

AGRARIAN REFORM*

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THE subject-matter of discussions at the meetings of the Society of Agricultural Statisticians is rightly of a very special importance, both in its methodological and practical aspects. Over the years the work done by Indian agricultural statisticians has been attracting considerable attention here and elsewhere. In all parts of the world, and in most of the International Organizations, Indian statisticians are playing a key role in promoting sound methods of study and advice. I am only distantly associated with the advanced techniques of statisticians though in my routine I have to use their handiwork to a considerable extent. In fact it is the etymological significance of statistics, as knowledge about the condition of the state, which interests me more than the science of statistics.

With the interests of agricultural statisticians I have much more in common as in all my studies of rural economy agricultural statistics are like the proverbial straw without which bricks of useful knowledge cannot be made. We in India are becoming increasingly aware of the fact that the objective of national progress along lines of planned development cannot be said to have been realized unless conditions in the rural areas and in the main industry of the people, namely agriculture, are transformed in keeping with the tenets of the new policy.

This subject of agrarian reform has now become of vital interest from the standpoint of the newly emerging and the developing nations. The scope which agricultural statisticians have in meeting the varied requirements of chalking out a comprehensive programme of agrarian reformation may be revealed by an understanding of the major issues involved in the process. I propose to lay before you a few of the important considerations which are involved in schemes of agrarian reform which are being forged in several parts of the world.

LAND REFORM AND AGRARIAN DEVELOPMENT

Enabling the people on fair and equalitarian terms to participate in efficient processes of production so that their own and the community's

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welfare may be maximized is the ultimate objective of social policy of which land reform is only a part. Especially in its more restricted sense of distribution of land among several farmers and protection of tenants land reform is more of an instrument than an object of policy. Reform of tenure has to justify itself by results both in the field of improving productivity and of equitably distributing the product. Alongside of tenurial legislation has to be put the whole institutional programme of agrarian development. Education, extension, production services, co-operative institutions and an opportunity to share in the overall plans of economic development all these together comprise a plan of agrarian reform.

Land reform derives its justification and ultimate advantage in being fully integrated in a programme of national economic development. Wherever land reform has stopped with the passing of a few legal measures it has as a rule not only failed in its declared objective of improving the lot of the intended beneficiaries, but often it has left them in a more exposed situation than the one from which they were sought to be extricated. At least for the developing economies it may be said with confidence that land reform which is not part of a full programme of agrarian reformation has no potentiality for substantial benefit. In respect of the scope of institutional change and in respect of the total resources needed to make a success of the programme full account should be taken of these implications.

ENFORCEMENT

It is common knowledge in India and elsewhere that whenever reliance was placed only on passing laws for tenant protection or for regulating the rights of landholding these laws were rendered ineffective in several ways. In fact in many places they made the position of tenants and small holders even more precarious than before. So long as the small cultivator, tenant or holder, has to depend on the expropriated vested interests and their supporters for the requisites of their trade and even of existence no law which seeks to regulate these interests can be effective. An institutional provision of ancillary services on an adequate scale is an essential accompaniment of land reform. Some countries have gone to the trouble and expense of setting up an enforcement machinery for tenancy legislation similar to that which is usually provided for labour laws. This is good as far as it goes, but unless the tenant and the new holder are put into touch with *bonafide* sources of essential services even good protection is no more than cold comfort. To borrow from Latin American terminology, even a successful replacement of *latifundia* by *minifundia* is socially and economically fruitless.

CO-OPERATIVE SERVICING

Tenures, including ownership rights, are important, but they are important only so far as they help to promote welfare. If at the particular stage of economic development of a country it is desirable to put larger land and other resources into an efficient unit of agricultural enterprise than an average holder can command it is necessary not only to allow but to promote the formation of production units of more optimum size. In developed countries such as U.S.A., Sweden and Netherlands active steps are being taken to facilitate the consolidation of marginal units so as to form bigger enterprises. In all these countries conditions of full employment exist, and those who are pushed out of agriculture are readily absorbed in other occupations. In developing economies there is little scope for such large-scale occupational shift. If then a larger unit of enterprise is to be formed consistently with small units of holding, some form of co-operative enterprise is unavoidable. The extent and manner of co-operative functioning of farm units are largely variable. In fact, a constant process of trial and error is being gone through in this respect in all parts of the world.

Democratization of decision-making, and a more direct correlation of return to effort are the two essential counts in respect of which co-operative and collective farms show an essential difference. The latter are largely centralized in both respects, and hence both for incentive and enterprise they have not yet been able to prove themselves. Genuine co-operative farms, of a really decentralized and democratic pattern, are few and far between. In their very nature, they may not be so easy to operate as to constitute a pattern for common or universal acceptance. But circumstances which are normal to developing economies seeking agrarian reform would reveal many situations in which different forms and degrees of co-operative action among farmers would be seen to be advantageous and feasible. It should be the purpose of social policy to encourage all these in appropriate circumstances.

In Israel from the almost communist Kibburzim to a capitalistic joint stock company all forms of association among farming enterprises are permitted, so long as they help to make the most economical use of resources and to produce a system of distribution which is accepted as socially just. Economic growth which is widely desired is of the type where efficiency and equity are realized on the largest scale.

AGRICULTURE AND SELF-SUSTAINING GROWTH

Much is being heard currently of a take-off stage and of self-sustaining growth. Whatever else these concepts may mean they are funda-

mentally related to the existence of certain qualities of personnel and to certain features of economic development. A people who in the mass are not stirred by a strong urge to go forward at any cost cannot execute anything like a take-off even if all the physical resources are made available to them from external sources. By training and by the exercise of initiative a people has to develop qualities of progressiveness and enterprise without which no take-off which would mark the end of stagnation and the beginning of a rapid upward move can take place. Needless to say, unless the heavy dependence of population on agriculture is definitely brought to an end, and unless the practice of agriculture is itself undertaken in the spirit of progress and enterprise even the beginnings of a take-off cannot be said to have been made. When we speak of land reform in a developing economy these implications bearing on an overall economic transformation must be prominently taken into account. Land reform has social and economic justification only as part of an overall movement of rapid transformation of the economy.

AGRICULTURAL PRODUCTIVITY

The subject of agricultural development is often approached in a piecemeal fashion. Its importance as one among several occupations is appraised with varying degrees of realism, and it is not unusual to treat of economic progress as largely a process of industrialization. That this latter process is itself dependent on increasing productivity in agriculture is not so readily realized. Especially after land reform a large portion of farm produce tends to be consumed by the farmers' families. On the other hand growing concentration of population in cities raises the demand for marketable surpluses. Just when the demand is on the rise effective supplies are apt to shrink unless in the meanwhile productivity has increased so fast as to provide for both the augmented home consumption and for the increased demands of the market. This need for higher productivity of food farming is an additional factor, besides the generalized proposition about supply of raw materials to industry. At least a part of the responsibility for the recurring food crises in many developing countries is attributable to a propensity to treat increased productivity in agriculture with less attention than it deserves. If there is a plan, the full measure of estimated demand must be made available from units of agricultural production which are specifically helped to produce adequate quantities.

Land reform creates a special situation in this respect inasmuch as it tends to create conditions in which productivity may fall and demand

may rise unless special attempts are made to ensure higher productivity. Though different countries have attended to this aspect of agrarian planning in varying measure, there is hardly any developing country which has appreciated the full and concentrated significance of increasing agricultural productivity in the twofold contexts of land reform and planning. Even in India there is no conscious co-ordination between the situation created in each district by land reform measures and the provision of aids to improved productivity on the farms of beneficiaries of these measures. Land reform and agricultural extension, such as they are, have moved almost independently of one another. This has limited the usefulness of both, and has unfavourably influenced the progress of rural economy.

INNOVATIONS AND SOCIAL CHANGE

In old agricultural societies, such as the developing countries generally are, most of the life of the rural people is organized round their principal occupation, which is agriculture. Relationships affecting the possession and use of land influence almost all social relationships. In fact social ranking is almost strictly in proportion to the status and quantitative measure of the landed possessions of the people. As these patterns of relationship have existed for long periods institutions of landholding, farming pattern, supporting services such as credit and marketing have ceased to be treated as merely economic institutions. They affect the whole life of the people and, therefore, when a transformation of the system of landholding, or of the credit and marketing structure, are suggested as constituents of a programme of land reform they encounter a widespread resistance which is psychological as well as social. Efforts to promote education and institutional change along desired lines have to be undertaken over a long period to overcome such natural obstacles to progress. This is one of the reasons of the comparatively slow progress of agrarian economy even in countries which have succeeded in a revolutionary transformation of their industry. The special difficulties of agrarian reform in a democratic society, where active consent of the large mass of the people is the only dependable sanction for effective reformation, call for greater patience and greater effort.

INSTITUTIONAL CHANGES

While the process of education, especially of the leader group, can be helped by several types of foreign aid, the actual transformation of the personnel and institutions has to be achieved by the people themselves. Even in the more restricted sphere of legislative changes affecting tenure

of land it is common experience that while a few influential leaders can successfully put on the the Statute Book a fairly ambitious looking land-reform law its impact on the minds of the several affected sections, and on the actual business prospects of the cultivator are not always commensurate with the expectations of the authors of such legislation. The educative process which must precede, accompany and follow the legislative activity concerned with land reform is often not attended to with the necessary thoroughness and vigour. The acceptance and implementation of land-reform laws, and especially the playing of an active and progressive role in the new situation created by land-reform measures are aspects of developmental effort which have to be consciously adopted. Success of land-reform measures would depend at least as much on this psychological reformation as on having a comprehensive law or on having sufficient domestic or foreign resource to finance several aspects of land-reform schemes. In fact it is as true about personnel, as about water, that foreign aid can only help to do a little more expeditiously what ultimately is really a transformation of the resources which the people themselves possess.

LEADERSHIP IN RURAL AREAS

For economic development generally, and for agrarian change in particular, more important than land and other physical resources are the men themselves. Small farms, and farms in comparatively unfavourable surroundings have become models of good husbandry where the men who tilled them have shown qualities of resourcefulness, skill and organizing capacity which were adequate to meet the challenge of nature. On the other hand in many developing countries where existing and potential resources of nature are recognized to be favourable, and where other resources are available from external sources, it is often found difficult to initiate and sustain a really strong movement for rural development. The explanation for relative slowness of growth is to be found usually in the lack of progressiveness and of capacity to lead in innovation from which the people at large suffer. This drawback is as a rule an old heritage and it takes time to overcome it. But even in this process usually it is the urban and non-agricultural interests which generally have the advantage of priority of awakening and action. Even in revolutionary movements which aimed at establishment of socialist economies, such as Soviet Russia and other communist countries, the lot of the rural population has for the most part been that of buffeted victims at the mercy of passing waves of passion and prejudice emanating from higher urban quarters. The position in developing countries

which are under the spell of professedly democratic constitutions is not much better. Even land-reform laws and patterns of farm organization which claim to be parts of a progressive social policy often emanate from people who never in their life have experienced the stresses and strains of a life on the land. Such leadership in situations in which most developing countries find themselves is both necessary and valuable. But to produce really beneficent and lasting results leadership on a practical and continuing level must be taken up by people whose lot is directly involved in changes that take place in the villages.

In a manner of speaking the worst effects of concentrated and monopolistic land ownership are seen where the land owners have lost interest in either their social or professional opportunities for constructive and progressive leadership. Any measures of land reform which bring new classes of people into situations in which opportunities for initiative and enterprise open out before them is likely to evoke at least in a fair percentage among them a responsive reaction. The chances of this favourable result are improved if a policy of constructive assistance and popular institutionalization accompanies land-reform measures. Land reform has sometimes been hailed as an improvement which may strengthen the prospects of industrial growth by channelling the surplus produce of agriculture into non-agricultural investment. The prospects of this hope being fulfilled are by no means universally assured. In any case they are of a long-term import. More rapid and more effective is the contribution which the man-power trained and released from the newly awakened and reorganized rural parts is capable of making at all levels of national life. Investment of talent and resources in rural areas is likely to pay dividends in human terms much more quickly than in material ones. From the standpoint of the overall progress of society this is to be welcomed.

MODERNIZATION AND TRADITION

A large part of social thought which in advanced capitalistic countries favours individual family farms is based on the assumption that an average farmer is so thoroughly individualist in his approach to farming that his initiative and incentive can never be sustained in any other form. At first glance this is a very unexpected attitude. In the very countries in which all forms of joint cultivation, co-operative or other, are discouraged the principle of joint-stock enterprise is promoted almost as a boon in all other fields of economic activity. Considering that a very small fraction, and a dwindling fraction at that, is now engaged in agricultural pursuits even the social argument, that an independent peasantry is the backbone of a democratic society,

is ceasing to be plausible. It is little more than a symbolic reaction against some extreme communist forms that leading nations in the capitalist world make it almost an article of religious faith not to tolerate, at least officially, any joint form of cultivation. In opulent societies this social fetish can be easily indulged. But there is at least some reason to believe that the scale on which an optimum combination of factors is seen to be needed makes the prospect of continued individualization of farming activity somewhat doubtful.

In societies which are in an acute stage of industrial transformation, such as Italy or Japan, it is seen that unless some form of joint cultivation, such as corporate or co-operative, is encouraged, productivity and earnings in agriculture will not match with those in non-agricultural pursuits. Small landholders are tending to become part-time agriculturists by choice, and not by necessity as they are in the developing economies. In an economically developed and socially progressive community there is not the same resistance to separation from land which one is accustomed to find in populous and undeveloped economies. Even in these latter once the crust of tradition and defensive inertia is broken prospects of marked improvement in standards of living have been known to change the ways of people vary radically. For the practice of virtues which are associated with the working of progressive democratic societies an improvement in material well-being as well as in standards of professional efficiency is equally essential. For the promotion of democratic culture, therefore, a rapid technological transformation and raising of material standards in rural occupations is urgently called for.

To hold co-operative practice of agriculture as a socially or democratically tabooed concept will not fit in with the contemporary urges in developing economies. That is why, even outside the communist countries all degrees and forms of co-operativization are experimented with. This is not to suggest that all forms of co-operation will suit all situations, but a selective and spontaneous approach to patterns of farm organization has to be maintained if agrarian reform is to strengthen democracy and maximise welfare. Mexico, Italy, Egypt, Japan, not to mention Israel, are a few examples of countries which have freely experimented on a selective basis with different forms of farm organizations, co-operative and others.

DECENTRALIZATION

While a merely sentimental or ideological prepossession in favour of family farms is not likely to withstand strong technological and econo-

mic pressures the need for improvisation and quick response which is inherent in the enterprise of profitable exploitation of land would continue to place a high premium on a decentralized pattern of organization. All attempts at highly centralized and stereotyped management of farming over a long period have produced disappointing results, both in communist and capitalist countries. Even for plantation crops, which within a single unit have a large measure of co-ordinated action, almost complete autonomy of operational and even planning decision has to be conferred on local managements. Where more individual care and quick adjustments of plans and work schedules are necessary even smaller units of operation are seen to be necessary. To add to these structural peculiarities of agriculture, if we add unpredictability and variability of climatic conditions the prospects of centralized decision making proving successful in agriculture become even less. Within and between countries there would be such a large measure of difference in all these essential factors that no single pattern of farm organization can be confidently expected to yield maximum benefit. The only common feature of all farm patterns would be the relatively larger importance of decentralized planning and operation, as compared to non-agricultural enterprises. The actual record of developing countries supports this selective thesis.

URBANIZATION AND AGRICULTURE

The process of modernization of developing societies is characterized by a growing application of science and technology to methods of production. On account of the growing scale of operation and of the growing interdependence of different sections of the community modernization is also accompanied by urbanization. This dual process to be natural and healthy must extend to the mass of the people. The emergence of a few populous centres or of a few units of modern industry do not by themselves constitute the main current of the modernization of a society. As the traditional industry of the people absorbs the benefits of modernization a transformation of agriculture into a progressive business takes place. This in turn leads to diversification of industry, lessening dependence on agriculture and proliferation of urbanized neighbourhoods. The stark juxtaposition between urban and rural areas is avoided by the natural process of urbanization of the whole community. While growing size of a place is a concomitant of urbanization it would be wrong to measure the progress of urbanization by the size of a place. Urbanization is primarily a pattern of work and of living; only incidentally it is a matter of the size or density of population. In so far as agriculture absorbs methods of scientific

progress, and in so far as the ways of living of agriculturally employed population conform to higher standards of civic progress urbanization and advanced agriculture would progress hand in hand. By a process of improved communication and dispersed location of industry a widespread pattern of urbanization can be attained without creating a gulf between prosperous cities and decaying villages. To some extent conscious effort to avoid this evil has to be made even in advanced countries. But in countries which are experiencing the early impact of externally induced forces of modernization, a much more deliberate attempt is needed to ensure that modernization casts its roots in the native soil and that it flowers all over the land.

POPULATION AND ECONOMIC DEVELOPMENT

One of the advantages of rapid movements of international exchange is the obvious improvement in medicine, especially in curative medicine, and in the control of major epidemic diseases from which most of developing economies are benefiting. The effects of this change have been all to the good so far as promotion of human welfare is concerned. The pace at which scientific knowledge and industrial skills move across the frontiers of nations are, however, nothing like the pace at which the final products of the industry of advanced nations find their way into the hitherto backward parts of the world. Intercourse among nations does not as easily lead to the progress of knowledge and industry as it leads to an improvement in mortality rates. The social, economic and cultural advantages to be expected from a better system of education and research and from an advanced type of industry are lacking in a society which is benefiting only from some of the end products of advanced civilization. The advantages created by better systems of medicine and health must be accompanied and matched by similar advantages of education and industry, so that better health may mean better welfare. As most of the hitherto backward communities are largely rural, the improvement in their standards of knowledge and of occupational efficiency, to be sufficiently widespread and effective, must extend to agriculture, that is to the best methods of using land resources. A predominantly agricultural society will not show signs of a major change unless and until such change occurs among the rural people in their ways of living and employment. Agrarian development is thus basic to any scheme of the modernization of hitherto undeveloped societies. Whether it is productive efficiency or social welfare the progress of these communities must be measured by the extent to which the common mass of rural population has become more productive or more sophisticated and more happy.

LAND OWNERSHIP

In its institutional aspect agrarian reform entails adjustment of opportunities for the use of land. Assured opportunities create rights and therefore agrarian reform has to start with a clear concept of a legally supported system of landholding. Traditionally land, like other natural means of human existence, has been treated as the common possession of society, and its use has been regulated according to customs which are so universally accepted to be socially beneficent as to merit the support of collective authority. This is obviously true of what are described as tribal tenures where cultivation is done by big family groups, which are constituents of a tribe, and which more often than not are on the move from year to year seeking fresh or at least refreshed land. In essence, even the much coveted rights of free hold in some modern societies are based on no greater sanction than that the community which supports them by legal sanction, acts on a conviction that such a tenure makes for a collectively desirable relationship.

As agrarian reform almost invariably involves some readjustment of rights in land, and as any such step always rouses strong feelings among holders of vested rights it is necessary to realize that there are no natural rights to land, or to any other possession in society. The only natural right was the one announced long ago by the successful leader of a barbarian tribe who claimed the possession of Rome on the "eternal principle that they should take who have the power, and they should keep who can". In a civic society changes must come through processes of law, but the law itself is justified by its contribution towards the fulfilment of generally accepted social objectives, material as well as moral. While in regard to means of consumption possession is desired for direct satisfaction of the wants of the possessor himself, in regard to the means of production merits of a system of holding are to be judged by reference to the contribution which it makes towards promoting better production in the interest of the holder as well as that of the community.

Property in means of production in a developing economy must bear fruit in promoting most productive use, and in a democratic state opportunities for use of means of production have to be made available on a basically equalitarian principle. In the pursuit of these ideals institutions of landholding and of land use must be kept under consistent review with a view to ensure that they neither create a private monopoly nor do they entail social waste. Land policy is a part of social policy in the sphere of possession and use of means of production. In the

very nature of things, in a dynamic society it cannot be a once-and-for-all step taken only in relation to a section of the population. It must be consistent with overall social policy and it must continue to promote the values of social welfare which a democracy cherishes.

STATE AID

In a welfare state, whether it has formally adopted a policy of economic planning or not, the whole nation is interested in setting on foot forms of organization and channels of investment which are designed to broadbase and maximize welfare. If the state is a democracy it would normally try to reduce governmental action, especially action by centralized agencies of government, to a minimum. It is now recognized that through appropriate means a democratic government has to ensure that investment of resources, including human resources, is so directed as to produce the overall conditions in which individual units of free enterprise can be expected to maximize economic returns and social satisfactions within the major guide-posts of social policy. Matters like price and wage policies, taxation measures, educational programmes fall in this category. It is not so easily recognized that in a developing economy a large variety of investments are initially needed in fields which may not offer assured competitive return to private investors. Irrigation, transport and power are well-known instances of this sort, and public enterprise in all these has come to be not only tolerated but even welcomed by the private investors themselves. Of a less obvious sort are investments in building up institutions which are ultimately intended to play a significant role in a democratic and progressive economy. This is true especially of co-operative organizations. The purists, especially from the more advanced countries, are almost completely incapable of appreciating how governmental personnel or funds engaged in co-operative organizations can leave untarnished their co-operative character, or help them to build up progressive strength. If the state concerned is itself firmly convinced of democratic and co-operative values it can, and it must, the nascent, co-operatives on the way to growing self-reliance and efficiency.

An act not only of wise statesmanship, but also of unusual self-restraint, is involved in following such a policy with requisite generosity and unflinching faith. This is a difficult, but not an unrealistic or rash, policy. The co-operatives which were established as a compulsory measure among the beneficiaries of land reform in Egypt, and which were run in initial stages largely with governmental funds and personnel have now been made fully self-reliant as regards personnel, and the

resources which they need are supplied by appropriate institutions in the normal way. In India state-partnered co-operatives have become an accepted policy, and at least in some states the governmental element in management has been fully withdrawn. In many of the earlier efforts of land reform not only were constructive aids to efficient farming grossly neglected, but inhibitions about state action in the field of supplying such aids were treated as good enough excuse for the miserable results which followed. As a rule, beneficiaries of land reform would be without the resources which are needed to make a success of their new venture, and private sources would be inadequate to supply these wants in a spirit consistent with the social and economic objectives of land reform. Hence a full-scale state support to all the institutional and technological requisites of agrarian development must be considered to be essential accompaniments of land reform.

AGRARIAN MOVEMENT IN INDIA

That in the country generally, and specifically in rural areas, there is new stirring since independence is undoubted. In so far as the land reform measures of several state governments constitute an articulation of, and a response to, this urge to have an equal opportunity of self-expression they have met a definite need. A sense of greater social and economic equality of opportunity corresponding to the rights of equal citizenship pervades the rural areas. To some extent the community development and the national extension movements have supplied institutional and material means of constructive use of the new opportunities thus opened to rural people. But the general tempo of industrialization in the country has not yet reached the stage where the pressure of population on land may be said to be easing off. So long as there are more people engaged in agriculture than can find useful and full employment in it the productivity per man employed in agriculture is bound to be low. A general shortage of scientific and technological personnel, and paucity of essential aids to progressive agriculture such as fertilizers limit the rapid growth of productivity per acre as well.

As is well known, during the Second Five-Year Plan, owing to these drawbacks, and owing to institutional and administrative imperfections even the potentialities of newly irrigated land were not actually exploited according to expectations. The lessons of this experience have influenced the Third Plan to some extent, and yet one cannot avoid a feeling that the full measure of the importance and need of agricultural development in the new context of land-reform schemes have yet to be fully realized. Each problem such as food, raw material, seed, fertilizer

and credit tends to be considered mostly in isolation. A plan concentrated on productive and technological transformation should necessarily lead to a programme of major institutional reform and adequate financial investment. Probably to muster enough determination and resource for such a supreme effort to cross the hump, or to execute a convincing take off, may have to wait on some further progress in the economy as a whole. Be that as it may, but it would be wrong to assume that the hump has been crossed or that our total economy, including rural economy, has taken off from a stagnant to a progressive state.

LAND REFORM AND DEMOCRATIC PLANNING

In most countries, and especially in developing economies, there is some systematic effort at long-term planning for industrial investment and the agencies which are responsible for planning have to operate at all levels. Both the making of the plan and its execution are rendered more realistic and more effective by the participation of the people on the widest possible scale. This means that at least for the rural part of the plan unless the programmes of investment in agriculture are well thought out and are suitably provided for no assured basis for national economic development may exist. That is why all attempts at national economic planning which have not given agriculture the high priority which it deserves have not fully succeeded. So also, if planning is to be democratic people's participation must be on a level which is appropriate to their interest. For the rural people, their civic institutions are the village, block or district bodies. These bodies must be made increasingly responsible for the general aspects of agrarian reform within their areas. Especially for implementation of laws and for providing services the intelligent support of local bodies offers good insurance for a *bonafide* working of policies and measures.

AGRICULTURAL EMPLOYMENT

In most balanced economies, that is economies which have a variety of occupations in which their members are employed, economic development has been characterized by a falling percentage of people dependent on agriculture. In substance, this trend stands for the growing productivity of labour employed in agriculture. For instance, in the United States during the last fifty years the standard of productivity per person employed in agriculture has more than quadrupled, so that one-fourth of the number of persons who were needed to keep the rest of the economy going are now enough to do so. Land reform in a society, which has so diversified its economy as to draw away from agriculture a growing percentage of people, and which has so developed

productivity in the agricultural sector as to make this possible, can place increasing emphasis on productivity. Whereas in a backward or developing economy the emphasis of land reform is to ensure for as many farmers as possible access to at least a modicum of land, in a developed society, for the most part, the attempt is to ensure for the agriculturally employed part of the population the same level of earning and comfort as is normal in the industrial sector. Hence the emphasis is not on spreading possession of cultivable land, but to form optimum sized units for those who would remain in agriculture. Land reform has thus to change its objectives so as to meet the appropriate requirements of each stage of total economic development. Even the developing economies must keep in view the prospects of such change in the future. Land reform is an aspect of appropriate readjustment of agrarian institutions so as to meet the requirements of the economy. How fast the percentage of agriculturally employed population is falling is generally a good index of the tempo of economic change. Land reform must also keep pace with this tempo.

IMPORTANCE OF FOREIGN AID

Foreign aid has a special relevance to problems of accelerating the tempo of economic growth. There is need to emphasize that when projects of international aid to developing countries are under consideration the appropriate place of agrarian reform in the particular project, if that is relevant, and in any case, the place of agrarian reform in the country's plans of development taken as a whole must be specifically considered. The essential justification of international economic aid is the hope that as a result the receiving countries will attain balance and rapid economic growth so that they may eventually assume the position of full partnership in the world community. If this hope is to be fulfilled the large mass of rural population must be stirred to progressive economic activity, and this cannot be attained unless the full measure of land reform as well as of agrarian reconstruction and development is put into effect as a basic constitution of national plans. The World Bank is by no means unmindful of this crucial importance of agrarian reformation. In some of the country schemes of transport and irrigational development, financed by the Bank, an important stipulation regarding the reform of land system and of agrarian services in the affected areas has been specifically laid down. In a few cases the World Bank has directly assisted schemes designed to encourage institutional services in areas in which land-reform measures are contemplated. The main responsibility, however, must lie on the governments of the countries concerned. If they realize the crucial importance of institu-

tional and physical reorganization of their rural areas external assistance, both technological and material, will be found without much difficulty. In a recent case one country went so far as to offer to settle a very serious issue of international relations in exchange for a number of bull-dozers and tractors needed urgently to meet the situation created by large-scale agrarian transformation. Guns or butter used to be a juxtaposition of state objectives some years ago. We seem to be entering an age when guns or tractors may be offered as a significant choice of instruments of regulating international relations.

LAND REFORM AND PRODUCTIVITY

It is not necessary, nor is it universal, that land reform should even in the short run result in a diminution of agricultural productivity. In all conscience the ousted land-owners as a class are often so unmindful of their opportunities and responsibilities that things could hardly be worse under any system which brings the cultivator into complete identification with the land which he tills. Such a direct incentive to greater labour has been a positive influence in improving productivity. Where, as in Egypt, other means of production and technical advice have been made available productivity has definitely improved. The situation in all these respects is, however, variable from region to region, and some time may have to elapse before the disorganization with which land reform starts passes through all the positive stages of rehabilitation and development. Pending the fruition of developmental measures supplies of agricultural produce, especially of foodstuffs, may be adversely affected. Even the apprehension of such an unfavourable consequence is sometimes a deterrent to adoption of land-reform measures. Where a country itself cannot muster enough resource and determination to tide over the transition it should be possible to use international surpluses of agricultural commodities to help alleviate the period of temporary shortage. Recently an expert committee set up by the Food and Agricultural Organization has recommended that under the ægis of that body surplus stocks of agricultural commodities, which many of the advanced countries now find mostly unavoidable and inconvenient, should be utilized in an orderly manner to facilitate schemes of agrarian reform in the developing countries. The substance of these recommendations has been widely approved, and at least in terms of the needs of the growing urban population in developing countries it should now be feasible simultaneously to initiate agrarian and industrial development in countries seeking rapid modernization. This prospect has tremendous significance for countries of the old world, but

even more so for new nations which are coming on the horizon in Africa and some other parts of the world.

NEED FOR STATISTICAL KNOWLEDGE

The whole process of agrarian reform as part of a national plan of development calls for accurate collection of data and its sound and significant analysis. In a country, not far away from the frontiers of India, even the initial data about the land likely to be affected by some major schemes of reconstruction and development was found to be grossly wide of the mark when the schemes actually came to be launched. Data regarding human aspects of schemes of rural reorganization are generally even less comprehensive and less reliable. When we realize that major projects of rural reconstruction have to be initiated in newly settled areas of the world not only the need for collecting statistical data, but the need to have more serviceable alternative methods of collection to suit conditions of poor and backward countries, become more apparent. With us here some of the earlier problems of land settlement have already been solved, though in areas affected by abolition of zamindari tenure much more data have yet to be gathered before these areas can receive the kind of systematic attention which the ryotwari areas of old are accustomed to get. Right from land allocation, to framing programmes of agricultural extension and development much more needs to be known about the facts on the ground than is known at present. Policies and programmes based on aggregates and averages are apt to prove not only inapplicable but positively misleading when it comes to implementing them in individual cases.

This is true of almost all aspects of agrarian reform. Especially, when one takes in hand such an intensive and individualized scheme of concentrated agricultural development like the "package programme" introduced in selected districts one comes up against the inexorable law of nature, namely, that you cannot have in the fruit that which you have not got in the seed. The national plan, and even the state or district plans, of agricultural development can be made to appear plausible by presentation of rough and round figures, and one can walk away from responsibility for consequences by referring to the laws of averages and probabilities. But when one has the responsibility for advising individual farmers to make a plan for development during the year, as part of a long-term plan, the sheer impossibility of doing this without adequate data becomes obvious. I admire the operators of this programme for their spirit of enterprise and assurance in proceeding with it when neither the cultivator nor his friends know for certain either the extent of his

capital resources, or of his inputs, or of the likely outputs. Agricultural statisticians must help in filling these gaps, if need be, by devising new methods, even more urgently and more specifically than they have been able to do in the past. I wish that co-operation between makers of policies and programmes on the one hand, and practitioners of agricultural economics and statistics on the other, official as well as non-official, were closer and more timely than it is at present. A stitch in time saves nine is as true about statistical as of other covers. I trust that the deliberations of this Conference will go some way in impressing this truth on all concerned.