

seminar report

Institutional Innovational Reform: The Ladejinsky Legacy

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Unfinished Business in Rural Development

In October 1978 the World Bank and the Agricultural Development Council jointly sponsored a seminar in Kyoto, Japan, honoring Wolf Ladejinsky, economist, publicist, and humanist.

Ladejinsky is perhaps best known for his contributions to the post-war land reform programs in Japan and Taiwan. Subsequently he worked with the World Bank for a number of years in the development of lending strategies to strengthen the rural economy of India.

His life-long concern with the welfare and opportunities of rural people in low income countries dictated the theme of the seminar. What measures have proved their worth in promoting agricultural and rural development? Particularly, what has been learned about land reform measures in the years since World War II? What are the problems in orchestrating technological change, institutional reform, and other resources for agricultural development? What is the role of external donors and leading agencies?

The material that follows is taken from the papers and also from the spontaneous discussions of the seminar. Rather than try to summarize each presentation, we have tried to select portions that given the flavor and some of the key ideas each speaker presented. It should be remembered that each paper developed its ideas in more depth and presented more supplementary data than could be included here. A complete volume of proceedings is also being prepared for publication.

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The Ladejinsky Legacy: His Impact on Agricultural Development Ideas and Policies

The fundamental propositions which guided Wolf Ladejinsky's concern for the welfare of rural people introduced by Montague Yudelman and outlined in detail by Louis Walinsky.

MONTAGUE YUDELMAN

As you all know, Wolf Ladejinsky was working for the World Bank at the time of his death. So, in a sense, we felt it was our responsibility to organize a tribute for him because we all regarded him so highly and were so impressed by the work that he'd done. The decision was to hold a symposium that would focus largely on the unfinished business of Asia.

Wolf's direct influence in the Bank was felt mainly in relation to our work in India. He was a member of the famous mission which in the mid-60s set the pattern of a strategy which the Bank has since supported by loans of over \$1 billion to that country.

Wolf's influence continued. He was the first to articulate the Bank's great concern with rural poverty and rural development as we now define them. He also knew the limits of what an institution like the Bank could do. Where other economists have tended to focus their discussions of agricultural development on questions of size of holdings, economies of scale, scale-neutral technology, etc., Wolf insisted on the relevance of corruption, political power, the political process and practical politics.

Wolf was not one who thought you should weigh or number or measure everything, but he felt very deeply about humanity, and he did add a dimension to our work at the Bank. He, as much as anyone else, helped us to realize our responsibility to the poor

people in the world, a responsibility that the Bank now tries to assume with much greater earnestness than it did prior to Wolf's influence.

LOUIS WALINSKY

Wolf Ladejinsky spent the last thirty years of his life in Asia, and that thirty years was devoted to the cause of agrarian reform on behalf of hundreds of millions of people: submarginal farmers, tenants, sharecroppers, and landless laborers who had become his human as well as his professional concern and whose cause he had made his own.

His fundamental proposition was that in a world in which mankind's best hope depends on fruition of the democratic dream, to which communism represents both the major threat and the most likely alternative, the role of Asia is crucial.

Proposition two was that the welfare of the Asian people will play a definitive role in this outcome. Every Asian consciously or unconsciously aspires for a measure of better living conditions, better health, better social status (or greater equality of status), better government, greater participation in local and national affairs, and a host of other values which spell out the ideas of human welfare and the dignity of man.

Proposition three defined agricultural progress as basic and essential to economic development and welfare, in Asia as in every other region characterized by agrarian and developing societies. Ladejinsky was far ahead of his time when he perceived in the early 1950s that the developing countries were making a critical error in treating industrial development as the high road to economic growth at the cost of agriculture and overall economic development.

Next proposition: where the land-man ratio permits, redistribution leading to a widespread land ownership is the best way to provide the incentives necessary to agricultural investment, modernization, increased output, and higher levels of living. Where this ratio will permit only a limited redistribution, the most practicable solution to the problem of equity and incentives lies in achieving a truly secure land tenure for tenants and sharecroppers, combined with tolerable ceiling rents.

His next proposition was that widely distributed land ownership and secure low-rent tenancies do not alone insure the success of an agrarian reform. They must be accompanied by the provision of adequate and secure water supplies, by effective institutional arrangements for essential inputs and the credit necessary to obtain them, and by the extension services needed to guide small operators in their efficient use.

Basic agrarian reform is inevitable, he thought. Its character is essentially revolutionary. Agrarian reform necessarily involves a drastic redistribution of

property and income at the expense of the landlords. It becomes a revolutionary measure when it diminishes their political power and social status as well. Thus the key to who makes an agrarian reform and whether it will be successful is political. "The built-in landlord opposition, abetted by public servants, can be dealt with successfully if the political leadership is bent on carrying out its goals."

Was Ladejinsky right in seeing the peasant as the center of that economic and political stability which is essential to democracy? Has it not been the frustrated dissatisfaction of the urban proletariat, rather than the "alert misery" of the peasantry, which has eroded the political base of weak parliamentary governments and opened the gates to military and other authoritarian rulers? I submit that these events have confirmed, rather than weakened, Ladejinsky's theses. For what was it that sent the teeming millions of impoverished and miserable landless laborers and cultivators streaming into the cities, where they could find neither employment, nor housing, nor schooling, nor health care for their children, nor escape from misery? Wasn't it the failure of governments to address the problems of the countryside, and their misguided overemphasis on industrialization at the expense of agriculture? It was with a remarkable prescience that Ladejinsky wrote in 1954, "Four-fifths of the people who populate the underdeveloped areas are peasants. Agriculture, not industry, is the pivot of their lives in all its principal manifestations. Industry has made but a small dent in the character of Asia, notwithstanding the industrialization of Japan, the oil gushers of the Middle East, the tin mines of Malaysia and Siam, the jute and cotton mills of India. The factory may bring material advancement to the Asians some day, but that day is in the future. The heart of the problem of Asia today lies in the countryside; it is on the farm where solutions must be sought and found."

Ladejinsky's influence must be measured in terms of his impact not only on agrarian reforms accomplished, but on economic planners and development workers in the developing countries and the institutions with which they are associated; on the programs of institutions like the World Bank; on the thinking of academics and research workers in the field and their institutions; and on the new generations of university graduates in both Western and developing countries who have been and will continue to be inspired directly or indirectly by his thinking.

W. DAVID HOPPER

Ladejinsky's writing seldom touched profoundly on the issues of generating rural development, that is, of expanding rural output or of transforming traditional agricultural methods by the application of modern technologies. The desirability of or the need

for such a transformation did not escape his attention or, on occasion, his comment. But this was not at, or even near, the core of his work. Yet Ladejinsky's life and his work were wholly committed to the establishment of foundations essential for agricultural and rural progress. He did not measure progress on the graph of increased yield; he measured it in the economic dignity of those who farmed.

Long before poverty became the *avant garde* fashion of development scholarship, Ladejinsky stalked the grimy pathways of hopeless desolation. He wrote with a deep underlying anger, an anger frequently moved to despair when massive wrongs that could be righted with the will to put a few scratchings on a piece of paper were left unrighted by an indifference to exercise that will.

Ladejinsky was deeply influenced equally by the liberal traditions of 19th Century Europe. He believed that all people were capable of accepting and using intelligently the responsibility of controlling their own destiny, especially so if the rules of national economic affairs included provisions for help in times of extreme emergency and were designed and enforced to prevent unscrupulous exploitation. He distributed as much the exercise of power by the state as the use of power by classes of privilege. Governments could be paternal, but they could also be stupid, inflexible, insensitive, even evil, and the weak needed as much protection from political and bureaucratic caprice as from the vagaries of vested prerogative.

Ladejinsky sidestepped some important questions surrounding poverty. Too frequently, one gets the feeling that he held the 19th century view that the size of the economic pie was relatively fixed and that the struggle between classes was a struggle over how the slices were to be cut. The fact that the whole pie could be increased seemed not to impress Ladejinsky until the adoption of the dwarf, high-yielding grain varieties forced him to acknowledge that something was happening in northwestern India that was adding to farming prosperity. Even when incomes rose, he reminded us that there were also costs. Some tenant farmers were dispossessed, the landless labourers did not share equally in the benefits of change, big farmers more than small farmers enjoyed disproportionate increases in income, and so on.

Ladejinsky's true concerns never placed economic poverty in the "center of the piece." The distribution of material goods was only a symptom. True poverty was the lack of dignity a man or woman or child suffered when access to livelihood could be barred at the will of another.

Ladejinsky wrote little about political processes. Instead, he lived them. He had an acute sense of what was needed politically to accomplish institutional change. He had an unflinching eye for political policies that failed in accomplishment because of faulty or halfhearted implementation, or obstructionism, or

deliberately deficient or unconsciously defective legislation. His observations often led to conclusions of how policies could be made more effective by better field techniques, techniques that he outlined in considerable detail.

It was in his Greek Revolution writings that he laid bare the extramural institutional framework that must be provided to small landowners and tenant cultivators. Credit and the cost of credit, market access and the costs of marketing farm products and purchasing production factors, forcible use of landlord credit and supplies, inequitable cost-sharing between landowners and tenants, off-farm labour opportunities for small cultivators, are but a few of the elements that his pen revealed in incisive detail.

In summary: the Ladejinsky work has added great richness and depth to our understanding of the human interplay that is the heart of traditional and developing rural societies. It is not an easy guide for the narrow, disciplined scholar of development processes or for the development engineer unconcerned about bringing about social reforms. He was an observer, not a theorist. And the observations he recorded were given value from his own unique wide-ranging intellect, not from the confining boundaries of systematic scholarship. He brought to his work a fervor, a driving sense of mission, a faculty for discriminating between good or evil, a deeply held and unshakeable philosophy against which the actions of men were seen and judged. In truth, his legacy is to remind us that there is a right and wrong that springs from a universal humanism; that narrowness and intellectual debate and selective scholarship will muffle and becloud the sense of justice and charity we all know to be fundamental to human existence. Ladejinsky asked the right questions, and he gave us the right answers. This is his legacy. We are the poorer if we ignore it; we are the richer for having known him and for his sharing with us his indignation, his understanding, his insight, his hope, and, above all, his humanism.

V. S. VYAS

Ladejinsky shared with Indian intellectuals a basic humanism. But what was lacking in Indian intellectuals, and what Wolf provided in his own observations and interpretations of events, made him even more popular, and that was a sense of relevance.

Wolf Ladejinsky's methodologically best contribution, and it was unmatched, was made in his notes on field trips—to Bihar, to the Punjab, to Maharashtra, to Bangladesh. These are, to my mind, the best examples of the kind of analysis a highly skilled and observant person with a very clear frame of reference can provide. In India we have the tradition of either collection of facts (our people have really gone far in perfecting such instruments as the sample survey) or

deductive analysis based on prior reasoning (models, and so forth). The type of synthesis which came about in Ladejinsky's writings is what endeared him and made him a very prized type of acquaintance for all those privileged to know him.

Agrarian Reform in Asia: The Japanese Experience

Background on the Japanese land reform—its origins and its consequences—is provided by Toshihiko Isobe and Keiki Owada.

TOSHIHIKO ISOBE

Immediately after the end of the War, the Japanese economy was on the verge of total collapse. Its agriculture was no exception. But, as fears were entertained that tens of millions of people would die from hunger, a great number of jobless fled into rural areas for food and jobs, from ruined industries and disorganized military service. In the two-year period 1944-46, agricultural workers increased by 60%, from 11,667,000 to 18,486,000. In the latter year, the agricultural labor force hit its historical peak, accounting for about 50% of the total manpower of the country.

Land reform was carried through in the midst of such turmoil. Within a period of four years, from 1946 to 1950, all tenant farmers became owner farmers. The rate of the tenanted to the total farm area in the country was reduced from 44% to 13 per cent. The system of land ownership by non-farming owners, which had been prevalent before the reform, was completely cleared away. Broadly, the land reform had two important direct economic effects.

First, it had a motivation effect. Former tenant farmers, now converted to owner farmers, were highly motivated to improve their production, productivity, living standards and fate. Those who produced rice, which is the staple food of the Japanese, tried hard to adopt the practice of "earlier seeding and earlier cropping" so as to evade the damage from typhoon. For this purpose they endeavoured to improve beds for rice seeding, irrigation facilities and the arrangement of paddy fields, and to introduce high-yielding rice varieties, better chemical fertilizer, better insecticide and better farming tools and machines.

At the same time, the land reform had a constraint effect in that the pettiness of farm land holdings seriously restricted agricultural performance. As of August 1950, just after the completion of the reform, 91% of the total owner farm households owned less than 1.5 ha. of farm land: 43% had less than 0.5 ha., 32% had 0.5—1.0 ha. and 15% had 1.0—1.5 ha.

Three kinds of conflict have arisen, all related to the pettiness of farm land holdings.

First, there was competition between the agricultural sector and the non-agricultural sector over the use of farm land. The Government's policy to establish new industrial centers throughout the country brought conflict between land prices based on higher productivity in industry and lower productivity in agriculture.

Secondly, within the agricultural sector there emerged a conflict between the proprietorship right and the utilization (cultivating) right of farm land; that is, a conflict between the high land rent and the low wages of farmers.

The third conflict was between individual farmers' interests and the collective interests of the community in relation to the utilization of farm land. Farming attitudes have arisen which result in environmental pollution, decreased soil fertility, and excessive fatigue for farmers themselves. The collective interests of the community, and in the long run the farmers' own interests, suffer from this conflict between the private costs and the social costs.

The smallness of farm units has constrained the growth of agriculture in Japan and hindered an adequate adaptation to rapid growth of the economy and to the progress in farming technology. In recent years, farmers have tried to rid themselves of this constraint in one way or another.

1. Contract farming (ukeoi kōsaku)

One sign of growth is the progress of contract farming. Farmer A commissions Farmer B to operate Farmer A's land. All the crops which Farmer B raises belong to Farmer A. Farmer B receives from Farmer A a part of the crops a commission, in the predetermined proportion.

Farmer A holds not only the proprietorship but the right to farm his land. There is no owner-tenant relationship; therefore this practice is compatible with the strict temporary regulations provided for in the Farm Land Law of 1952, which enables a part-time farmer to expand his farming operation. Before land reform, a relatively large land owner lent his farm land to a number of petty tenant farmers. In contract farming, a relatively large full-time farmer contracts with a number of petty part-time farmers to operate part or all of their farm lands for them.

2. Group farming (shūdan eīno)

Another sign of the possible new growth of Japanese agriculture may be found in the development of group farming. In one approach, a number of farmers form an association to jointly own machines and equipment which they use individually or jointly. In a second approach, such an association

also serves the function of joint development and joint use of farming techniques and know-how. In recent years, associations of the former type have tended to increase and those of the latter type to decrease.

The mortality of joint farming associations is rather high. Of the total associations that existed in 1972 only 65% survived in 1976. Reasons for dissolution included the completion of the depreciation for those machines and equipments held by the association, levelling-off of the farming techniques and know-how among farmers, and a sense of inequitable benefits among members of the association whose level of reliance on farming greatly differed.

Japan's era of rapid economic growth is over. General part-time farming had brought the incomes of farm households above those of urban workers. That development was accompanied, however, by reduction of employment opportunities in agriculture and a decline in the farm land utilization rate. The aims of the Basic Law for Agriculture have been fundamentally betrayed. Agriculture has been deprived of its able prime manpower and high-potential farm lands in the suburbs of cities. With inferior manpower and farm lands, Japanese agriculture has to reorganize its structure. Stagnation of farm land liquidity, increase of farm land price, and the rise of the price of rice are three factors which have constituted a vicious cycle.

Quite recently, efforts have been made to reintroduce the classical rotation system of farming (or mixed farming), which combines stock raising and cultivation in an organic way. However, its introduction has been very difficult because of relatively lower producer prices of agricultural products other than rice, unstable market conditions for these products, excessive fatigue in busy seasons due to the limitation of family labour, and, finally, the scattered paddy fields owned by individual farm households.

It is now planned to introduce this rotation system not within a framework of individual farm households but on a region-wide basis. What we are trying to do is to designate regions where land can be utilized in a collective manner. In a sense this involved the entire regional economy, including the urban economy. A kind of autonomous integration of labor force and land is something which we should try to securely establish. Agricultural methodology must create the technical basis for it, and the economic basis must be an appropriate income level guaranteed to farmers. All these factors must promote autonomy of the regional economy, including its agriculture, in order to lead in turn toward autonomy of the entire national economy.

KEIKI OWADA

It is quite natural that there are many part-time farmers in Japan. The Agricultural Household

Economic Survey of 1975 showed that only 14.6% of the total farm-households able to live solely on their agricultural income, and only 9.2% with an agricultural income equal to or exceeding that of workers in other sectors in terms of the earnings per household member. Although equity of incomes between sectors was one of the ideals of the basic law, nobody expected that it would be realized. Income from the non-agricultural sector increased 12.3 times within the 15 years from 1960-75; income from the agricultural sector increased by only 5.15 times. Yet the average farmer's gross income was greater than that of his neighbor in the city. It is ironical that the aim of the basic law was achieved through increased farm family income from the non-agricultural sector.

In that sense, we must in fact admit that there was stagnation in agriculture. Up until 1963 the production of agriculture increased 2.5 to 3% annually, but with an increase of part-time farmers from the years 1963 onward there was little gain. Agricultural production in 1975 was only 131.9% of the 1960 level. Economic development and increased national income in Japan led to an increased consumption of foodstuffs, particularly livestock products. Yet overall food self-sufficiency fell in terms of wholesale prices, from 90% in 1960 to 72% in 1975. Measured in terms of quantity of individual agricultural products it approached or excelled 100% for rice, vegetables, and eggs and 80 to 90% for fruits, beef, pork, milk and dairy products; but for barley and soybeans it was as little as 4%, 10% and 4%, respectively.

In the light of the above, agricultural policies should seek:

1) to increase and foster full-time farm-households which are economically viable and 2) to raise the rate of self-sufficiency of food supply by increased production carried out in a reasonably economical manner. To achieve these policy objectives required great cooperation among farm-households in their farming operations, in view of their small production scale. This will be the case even if some expansion of holdings takes place in the coming years.

Since the main force of Japanese agriculture lies with the family farms, the basic direction of agricultural policy is to strengthen these farms. At the same time it is very important to encourage cooperative efforts by organizing them. Japanese farmers already have multi-purpose agricultural cooperatives. Cooperatives have been organized in practically every rural community, and every farmer belongs. But they deal mainly with credit, marketing, supply, and insurance but seldom with production activities.

Appropriate organizations for agricultural production are needed, not only for full-time farmers to improve their management, but also to include the part-time farm-households which are less keen on improved production and are inferior at their technical level.

The Government attaches much importance to projects aiming at improvement and development of farm land, cooperative use of agricultural machinery and facilities, price stabilization of agricultural products (over 80% of the agricultural products are covered by the government price stabilization programs in terms of value), provision of funds for farmers, and promotion of welfare of farmers (increased annuity and improvement of rural environments).

My own opinion is that a revision in basic policy must also be made, so that agricultural land may be more easily rented out to those who actually want to engage in farming and also so that if the owner wants to return to farming he can do so more easily. Lease of agricultural land should be concentrated on full-time farmers, yet part-time farmers now account for about 70% of it. Rationalization and organization of production does not require joint farming, but planning in agriculture must be achieved by loosely organized groups that permit full-time farmers to assist part-time farmers in increasing the level of technology.

V. S. VYAS

Discussion of Japanese agriculture and Japanese land reform generates a question of the classical kind which one comes across in India and several other places today: namely, after ten or twenty years of successful application of land reform, why are there serious new problems? Today it seems necessary to consolidate Japanese farms because the units are too small. But is that a point against the land reforms of the '40s and early '50s? I would say no. For the problem and for the economic environment of that day (and what was foreseeable for some years to come), land reform was an effective solution. People adapted themselves, their institutions, the bureaucracy, the external and internal environments, and they made a good job of it. That new problems arise is but natural; let there be new responses to them.

Not only does this seem to me a proper way of assessing the land reforms of Japan, it is equally appropriate for India. We are asked, "Why do you want to have a ceiling and the distribution of land when you know that in 20 or 30 years there will be different problems and you will have to amalgamate these farms again?" We will cross these bridges when they come. We cannot accept such a plea for doing nothing, nor can we accept a plea for perfection. In those years when the land situation was bad and there were all types of problems, land reforms in Taiwan and in Japan delivered surpluses and made the economy really viable. The fact that it is necessary now to think in terms of enlarged holdings suggests only that the ugly old problems were taken care of and that strength was imparted to the economy, and this is what was intended.

T. H. LEE

About the accomplishments of land reform, Drs. Owada and Isobe draw identical conclusions: more security is obtained by tenants and owner farmers, and income distribution is more equal within the agricultural sector. These resulted in taking up the slack in current resources used in agriculture and mobilizing labor for production and capital formation. Agricultural productivity has been increased, but the fragmentation of large farm units after land reform has been a cause of present agricultural problems.

Taiwan's experience is similar but in some ways permits a more optimistic view.

1. Land redistribution contributed to equalization of rural income distribution and agricultural development.

Land reform did this in two ways: through land rent reduction, and through transfer of land ownership from landlords to tenants. Rent reduction was implemented in 1949, and legally limited the amount of farm rent on private tenanted land to 37.5% of the harvest.

Transfer of land ownership was successfully carried out in 1953. The program first sold public land to tenant farmers and then redistributed "excess" private tenanted lands to tenant-cultivators. It reduced average farm size from 1.1 to 0.9 hectares in private land, reorganizing the farm economy in the direction of a small-scale farming system.

2. Through changes in land ownership and reduction of rent payments, the land reform program significantly changed rural income distribution both inter-sectorally and intra-sectorally. Land rent reduction transferred income from landlords to tenants. This means that income distribution became more equalized between the agricultural sector and other sectors, although since 1953 this trend has been reversed by the slow increase in agricultural labor productivity, unfavorable terms of trade, and heavy tax burden for agriculture.

3. The economies of scale argument was not applicable to Taiwan's case. It is true that if there is an increasing return to scale, fragmenting large production units will lower output, especially if a minimum area is required to utilize certain machines. Even installing small units on formerly idle land will create a structure unable to attain efficient production. But in the labor surplus context of 1950 Taiwan agriculture, farm machinery was not likely to be efficient at the then prevailing capital and product prices.

Agrarian Reform in Asia: The Philippine Experience

Yujiro Hayami reports some very real limitations on the ability to achieve basic agrarian reform through legal measures alone.

YUJIRO HAYAMI

The small village in which I have been working, along with my colleagues, Masaro Kikuchi and Luisa Maligalig-Bambo, is located not far from Manila and quite near to the International Rice Research Institute. It is in a well-irrigated area of the most productive rice-producing region in the Philippines. Houses are clustered under coconut trees, and the village is surrounded by an ocean of paddy fields. Hog raising is the most common sideline enterprise besides rice production. Almost all farmers in this area are tenants: landlordism is prevalent.

Population is growing at a dramatic rate in this *barrio*. The annual population growth rate for the past 60 years has been close to three percent, and has accelerated recently. The resulting population pressure on land has dramatically increased the number of households headed by landless workers who have no chance to rent the land. In 1966, about 70% of the households in this village were headed by farmers, but now 50% are headed by landless workers. Between 1974 and 1976 all the new households were headed by landless workers.

One result has been greater fragmentation. The average farm size has declined from 2.3 to 2.0 hectares.

One big institutional change which occurred as a result of land reform is the conversion of share tenants to leasehold tenants. Traditionally over 70% of farmers were share tenants. Now most farmers have shifted to leasehold tenancy.

One dramatic change, which is really the subject of my study, is the increase in what we call subtenancy. Instead of cultivating by themselves, tenants rent their land to landless workers. It's a process of transformation of tenants into "pseudo-landlords," or intermediate landlords.

The condition for the emergence of pseudo-landlordism is the emergence of a surplus of what you may call "economic rent"—the return to the service of the land. In this *barrio* the yields increased as a result of introduction of irrigation, which made it possible to plant rice in the dry season and thereby double output. Then with the introduction of high yielding varieties and increased application of fertilizer, productivity increased; meanwhile, tremendous population pressure drove down the real wage rates. In that kind of situation the world is somewhat like a Ricardian system. From 1956 to 1966, the rate of rent actually paid in kind as a percentage of total output declined from 24% to on the order of 19%, subsequently it stayed at about 21%. Those tenants who converted from share tenants to leasehold tenants were paying a higher rent, but for those who were leasehold tenants even before land reform the percentage share of rent actually declined. Economic rent, the return to service of land, should have

increased but actually did not increase, in part because of land reform regulations and partly because of social inertia. This, therefore, created a gap between economic rent and actual rent which could be captured by leasehold tenants. And that was the economic basis for emergence of multi-stage landlordism or feudal landlordism.

Another development involved the traditional "gama" labor contract system for harvesting and weeding labor. Harvesting traditionally is communal work. Everyone can participate; each will get one-sixth of what he or she harvests. When population pressure and the productivity of land are both low, one-sixth of the harvest ought to be very close to market wages or the marginal product of labor. But as land productivity increases and the population grows, the wage rate is beaten down and a one-sixth share is a very lucrative opportunity and everyone wants to participate in harvesting. Whichever side proposed new terms, the fact is that the now landless laborer will agree that if he is employed as a harvester on a one-sixth share basis he will then weed the field free of charge. In other words, what was previously a fair payment for harvesting now becomes the rate both for harvesting and weeding.

There are many possible implications from this kind of study. To shift income from absentee landlords in the city to tenants who have converted to leasehold from share tenancy is in a sense a good thing; the share tenant becomes *petit bourgeois*, and probably increases the stability of society. But if he then transforms himself into an intermediate landlord, land reform may have reduced urban-rural income disparities while actually increasing income disparities in rural areas. Land reform tried to shift cultivating rights and land titles from the landless to the tillers, but with growing populations pressure and scarcity of land it may only bring the emergence of new forms of landlordism.

It is important to recognize that more strict enforcement of laws would not likely solve the problem. Prohibition of sub-tenancy, for example, would result in an inefficient cultivation of land by tenants' families in case that they lack managerial resources when their family heads die or find more attractive urban employment. Moreover, the prohibition would close the opportunities for landless workers to become farm operators.

In order to achieve the objectives of the laws and regulations designed to improve the welfare of landless workers, policy should be implemented to reverse the economic forces operating against them. Since the relative decline in the marginal return to labor due to the increasing scarcity of land relative to labor is the basic force underlying the decline in labor's income share, efforts must be intensified to augment land internally by investing in irrigation systems and developing land-saving and labor-using technologies in

agriculture. Industrial technologies should also be developed towards the labor-using direction in order to maximize the labor-absorptive capacity of the nonagriculture sector. Effective population control programs could be most critical in the long run. Land reform programs will not be able to achieve their intended goals without success in efforts to make labor relatively more scarce and more productive.

Agrarian Reform in Asia: The Chinese Experience

Changes in rural organization in China are described by Dwight Perkins and amplified by Dennis Chinn. P.C. Joshi reviews the "Qualitatively Different" paths of agrarian reconstruction in countries like China and Vietnam, and the difficulty of using market mechanism while preserving the community principle in any development strategy.

DWIGHT H. PERKINS

The People's Commune is the best known feature of rural organization in the People's Republic of China. Less well known is the fact that China carried out a thorough-going conventional land reform years before it took the giant step of collectivizing agriculture.

The experience of China in rural reform, therefore, is of particular interest in at least two respects. China is an example of what can (and can't) be accomplished by radical rural reform within an East Asian land-shore factor endowment. Chinese experience also provides a vehicle for a systematic comparison of the relative merits of radical reform as against a more conventional land reform where private property and family farming are retained.

China's conventional land reform without question had a major impact on the distribution of rural income. One study estimates that the poorest 20% of all farm families experienced an 80 to 90% rise in real income as a result of the reform. Did collectivization take rural income distribution a long way further toward equality? There are no really good data on this topic because the Chinese have published no surveys on the subject and foreign visitors usually are taken on to the richer communes.

Collectivization presumably reduced income differentials within a collective unit. Former rich peasants were reduced to the cooperative average, and poor peasants were raised to that average.

Collectivization had no effect on differences in income between villages and regions. Even here, however, if one is more concerned with the psychological than the material aspects of inequality a case can be made that collectivization had a major impact on perceived inequality. No longer was there a

basis for a poor peasant's envy or attempts at emulation of a richer neighbor. Peasants in the poorest regions might have to travel a hundred miles or more to come in contact with those from any of the richest regions.

In a nation as poor as China was in the 1950s, the ultimate test of the success or failure of the commune form of rural organization was its impact on the output of agricultural products. Income redistribution can eliminate the worst forms of poverty for a time, but redistribution alone cannot keep the poorer half of the population out of extreme poverty indefinitely. With population growing at 2% a year, it is only a matter of time before incomes fall back to the old levels unless production keeps pace or population growth is itself brought to a halt.

Central to the claims that the producers' cooperative or commune is advantageous from the point of view of production is the notion that it mobilizes far larger amounts of underemployed labor than is possible with family farming and private land ownership. On one point there can be no serious dispute. The Chinese did in fact mobilize enormous amounts of rural labor power in the late 1950s and also in the 1960s and 1970s. For the most part this labor was mobilized during the slack winter season—exceptions being 1958 and perhaps 1959, when rural construction did interfere with the harvest. Thus the opportunity cost of this labor, if not zero, was at least very low.

The opportunity cost of other rural construction inputs was also low. To begin with, there was little use of capital equipment beyond shovels, sledge hammers, wheel barrows and the like—all items that could be manufactured locally at low cost. Construction of new fields, for example, frequently involved removing rocks from a river bed and using them to form a dike designed to narrow the river. The soil for the area carved out of the river would then be brought down by baskets and carrying poles from a nearby hill or mountain and dumped into the new field. Even such current inputs as cement were usually supplied locally. The quality of cement produced in these small-scale plants was not high, but was adequate for rural construction purposes and was produced from local deposits of coal and limestone that otherwise would have been underutilized. Much of the equipment of the plant itself could also be manufactured locally.

In short, rural construction was not a major drain on any resource that played a large role in the urban industrial sector. In the national model brigade Dazhai, for example, labor intensive efforts levelled the tops of hills, evened out the fields in the valleys, and provided an irrigation and drainage system that has led to a nearly three-fold rise in yields in the country as a whole within a decade. In Lin County Hunan Province, peasants working winters over a period of several years built the Red Flag Canal along

the side of the mountains, thereby connecting the formerly water-short county with a major river that never runs dry.

But how relevant are these examples to the problems facing peasants elsewhere in China? One thing is certain. The rest of the country has not yet been able to come close to duplicating the experience of Dazhai and Lin County. Meanwhile, Chinese grain output has only risen at an average rate of just over two percent per year, even though China, in no position to rely substantially on grain imports, has given main attention to raising grain production.

Put succinctly, massive labor mobilization has not had comparably massive impact on agricultural production.

The commune proved an effective vehicle for extension work and for the introduction of mechanization. American plant scientists report that the Chinese have one of the most effective and rapid means of introducing new plant varieties and new techniques in the less developed world. The bottom end of the extension system is fully integrated into the basic decision-making units in agriculture. The commune or brigade or team appoints one or more of its members to become expert in a new variety or technique. The extension worker is thus not a remote fixture who must patiently build the villagers' trust if he is to succeed; the extension worker is one of the village's own.

Communes are also useful when it comes to mechanizing key agricultural activities. In private individual farmer agriculture, it is possible to pool land or funds and to work out other kinds of sharing or rental arrangements are much easier when the villagers' resources are held jointly to begin with. Furthermore, China does not face the problem of many less developed countries, where machinery is used by richer farmers to reduce their dependence on hired labor.

Finally, one should not end this discussion without some mention of the role of the commune in reducing China's rate of population growth. Strictly speaking, the lowering of rural fertility rates is not directly related to raising agricultural productivity, but in a very real sense fertility is the other side of the fertility coin. If one can reduce the number of mouths to be fed, one need not divert as many resources to the problem of providing food.

Rural reform in China has achieved some major successes in improving the welfare of a majority of Chinese farmers at a heavy cost to a minority, but the source of those successes was frequently not where one would have expected it to be. Thus there was a redistribution of income that effectively wiped out the most abject forms of rural poverty, but it was land reform, not collectivization, that brought about most of the redistribution. Cooperatives and later communes played a significant but essentially secondary

role in putting a floor under rural incomes and welfare through creation of a collective welfare fund and through provision of improved health services.

DENNIS CHIN

By 1952 in the People's Republic of China land reform on a nationwide basis had been more or less completed. Concurrently, peasants were encouraged to form mutual aid teams of the kind many would argue have existed for centuries in China, but which now served a new function of rationalizing the allocation of labor.

Slowly, over a period of four years or so, lower cooperatives (call them lower state cooperatives) were formed. These were voluntary organizations of farmers who pooled their resources, farmed as a unit, but still retained private ownership of the land and of their capital assets. The land reform itself (elimination of the landlord class, formation of mutual aid teams, development of lower stage cooperatives) was a conventional one and not a revolution as such.

Following that, Chinese agriculture moved to advanced stage cooperatives in which rental payments disappeared. Effectively there was a major break, confiscation of a sort, because the peasant no longer received returns in relation to his contribution of land and other physical assets. He was paid only on the basis of his labor contribution.

The next step in the process occurred during the "great leap forward." It was the formation of the ill-fated communes.

That these communes were a bit premature is evidenced from the fact that agricultural output fell to very low levels from 1958 to 1960. The early 'Sixties brought a retrenchment period in which the commune structure was effectively dismantled. There is still a three-tiered organization (commune, production brigade, and production team), but the production team is the basic unit from a production standpoint. Resources are allocated at the level of the individual team.

Perkins finds that Chinese peasants accepted the cooperatives and collectives without anything like the widespread resistance collectivization brought in the U.S.S.R. His tentative explanation is that the land reform destroyed the dominant landlord class but set up an alternative. The poor and middle peasants after the land reform became small scale land owners, and hence had some political power once the power of the landlords was broken.

There is an interesting analytical principle here. If you have a skewed distribution of anything (in this case, land) a majority of the people will favor pooling that resource. If each person gets one vote, you will find that the majority favor forming the cooperative or the commune or other pooling. In the Chinese case, those who had land area that was greater than

the average and didn't want to join could be convinced on several grounds. If they depended on hired labor they could be made to understand that once the cooperative was formed there wouldn't be any laborers to hire. Secondly, there was a strong memory of what had happened to the landlords; this was combined with a kind of social pressure. If everybody else in the village wants to form a cooperative, the last holdout will be in trouble. Land reform *per se* destroyed the landlord class and created a political basis under which peasants could favor forming the cooperatives, and the majority of peasants did, in fact, favor the cooperatives.

SHIGERU ISHIKAWA

I have a feeling that the mechanism which had worked to bring about the very unequal state of income distribution prior to the land reform was deeprooted in the socio-economic structure of the Chinese agriculture, and unless the productivity conditions in both agriculture and industry fundamentally improve, this mechanism tends to stay alive, even though its operation may be stopped for a short while by some drastic institutional measure like the land reform in early 1950s. This mechanism, which seems fairly universal in Asia, may be called "parasitic landlordism with tenants coming from either landless poor or subsistence owner-cultivator."

We have evidence that shortly after the completion of China's land reform, a considerable number of farmers sold their newly acquired lands to those farmers who became rich, and the latter then either expanded their operations by hiring outside labor or rented their expanded land out for rental incomes. The mechanism that reemerged seems to have been suspended by the organization of the mutual aid teams, but it again and again revived. Even after the communization, when side by side with the threat of famine the commune system was almost dissolved to the individual family farm system in 1961 and 1962, there were indications that the former landlords reappeared together with their threat to the former tenants and the latter's fear of their revenge.

From these considerations, it is possible to say that the mechanism of landlordism has not been wiped out by the single blow of land reform, and it may even still be alive; the income redistribution effect attained in land reform has been reversible, yet it has been preserved by the successive organizational measures that followed the land reform.

With regard to the productivity-raising effect of labor, I suspect that Perkins is correct in questioning whether it is as substantial as the size of attained labor mobilization suggests. But in arriving at this conclusion we shouldn't overlook the possible productivity-raising effect which increased labor application has in the domain of current agricultural production. The effect is certainly significant when a new technology

of a labor intensive-type is introduced, and increased labor is applied side by side with other modern inputs such as chemical fertilizers, irrigation facilities and even power tillers and other agricultural machinery. Many observers are too preoccupied with the importance of motor inputs in raising productivity to recognize that many benefits of modern inputs can be lost if correspondingly large amounts of labor are not mobilized as additional inputs. To cite some figures, in 1957 the number of labor days applied per year per hectare of cultivated land was 120 days in a dry region of northern China, 270 days in central China, and 465 days in south China. One must remember that in most of South and Southeast Asia the comparable numbers are mostly less than 150 days. In many cases the number of labor days applied per year per hectare of cultivated land in India and other Southeast Asian countries is less than 100 days; yet these Chinese figures were smaller than the Japanese national average prior to the introduction of power tillers (prior to the 1960s), which was 490 working days. In Japan's most labor-intensive agricultural region called Kinki, which includes Kyoto, Nara, Osaka, and a few other prefectures, the number was 650 days.

Thus as a result of introduction of pumping sets, chemical fertilizer, and agricultural machinery, the number of labor days applied per year per hectare of cultivated area in China seems to be increasing, and from scattered information about the progress of people's communes the increase is remarkable. In some cases the number is well over one thousand days. In the case of a commune in Hupei province the number in 1963 was 1200 days under two crops of cotton and wheat. In a nearby motel mechanization commune, the figure of 1665 was recorded.

JOHN MELLOR

The question of labor mobilization in the People's Republic of China raises several interesting points. It is true that where there have been substantial technological changes in Chinese agriculture, there has been a great deal of mobilization of labor and a substantial increase in labor intensity. But from the overall rather slow rate of growth we must conclude that the area of China that has seen substantial technological change is relatively small and the overall amount of labor mobilized for it is similarly small.

My conclusion is that the collective or the commune system has facilitated mobilization of labor, but much more important is the essentially political decision that through one means or another a basic food supply will be guaranteed even to the lowest deciles in the income distribution. This makes the cost of mobilizing labor exceedingly low. Tremendous quantities of labor have been utilized in Chinese agricultural at extremely low rates of return (but certainly not zero), which in aggregate probably explains a

significant portion of the very slow rate of growth in agricultural production.

The development problem in China appears to have presented itself in something like the following terms: how do you develop with very slow growth in the agricultural sector? Some people argue that the Chinese, through collectivization and related measures have managed slower rates of population growth and therefore didn't need as rapid growth in agriculture. But of course the effect of collectivization on population growth wasn't retroactive and lies more in the future in terms of reduced food needs. Development with very slow growth in the agricultural sector and with a very capital intensive approach to industry yields an exceedingly slow growth of employment in the non-agricultural urban area. How can one provide that the bulk of the resources which can be shifted among sectors goes to the nonagricultural sector, with little going to agriculture, with a minimal flow of people from the rural to the urban areas, and without damage to one's sense of equity? Remember that we are talking about a strategy which creates very little employment in the urban areas; therefore it is exceedingly important not to have much rural-urban population flow (very often the Chinese cases are presented as "keeping people in the rural areas").

One other thing of some importance here is to have policies which effectively contain growth in incomes of the urban elite, so that non-agricultural income can be marshalled largely for investment in the heavy industry sector.

In all of the prerequisites of this process, collectivization becomes very important. For one thing, it gives a political system which makes it easier to stop the flow of people from the rural to the urban sector.

The lesson from this is the tremendous importance of development of the agricultural sector through efficiency-increasing processes unless you have the kind of political controls which they had in China. They have been able to do a great deal with a relatively unsuccessful effort in agriculture. But without political controls the agricultural sector has to be forced very heavily, and that in turn has major implication elsewhere.

DENNIS CHIN

It's possible that we tend to overestimate the differences between the current agricultural system in China and systems elsewhere. The initial commune system was really quite consistent with socialist ideology: large scale units with equality, and all the rest. But the system as it was modified under 1960 and has remained up to the present is really much closer to provide incentive agriculture. China has not come anywhere near close to substituting collective welfare for private welfare as the motivating force of the peasant, and the structure that now exists gives very

careful consideration to private peasant incentives.

The important question becomes one of how, in fact, the institutions and organization one finds in China today affect the private incentives of the peasants. People behave according to incentive no matter what obstacles are placed in front of them. Although China is a socialist country, we don't want to get carried away with the characterization of China's agriculture as a socialist system.

My one conclusion about China's agriculture is that it is premature to draw any conclusion whatsoever. A great deal of work has to be done, and can be done even on the basis of the fragmentary evidence that we have, in terms of trying to understand some of these relationships.

P. C. JOSHI

A basic weakness of most studies of agrarian transformation and agricultural development is that they do not explore and absorb the lessons of agrarian reconstruction in the Communist countries of Asia like China and Vietnam. These countries have forged a qualitatively different path of agrarian reconstruction.

It has been noted in many Asian countries which have opted for peasant agriculture that if the community principle is not introduced to counteract the destabilizing effects of the market principle, peasant economy reproduces the differentiation between a dynamic capitalist sector and a survival-oriented peasant sector.

Even within the communist countries in Asia many variants of the *peasant economic pattern* have evolved, the Chinese communes representing one variant of the community principle and the Vietnam agricultural cooperatives representing another. While the experiences of the Communist countries *do not* provide a general model applicable to other Asian countries, they highlight the role of innovations for institutionalizing the community principle in the Asia agrarian economies.

Community institutions in the agricultural economy stand out as a major feature of Asian rural life. The breakdown of these traditional community institutions under the impact of colonialism and market processes created an institutional vacuum in Asian countries for vast rural masses. The transition from rural communalism of former times to growing individualism of recent history has only accentuated the misery of the masses and their exploitation by the rural and urban vested interests. The re-introduction of the community principle at a higher level, therefore, is an essential requirement of growth along with equity.

The search for satisfactory alternatives of combining the market and the community principles may assume both peaceful and non-peaceful forms. For the Asian peasant is bound to resist to the last the

process of "annihilation" which has been the fate of the West-European peasant under the impact of the rising forces of modern capitalism. The Asian peasant is thus questioning the entire perspective of economic transition of Asian countries towards industrial capitalism, and raising the basic question of an alternative road of modern economic development.

G. PARTHASARATHY

Joshi's perspective of agrarian reconstruction—"India in the Asian Contest"—has a wide sweep, and I find it a difficult paper to summarize. He starts with a typology of agrarian societies: 1) landlord tenant, characterized by semi-feudal relationships, 2) kulak labor, characterized by transition from semi-feudal to commercial relationships or commercially oriented tenant-landlord relationships, and 3) peasant societies.

Joshi recognized that the emerging agrarian structure in most countries in South Asia and Southeast Asia is not a pure type, but a type in which one finds a mixture of kulak labor, entrepreneur-landlord-tenant and peasant-owner on one end, and a floating mass of landless laborers on the other. He examines three broad perspectives of economic growth and anti-poverty strategies in the context of what he designates as "emerging duality" in the structures.

In perspective one, the dynamic landlord or rich peasant is the main agent of growth. There is harmony of interest. Surplus population would get absorbed in the non-agricultural sector.

In perspective two, conflict is recognized but considered removable through limited intervention and without much structural change.

While Joshi favors the third perspective (that is, peasant ownership), he pleads for strengthening the community principle in a peasant economy and combining individual incentives with community control for land and capital. Joshi sees a questioning of the industrial capitalism model of development and urges an Asian alternative road of modern economic development.

Now this raises the following critical issues:

1. What is the role of differing socioeconomic situations, different historical legacies, and different stages of development in explaining the frustrations and achievements of land reform?

Broadly speaking, it appears to me that land reform in terms of reorganization of agriculture into peasant-ownership units is relatively more difficult in situations in which commodity economy has penetrated deeply into the rural economic structure and a commercial entrepreneur class has built up effective links with state power through a network of organized institutions. Societies in which national movements against imperialism were led by political parties with strong ideological leanings toward peasant interests could successfully isolate the bourgeoisie and feudal class and lead successful land reform.

2. It is possible that the rhetoric of land reform, without really genuine desire for implementation, could damage the interest of the peasant both from the point of view of equity as well as growth?

The Japanese papers document quite well some of the critical elements in a successful land reform program. These are: a) speed, b) time schedule and targets of achievement, c) elimination of all scope for black marketing in rents, and finally d) the participation of beneficiaries in the implementation of the program. When these elements are lacking, the rhetoric of land reform had led to either rapid demise of tenancy and its conversion into landless labor, or disguised tendency, oral lease, and black market rents.

3. What is the specific role of land reform under conditions of stagnation, as compared to conditions where land-augmenting technology has made viability of a small farm a feasible proposition? If one looks at the peasant movements of India, some of the more significant uprisings took place in tribal areas of Telangana and Bihar not known for improved technology. These were against feudal oppression. It is also significant to note that areas which are not marked by low levels of output and poor infrastructure in terms of irrigation, poor flood control and poor density of roads were former *zamindari* areas.

4. In rapidly commercializing areas in India, where the larger farmer leases in and the small farmer leases out because of capital intensity of the crop and credit and risk constraints, a radical tenancy reform loses its justification on distributive grounds. What institutional innovations are needed to build flexibility into the lease markets to accommodate growth situations even while we seek to create rigidities in the land market to protect the weak?

5. What are the compulsions for a "radical land reform"? Could a peasant society be created and ethically justified when a capital sector prevails in the urban areas and large disparities in income exist? Could it be made viable and dynamic?

6. A capitalist sector within non-agriculture, with vaster resources, may pose a threat to an agricultural sector in which the peasantry has little surplus to build up its political capacities. What sort of agrarian reorganization would be needed to make land reform an instrument for creating a new pattern of development?

Agrarian Reform in Asia: The Indian Experience

M. L. Dantwala documents the unevenness of India's agricultural progress (over time, and also between regions and between classes), and suggests some possible improvements.

M. L. DANTWALA

Some of the salient features of Indian agriculture's performance are: 1) low and erratic growth, 2) extreme regional unevenness of growth and 3) to some extent, accentuation of inter-class inequality.

Identification of districts by growth rates and levels of output suggests that whereas the main factor which explains the growth rate is the extent of irrigation, in the absence of irrigation the level of output is dependent mainly on soil and climate (rainfall).

In a vast country like India, one must expect vast variations in soil, climate, rainfall. Given such variations, it would be unreasonable to expect even growth of agriculture in all regions. What is called for is a) investments of the type which would, to the extent possible, help to reduce the endowment handicap of disadvantaged regions, and b) shift in land use from annual crops to fodder and tree crops; afforestation and animal husbandry. In a region so poorly endowed for agricultural growth that neither of these measures is of much avail, policy emphasis will have to be shifted to non-agricultural development.

Institutional reforms acquire greater importance in a situation in which gains of technology get unevenly distributed between different classes of producers *within* a homogenous region. Size distribution of ownership/operational holdings, tenurial relations determined by the structure and operation of the land-lease market, access to institutional credit, marketing and the extension service play a decisive role in the distribution of gains.

In a technologically favoured region, the accent should be on institutional reform; in regions with poor endowments, the accent should be on endowment enriching and infrastructure investment, development of appropriate technology and proper selection of growth sectors.

It is futile to expect any improvement in production relationship in a state of stagnancy. There is not enough to share, and the poverty itself makes resistance to exploitation difficult if not impossible. In such a situation priority should be given to growth and by implication to technology. If a technology can be devised which is class-neutral, so much the better. It will have to be low-cost-low-skill (at least in the beginning). Simultaneously, policy measures can be adopted to ensure that a larger proportion of addition production is derived from the low income producers.

On the other hand, in the prosperous regions, efforts to improve production relations have a better chance of success, although policy interventions in terms of institutional reform will be needed to bring about a better distribution of gains to give a proportionate share to the lower income groups.

ROBERT PICCIOTTO

With a few notable exceptions India's agricultural

institutions are weak and poorly managed to meet the challenge ahead. It is easy to be impressed by the large number of qualified scientists, technologists, and administrators available to India. But this is partly a mirage of scale. Many of the best managers of India's policy makers is that the strength of India's agricultural administration varies considerably from state to state. Unfortunately, it is particularly weak precisely in those states with high concentrations of rural poverty such as Bihar, Orissa, or eastern Uttar Pradesh.

Let me mention a few of the specifics which I think ought to receive increased priority in agricultural planning.

First, there is a critical need to devote managerial and administrative resources to strengthening adaptive research and linking up much more closely extension and research.

Second, high priority should be allocated to the development of a more sophisticated production-oriented and socially sensitive approach to irrigation development. Easy opportunities for uncontrolled private ground water development are largely gone. The untapped ground water potential of India's eastern zone requires much more effective water sharing arrangements, and hence a variety of institutional approaches may have to be tried. By contrast, in places like Tamil Nadu, Gujarat, and the Deccan Plateau, social control of ground water has long been a necessity.

It is important for India to shift its balance from ground water development to surface water development, since it is unlikely that the rate of ground water development in the future is going to keep up with requirements.

But in order to get a substantial payoff for the large investments required—as well as to ensure equitable sharing of benefits—engineering project design in India should be upgraded to allow satisfactory water control at farm level. Improved and socially manageable water management systems are also needed. Both are really very complex and urgent tasks.

Finally, the obsession with food grains should be tempered by a more sensitive approach to comparative advantage. In regions like the Punjab, developing agro-industry and markets much more aggressively will let farming move to higher technology activities which are labor-intensive rather than labor-displacing.

All these activities are quite suitable for assistance from outside India, so long as they are done through a specific monitorable project approach rather than a loose program approach; they represent some of the most important economic and social needs in Asia today, and as such they deserve the support of the international community.

V. S. VYAS

I want to clear up a misunderstanding that prevails

at many meetings and seminars, namely, that in India we have often shifted policies, sometimes emphasizing technology, sometimes land reform, sometimes institutional change, sometimes community development.

If one were to read the Indian planning documents, one would see that this is palpably wrong. In all the plans, the full package of major policy instruments is reflected. You can find this in the First Plan and right up to the Fifth Plan. What was missing was consistency: a reinforcing mechanism between various major policy issues. When technology of a particular sort was introduced, the institutional innovations were going in one direction while technology was going in another. The Indian experience has taught us much more about the need to reinforce major policy instruments and give them mutual support than it has about whether one should emphasize technology or institutional change.

Institutional Reform and Technological Change

Vernon Ruttan predicts that in a modernizing world the authoritarian patron-client relationships that have dominated so much of Asian agriculture will not survive; the more frustrated the pressures for institutional reform, the more radical that reform will eventually be. Uma Lele and John Mellor review some problems in integrating national development plans with local institutional and resource endowments.

VERNON RUTTAN

There has been a sharp transition in economic doctrine with respect to the relative contribution of agricultural and industrial development to national economic growth over the last several decades. There has been a shift away from an early "industrial fundamentalism" to an emphasis on the significance of growth in agricultural production and productivity for the total development process.

But received development theory provides insight into the process of agricultural development. Any attempt to evolve a meaningful perspective on the process of agricultural development must abandon the view of agriculture in premodern or traditional societies as essentially static. Historically, the problem of agricultural development is not that of transforming a static agricultural sector into a modern dynamic sector, but of accelerating the rate of growth of agricultural output and productivity consistent with the growth of other sectors in a modernizing economy.

It is possible, drawing on the rural social science and the technical agriculture literature, to distill five

general models of the agricultural development process:

The frontier model. Throughout most of history, expansion of the area cultivated or grazed has represented the main way of increasing agricultural production. The most dramatic examples in Western history were the opening up of the new continents—North and South America and Australia. Prior to the beginning of the 20th century the opening up of new lands for agricultural settlement was the dominant source of increase in agricultural production. By the end of the century there will be a few remaining areas of the world where development along the lines of the frontier model will represent an efficient source of growth.

The conservation model. In a few areas of the world intensive systems of agricultural production that permitted significant increases in output per unit area had evolved during the last century. For example, the irrigated wet rice culture that evolved in East Asia, which resembled farming in an aquarium, made it possible, through the replacement of nutrients, to obtain continuously higher yields even under a monoculture system. In Western Europe the new husbandry permitted the intensification of crop-livestock production through the introduction of root crops and legumes. This permitted increases in animal populations and the recycling of plant nutrients in the form of animal manures. The conservation model was a highly self-contained system. Almost all inputs—the plant nutrients, animal power, land improvements, and even the agricultural labor were produced within the agricultural sector.

The urban-industrial impact model. With the growth of urbanization the importance of demand factors was recognized as a source of differences in the growth of output and productivity in agriculture. Urbanization increased the demand for agricultural commodities and created alternative employment opportunities for agricultural labor.

The diffusion model. The diffusion of crops, animals and husbandry practices was an important source of productivity growth even in pre-modern societies. This process was accelerated following the age of discovery. In the 19th century great effort was devoted to crop exploration and introduction. The extension ideology that dominated aid efforts in agricultural development after World War II was based, either explicitly or implicitly, on a view that rapid increases in production could be achieved by diffusing the best technology from leading to lagging farmers and from technically advanced to lagging countries.

The high-payoff input model. By the early 1960s the significance of agricultural science in creating new high-payoff agricultural technologies was increasingly recognized. Improvement in the education of rural people was also recognized as an important

factor contributing to the productivity of new agricultural technology. This perspective was reinforced by the dramatic increases in production that accompanied the "green revolution" in wheat and rice.

Each of these models represented important elements of a more complete theory of agricultural development. But they did not explain the different paths of agricultural development followed by countries with diverse resource endowments—why, for example, Japan was successful in following a labor-intensive route and the United States was successful in following a capital-intensive route to agricultural development.

As Professor Hayami and I began to examine the historical experience of these two countries it became quite clear that the Japanese had invented an agricultural technology that permitted them to substitute biological technology and chemical inputs, particularly fertilizer, for land. They developed a land-substituting technology.

In the United States, which was confronted with continuously rising wage rates in agriculture, the major thrust was to develop mechanical technologies that would enable a man to spread himself over more and more land. In both countries scientists were induced to invent technologies which created substitutes for the relatively scarce and hence expensive factors of production.

The effect of relative prices on the development and choice of technology is illustrated with remarkable clarity in the case of United States and Japanese data on the relationship between fertilizer input per hectare of arable land and the fertilizer-land price ratio.

In both 1880 and 1960, U.S. farmers were using less fertilizer than Japanese farmers. However, despite enormous differences in both physical and institutional resources, the relationship between these variables has been almost identical in the two countries. As the price of fertilizer declined relative to other factors, both Japanese and American scientists responded by inventing crop varieties that were more responsive to the lower prices of fertilizer—although American scientists always lagged by a few decades in the process because the lower price of land relative to fertilizer resulted in a lower priority being placed on yield-increasing technology in the United States than in Japan.

The low productivity of agricultural scientists in many developing countries is due to the fact that many societies have not yet succeeded in developing either the institutional infrastructure or the incentives necessary to focus scientific effort on the significant problems of domestic agriculture. Under such conditions, scientific skills atrophy or are directed to the reward systems of the international scientific community.

These and other observations lead me to place

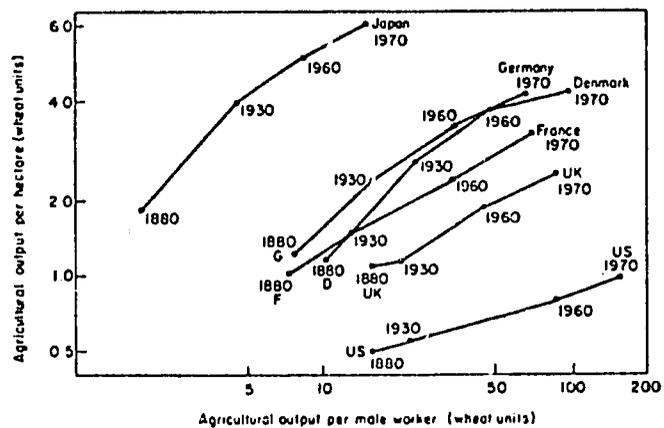


Figure 1. Historical growth paths of agricultural productivity in the USA, Japan, Germany, Denmark, France and the UK, 1880-1970.

Source: Vernon W. Ruttan, Hans P. Binswanger, Yujiro Hayami, William Wade and Adolph Weber, 'Factor productivity and growth: a historical interpretation in Hans P. Binswanger and Vernon W. Ruttan, *Induced Innovation: Technology, Institutions and Development*. The Johns Hopkins University Press, Baltimore, forthcoming.

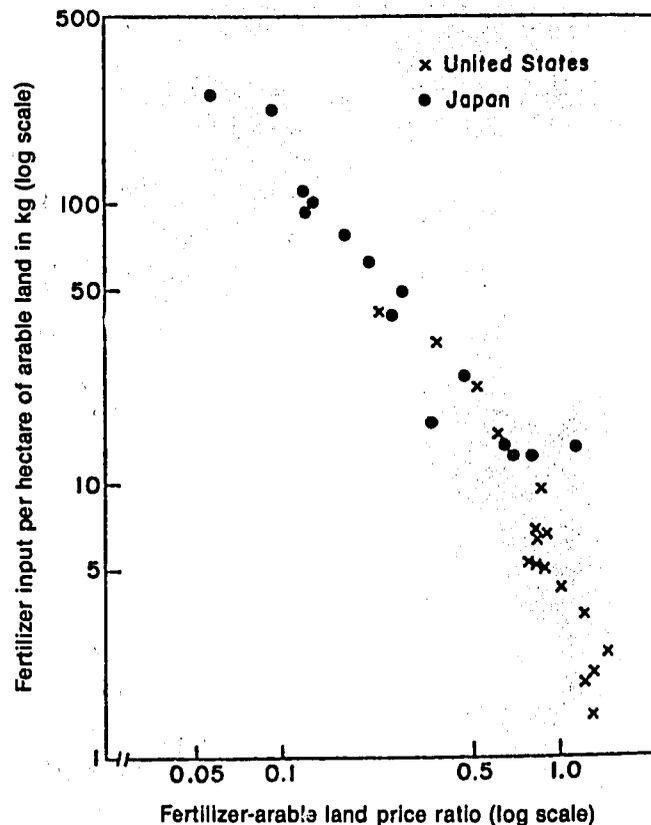


Figure 2. Relation between fertilizer input per hectare of arable land and the fertilizer: arable land price ratio.

Source: Yujiro Hayami and Vernon W. Ruttan, *Agricultural Development: An International Perspective*. The Johns Hopkins University Press, Baltimore, 1971, p. 127.

greater weight on the power of the "political environment" than on the quality of "political will" as a basis for effective policy. Effective organization, capable of reflecting the economic interests of the people living in rural areas, is a necessary condition for a political environment that will encourage the development of capacity to organize and carry out effective commodity production and rural development programs.

There are two alternative models of rural economic and political development that seem capable of establishing the institutional conditions necessary for simultaneously meeting the production demands that a developing society places on its agricultural sector and the demands for development in rural areas that rural people have a right to expect. Both involve the decentralization or devolution of political power and administrative authority.

One is a relatively open *reform* model. An alliance between a modernizing industrial elite, urban workers, and the peasantry achieves a coalition capable of neutralizing the military-bureaucratic alliance. This pattern emerged in the Scandinavian countries in the last part of the 19th century and in Germany and Japan after World War II. It is also the model to which U.S. aid policy has been intellectually committed in Asia and Latin America during the postwar period, but which has consistently been subverted whenever it appeared that it would be dominated by a center-left rather than a center-right coalition. This model has also been consistently opposed by the left intellectuals, who viewed the emergence of a political power in the hands of larger peasants—the "kulaks"—as a barrier to move radical reform. An essential element is the emergence of vigorous organization in rural areas, representing the economic interests of peasant producers and, where they are numerically important, of landless workers.

The second model that appears to offer the possibility of effective institutional development in rural areas is the Chinese model of *decentralized communism*. The fragmentary data on the development of rural areas in China still allow each visitor or scholar to combine a unique blend of casual empiricism and ideological perspective in interpreting developments in China. Nevertheless it is apparent that a skillful blend of central direction and decentralized decision making has proven reasonably effective in mobilizing human resources for the exploitation of the production potential of a traditional agricultural technology and in partitioning the growth dividends that have become available in a reasonably equitable manner among members of rural communities. The reports of the success of the Chinese model in rural development in the area of distribution have been sufficiently dramatic to overshadow the modest production achievements of the People's Republic.

Over the longer run the pattern of political evolu-

tion in Asia will almost certainly trend toward replacement of the authoritarian patron-client regimes that now dominate most countries by regimes of greater complexity and sophistication in their capacity to achieve continuity and effectiveness in the mobilization and use of political and economic resources. The induced innovation model outlined in my conference paper leads to a presumption that in those areas where the problems of economic stagnation or regression have persisted the longest, and where the present regimes are most successful in frustrating the pressures for institutional reform, the successor regimes will find it necessary to engage in radical institutional reorganization in order to mobilize the political and economic resources needed to reverse the process of economic and political stagnation.

KENNETH PARSONS

As a beginning, I would note that technology and institutions function in two different dimensions of human affairs. Technology is basically concerned with man's relation to the physical world—in development, by increasing man's control over physical nature and improving the usefulness of things for human purposes. Institutions are concerned with man's relation to man, to forms of human association—in development, with modifying such forms of association to make the participation of people more productive, more creative, and more humane.

One can start from either domain and make a plausible case regarding the requirements that needed to be met by the activities in the other. If we view the economies of agriculture to be mechanisms which are designed to maximize the efficiency of converting resources into useful commodities, then we can specify the conditions that institutional innovations need to meet to facilitate the necessary modes of maximization. Or we can start from the domain of organized society and specify the conditions that need to be met in the physical realm to honor the needs of civilized living, control of erosion, the prevention of pollution, and so on.

It is a part of our recent intellectual history that we have been preoccupied with the possibilities of economic progress through increasing man's control over physical nature. We are now seeing the limitations of this emphasis. Simply stated, increasing man's control over physical nature is only half of the problem of agricultural development: the other half is increasing the effectiveness of man's participation in the rural economy—by measures which enhance his abilities as well as by arrangements which provide opportunities for him to use those abilities.

In point of fact, the first great development task which any nation-state confronts is the task of creating a system of state and economy which has the

capacity to bear the stresses and strains of development. Much of tropical Africa is now at this embryonic stage of development. Leaders in country after country are struggling with the problems of building a nation state out of tribal antecedents and a modern economy out of traditional subsistence economic systems.

The second essential component of a theory of agricultural development is resource allocation theory.

The third component of a comprehensive set of theoretical concepts for the analysis of economic development are those directed to the problem of economic stabilization, particularly in market-oriented interdependent economic systems in which financial transactions are of major importance.

The choice of working rules for the unitary system of state and economy depends very much on the ideology of those who lead and shape the system. Where the working rules which concern individual performance are designed, as in the liberal tradition of the West, so as to emphasize particular avoidances rather than specific performances, the system creates zones of opportunity and discretion and thus the conditions of freedom. When performances within such zones are implemented through market transactions, property relations in the use of things are created. In contrast, where the working rules which concern individual behavior are formulated under the influence of Marxist doctrine, they rely centrally on rules which specify particular *performances*, not *avoidances*. The outcome is a totalitarian command or duty system of state and economy. In such a system, it is mainly the wills of those in authority which are made effective. This, in turn, ensures that transactions will be authoritative transactions, not authorized, negotiated transactions. But, in both cases, the basic structure of the economic system is created by the sanctioning of working rules of economy by the state.

VERNON RUTTAN

I disagree sharply with the idea of will. It is too easy to substitute "lack of will" for analysis. The motives or the will of political leadership are weak instruments compared with the power of an organized constituency. Perfection of both economic and political markets, to give more "votes" to those who don't have either economic or political power, is not, however, something that comes naturally. Markets are invented by men.

We didn't need institutionalized science as long as we only needed technical change at a slow rate, as long as we only needed progress at one percent a year. Nor do we need the production of institutionalized social science knowledge as long as we're content with trial and error and slow progress.

But trial and error is expensive and we ought to get things done more cheaply in terms of human resources.

UMA LELE

One of the group has asked whether, given my sense of doom, I see any hope for constructive developmental change.

Instead of making the kind of a dichotomy Vernon Ruttan does between political *will* and political *environment*, I prefer to think about governmental policies in terms of what the political incentives are to reach poorer segments of the people. A simple distinction between political will and political environment fails to recognize that often it is the political environment which, by influencing these incentives, influences the extent to which national policy makers exert a will to reach these poorer segments.

The decision-making process needs to be examined in terms of specific events, not simply at the theoretical level. For example, for two or three years people have been asking why a country like India, which is supposed to have had such a superb record in organizing relief (for example, in meeting the needs of ten million refugees from Bangladesh at a time of a severe crisis), cannot create public works programs that make use of the ten or twenty million tons of grain that it has at its disposal.

Discussing this question with Indian civil servants one comes to the conclusion, although it is never so explicitly stated, that the government isn't really confident that these surpluses are going to last. There is equal uncertainty about the permanence of India's tremendously exciting foreign exchange situation.

India finds it much easier to base public works programs on U.S. shipments of P.L. 480 grain, which seem to be rather uncertain but whose absence one can always blame on the Americans.

Longstanding history in India shows that mobilizing food surpluses in the public sector, particularly in periods of shortage, requires a tremendously strong political will. Can India exert the will to mobilize food resources at such times, when its political support comes from the landed classes? If not, how can it assure price stability to the urban interest groups who, after all, figure very strongly in terms of political votes? It is crucial to recognize that political asset distribution affects political markets, such as asset distribution in an economic sense affects the efficiency with which economic markets work.

ROBERT PICCIOTTO

If the question is what should be an appropriate agenda of research for social scientists in developing countries, which is one question raised by Wolf Ladejnsky's work, I would submit that an analysis of

what my colleagues call the "bureaucracy of development" would be a very fruitful area. I would also find it highly useful to have more research directed at the factors underlying successful and unsuccessful rural development efforts. Research into successful schemes is perhaps more important than analyzing failures, but analyses of the failures are also useful.

This means a large market for the services of social scientists in the developing countries, since outsiders really don't have very much of a comparative advantage in this kind of research. They lose their usefulness even more rapidly when they start with preconceived global models and inappropriate theories.

JOHN MELLOR

Given the resource requirements for agricultural growth and the related increases in employment, there is need for a development strategy that brings consistency among its agricultural, industrial and trade sectors and for an approach to planning consistent with that strategy. Such a strategy will have four substantial elements of change from the strategies which offer little weight to agriculture.

First, it must give priority to increasing agricultural production through investment in new technology.

Second, it must reduce the capital requirements per employee in the industrial sector and tap new sources of capital through decentralization of production.

Third, to expedite the decrease in capital intensity, the growth rate of both exports and imports must increase.

Fourth, planning and administrative procedures and institutions must be modified to suit the structural qualities of the new strategy.

The resource needs of agricultural growth are substantial—much larger than originally envisaged in the development strategies of newly independent countries whose primary emphasis was on immediate industrialization. Allocation of resources to agriculture has usually been substantially below the levels needed for a significant increase in the overall agricultural growth rates. A new strategy based on high agricultural growth rates and a high rate of growth of rural employment has implicit in it a more broadly based industrial and trade structure that would absorb more labor per unit of investment.

The low level of agricultural investment has been associated with an even lesser level of absorptive capacity in the agricultural sector. Issues that have a profound impact on absorptive capacity and further resource mobilization—administrative reform, class relationships, political participation and local planning and implementing capability—have not been dealt with adequately in most developing countries.

Discussions of agricultural development back in the 1950s were marked by a widespread view that development of the agricultural sector and accelerated

growth in agriculture, and indeed improved incomes of the poor, could be achieved with very little competition for the kinds of resources needed in growth of the major industrial sector. In a sense, the old view of community development was fairly consistent with that. In that approach, one mobilized a lot of rather redundant liberal arts graduates and sent them out into the fields to instruct farmers on how to improve productivity. One hoped for a great increase in efficient or agricultural production with little additional use of resources.

Frankly, I fear we are seeing a revival of that view in some Western circles. Much present-day discussion of basic human need strategies, although well motivated in a number of respects, is also an argument that the agricultural development process is a low resource requirement process: respond to the felt needs of the rural people, get rural people organized somewhat, and the requirements for concessionary assistance turn out to be much less than anticipated and the development process is more equitable. We need to guard against those views as energetically now as a couple of decades ago.

Any development strategy that is expected to include rapid growth in the agricultural sector must aim for more efficient resource use in agriculture and lower capital labor ratios in the non-agricultural sector. One can strain the demands on public finance through the very heavy finance requirements of a vigorous agricultural growth system. Thus a strategy most compatible with rapid growth in agriculture puts relatively more emphasis on the lighter small and medium scale consumer goods industry sectors, because these have relatively lower capital-labor ratios than the heavy industry sectors. The rate of growth both of imports and exports must be relatively high. The basic problem is how to acquire the necessarily capital-intensive intermediate products which are so essential to the growth both of agriculture and to the small and medium scale sectors—for example, fertilizer, steel, perhaps cement, aluminum, copper wire, etc. If they are produced in one's own economy, this seems to require very capital intensive industries. If one is going to require substantial quantities of foreign exchange to import them, then unless one has a very large foreign aid regime one must have some kind of exports—presumably of relatively more labor-intensively produced commodities—to trade for them.

Some people consider this a rather unrealistic view in the modern world, given the problem of expanding exports to the rich industrial countries. But people in rich industrial countries who talk about strategies for low income countries which are labor intensive and which emphasize agriculture are being somewhat hypocritical if, on the one hand, they believe that's the direction in which development should go and, on the other hand, they refuse to

recognize the major implications such steps would have on trade regimes and hence on the conduct of the higher income countries.

UMA LELE

The questions my paper raises about institutional change tend to have two important sides: the political side and the bureaucratic side. One has to look at such questions in the context of the tremendous conflict between short term political considerations and the long term ambitions of a government in a political context.

Often urban political pressures may lead to pricing policies in the agricultural sector, obviously prompted by short term political consideration, that are not necessarily conducive to long term agricultural development. For instance, priorities related to national self-sufficiency in fertilizer production may not provide the right kind of fertilizer in the right quantities at the right time.

One may also find, and this occurs more often than one likes to admit, that the agricultural sector has such a low priority in terms of the prestige attached to working in it that the appointment of an able person to the position of Minister of Agriculture is more of an exception than a rule. The best person is often simply not motivated to work in the agricultural sector, but is included toward the more prestigious urban industrial sector or the ministry of finance or foreign affairs. Thus political considerations, as well as an urban bias, can affect governmental allocations in terms of quality of manpower, degree of freedom given to the ministry, and procedures that have been worked out at the national level to use resources effectively.

Politics also affects the extent to which there is effective coordination between various parts of the government in making policies work effectively in practice despite tremendous emphasis on agricultural development in official pronouncements. Considering the monolithic nature of the governments in many developing countries and their inability to spend resources in the public sector, the response in many cases has been to create special institutions designed to spend resources effectively in the agricultural sector, to insure a necessary degree of freedom, to attract the best manpower, and to have enough autonomy and power to coordinate a large number of functions simultaneously.

Decentralization must be divided for the purposes of discussion into two kinds of considerations. Political scientists distinguish *deconcentration of decision making* from *devolution of power*, in which increasing emphasis is placed on popular participation.

There is a tremendous amount of ambivalence on decentralization, despite the general recognition of the need for planning mechanisms that cater much

more to the needs and potential of people at the local level. Field staff far too often are ill-trained, illiterate, ill-informed, and overburdened with a large number of responsibilities. Their incentives are reduced if there is no substantial emphasis on relating their performance to the kinds of results that they can generate. In general, limitations of field staff and inadequacy of resources create a tendency to revert to centralization because efforts to decentralize planning turn out to be so ineffective. To the extent that there has been an effort to transfer power to the hands of locally elected people, only a rural elite seems to be participating in the political process; as a result, there have been substantial distortions in allocation of resources to benefit those people who have a considerable amount of political power and economic assets.

This raises some fundamental questions as to whether there can be effective institution building in developing countries unless one looks at the possibility of interest group creation among the rural poor—for instance, developing agricultural labor unions very much along the lines of industrial labor unions. That could make the political process work by attacking concentration of administrative power and also enlisting political power from the grass roots to use resources efficiently and to mobilize them further for agricultural development.

KEIKI OWADA

It is one thing that land reform is socio-economically necessary, but it is another thing whether or not land reform is politically possible. Usually, in the developing countries big landlords have a special connection with the government. This is the real reason why land reform is very difficult to initiate.

Land reform can be accomplished where a very enlightened statesman initiates a program, against the will of big landlords, because he foresees serious economic and social troubles which would otherwise become unmanageable. They will also occur where revolutionary influences inside and outside compel the government to conclude that a land reform program is absolutely necessary to maintain the present social system.

Land reform is in any case, too difficult for a developing country to initiate solely through the advice and persuasion by governments of other countries.

Apart from the political decision, three other factors are needed for a successful accomplishment of land reforms:

- 1) a clean and effective bureaucracy
- 2) a drive on the part of farmers
- 3) a fine technical apparatus (for instance, a fair and simple calculation method of land price).

External Aid Agencies and Institutional Change

In relation to institutional reform in developing countries, John Lewis examines what external agencies can properly do and what they either cannot accomplish or have no right to attempt. V. S. Vyas notes some of the inhibitions such agencies face and some of the roles they fill best.

JOHN LEWIS

External agencies are *not* mindless about needed informal reforms. They are full of ideas and opinions. Nor do they perceive all or even most developing country regimes to be sound, firm, and galvanized in their reform purposes, and/or capacities. The disposition of the outsiders, therefore—and given the convergence of concern about basic human needs and the low-end poor, one can predict this to be a growing, not declining, disposition in the near term—is to use their assistance explicitly to encourage certain institutional changes.

First, for donors seeking to target their assistance on specified institutional reforms, there will be much to be said for nonexclusivity. Not all assistance should be so targeted. To achieve pro-equity reforms, the country will also need growth. And it is likely to be difficult—likelier still to be inefficient—to push all of the aid reinforcement that the growth process will warrant through institutional change programs.

Second, there will also, as to the targeted assistance itself, be a case for candor. For all the sensitivity attaching to institutional intervention, there is no need for the external agencies to be embarrassed about being engaged in press reforms—a number of the multilateral agencies are under instruction from poor country majorities to do just this. Presented flexibility and shorn of legalisms, targeted aid nevertheless should be offered on a friendly take-it-or-leave-it basis, donors laying out the kinds of reform they are interested in supporting and making it clear that certain categories of assistance are available only to those disposed to pursue those objectives.

Third, there will be no escape from the need of donor agencies to make fallible but working judgments about the seriousness and competence of the reform purposes of different poor-country regimes. Such judgments would not be publicly categorized; they would be graduated rather than binary; probably they would be differentiated by sector or reform theme; and they certainly would be revisable. They would also need to avoid the fallacy of seeing regimes as more monolithic than they in fact are.

Fourth, where this working judgment is adverse, the targeted aid offer would be altered and diminished. In such cases, I should think, the aid would go mainly in small packages—limited, discrete projects or the equivalent. A reluctant government may

be sufficiently intrigued by a particular project offer to do some specific things it otherwise would not have tried; the monitoring of performance would be comparatively straightforward; and it is just possible some seeds would get planted that in due course would alter the policy climate itself.

Fifth, even where the external judgment of internal talent and competence is predominantly positive, it must be recognized that governments that substantially agree on reform agendas still do not welcome intrusions. Moreover, there is no way any external agency bureaucracy, however massive its in-country presence, could share in detailed management effectively. This is especially so for a large country like India. The heart of the answer would seem to be unilateral host-country administration of programs, subject to *ex-post* reporting—and, if the donor chooses, periodic renewal. I would fund the whole arrangement on a “stock-replenishment” principle, whereunder, for a multiyear period, the donor would undertake to maintain a stock of resources that the recipient could draw down at will for previously agreed uses in accordance with previously agreed procedures. The assistance would be explicitly used, but the recipient could use it at his own pace; there would be no nagging about the length of pipelines.

Sixth, it may well be that external agencies will find it constructive to build matching grant elements into some of their support to strategic institutional reforms. In general, such reforms will be more secure the more they can become financially self-reliant. More particularly, developing countries as a group have been notoriously unsuccessful in raising resources, especially to public account, from the better-off farmers and other rural elites. Decentralization—the passing of more consequential decision making down to local jurisdictions—may be a necessary condition for augmented resource raising at that level.

Seventh, however, righteous external agencies feel in their promotion of social justice, they need to sustain a high measure of analytic humility. They need to monitor in-country developments with great care, open minds, attention to idiosyncratic factors—and, perhaps above all, with all the political sophistication they can muster.

Finally, in a world of external bilateral and multilateral institutions converging on a reform agenda for the poor countries, I am of a mixed mind about the desirability of more concerting of diagnosis and doctrine among the external actors. Reactionary regimes are not much more likely to roll over to a solid front than to an assembly of external agencies. It is possible for a monolith to be monolithically wrong. And virtuous regimes may in fact be able to get more of what they need in the aggregate by playing shrewdly to the diversity in the external community.

In the case of tactical institutional change, transfer of foreign models is a familiar and accepted business in most poor countries. Administration and legal machinery, modern universities, research institutes, laboratories, experiment stations, banking and credit houses, cooperatives, limited liability companies, labor unions, and newspapers owe much to models imported from the West during the past century or two.

To work, the transplants almost invariably have had to be modified and adapted. But in principle the process is reminiscent of the borrowing, adaptation, and diffusion of "hard" technology: the world cafeteria, as it were, is brimming with institutional software. The items on it are comparatively accessible. Usually they are not ringed by proprietary protections. In any event, once the basic idea of a discrete institutional innovation has been contrived, often it is nearly self-evident; it is available for experimentation if it seems possibly relevant.

Just as with hardware, some of the pieces on the software cafeteria are more appropriate than others to a country's circumstances—shrewd choice can reduce failures and waste. The transplant's interlock with the local environment is likely to be even more complex than that of most hard technology. Hence there is a premium on adaptation and on the crafting of locally innovated pieces to complete particular institutional sets.

YUJIRO HAYAMI

I have reservations about efficacy of single year renewable funding approaches made available to support broad-based strategic institutional change. There are exceptional situations where program lending, as distinct from project lending, is necessary and useful, cases where a transfer of resources combined with severe absorptive capacity problems do not permit effective projectization of assistance. Also, there are exceptional cases of floods, cyclones and other natural calamities which call for a quick diffusion of capital. But program lending is not a realistic tool for support of strategic shift in institutional policy, for reasons that have very little to do with procedural techniques and staff skills and political framework and things of that kind.

First of all, project lending is an institutional innovation which multilateral agencies have refined over the years and which is now quite serviceable and flexible to accommodate the demands of institutional building in agricultural and rural development particularly.

Second, I don't really see institutional changes through lending which can be transplanted, picked up off the shelf or launched like a rocket into the country. Rather, they require sitting down together, setting project objectives together, putting together

organizational blueprints, examining alternative designs and project locations, and so on and so forth. This is repeated again and again during supervision as an institution grows and learns from its mistakes. This is what project work is all about. It is a business-like relationship, based on shared objectives and mutual respect. It is a relationship which the World Bank and other agencies have built with scores of institutions around the world. It's a relationship which works well and which institutions have come to value.

MONTAGUE YUDELMAN

How does an international agency set out to engage itself successfully in issues of institutional change? It was social science research, by economists both within and outside the World Bank, that confirmed the Bank's suspicion that rural poverty wasn't diminishing, and that therefore a different strategy was necessary for development. That strategy was articulated when the Bank's president announced that emphasis in lending was going to be directed at small farm development and an attack on poverty.

Given the range of clients we have who say that land reform is a necessary prerequisite, but given also the need to work within an existing structure, we brought out a series of policy papers which said that the Bank stood ready to support any country which had a land reform. We did not say that any country should have land reform. We pointed out pros and cons, brought attention to the disruptive effects that have been mentioned, but said that if a government did have a land reform the Bank saw its role as providing the necessary inputs to assist the beneficiaries of land reform to become more productive. So in a sense we intend to promote discrete institutional change as a part of influencing systematic change, largely through project work.

We've come up with a typology for an ideal project which we think can have maximum impact. Four criteria must be met.

First, the project should be oriented to benefiting those particular groups that we are concerned with: people who live in poverty.

Second, it should reach very large numbers of them, because we are dealing with hundreds of millions of people.

Third, because we are dealing with so many, the unit cost of reaching individuals must be low.

Finally, the project should be financially viable, because we don't want a transfer of resources which makes people worse off after the transfer than before.

Those criteria are extremely difficult to implement simultaneously, but a number of emerging projects fulfill some or all of them.

V. S. VYAS

If you look at the type of aid which is proffered by various external multilateral agencies, you will find that only in the sphere of transfer of real resources and monetary resources has a body of knowledge emerged. Despite a lack of complete agreement, one can discuss this in a relatively "scientific" manner and can arrive at certain conclusions about the circumstances in which aid is going to help and the circumstances in which it is going to substitute for local efforts and is not going to be additive. The experiences are there; one can pick and choose.

But we must go beyond these real resources, which represent more or less investment-type decisions, when we consider activities which improve what, in the absence of any other term, I would call the quality of life—education, health, nutrition, etc. We know that our knowledge here is limited. Though efforts are being made and people are pushing to support these various educational, health, and nutritional activities, the frame of reference is not very clear and the technology and institutional support needed are not at all clear. But this is the direction in which various institutions are moving.

When you go a step further and start talking in terms of institutional changes, in terms of changes in rights and prerogatives, in terms of access to productive resources—the type of definition I would like to use—you will find not only that knowledge is limited but that agreement or consensus is missing. With regard to the frame of reference and the technological requirements one can, with some effort, arrive at a broad consensus as to what is desirable. But that is not so when it comes to institutional change. This does not mean that, therefore, we should be reticent and should not do anything. We are talking about a frontier problem, a problem on which a lot more thinking will have to be done, a lot more experience will have to be correlated, and then maybe eventually a body of knowledge will emerge.

The second point which I wish to share with you is that in dealing with international organizations and multilateral agencies we must be aware of their own attributes and characteristics and the type of inhibitions and supportive or facilitating conditions which are generated because of these attributes.

In reality, the international organizations have to satisfy three sets of efficiency norms.

Firstly, there are the collectives of individual members. The members have their objective functions and there will be trade-offs. But there is some "GCM"—some greatest common measure—which the members would also like a particular organization to fulfill. Now, the members may not have equal vote either in practice or in theory. The votes might be weighed either by organizational devices (as happens in IMF), or by usage, or simply by the sheer facts of life. But these members have their own objective functions,

and want to know how well the international multilateral organization, as a collective, is able to fulfill those functions. It cannot ignore them, and to the extent that we are able to define these functions and collate various actions we will be able to understand more fully why a particular organization is functioning as it does.

Secondly, international organizations, like any other organizations, have to follow certain rules for survival and growth, and if they do not do so their very existence is jeopardized. And those rules give us the second set of norms for judging the efficacy and also finding the limitations as well as the capabilities of various international organizations.

Finally, until an organization is totally universalistic and encompasses everything, it has also to react to an external environment which is not merely articulated by its constituents, but is a sort of mainstream of thinking. An agency which is not sensitive to that, even if it is satisfying its other two norms, cannot really perform the tasks which many times are expected of it.

First and foremost, the role which international agencies can perform is the role of conscientization. This concept, used by Paolo Freire among others, demands that people be made aware of their own conditions in a way that arouses indignation (and anger—not a frustrating type of anger, but an anger which can lead to alternatives for action). That role of conscientization is very important for the international agencies, and they are already making very significant contributions. Take a type of institution like ILO. Not merely the dethronement of GNP, but the sensitivity full employment and basic human needs, was a major contribution by this international agency which constituted itself as a forum and made everyone sit back and think, "Are we doing something for employment?"

An agency's role as an entity must also be distinguished from its role as a collaboration of constituent units, because the process of education must not be merely at the receiving end (making the recipients of aid aware of what can be done), but also among those constituent units. Frequently they suffer from a sort of illiteracy whose treatment must be put very high on the agenda.

The other role which the international agencies must perform is a lobbying role. Reflecting on recent historical experience, one sees good programs beginning to move only when an organization like the World Bank becomes involved. In my country, an example is the recent attention to dry farming. Many of us have long said that since all of India's effort could not bring more than 30% of the cultivable land under irrigation, we would have to think much more about what would happen to the remaining 70%. But only when ICRISAT and the World Bank gave these things their attention were research priorities and

internal allocations of resources shifted and concern expressed in various other ways.

JOHN MELLOR

As long as we try to justify transfers on pure charity grounds, the First World is able to avoid some very difficult questions. It's very attractive simply to look at those most in need of charity and focus effort on them. The kinds of policy that emerge from the pure charity approach also conform to the wishes of First World persons who don't want to give assistance in any significant quantity; you end up with projects which involve no significant sums of money, so you simultaneously take care of your conscience without moving much assistance. Some First World people are uneasy about the kinds of sharing of power in the world that are inevitable in a genuine development process. An alliance with the "pure charity" people is more comfortable for them.

Nevertheless, if one is going to end up with the kinds of approaches and views which John Lewis has expressed here, and with the kinds of resource transfers and the approach to resource transfers that go with them, one has to see the world evolving into a situation in which the next two to four decades will see a very substantial sharing of power. That very small number of countries which have a high concentration of power will become a much larger number, particularly including some rather large countries in terms of population which at the moment may be relatively poor. China and India come to mind in that respect, but there are obviously three or four others which aren't so far behind in terms of aggregate size.

If one envisions a world in which there will be substantial sharing of power, one begins to raise the kinds of questions which must have been raised immediately after World War II with respect to Japan. The U.S. followed some policies which must have been intended to lead to a more pluralistic society than Japan had previously had, with a much broader base of political power and which in certain respects one might think of as inevitably being democratic, not necessarily in the same form as at present but leading in that way. Perhaps Japan is a particularly instructive case in this respect.

People in the U.S. who talk of assistance seldom show explicit consideration of these kinds of concerns, and indeed I would say that there is a very basic unwillingness to discuss these questions in that form. In my own view this is what we have to face up to in the U.S. and in other countries that are in one way or another associated with the U.S. in some of these policies.

YUJIRO HAYAMI

Location-specific research is essential for effective institutional changes. Institutional change is not something external agents can achieve. Rural people

make institutional changes in rural areas. What is essential is an understanding of principles of organization among rural people, and we know very little about it.

The organizational principles for Philippine villages are very different from Japan's. In Japanese villages, there is a tightly structured society. Tenure contracts and labor contracts govern the use of the mountain forest, the collection of fuel, and so forth. In the towns, poor people perform some kinds of reciprocal services. In the village, tradition determines who is going to make or convene a meeting for a communal project. The "rules" may even specify what family is supposed to perform what type of role in a wedding ceremony. For poor farmers an expensive ceremony is not considered appropriate; such judgments are tightly scheduled.

In the Philippines I thought I found almost no organizational principle. But soon I recognized that an organizational principle was there. There is a strong tradition of mutual help, though not in the Japanese sense. In the Japanese case, mutual help takes place without money, in the form of reciprocal services without payment. In the Philippines I found very little reciprocal service. Most services were tied with a payment. Yet social compulsion was very strong for the rich to employ neighbors. After the transformation of tenancy of ownership the new owners could capture more income, but instead of working themselves they have tended to employ more neighbors. My original hypothesis was that their income elasticity for leisure is high, but that's not the case. The social compulsion to employ neighbors is very strong, and clearly there is an organizational principle at work.

Why can't such an organizational principle be effective for organizing communal work for capital formation? I expect that some day we can find the way to induce the village community to organize for that kind of project. Just saying, "Look at this opportunity; I can provide money" gives no basis for expecting a project to be effectively designed.

The external agent and the central or national government often take a very naive view. For example, in my study I explained that the development of sub-tenancy resulted in the negation of the original objective of land reform—to transfer the land to the original tiller. The government or the external agent cannot simply say, "Why don't you enforce the land reform regulations more strongly?" If sub-tenancy forfeits the title of the sub-lessor and establishes the title with the sub-lessee, and if that kind of legislation is strongly enforced, what would be the result? No one would want to sub-let his land. Then would the landless laborer benefit? I don't think so. It is true that sub-tenants now receive only the return of their labor; still their lot is better than that of simple hired laborers, because at least they have a sense of participation, a sense of determination, a sense of security,

and also the guarantee that their own work will be used for that sub-rented land.

What I really worry about is that the external agent has to give advice because that's what he gets an honorarium for doing, and he has to promote an action program because he has to maintain his technical staff, and so there is always a danger of his action programs and advice being premature and ungrounded in understanding of institutional structure. If you really want to achieve effective institutional change so as to benefit the rural poor, you must study what the institutions are, instead of just starting action programs. Some institutions can be readily transferred—experiment stations may be one, and the agricultural college might be another. But in the case of land reform, small farmers' credit, community work programs and that sort of thing, I strongly feel that it is better not to start with large scale projects but to start with solid, location-specific scientific research and accumulate knowledge on pilot-scale projects.

A Concluding Note

SIR JOHN CRAWFORD

A word from John Lewis is beautifully adept: Wolf Ladejinsky was a "craggy" personality. He was a lovable one for all that, marked by great humanity towards others but very ready to scold when he felt that scolding was due. (Sometimes his judgment of it being due was not correct, but the scolding occurred just the same.) I think it was Louis Walinsky who described him as "no academic, no theorizer, but a doer," and I would like at this point to acknowledge the quality of the paper by Walinsky, who, in my mind, is another Wolf Ladejinsky for beauty of style of writing.

Wolf was a doer whose concern was the rural peasantry, and especially those with little or no land who were oppressed by people and circumstances. As already brought out in the discussion, he knew oppression and revolution and he feared the one leading to the other. He was not a radical, a point perhaps not stressed enough: he was a believer in democracy. But I think perhaps not noticed was that he had a rather strong belief in rights of property. He was also what we called in my youth a gradualist, who would reform by gradualism rather than overnight and by abrupt change. But his central interest was land reform with a recognition of a somewhat wider term, namely, agrarian reform. And finally, as an international public servant he was the voice of conscience, the constant reminder that the real end purpose of the work of project-oriented offices of the Bank was the welfare of the people. All in all a towering force, despite a shy personality save when anger broke through and for the moment destroyed his reticence, and save when arguing his own theme with colleagues or officials and ministers.

Now let us move to his central interest, which was land reform within the definition of agrarian reform. He wrote, "The term agrarian reform is a loose one. Broadly viewed, it is made up of a good many elements. It stands, to begin with, for redistribution of land among the landless, the creation of individual proprietorships, security of tenure, and controlled rent. But no single panacea meets the issue. For even redistribution of land could not answer all the basic needs of the new owners unless it were accompanied by the necessary means to work and improve the land. With any new economic opportunities and psychological incentives which come with the possession of land or security of tenure, there must go hand in hand a host of other developmental measures. This is illustrated by the underdevelopment of the land of those who have small holdings of their own. Agrarian reforms in the sense considered here, therefore, include also the following elements: favorable financial arrangements for land purchases, better methods of cultivation through technical assistance, land consolidation of fragmented holdings, adequate credit, cooperative marketing facilities, farm price schemes to stimulate agriculture production, and so forth."

Ladejinsky knew that capital was required, but he was rather afraid, not without some cause, that in the quest for greater agricultural production the small farmer might be forgotten. He frequently stressed the positive contribution to production of agrarian reforms. And fairly enough, he argued that land consolidation and security of tenure could be positive aids to production and income. True, he was skeptical of ceilings as devices that fooled no one unless the surplus land was clearly distributed to those without land or connections with the dispossessed.

The papers presented at this meeting on land reform in Japan, Taiwan, China and India would have been his meat and drink. He would have been bemused by, but would understand, the recurrent comment that land reform in Japan may now be placing a constraint on further disgorgement of labor and further increases in production which might come from some land enlargement; this is the real message of the fine papers we have had from Dr. Owada and Dr. Isobe. The central land issue is not equity in land holding, but whether economically the constraints on adding to holdings are any longer socially justified or economically wise. We are all in agreement that this is not a suggestion that land reform at the time it occurred was itself wrong. If we are to try to be correct always, 30 years ahead, we'll never do anything.

Secondly, I will not comment on China. It seems a trip to China is the passport to expertise, and I haven't had mine yet. Nevertheless, I am interested in the possibility that the commune may have both a direct economic significance in terms of agriculture and an indirect one in terms of possible non-

employment in the cities in capital intensive industry; I'm referring to the paper by Perkins, comments by Chinn, and the paper by Mellor. They clearly have at least illustrative value in Ruttan's search for examples of induced institutional changes.

Wolf did recognize population as a factor, not only in the total problem but in relation to land reform. He was not greatly interested in population policy as such, or at least in what makes a population policy, but he did see population growth as a threat to adequacy of land holdings after distribution in India and as an unwelcome source of unemployment, and he has written a very fine paper bringing these points out.

It can also be said, I believe, that he would think it obvious that land reforms would vary in character and urgency according to the stage of development and apparent need in different countries. He would enjoy Joshi's paper, but not want to be too bothered by such a detailed classification and typology exercise. He would simply have treated each country as a case to be examined, diagnosed and subjected to prescription.

As a member of our mission to India in the mid-1960s, his central concern was the skewness of land distribution and the economic and social injustices this contributed to. He understood, and it was he who drew my attention to, the 1962 figures showing how marked this skewness was and the inferences it carried for income sharing. He would and did agree that if the interests of Indian policy makers were food supply or the assuring of agriculture's pivotal role in total economic development, a wider range of policy measures than he prescribed was in order. In other words, intellectually he understood what we were about and that we had a wider policy interest. He didn't object to that, and he agreed that for such an interest certain things other than those he was interested in became legitimate subjects of study of policy making; this attitude was the core of our agreement and argument in 1964-65. He would and did fight to have agrarian land injustice recognized as an evil in its own right and as a constraint on production. But he was fairly patient if we made faster progress on the food production and average income front than we could expect to make on land reform *per se*.

We declared that agricultural policy, whether devoted to raising food supply and other agricultural production or to raising producer income (and the two are obviously related), must include policy provisions under a number of headings; agricultural production is a function of many variables, for all of which resources have to be provided. All interact with one another, and no one is sufficient by itself. None is a completely independent variable.

The first variable we listed was price policy seen as an incentive; others included storage seen as a buffer to seasonal changes and as supportive of price stabil-

ity; inputs for increasing production, especially those inputs needed for the new technology, just then coming over the horizon; water, both surface and ground, for irrigation; fertilizers; pesticides; power, especially for irrigation; and research and extension for changing traditional technology. The whole of our statement of policy was production-oriented, with Wolf's active agreement and support in our dialogues with the government of India, and we did have valuable dialogues to reach a broad understanding. We didn't talk of integrated rural development but we did talk of infrastructure, particularly roads and marketing. Wolf especially helped us on roads and again on marketing.

The production orientation of our report, for which I've never felt the need to apologize, was inspired by our recognition of the urgency of assuring a food supply for a growing population and our awareness of the importance of higher rural incomes as a stimulus to the whole economy. Wolf contributed a lot of thinking about localization. Although our own statement of policy was in national terms, it was Wolf who kept discussing how it would operate in localized terms, and I think the report was more valuable for that. We did recognize the problems of a growing population, but I think it's fair to say that we didn't realize just how oppressive those problems were going to be.

This brings me to a key element in the report which has come under fire. Wolf and all of us placed great stress on political will, but our stress fell far short of providing any answers to Ruttan's anxieties about the theory of institutional innovation. And this despite the fact that there were two allegedly trained anthropologists in the team, David Hopper and me. In a formal sense, our position was that political will is a necessary but not sufficient condition. It still remains valid to argue that if there is no political will there will be no effective program. But we were quite inadequate in our analysis of what would produce that will, and most inadequate about what action might induce appropriate institutional change.

I complained at the beginning about heterogeneity of the papers that have been presented at this seminar, and explained that I could find no single theme in them. However, an understanding of Wolf's meaning of agrarian reform is a help in providing some unity. He understood agricultural development and the necessity for growth and production, but his own humanity and his professional interest led him to center on peasants and their land problems.

This did not mean he was indifferent to other questions which arise from a wider approach to agricultural policy; far from it. His emphasis on social change has been no less important to the Bank's dialogue with India than were the production-oriented efforts of his colleagues. It is praise, not derogation, to acknowledge that his emphasis on

social change is more welcome now than it was then to those who would assist India and, one believes, to the Indians themselves. He would not object, however, if as a last word I remind us all that we cannot really contribute in a permanent way to the improvement of the excluded 50 percent without a continuing effort,

hopefully against a background of a falling rate of population growth, to raise agricultural output and, in the process, farm incomes and consumption standards. This is necessary, finally, for both urban and rural employment and income advancement.

APPENDIX I

AGENDA

Session I

THE LADEJINSKY HERITAGE: HIS IMPACT ON AGRICULTURAL DEVELOPMENT IDEAS AND POLICY

- Introduction:* M. YUDELMAN
The World Bank
- Chairman:* A. M. WEISBLAT
Agricultural Development Council
- Paper:* 1.1 Wolf Ladejinsky: Legacy and Contribution
- Author:* LOUIS J. WALINSKY
- Paper:* 1.2 Ladejinsky Heritage: His Impact on Agricultural Development Ideas and Policy
- Author:* W. DAVID HOPPER, JR.
The World Bank

Session II

ACCOMPLISHMENTS AND FRUSTRATIONS OF AGRARIAN REFORM IN ASIA SINCE WORLD WAR II

- Chairman:* BRYANT E. KEARL
University of Wisconsin
- Paper:* 2.1 Land Reform: Achievements and Limits The Case of Japan
- Author:* TOSHIHIKO ISOBE
National Research Institute of Agricultural Economics
- Paper:* 2.2 Land Reform and Agriculture in Japan
- Author:* KEIKI OWADA
Agricultural Land Development Public Corporation
- Paper:* 2.3 Radical Land Reform—The Experience of China
- Author:* DWIGHT H. PERKINS
Harvard University
- Paper:* 2.4 Perspectives of Agrarian Reconstruction: India In The Asian Context

- Author:* P. C. JOSHI
Institute of Economic Growth
- Discussion:* S. ISHIKAWA
Hitotsubashi University
- T. H. LEE
The Municipal Government of Taipei
- G. PARTHASARATHY
Andhra University
- DENNIS L. CHINN
Food Research Institute
Stanford University

Session III

- Chairman:* MONTAGUE YUDELMAN
The World Bank
- Paper:* 3.1 Future of Institutional Reform and Technological Change in the Agricultural Development of India
- Author:* M. L. DANTWALA
Indian Society of Agricultural Economics
- Paper:* 3.2 Generation of Technical and Institutional Innovations for Agricultural Development
- Author:* V. W. RUTTAN
University of Minnesota
- Paper:* 3.3 Mobilizing Resources for Agricultural Growth: National Strategy and Local Institutions
- Authors:* UMA J. LELE
The World Bank
- JOHN MELLOR
International Food Policy Research Institute
- Paper:* 3.4 Evolution of Land Tenure Systems in a Philippine Village
- YUJIRO HAYAMI
Tokyo Metropolitan University
- Discussion:* KENZO HEMMI
University of Tokyo

KENNETH PARSONS
University of Wisconsin
ROBERT PICCIOTTO
The World Bank

Session IV

ROLE OF BILATERAL AND MULTILATERAL INSTITUTIONS
IN STIMULATING INSTITUTIONAL REFORM AND
INNOVATION

Chairman: KAZUSHI OHKAWA
International Development Center of
Japan

Paper: 4.1 Role of Bilateral & Multilateral
Institutions in Stimulating Institu-
tional Reforms & Innovations:
Opportunities & Limitations

Author: JOHN P. LEWIS
OECD

Discussion: V. S. VYAS
Indian Institute of Management

Summation: SIR JOHN G. CRAWFORD

APPENDIX II

INSTITUTIONAL INNOVATION AND REFORM:
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*Did not attend the symposium, but his paper
was presented.