reform also placed heavy restrictions on the sale of farmland.

The question of special tenure arrangements is particularly important in tropical Africa where modification of tribal tenure without destroying the traditional community is the focus of some plans for land reform (e.g., Nigeria). In Kenya, by contrast, tribal tenure has begun to be broken up to make room for peasant freehold.

Level of development at the time of reform

Most of the countries that made or tried a land reform were at an early stage in economic development at the time. Usually, per-capita income was below or not very far above \$100. In most cases, the economy was heavily dominated by agriculture, and industry at best incipient. Usually agriculture was also rather backward by modern standards. This was true of nearly all the smallholding reforms, including those in Europe.

Exceptions belong mainly to the recent period. There are two classes of exceptions. A few countries well under way toward an industrial economy have tried reforms which were regarded as overdue. Thus Italy, in the 1950s, made a partial land reform, mainly in the most backward areas of a country which, as a whole, was on the verge of a full-fledged industrial economy. Japan, on a similar level of development but without important regional disparities, undertook tenure reform in the late 1940s - farm size was very little affected. Chile, a relatively urbanized country with an unevenly developed farm economy, has just begun to transform its large estates into peasant villages. Mexico, which started its reform at a very low per-capita income level, is still adding to this program even as the economy is considerably more industrialized; continuing rapid population growth shoves any net rural exodus far into the future. Brazil, like Italy with huge regional contrasts, although generally with a much lower level of development, is contemplating reform in its most backward region. Egypt, also a partially

industrialized country, likewise found reason to undertake a land reform in its badly congested and poverty-stricken but technically more advanced agricultural sector.

The other class of exceptions are those countries with "enclave economies" from great mineral wealth. Iran, Iraq, and Venezuela have been able to finance both land reform and other development projects out of generous oil revenue. Peru, too, is mainly a mineral-export economy; Chile and some other countries could be added.

In a class by themselves are the countries which used to have an enclave economy of foreign-based export agriculture. Algeria, Tunisia, Kenya and Cuba typify this situation.

Most land reform countries fall in none of these categories. The typical situation has been one of a poor agricultural country trying to reorganize its agriculture to better suit its social scheme and its economic development. The dilemma of having to do this with few resources on hand is matched by the alternative of having to forego many of the effects - indeed, in some cases, most of the effects - until some future date. Later on, resources might be less scarce but the original reform scheme might then soon become obsolete because of the shift in proportions between the economy's main sectors, especially when the phase of declining agricultural population arrives. This phase usually belongs to an advanced stage of economic development: in Italy it came within a decade after partial smallholding reform, in Japan within two decades after tenancy reform, but in Mexico, for instance, it seems that this will occur only after another three decades from now, that is more than half a century after most of the reform was done. In most land reform countries, net rural exodus is still far in the future.

2. Effects on Agriculture as a Sector of the National Economy

Under this heading it is convenient to apply a classification proposed by Simon Kuznets, who details the contributions of agriculture to the national economy as either (a) product contributions (rises in output and productivity), (b) factor contributions or additions to available supplies of inputs and savings, and (c) market contributions, i.e., the role of agriculture and its population as a market for the outputs (of consumption goods and investment goods) of the other sectors of the economy.^{3/}

Product contributions

Here we should scrutinize changes in both output and productivity. On the latter it is important to distinguish between "over-all" or "gross" productivity, and that of single factors. Some of the latter may be more important in many land reform countries because of factor imbalances and critical scarcities.

Effects on output can be distinguished in some cases. A rather sudden burst of output increase shortly after land reform occurred in western and southern Yugoslavia in the 1920s, in North Viet Nam in the 1950s, and in Iran in the 1960s. The common factor in these three cases was the lifting of sharecropper arrangements. The result is not surprising. Traditional sharecropping systems may have had their merits in areas where cultivation was expanding over vast areas of virgin land, but in fully settled areas they are recognized as depressing output by giving too little incentive^{4/} to peasant cultivators. The same effect, from the lifting of sharecropping arrangements, is likely to have obtained elsewhere although usually less distinguishable. What happened in the three countries mentioned was a strong expansion of area cropped. Something similar occurred in Ecuador, despite the limited scope of its land reform. The increase in farm area indicates an unleashing of incentive for expansion of cultivated area.

In Kenya, the conversion of traditional peasant villages to commercial peasant farms in recent years is given credit for substantial output increases.

Declining farm output following upon a land reform has long been among the standard arguments against reform. This was repeatedly charged in connection with the reforms in eastern Europe early in this century. These charges, to the extent they had any substance, usually confused output with marketings (a factor contribution). As regards output, it is in fact doubtful that the smallholding reforms in eastern Europe had any depressing effects at all. The charge made in this direction in northern Yugoslavia (1920s) is poorly documented and may have been essentially erroneous. A similar charge in connection with the early phase of land reform in Mexico has also been shown to be without foundation.

More recently, there have been cases where land reform was indeed accompanied by some fall in agriculture output. In the case of Bolivia (1950s), the initial reports appear to have been exaggerated. The country report for Bolivia shows local drops in output to be due to temporary abandonment of contested land, thus because of administrative failures rather than any fault in the reform scheme as such. Recent output increases in Bolivia are spectacular. In Iraq, land reform around 1960 was followed by some drop in output in the beginning and later a slow recovery leaving per-capita domestic food supply still below pre-reform levels. Here the causes are partly in administrative shortcomings, but the main cause of sluggish output is in the specific difficulties in Iraqi agriculture (foremost the salt problem) which the land reform scheme as adopted did nothing to face up to.

Output fell also in Cuba, in consequence both of the attempt at diversifying the system of production and of partial land socialization. Recovery of pre-reform levels of per-capita output has been slow. Production seems to have stagnated

in North Viet Nam after collectivization, and has been very slow to increase in Hungary. Yugoslavia also had a decade of stagnation after the war, broken only after wholesale collectivization had been abandoned.

An unusually strong fall in output was registered in Algeria, also localized in the socialized (reform) sector. Here the causes are complex: the reform touched only the commercial sector formerly operated by French colon's, which had been high productive, hence vulnerable to revolutionary change which included the exodus of the former manager class. Tunisia had somewhat similar experience. In Kenya, partial transition from large-scale to small-farm production in the Highlands was done more gradually and did not cause any fall in output, but the output increases that were registered were proportionately smaller than those in the modernizing of backward traditional villages.

Failures of output in smallholding reforms are thus traceable to administrative difficulties. It is also clear that less productivity increase is to be expected from the conversion of sub-sectors which are already advanced. The failures of socialized agriculture have something in common with certain pre-reform difficulties: the usual model of the collective farm, Soviet style, is in fact a sharecropping arrangement and carries a similar handicap of disincentive to individuals as old-fashioned sharecropping systems, only compounded by the administrative overheads. The large State farms appear not to be economically successful anywhere on any substantial scale.

In most land reform countries, changes in output cannot in any clear way be traced to land reform. In most of them it is clear, however, that the growth in output has been quite satisfactory, thus no specific drawback to the economy stems from the reforms as such. Large increases in output as in Japan and Taiwan

represent mainly the unhampered continuation of prevailing long-term trends; in cases such as South Korea, the early introduction of large-scale application of chemical fertilizers contributed to make the small peasant farms viable for the time being. Diversification toward more labor intensity was also a factor, in South Korea and elsewhere.

It is noteworthy that Mexico has had the strongest long-term rate of increase in agricultural output among Latin American countries, and that Bolivia now also joins the top group in recent index increases of agricultural output.

An essential reason for the continued success of agricultural development after smallholding reforms is, as generally recognized, in the production incentive it gives small-scale own-account workers. Those of tenure were already touched upon. The reduction of farm size, which many believe to be contrary to a main requirement for economic progress, is in fact favorable as long as agriculture retains the bulk of residual unemployment or underemployment, and as long as maximizing output with a minimum use of scarce resources remains consistent with the objectives of national planning. The negative correlation between farm size and output per area unit has been observed in many countries^{5/} and is mentioned in some of the country reports.

The prevailing impression is that of smallholding reforms as promoting rather than hampering the growth in output. Most cases where output dropped initially were, at any rate, soon remedied. The advantage of rapidly expanding cropped area when sharecropper obligations were lifted is readily identifiable but also episodic: it will spend its force in a limited span of years. The advantage of incentive to intensify land use is of much longer duration but also more difficult to trace directly to land reform as such, because it becomes a concomitant of several other factors favorable to agricultural development.

Turning from output to productivity, some concepts must be clarified. Productivity can be talked about in relation to all factors of production jointly (total or gross factor productivity) or with regard to certain factors separately. Gross productivity carries some conceptual difficulties which are not always noted in applied research.^{6/} Few studies of this have been done in connection with land reform situations. The relevant thing there, apart from output maximization, is usually in the specific productivities of land, labor, and capital (external resources). In most land reform countries, the input of external factors is relatively small in relation to the value-weighted volume of output. The foremost index of productivity is then the yield of crops (or of all agricultural products) from land in agricultural use; output per worker may or may not go up in the process, depending on the proportion between output increase and demographic trends. Land yield is less easy to observe, however, than often believed, for it may be affected also by the land use pattern (the application of margins for cultivation, including those of transference between alternative land uses). Aggregate output per area unit of all land available for use is therefore the true productivity criterion in such situations and it often comes close to the trend in total output.

Labor productivity becomes an indicator of income or welfare changes. For development purposes, output per man-hour is of secondary importance compared to output per man engaged.

A productivity concept of significance in low-income countries is that of rate of return to scarce resources: how much additional farm output is obtained per unit of external inputs. The external inputs, more than either land or farm labor, represent resources which can also be used as investment in other sectors of the economy. Over-investing in agriculture, at an early stage of development,

may not only be redundant in the sense that farmers might produce as much with less investment if only institutions and incentives are right; such over-investment may also subtract from the growth of other sectors. Economizing with external inputs therefore represents, in early stages of development, an indirect or implied factor contribution to economic growth; squandering represents a negative contribution.

The evidence on land reform as promoting or hampering productivity is in most cases even more indirect and tenuous than in the case of output. When output drops or remains stagnant, so in most cases does productivity. When output rises, productivity can at best be linked to land reform if the rise in output can. The rises in output in early phases of land reform in western and southern Yugoslavia, North Viet Nam, and Iran also led to increases in productivity which can be credited to land reform. Analogous conclusions are likely to hold also in Ecuador and in the reformed peasant sector in Kenya. The case of Ecuador may have to be spelled out: as cultivation expanded, area-unit yield of most crops fell. But this is not the most relevant productivity indicator, for the additional land was either of lower native fertility or else it had not yet been under cultivation long enough. Such land was in any event moved up from pasture use or nonuse, and in either case the productivity of all the land increased. The case of Kenya is more conspicuous: substantial acreages in peasant villages moved over from subsistence food crops to highly profitable export crops, and this alone would mean an increase in the productivity of all land in use, as well as of local labor (at least per man-year, if not per man-hour).

In its most precise form, the question of land reform and productivity is this, however: does the land system established by land reform do a better job than the pre-reform system would have if it had continued, and does the reformed system allow the highest rates of increase in productivity which other circumstances

would permit? In the few cases of smallholding reforms cited above, the answer is a qualified yes; but these cases represent only some facets of land reform. The most generally debated issue is, would traditional large estates have done as good a job, or an even better one, had they not been dissolved through reform? The answer in specific cases depends on the merits of the cases. It is clear that the colon holdings in Algeria and Tunisia were so good that it would be difficult to improve upon them; and also the reforming of British-led estates in Kenya yielded much less productivity increases than that of traditional peasant villages. Exemption of "model estates" from reform has been widespread, and the argument is not hard to make, among other things because of the destruction of capital that might follow from their dissolution. But the central case concerns prevailing estate systems, not exceptionally good individual instances. Here the reasoning about the relative merits of land reform versus evolutionary change easily amounts to a counterfactual proposition which is hard to prove either way, especially over long periods of time. At best, studies from pilot schemes can be used to make it plausible that a reform system may become more productive than the estate system (as in Brazil). But strictly speaking we cannot replay the development of the same country by a different scenario. Not unless it is actually being played by two scenarios, which is the case in some of the more outspokenly bi-polar countries.

The principal case in point is Mexico. The Mexican censuses of agriculture, since 1930, show separate data for three tenure sectors: private farms over 5 hectares, private farms under 5 hectares, and ejidos, the latter being essentially an egalitarian smallholding sector under peculiar tenure (land that cannot be sold or mortgaged). From census data, both published and unpublished, three separate

and independent inquiries have shown that both the ejidos and the private small-holdings are, in fact, more productive than the large private farms.^{7/} Since essentially the same result has been reached by three different investigators, working without contact with each other and with partly different approach, method, and conceptualization, the main finding of these inquiries can hardly be doubted.

Two of the inquiries, Eckstein and Hertford, used the concept of total factor productivity, thus including weights for land value and labor wages among the data for computing the input-to-output ratios. The most striking part of the results is, however, that obtained when output is shown as a ratio of external inputs only. In these terms, the superiority of small-scale over large-scale farming becomes really strong. The small farms deliver their part of the goods at a considerably lower unit cost, in terms of scarce resources, than do the large farms. It is quite evident that, without land reform, Mexico's agriculture could not have increased its output as much as it did, at least not without drawing much more on the nation's scarce resources, to the obvious detriment of industrial development.

The same test could be applied in other cases where sub-sectors can be identified with separate economic data. Several of the Communist countries could easily be shown to have lower productivity - both "gross" and specifically to scarce resources - in the socialized than in the very small-scale private sector. A good case is in Yugoslavia because here, the socialist sector is in the minority (15% of the cropland), and therefore it has been possible, by concentrating most of the modern inputs on this sector, to create the impression of high and rapidly rising productivity, far ahead of the much slower-moving private peasant sector.

However impressive on the surface, the notion of superiority in the large-scale socialist sector is nonetheless fallacious, for the rate of return to scarce factors is, in fact, higher in the private sector.

In summary: there is no reason why smallholding reforms should hamper the development of productivity in low-income countries. The evidence at hand indicates that such reforms on the whole have positive effects. The trend toward rising farm size belongs to a much later phase of development than that where most land reforms are undertaken.

Factor contributions

Agriculture can make factor contributions to economic growth by supplying the raw materials for food and other agricultural products in sufficient quantities and at low cost, and by releasing labor for employment in other sectors as the need for additional manpower comes up.

The obvious case is that when agricultural production, and the way it is used, contributes to capital formation. In the usual course of events in a low-income country there is a net outflow of factor contribution away from agriculture and into other sectors of the economy. This is, in fact, necessary in order to obtain the sector differentiation which is a normal facet of economic development.

This flow may be obtained by direct or indirect means. Direct means include the unrequited removal of some of agriculture's output. This may be by taxation, farm rents, compulsory deliveries at fixed low prices (as in the Communist countries), or by large farm firms selling their output and using some of the proceeds outside agriculture. Indirect means are principally those of the price mechanism and the terms of trade of agriculture. Needless to say, the efficiency with which the factor contributions are used in the other sectors varies a good deal.

The factor contribution works for a large part through the prices at which food becomes available to the non-agricultural population, which has a bearing on real wages and costs of production in the non-agricultural sectors. This is the real gist of most reports on reduction of farm output in early stages of some land reforms. Where overall statistics are faulty, reduction in supplies to the cities was mistaken for a fall in output. There was, in some cases and to some extent, a failure on the part of agriculture to contribute to growth in other sectors. Abolishing or reducing farm rents will sometimes have this effect. But in several cases this reduction in supplies to the cities meant, in part or in full, that peasants were now eating better themselves. Detrimental as this was to the short-run growth of other sectors, it may have been necessary and in the longer run beneficial, because improved nutrition and health among the peasants is more than a welfare objective: it is also a precondition for the expansion of agricultural output through labor intensive methods which has characterized most land reform countries over prolonged periods after the reforms.^{8/} The short-run loss may have been a condition for long-run gains. Overdoing the factor contribution at one stage may undercut the base for its increase in the next.

Over the longer run, vigorous expansion of output is the foremost precondition for a large factor contribution from agriculture to be forthcoming. Yet there is a notion which lingers on in many quarters that the "skimming" of agriculture's surplus output is done easier from large than from small farms. Evidence from some of the country reports as well as in other sources indicate that this is an error of perspective. For instance, farm record data from Hungary in the 1930s showed that small farms were in fact bringing to market more output per area-unit of farm land than did the larger farms, despite the fact that the former consumed

a larger portion of their output (naturally, since they carried more people per area-unit). The Mexican census data reveal that ejidos sell nearly as large a part of their output as do the large private farms; thus the higher productivity is translated into a substantial factor contribution.

As was pointed out under the heading productivity, small-farm systems also make an indirect factor contribution by drawing less (than the large ones) on scarce resources needed to expand other sectors. Thus their market sales represent a higher rate of value-added being transferred. This effect is not obtained in the costly colonization projects which many countries have engaged in, including some which did not try land reform on any extended scale.

A special factor contribution by agriculture is in the supply of additional manpower going to other and more rapidly expanding sectors. The raising of these people to working age represents a net contribution to the urban areas which receive them as adults without having to pay for the pre-productive part of their lives. In the long run, this is a positive contribution, but mainly at stages of development more advanced than those where most land reforms are done. In the low-income countries, at present, urbanization tends to go too fast, creating vast city slums, especially because modern industry tends to expand employment much slower than it expands output. In addition, the rates of demographic increase are now usually very high in these countries. An important function of land reform at such a stage of development is in the capacity of the reformed system to hold rural people where they are, rather than pushing them into the cities where the overhead costs of housing, sanitation, etc. are much higher than in the rural areas. The Mexican ejido has been specifically cited in its function as a welfare agent and a moderating influence on the drift into the cities. The same consideration is an element in Italian land policy, even after the land reform ceased to be applied.

Market contributions

Market contributions are usually cited under two headings: the farm population's purchases of consumer goods and their acquisitions of production inputs.

The specific rises in per-capita income among the farming population which sometimes can be traced directly to land reform lead, in most cases automatically, to increased demand for the output of consumer industries. Increased demand for clothing is explicitly mentioned in the country report for Iran, indicating that the market base for the domestic textile industry thus became substantially widened. The report on Bolivia mentions that peasant households now are much better equipped with a variety of purchased articles than they were before reform. Several other reports (Venezuela, Guatemala, etc.) stress the rise in level of living at least of those who benefited from the reform, generally implying greater demand for industrially produced consumer goods.

To the extent that some strata became worse off (see below), the opposite incidence on consumer demand would be expected.

As regards production inputs, a substantially rising market contribution will, in most cases, have to wait for some more advanced level of economic development. As should have become clear from the sections about productivity and factor contributions, one of the merits of smallholdings in agriculture is their ability to substitute labor for capital. This is significant, especially as regards heavy equipment which the low-income countries in most cases would have to import for scarce foreign exchange. Other externally produced inputs such as artificial fertilizers often become important shortly after land reform and thus a ready market is offered for this type of industrial expansion in the country (e.g., in India in recent years).

On a more advanced stage of development, the outlook becomes different. When Italy embarked upon its limited land reform, a central point was the combination of melioration works with the creation of new smallholdings. These works required large investments in heavy equipment, materials, and skilled labor, and in the early 1950s, this appeared as an attractive feature--a market contribution to industry setting off keynesian "multiplier effects" in the economy which at the time had slack capacity in many industries. Similar effects may be expected elsewhere in "colonization projects" or other land reform measures loaded with technical improvements--namely, to the extent that the country can afford to do these things on a substantial scale and has most of the requisite industries within itself.

3. Effects on Welfare and Level of Living in the Farming Communities

Effects in these regards may come in two principal forms: because of increased production and because of increased distributive equity.

Increased production

When production goes up in the wake of a land reform, more of it (than before) is likely to stay in the rural area as farmers' incomes. The whole incentive theory of land reform as a factor causing production to increase assumes that this happens, and so the agricultural population ought to become better off. At least in the short run, this should also mean better off in relation to the people in other sectors. Such improvement in relative income may not come off if concomitant or subsequent economic development causes also urban income to rise. At the stage where most land reform countries are or have been at the time of reform, absolute income increases ought in any event to be more important than relative ones.

The F.A.O. production indices show rising per-capita domestic agricultural production in most land reform countries to have risen, except in some of the

countries experimenting with land socialism (Algeria, Tunisia, Cuba) - and usually more so than is the case with the aggregate of all countries in the same part of the world. For instance, in Latin America, where the recent indices (1965-67) show per-capita agricultural output in the whole region just barely above the base period (1952-56), Bolivia and Mexico have among the highest per-capita indices, along with Brazil, Ecuador, Guatemala (mainly non-food crops), Panama and Venezuela; most other countries - among them Cuba - had indices under 100 (falling per-capita domestic agricultural production). Since in nearly all countries agricultural population increases slower than total population, it follows that gross receipts (including home consumption) to agriculture should have risen faster than per-capita output (where per-capita relates to the whole population), unless the terms of trade are moving strongly against agriculture.

When all else is equal, increased per-capita output should thus lead to higher farm consumption, both of home-produced food (for which the income elasticity of demand is still very high on low income levels) and also, and usually in a still higher degree, of other articles.

Distributive equity

Land reform redistributes wealth, specifically the main rural source of employment and income. The post-reform distribution of landed wealth is regularly less skew than before, except where large estates were "socialized" either immediately or after some intervening period. As this affects many people positively and few negatively, in an overall sense welfare has increased. Most of the country reports stress this aspect, which is rather self-evident in case the reform is radical enough to affect the conditions of the majority of rural people. In Egypt, where rent ceilings were soon evaded, peasants appear less debt ridden than before the reform.

It is less self-evident in the cases where production goes down. Depending on how radical the redistribution of wealth and income was, it may be beneficial to many, even in this case. In Cuba, the sugar estate workers are reported to have benefited even though society at large did not. In Algeria, there was apparently no particular improvement in the economic situation of anyone; the disparity between estate workers and small peasants remained.

The importance of improved nutrition was pointed out above under the heading of factor contributions. Subsequent on farmland and income redistribution, other economic opportunity may also become more widespread. Thus the report on Bolivia explains the wider diffusion of trading opportunities among rural peddlers, where previously large-farm owners and their representatives had handled nearly all the marketing of farm produce in a much more centralized system. Such increased marketing activity is not merely a waste of time and effort, since it often also leads to more careful distribution of scarce goods.^{9/} This characteristic, that increased distributive equity in agriculture may carry over into other sectors, could conceivably be one of the more important, as yet overlooked, aspects of land reform. Not much research has been done to date on this, but data from the United States since a century indicate that there is some connection between the size distribution of farms and of urban incomes in the same general area^{10/} - the disparity of both varies a good deal between regions of the country. If such a connection between farm size distribution and distributive equity in society at large is borne out by further research, this could be immensely important for our whole judgment of land reforms as a vehicle of economic as well as social progress.

The ramifications are not difficult to visualize. Greater distributive equity usually goes together with wider diffusion of educational opportunities, hence it also affects the general educational level and on the optimal use of talent in society. Higher rates of schooling among rural youths after the reform are cited from Taiwan. This effect is perhaps most evident where it is seen in reverse. In Italy, the rather late decision, to reform the land system in backward areas in the 1950s, was concomitant with industrial development in which the most important bottleneck was found to be scarcity of skilled manpower. It is almost trite to point out that this, in turn, was a consequence of previous neglect of the primary school system, precisely in those backward areas where a highly aristocratic land system tended to restrict educational as well as general economic opportunity to the wealthy classes.

On the other hand, incomplete or piecemeal reform may actually hurt some strata of the population. The landless in India were given no land, hence came out worse off than before. The "green revolution" in West Pakistan and parts of India so far has favored the larger landowners. As the huasipungo system of quasi-bonded microfundia holders in Ecuador was abolished, these people lost the distress protection previously offered by the hacienda, and often also the access to common pastures - and many got nothing in exchange for these losses, except more time on their hands. The report on Venezuela cites data indicating that about as many people became worse off as became better off in the partial land reform measures in that country. In still other cases, the upgrading of some segments (as in Guatemala and other "colonization" countries, especially in Latin America), may leave some other strata (such as the plateau peasants in Guatemala) at least relatively worse off than before. In the case of any differential economic

development within the agricultural sector, adverse terms of trade may turn the relative disadvantage into an absolute one for vast numbers at the lower end of the ladder.

4. Summary and Conclusions

The reports on land reform for this Review are on the whole less conclusive as to economic effects than on some other topics.

The data on smallholding reforms indicate in some cases that a reform actually helped increase agricultural production and improve productivity. In most other cases such conclusions may not be drawn, but usually reforms cannot be shown to have hampered agricultural production and productivity, at least not after some initial difficulties were overcome.

Experience of collective and other forms of socialized farming is, at best, unclear and, in several cases, clearly negative, from the standpoint of the national economy.

Thus land reform appears as a positive factor for economic development if it is undertaken at an early stage of development and if the reform goals are such as go along the grain of peasant wishes and the techno-economic realities of the country at the time. In low-income countries, this usually means smallholdings under ownership, if possible, with protection against loss of ownership because of debt.

Inept administration is no fault of the reform idea as such. But inadequate reform ideas may do more harm than good, especially if they disregard or assume away the sector proportions, factor endowments, and other circumstances basic to economic planning at a low income level.

The above conclusions seem valid at the very low income levels. For countries already under way toward an industrial economy, the difficulties of adjusting

the other way around (increasing farm size with net rural exodus) are in fact not very serious in comparison with the need for reform at early stages of development.

The rises in level of living for the rural masses as a consequence of higher distributive equity (of wealth and incomes) is more than a social ideal: by upgrading the peasant people and preparing for higher educational standards, it is also essential for future industrial growth.

FOOTNOTES

- 1/ On sector changes in population and labor force, see F. Dovring, "The Share of Agriculture in a Growing Population," Monthly Bulletin of Agricultural Economics and Statistics, Rome (F.A.O.) Aug./Sept. 1959, pp. 1-11. On prospective sector changes, see idem, Income Growth Rate and Sector Proportions: The Share of Agriculture at Successive Levels of Income, University of Illinois Department of Agricultural Economics, AERR 97, Dec. 1968.
- 2/ Cf. F. Dovring, "Variants and Invariants in Comparative Agricultural Systems," American Journal of Agricultural Economics, Vol. 51:5, Dec. 1969, pp. 1263-1273, especially pp. 1264-66.
- 3/ S. Kuznets, "Economic Growth and the Contribution of Agriculture," International Journal of Agrarian Affairs (Oxford, England) Vol. 3, April 1961, pp. 59-75.
- 4/ See, e.g., Ch. Issawi, "Farm Output under Fixed Rents and Share Tenancy," Land Economics (Madison, Wisconsin), Vol. 33:1, February 1957, pp. 74-77.
- 5/ On farm size and productivity, see D. Kanel, "Size of Farm and Economic Development," Indian Journal of Agricultural Economics, 1967:2, pp. 26-44, and Ph. M. Raup, "Economies and Diseconomies of Large-Scale Agriculture," American Journal of Agricultural Economics, Vol. 51:5, December 1969, pp. 1274-1283.
- 6/ See F. Dovring, "Productivity of Labor in Agricultural Production," University of Illinois College of Agriculture, Agricultural Experiment Station Bulletin 726, Urbana, Illinois, September 1967, pp. 10, 62-66.
- 7/ The three studies are: (1) F. Dovring, "Land Reform and Productivity: The Mexican Case," Department of Agricultural Economics, University of Illinois, AERR 83, December 1966, Mimeo, pp. 13, reissued by the University of Wisconsin Land Tenure Center as LTC No. 63, January 1969, Mimeo, pp. 22; (2) S. Eckstein,

"El marco macroeconomico del problema agrario Mexicano," Washington, D.C., (CIDA, Trabajos de investigacion sobre tenencia de la tierra y reforma agraria, No. 11), January 1969, Mimeo, pp. 253, appendices; and (3) R. Hertford, "Sources of Change in Mexican Agricultural Production," 1940-65, unpublished PhD thesis, University of Chicago, March 1970, MS, pp. 183.

8/ On the nutrition aspect of farm labor supply, see H. Leibenstein, "Economic Backwardness and Economic Growth," New York 1960, Chapter 6.

9/ On the roles of small scale marketing in low-income countries, see P. T. Bauer and B. S. Yamey, "Economic Progress and Occupational Distribution," The Economic Journal, December 1951, and V. C. Uchendu, "Some Principles of Haggling in Peasant Markets," Economic Development and Cultural Change, Vol. 15:1, 1966, pp. 10-20.

10/ Some preliminary findings from ongoing research in F. Dovring, "Income and Wealth Distributions: The Exponential Functions," University of Illinois Department of Agricultural Economics, AE 4212 (Mimeo), June 1969, pp. 21. Cf. also idem, in American Journal of Agricultural Economics, 1969 (see above, note 2), p. 1267.