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# THE FUTURE OF AGRICULTURE

*Technology, Policies  
and Adjustment*

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PAPERS AND REPORTS

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*Agrarian Reform and the General  
Development Process in Recent Experience\**

AGRARIAN reform has gained the popularity enjoyed by headache pills. Development consultants nowadays are quick to prescribe agrarian reform to alleviate the agricultural headaches of developing countries. Formulating and carrying out an agrarian reform programme however, proves to be infinitely different from taking a pill. Pitfalls abound and often agrarian reform programmes seem to be creating additional problems rather than solving the first ones even if not in reality doing so.

The issues and questions on which I hoped a paper would have enlightened us are outlined below.

(a) The first issue concerns the process of formulating an agrarian reform programme. How does it get formulated? Who formulates it?

These questions surface when programmes do not get going or do not perform well. Critics, agricultural economists included, raise the charge that the programme is faulty because it was just a political gimmick of the politicians who do not know, nor are interested in, real honest-to-goodness workable programmes.

Is this really so? Do politicians not have any advisers? Obviously this is not the case. Political decision-makers have batteries of advisers, agricultural economists included. Is the question a matter of the advisers all trying to guess what the advisees like to hear? Or are they, in fact, called upon to rationalize decisions already made?

(b) Closely related to the first issue are the objectives of agrarian reform. How broad and general do objectives remain? How specific do they come to be stated?

On the highest level, the objective may be stated to cover the whole wide field of human existence—philosophical, political, legal, social and economic. On the more specific levels, strategic policy instruments become implied if not explicit. These lower-level objectives need a rigorous recognition of the specific problems and opportunities.

(c) Interrelationships of agrarian reform with the other development processes need attention. Are agrarian reform programmes set up as complements to other development activities? Are they looked at as a

\* In the unavoidable absence of the main speaker and his paper this session was opened by a contribution from Dr Iglesia and continued with contributions from participants. [Editor.]

substitute? Are they formulated to subsume the other functions of government which have existed for longer?

(d) The cream information that properly gets most attention deals with the results of the various agrarian reform programmes. The challenges offered in the questions of identifying the result variables to be measured and the measurement of such variables loom large. These challenges have yet to be tackled rigorously by the different branches of science. The agricultural economist needs to measure such variables as increased productivity, reduction of inefficiency, improvement in income levels equally if not more importantly than social justice or equity.

The effects of agrarian reform measures have to be measured. Such effects should be differentiated, ideally, from effects of other programmes and exogenous facts. The relationships between agrarian reform and general development have to be established. Ideally, cause and effect relationships have to be proved so one can say with certainty 'if you will have agrarian reform, you will have development'.

I hope that many others will give their views on these points and others which I have not raised.

Antonio Giles, *Peru*

We in Peru are proceeding rapidly in the process of land reform and I will outline some of the steps which we have taken. At the beginning of the process we made a comprehensive survey, including a cadastral survey, mapping and locating the farms. We divided the country into about ten regions and each region has a special authority for carrying out the reform. In each of the regions we divide up the land into about eight sectors and these are studied to decide where operations should start because land reform covers the whole area of the country. The assessment of priorities is simply to ensure more effective carrying out of the process of land reform. We then go to the first priority sector and try to assess how many farms we have and we begin with the process of expropriation of the farms, usually beginning with those above fifty hectares. After this, the national committee, created for the purpose of managing farms already expropriated, makes arrangements in order to have complete planning of the whole sectorial region. The process of designation is usually completed in about half a year. Since, because of the system under which they emerge, the farms are not necessarily efficient economic units, we try to merge certain farms in order to maintain the best farm size, by this means we try to base land in a co-operative way for the farmer. We normally arrange some 200–400 families in each co-operative unit, we join up communities which existed before together with the more industrialized areas and we make a kind of institution combining all types of community with the co-operatives. We also form some mixed institutions of traditional communities and co-operatives. The small and medium-sized farms are not expropriated, they continue working as they

were before. We try to work towards larger farms because it is important to have the most efficient areas reformed and usually the most efficient areas are the ones with big farms, these were in the hands of the richest Peruvian families and foreign owners. Of course there are other areas with sizes of farms of the traditional size and these were expropriated in order to keep the population of these areas from exploitation by the bigger farmers.

At the beginning of the agrarian reform we did not plan it this way; we started with the most efficient enterprises which were the most capitalized enterprises, for example, the sugar-cane enterprises. The problem we ran across in connection with these enterprises was that we did not have many people working because they were capital intensive. We still have these problems in certain areas and we cannot include the whole population of the locality. Our problem is how to include, after the land reform, the whole population within enterprises that are very good from the agricultural economic standpoint but are not so good from the point of view of the total distribution of land for the benefit of the total number of families. The co-operative ownership system, which is good from the point of view of economics, is not so good from the point of view of equitable distribution of land to the whole population. The new owners, which represent some 20–25 per cent of the rural population, will continue seeking their own interests, trying to get much more income, but there are 70 per cent of the rural population not included in the area.

This brings us to the point of the agrarian reform which is to create a much better agriculture with better production, improved income for the people concerned, to transfer income from agriculture to the rest of the economy, the income transfer coming through taxation and also through the price system. The price system was not adjusted in order to give more attention to the agricultural sector, the consumer is the one to benefit. My point is that an agrarian reform is necessary in developing countries because without it many cannot find a way to increase income. The agrarian reform is not enough in order to get more equal distribution of income amongst the people, it is not enough either in order to increase employment. There are a lot of areas in which there is underemployment and we have to come to think through agrarian reform into terms of the ownership of the whole economy not only of agriculture. Then we have to go on from agriculture to rural development planning, so we can picture it being possible that the whole population of an area could decide the type of techniques in order to utilize the whole labour force. Now some 20 per cent of the rural areas are deciding to produce in a much more capital intensive way than would be needed in order to employ most of the rural population.

Hossein Mohtashem-Nouri, *Iran*

Since a land-reform programme is considered as one of the most

important factors of economic development, I would like to describe Iran's experiences that have been gained during the course of implementation of the programme, which was successfully completed in 1971.

The agrarian reform of Iran in a real sense started in 1951 by the distribution of the crown land among the farmers. Eleven years later, in 1962, the first bill of land reform was put into effect for the whole country. According to this bill, the lands were distributed and sold to the farmers on very easy terms. A fair price was put on each plot, based on the average return of the land during the last three years, with a reduction of 20 per cent as subsidy to the farmers. The remaining 80 per cent was payable over 15 years.

The land-reform programme was implemented in three phases. This allowed corrective measures to be employed in the overall process, wherever it seemed necessary. The first phase, which has strong political significance in destroying the feudal landownership system started in January 1962. Each landowner was entitled to have only one village. The remaining villages were transferred to the government for distribution among the farmers who worked on the land. The owners were to receive compensation from the government in instalments spread over 15 years, while the farmers were to pay the government the value of the plots of land on favourable terms in 12 years. The price of the land purchased from landlords was based on the taxes paid by landowners.

In the first phase of land reform nearly 16,600 villages and 1041 farms were distributed to 787,000 farm families, affecting over 3.94 million of the rural population.

The second phase which came a year later, in 1963, aimed at bringing public endowments, the one-village landlords and those not yet affected by the land reform into the picture. They could keep a maximum of 30 to 150 hectares (irrigated land) depending on the fertility of land. The remaining land could be either shared with the farmers, sold to them outright, or leased for 30 years. Over 90 per cent chose the last alternative. This phase affected 54,032 villages and 20,000 farms with over 2.5 million farm families, nearly 12.3 million persons.

The third phase of land reform began in March 1970 and provided ownership to 1.2 million farm families. Under the law for the sale of rented land 305,000 landlords sold their rented lands to about 842,400 tenant farmers by mutual consent.

By September 1971, the land reform was completed, covering many millions of farm families who constitute the largest portion (58 per cent) of the country's population.

The successful completion of this major reform has paved the way for better land-utilization, and the creation of large-scale agricultural operations such as: farm corporations, production co-operatives, agricultural co-operative schemes and agribusiness units. Along with that the construction of modern villages, water supply systems, better roads, schools, clinics, houses, cultural houses, an establishment of social security, insurances, technical training, extension services, better

marketing system were undertaken by the government in order to increase productivity and improve the social-economic condition of the rural people and eventually reduce the gap between the level of income of rural and urban people.

The need for promoting the co-operative movement was clearly recognized shortly after the commencement of the land-reform programme, in order to fill the leadership gap created by the removal of the landlords. The increasing number of co-ops and, later on, of co-operative unions took over the function of former landlords. The multipurpose rural co-operatives provided all kinds of support to the farmers who had become the land owners. In addition, the central organization for rural co-operatives (CORC) in compliance with the Ministry of Co-operation and Rural Affairs, was established in 1963 to help the expansion and strengthening of rural co-operatives. So far, 8405 co-operatives with a total membership of 1,690,787 have been formed and 7816 of these co-ops have joined in 120 co-operative unions under this system.

Farm corporations are new phenomena. They were formed in 1968 as a practical method of changing the traditional structure of agriculture into a market economy. With the execution of the land-reform programme, the political, social and economic goals have been fulfilled, but it resulted in a great portion of the cultivated land of the country being divided into small uneconomic units.

In order to prevent the further division of land between the farmers' descendants and also to integrate the small villages and farms, so that mechanized operation would be possible, the farm corporation was established.

Under the statutes for establishment of farm corporations members turn over, on a permanent basis, their rights of land utilization to the corporation without relinquishing their ownership. In turn they receive shares in proportion to the value of their land. In addition members can receive wages for the work they perform, according to their skill.

The minimum size of each farm corporation is 1000 hectares per crop year which would be increased to 10,000 hectares. This allows full mechanized agricultural operation and, as the result, higher production and efficiency. So far 52 farm corporations have been established. During the next five years, their number will increase to 143 and in the next ten years to 1000.

#### R. A. Sabado, *Brazil*

Here we have a complete legal and conceptual framework for land reform. In a number of Latin American countries attempts at land reform have been made which really do not meet the aspirations of their peoples or their goals. In order to find the ultimate factor which determines the kind of land reform to be employed it is very closely associated with the

concept of planning and the concept of man himself, this clearly has moral elements. Therefore if we want to consider the concept of land reform we have to decide on the fundamental points of land reform, we have to give weight to sociology, and we would have to combine this with other subjects, for example economics, in order to find optimal solutions.

Therefore when we have to face a difficult land structure in view of the social and economic condition where the solution would be land reform and the land-tenure structure, two measures can be applied on an initial base. First redistribution of usable land increasing the number of economically viable farms. Secondly re-incorporating a number of productive units, that is, combining them. It so happens that in many areas, including Brazil, where there are still agricultural areas to be exploited and yet to be settled we also have to consider the aspect of colonization or recolonization. The traditional concept of land reform, would be the transfer of the decision-making power regarding the use of land, we have to consider this in relation to what contemporary experience suggests, namely the destination of agricultural income.

We wonder what really would be the best solution if we only applied the first two hypotheses. On a contemporary basis would this really be correct and would it meet the needs of the rural population? If we are aiming at social justice to avoid forces in human society that are aggressive and destructive of human dignity I would certainly be in favour of land reform on a comprehensive basis but if we consider that the basic factor is land and that the idle unoccupied factor is labour then we are faced with another syndrome which makes up the sociological picture. Land tenure is usually private, something which has been going on for thousands of years, private property seems to be part of the psychological nature of man, part of his emotional stability, therefore agrarian reform is an act which should be undertaken by the ruling power transferring ownership and the decision-making power in the use of land from the present owner to the hands of others that are not the owners of land but are the agents of the productive process, but it is not recognized to take the land from one party and to deliver it to another and until this occurs it will not be a thorough land reform. If the decision-making power is not transferred this is a form of process rather than a substance.

#### L. Krishnaswamy, *India*

Agrarian reform in predominantly agricultural developing countries seems to be more a political subject than an economic one. Co-operative farming has not succeeded because the farmers are not willing to part with the ownership of the land as the ultimate success of the co-operative farming will be just like collective farming on all operational matters. Again land ceiling is an important factor in agrarian reform. In some countries the low limit of ceiling has discouraged farmers and they have shifted their cultivation from the crops covered by land ceiling regulations to other



crops. In some countries low ceilings have not allowed progressive farmers to use mechanization efficiently. I would suggest that world organizations like the World Bank should undertake research surveys in agricultural countries relating to each crop and suggest suitable means to be adopted in handling the problem.

Yen-Tien Chang, *Taiwan*

Agrarian reform in South-East Asia, the three-step land-reform programmes in Taiwan can be taken as an example.

The so-called three-step land reform, including rent reduction, sales of public land and Land-to-the-Tiller Programme was implemented from 1949 to 1953.

Briefly speaking, the first step, rent reduction, which was enforced in 1949, reduced the rental paid by tenants to the landlords from 50 per cent of the annual yield to 37.5 per cent of the annual yield of main crops, and the tenure was fixed for at least six years instead of the former year-to-year basis. The annual yield of main crop was fixed by 'Rent Reduction Committees' of townships according to the grades of land. Any production beyond the fixed yield was enjoyed by tenants alone, and the landlords had no share.

These measures generated greatly the farmers' incentive to produce.

The second step of land reform, the Sale of Public Land, which was implemented in 1951, was a transitional step to the creation of owner farmers, converting tenants into owners by selling a portion of the government-owned land to the tenants. The price was fixed at 2.5 times the annual yield of main crops to be paid in 20 instalments in ten years.

The third step of land reform, the 'Land-to-the-Tiller', which aimed at turning all tenants into owners, was the final goal of the land reform in Taiwan. This was implemented in 1953, two years after the Sale of Public Land. The main points of this programme are: (1) land owned by landlords in excess of 3 hectares of paddy land or 6 ha of dry land was compulsorily purchased by the government and resold to the tenants, landless farmers and other eligible persons. The price of land was also fixed at 2.5 times the annual yield of main crops, and was to be paid off in 20 instalments in 10 years. The landlord was paid as compensation 70 per cent of land bonds in kind and 30 per cent of government enterprise stock shares. These measures benefited both tenants and landlords. Most tenants became owners and most landlords turned into shareholders of industrial enterprises.

In short, after land reform 90 per cent of farmers have become owners and about 12 per cent of land area is under tenant cultivation; the results of land reform laid a solid foundation for agricultural development and raised the income of farmers. Thus the rural purchasing power was highly enhanced, and furnished a vast market for industrial products and helped the accommodation of capital for industrialization.

After 20 years of land reform, agricultural production increased by 150 per cent, particularly livestock products increased by 4 times and fishery products by more than 5 times. Many new products such as mushrooms and asparagus were introduced to the island after land reform. Now Taiwan is the world number one exporter of mushrooms and asparagus. Total export value of farm products accounted for U.S. 600 million dollars. As a result of industrialization the value of foreign trade amounted to 6 billion dollars last year.

Other aspects of development are numerous. Compulsory education, for example, has extended from 6 years to 9 years during the past decade. Ninety-seven per cent of school age children are now in school.

Finally, I would like to call to your attention that land reform is not a panacea that all developments can depend on it, and there are many requirements or prerequisites for implementing land reform. Among them cadastral records and farmers' organizations are most important. More paper works, such as Agrarian Acts and regulations, are useless.

#### Abdelmajid Slama, *Tunisia*

Most of the speakers have told us about the conduct of land reform but not about its outcome. I want to give the results and show what was the real issue in implementing land reform.

The Tunisian reform which took place between 1962 and 1970 was basically collectivization with the setting up of co-operatives in different forms. The objective was to increase production by means of modernization, intensification and diversification. Why did we think about land reform? In 1960 Tunisia had ample land, it was in the hands of government and we had to find some means of using it. At the one extreme the government might take it over while at the other was to seek a solution through land reform; the latter was chosen.

We did not have an increase in production. We even lost some of our means of production; livestock were reduced drastically. Our conclusions were that unless the people understand what is meant by land reform, unless they agree and ask for it you will not get much success. One factor was very important, this was the speed at which you implement it. I visualize land reform as a technological change and adoption of new technology is not easy; it takes time and the experience varies from country to country. Hence the human factor was regarded as a principal factor in the partial failure of the land reform. We feel that land reform is a matter of a generation; if you want land reform in the 1970s you must start educating your people in the 1960s and the experience of the socialist countries shows this.

#### José Gomes da Silva, *Brazil*

There are two generalized preconceptions about the question of Agrarian

Reform which also appear in this Congress. The first concerns the preconception ('bias') relating to the indiscriminate division of the land and is held even by the most respected economists. As a result there arises a confusion between 'owner' and 'property'. The object of the reform is to create new owners, not necessarily new properties. That strategy can affect the design of the production units of the 'reformed' sector, giving rise to group agriculture (Brazil), Mutual Agricultural Societies—SAIS (Peru), 'Kibbutzim' (Israel), etc.

The second preconception refers to the lack of assistance, constantly brandished by the counter-reform. Agrarian Reform means the entry into a phase of progressive agriculture, which necessarily implies the existence of the entire list of credit facilities, rural extension, formal education, etc. To try to carry out a reform without technical assistance is somewhat like a doctor trying to perform an operation without any sterilization. The patient is condemned to a certain death. Besides, if all this social equipment is at the disposal of conventional agriculture and of the latifundista sector, why not place it also at the service of the beneficiaries of the reform?

Sulaiman Kakli, *Pakistan*

Pakistan has had two land or agrarian reforms in recent years—one in 1959 and the other in 1971. The latter places the ceiling on individual holdings at 150 acres of irrigated land or 300 acres of unirrigated land or an equivalent of 12,000 produce index units plus an allowance of 2000 produce index units for those owners who owned a tubewell or a tractor before 20 December 1971. The excess land is to be resumed by the government *without* compensation for distribution among the landless or cultivators owning holdings of less than economic size.

All state land undisposed of is not to be auctioned as hithertofore but is to be distributed also among the landless cultivators and those with holdings of less than economic size.

Some of the burden of costs of inputs has been shifted to the landowners who will pay the full cost of land revenue, water rates and other taxes and will share with the tenant 50 per cent of the cost of fertilizer and seed.

A tenant cannot be ejected unless it is established that he uses the land in a way which is destructive to its productivity.

The procedure for disbursement of agricultural credit has been simplified with a view to enabling the small farmers to receive loans from the lending agencies quickly.

Gershon Kaddar, *Israel*

Most speakers advocated co-operatives as major instruments of agrarian reform. Experience shows that even in the best of cases some co-operatives will fail to perform adequately. It is therefore necessary to make

contingency plans to provide supply and marketing services to small farmers who are affiliated to non-functioning co-operatives. Without them there may be serious damage to production and welfare in the wake of land reform.