

THE POLITICAL ECONOMY OF
EMPLOYMENT ORIENTED DEVELOPMENT

By

Uma J. Lele and John W. Mellor

June 1971

No. 35

PREFACE

It is increasingly apparent that the ramifications of the "green revolution" extend far beyond the agricultural sector. The new technological changes in agriculture offer tremendous opportunities for greatly accelerating the rate of growth of employment and thereby achieving a much broader and more equitable distribution of the benefits of economic development. This paper deals with these views and conclusions within a public policy framework. We believe it gives a new and broader meaning to the "green revolution."

The paper is, in essence, a popular presentation of the conclusions drawn from an earlier paper of ours entitled, "A Labor Supply Theory of Economic Development." That paper presents a general equilibrium system for a dualistic economy in terms of the food and the labor markets. It examines the effects of change in: (A) agricultural output and factor shares induced by technological change, (B) population, and (C) growth of capital stock in the nonagricultural sector on (1) the supply of marketable agricultural surplus, (2) the equilibrium level of nonagricultural employment, (3) the equilibrium terms of trade between agriculture and industry, and (4) the equilibrium real wage. The model also examines (a) the rate of growth of nonagricultural employment and its relationship with the growth of capital stock over time, and (b) changes in terms of trade over time between agriculture and nonagricultural sectors. The presentation, like any mathematical model involves a number of complex simplifying assumptions. The model, in particular, emphasizes the role of technological change in agriculture on the rate of growth of agricultural marketings and the potentials for nonagricultural employment. Another model is now being prepared based on this first model which incorporates a third market, the capital market, into the formulation.

A series of empirical studies are underway in which we are testing various parts of the formulation set forth in this model. These empirical efforts include studies of the technological bias of current agricultural technology and their first round effects on the distribution of income and the level of marketings. Another series of studies is examining the employment potentials in the agricultural sector as they relate to the new technologies in agriculture including both primary and secondary employment effects. Special attention is being given to the problem of allocating rural labor amongst various alternatives subject to the various restraints of food supply, capital and administrative talent. Other studies are concerned with the special problems of small farmers in a context of rapid technological change; the various factors which affect movement of rural labor to employment opportunities within the context of technological change in agriculture and the special relationships between development in the rural sector and increased employment in small scale industry. Papers reporting the results of these various studies will be issued in this series.

The papers in this series are part of a larger series which includes papers from a previous AID research contract concerned with the role and function of agricultural prices in economic development. Many of those papers, particularly those concerned with intersectoral resource transfers have relevance to the current research on employment and income distribution.

John W. Mellor

Ithaca, New York

June 10, 1971

THE POLITICAL ECONOMY OF EMPLOYMENT ORIENTED DEVELOPMENT

UMA J. LELE AND JOHN W. MELLOR

I.

Unemployment and maldistribution of wealth are now at center stage in the drama of economic development. Prime Minister Indira Gandhi's sweeping election victory, based on Garibi Hatao--down with poverty, is to be consummated through greatly increased employment of the poor. Throughout the developing world population growth has added immensely to the army of unemployed while economic policies have failed to increase incomes rapidly and have raised employment even less. Unfortunately, however, increased employment exacerbates the equally explosive problem of inflation. As the poor are employed and spend their incomes on food and other consumer goods, prices tend to rise. Most governments then sacrifice employment of the poor to restrain the price increases resented by the urban middle classes.

Here is the dilemma of the employment problem and it is this which gives special relevance to the "green revolution." The new agricultural technologies can provide the food needed to complement increased employment. Concurrently, as agricultural production increases, the employment generated purchasing power of the poor can prevent the fall in prices which would dull incentives to peasant agriculturalists.

Likewise, the greater purchasing power of agriculturalists provides demand for increased output from the industrial sector.

The utopian promise is in sharp contrast to widely reported realities of the "green revolution." All too often income inequity and unemployment have been dramatically highlighted by the new high yield varieties of grain. As compared to smaller cultivators, the larger farmers can better afford the risks of innovation and they wield more political power over the developmental agencies which provide access to credit and the crucial purchased inputs such as fertilizer, seed and pesticides. More striking, the chasm separating the kulak cultivator from the landless laborer is drastically widened as yields per acre rise dramatically, and employment increases little. Introduction of labor intensive irrigation and multiple cropping may reduce the rate of increase of disparities but the disparities remain and grow until additional action is taken. For laborers to receive the benefit of even these secondary effects, the political environment must be favorable and economic policy astute. The benefits for the poor do not rise automatically from the system as they do for the rich. An additional danger from the system is that the increased profitability of farming tempts landowners to resume cultivation of their tenancies and thereby convert poor tenants into destitute laborers.

If the extraordinary promise of the emerging agricultural technologies is to be realized, drastic change in policies towards employment and industrialization will be needed.

II

Past failure to generate rapid increase in employment can be largely explained in terms of the ascendant theories of economic growth and consequent policies of capital intensive production and import substitution. Such development strategy was prompted by emphasis on structuring the economy towards heavy capital goods production and reinforced by assumption of low growth potential for exports. The domestic capital goods sector was to be built at an early stage of development to force immediate savings and investment and to refrain from long run reliance on imports. At the extreme one first produced not food, not fertilizer, not fertilizer factories, but the industries which produce fertilizer factories.

It was also believed that minimization of employment and thereby of consumption in the short run would conserve resources so that they could be ploughed back into further expansion of the manufacturing sector. The conclusions that follow from such assumptions may be stated succinctly but

simplistically as follows: The lower the rate of growth of employment and consumption in the short run, the higher their levels in the long run. It is a bourgeois approach, for it is the poor who die in the short run.

Contrary to the theory, the practice of capital intensive industrial expansion has resulted in relatively low rates of savings. This is because the complexity of these industries caused low profits and even losses. Ironically, the prophecies of low growth potential for exports have been fulfilled precisely because the policies followed were based on that initial assumption. Clearly, the low income countries have little immediate comparative advantage over their high income counterparts in export of capital intensive products. India's highly sophisticated Second and Third Five-Year Plans are classic examples of these various assumptions, strategies and consequences. The Philippines and much of Latin America are less precise but still conforming illustrations.

Unfortunately, though the hopes of the investment and capital goods orientation were belied, it is unlikely that an orientation toward employment, consumer goods and trade would have been generally successful without a technological breakthrough in agriculture. If India in the 1950's and 1960's had expanded nonfarm employment at the otherwise feasible

rate of 7 percent per year, the added expenditure on food of the newly employed laborers would have driven up real agricultural prices by roughly 10 percent per year. Not only would the economic base for growth in employment have been cut off, but the situation would have been politically unacceptable as well. World supplies of food were not available on the massive scale needed to back employment-oriented growth strategies in the developing world as a whole, even though individual small countries such as South Korea, Hong Kong and Singapore have been successful in matching employment growth with imported food.

III

Precisely because development policies of the past two decades have been consistent with the old reality of stagnant agriculture, so the new reality of technological breakthrough in agriculture requires a new strategy. Accelerated growth in food production provides striking opportunities for reversal of the low employment, 'basic industry' approach. Such a change has far reaching implications not only to the industrial structure, but to the choice of production technique, the domestic savings rate, the scale of industrial organization and the level and composition of trade. Further, because of its distributional bias towards the rural elite,

technological change in the agricultural sector, may itself be turned into an engine for growth in industrial employment.

The upper income rural people who receive the primary benefit of the new yield-increasing agricultural technologies already eat well. Consequently, they market the bulk of their additional production and thereby support growth in nonfarm employment. This contrasts to traditional means of increasing agricultural production through labor-intensive methods of land reclamation and more careful crop husbandry. Thus, in India of the 1950's food grain marketings increased little faster than production; by the late 1960's, the new technologies had caused food grain marketings to grow about 60 percent faster than production.

Unfortunately, the potential for increasing employment provided by larger food marketings may easily be lost by inappropriate supporting policies. If increased domestic food production is used only to replace food aid no significant increase in nonagricultural employment will occur. If the food is exported instead of being consumed domestically, growth of employment will depend on the manner in which the foreign exchange is used. In most Latin American countries the pattern has been one of investment abroad or increased imports of consumer goods for upper income classes, instead of alleviating the domestic employment problem. If the foreign exchange is

used for import of capital goods, so as to expand the domestic industrial sector, employment will increase. How much employment increases will, of course, depend on the technology of industrial development. The tendency has been to fritter away the potential on capital intensive industries. Mexico seems to be a classic case of the agricultural breakthroughs adding to rural income disparities but not being used to accelerate growth of industrial employment. Taiwan and Japan illustrate particularly successful use of agricultural progress to increase employment.

If food imports cannot be reduced or exports increased, the politically powerful landed classes will press for price supports and government purchases to maintain high agricultural prices. What policymakers often fail to realize is that an employment oriented policy increases demand for food and thereby maintains agricultural prices without other action. It is thus obvious that the landed classes will receive a pay-off from technological change no matter what the strategy for maintaining prices, i.e., whether prices are maintained by increased exports, reduced imports, building of stocks or increased employment. Laborers will, however, benefit only from increased employment. The best strategy is obviously the latter. Unfortunately, the landowning classes, with their desire for expediency in delivery of benefits, do not support the employment option.

The rapidly rising income of prosperous landowners and peasants also offers a large and growing tax base for the support of employment programs. Even prior to the "green revolution" the landed interests were undertaxed. Latin America is notorious in this respect and in India upper income rural people pay only about one-third as much in taxes as urban people in the same income bracket.

The landed interests evade the taxes which could support employment programs and maintain high agricultural prices despite the poverty of the masses. It is these tendencies, founded on greed and ignorance, which turn the green revolution red, not the underlying nature of the new agricultural technologies.

IV

Sharp acceleration in the agricultural growth rate places the immediate burden of employment expansion on programs for rural public works. Fortunately, increased demand for purchased supplies such as fertilizer and increased marketings of food, both of which accompany the agricultural breakthrough, greatly increase the rate of return to labor intensive rural public works such as roads, landleveling, irrigation schemes, and rural electrification. Some of the increased food production may thus be used to feed an expanded rural labor force which

in turn facilitates further increases in agricultural production. In addition, adroit handling of productive public works may allow tapping of local tax bases that are not available for distant central government purposes.

A disturbingly high degree of scepticism exists among bureaucrats regarding the effectiveness of such investment. They believe, with some reason, that resources allocated to rural public works will disappear in the coffers of local politicians and enlarge the scale of political patronage. Their views are also influenced by the failure of many such schemes in the pre-"green revolution" environment of largely subsistence agriculture in which there was little economic incentive for villagers to support such schemes.

The increased employment and income consequent to agriculture-led growth cause a much more than proportionate increase in the demand for fruits, vegetables and livestock products. These in turn use large quantities of both production and processing labor. As long as the basic food grains sector is stagnant, however, its effect both on labor supply and output demand prohibits an increase in the production of these types of agricultural commodities. In the case of livestock products, grain shortages also raise the costs of production. A rough estimate for India shows that the "green revolution" and its ancillary effects

are consistent with an increase in milk production alone which could provide a 50 percent increase in annual employment and income to the 15 million landless labor families. These secondary potentials in agriculture require substantial public investment in new forms of research, education, credit and market development.

While one set of policies expands rural employment, care must be taken not to allow other policies to throw additional laborers on the market. Tenants must be protected from eviction by avaricious landowners. Small farmers must be assisted by reducing the risks of innovation and increasing the availability of credit and production supplies. Laborers must not be capriciously displaced by machinery. Mechanization is a particularly complex issue in which bad policy may destroy many jobs, while a selective effort may actually increase production and total employment through reduced costs of transportation, improved methods of water distribution, and the breaking of labor bottlenecks.

Manufacturing and service industries must be the principal long run source of expanded employment. Rapidly rising incomes of agriculturalists can facilitate accelerated growth in industrial employment through increased demand and greater savings and investment. It may be necessary to reinforce these tendencies with a redistribution of income and additional investment incentives.

Economists have for too long been the jestors who rationalized the desires of the rich to keep their money by stating that growth requires investment and saving and that the rich save more than the poor. In many countries the rich not only save little, but the pattern of their consumption is loaded towards imports and capital intensive types of domestic production. A higher proportion of wealth in lower income hands would in many countries direct consumption towards products providing more local jobs, and raise savings and investment rates in newly profitable local industries as well. Latin America is replete with countries needing redistribution of income in order to foster a more employment oriented industrial structure. It is not accident that the high growth rate countries such as Taiwan, South Korea and Japan have much broader distribution of income than lower growth rate countries such as the Philippines.

Rapid expansion of small scale industries, both directly in the production of consumer goods and ancillary to larger scale firms offers one of the most effective means for employment expansion. Products such as sewing machines, bicycles, transistor radios, agricultural implements and other small tools and machinery have considerable potential for being manufactured in whole or in part in small scale industries that make many more jobs per unit of capital than do the large scale industries introduced under modern import displacement schemes of development.

In addition, in absence of an organized capital market and of investment oriented price and fiscal policies in the agricultural sector, small industries provide an efficient way of fostering and mobilizing small savings in the agricultural sector. Development of medium and small industries may also bypass the route of the rural-urban dichotomy followed by most industrialized nations of today and the social, political and environmental consequences of that route. Development of small scale industries requires large public investment in power and transport and attention to many special problems of credit, relations with large scale industry, and access to export markets, supplies of raw materials and machinery.

All the employment measures delineated here are initially more profitable and progress more rapidly where agriculture is already prospering most. Consequently, explosive widening of regional income disparities is one of the most intractable consequences of the "green revolution." It is the poorer class in the backward regions who suffer the greatest inequity in economic development.

Unfortunately, the politics of regionalism reinforce an already difficult economic problem by restricting free transfer of food to these regions and of surplus labor away from them thus seriously hampering a regional balance in development. The limited cost benefit calculations conventionally used in the

allocation of investible funds by planners and aid giving agencies further reinforce regional imbalances. A fresh view must be taken of the problems of interregional resource allocation with a much longer run multiplier effect of investments in mind. The economic disparities between the two wings in Pakistan have vividly brought home the stark effects of narrow cost benefit analysis.

V

In the past, massive foreign aid in the face of a stagnant agriculture has pushed low income countries towards capital intensive industries in which they have the least comparative advantage. This has meant high cost production, relatively low rates of return, and consequent poor capacity for repayment of loans. The aid giving agencies have also encouraged low income countries to adopt the technology of high income countries, suited to different proportions of capital and labor.

Success in the agricultural sector has provided a new impetus for development of agricultural technologies which cater to the different physical conditions prevailing in low income countries. A similar effort must be launched in other sectors of the economy to evolve technologies suited to the economic condition of abundant labor. Foreign aid can play a significant role in developing the necessary scientific infrastructure. To do so

will require that program development and appraisal make less use of foreign consultants and their technological biases and more use of the rising research and development capabilities of the aid receiving nations.

Carefully used, in conjunction with a buoyant agricultural sector, foreign aid may supply the capital to complement labor using industries. This may lead to low cost production, high profits and increasing capital formation. The contrast of this approach with the capital intensive one may explain why foreign aid has been so effective in some countries such as Taiwan and South Korea and so ineffective in others.

Since the agricultural breakthroughs have been significant mainly in foodcrops, shortage of other agricultural raw materials such as cotton and oilseeds, are now likely to be serious constraints on employment expansion. Foreign aid could play a particularly significant role in identifying and supplying these commodities in the short run and in providing technological assistance to increase their production in the long run.

The form of aid thus needs to be complementary to the form of the development process. Where the agricultural sector moves rapidly there may be a need for foreign aid in the form of capital goods and foreign exchange. If the agricultural sector is stagnant, however, and hence inhibits the growth of employment, foreign aid may emphasize development of the technological

infrastructure for fostering the seed-fertilizer revolution. While these longer term policies are being implemented, food aid can be used for expanding employment in balance with growth in capital. East Pakistan is particularly in need of the latter strategy.

The development of a labor intensive industrial sector also has significant implications for expansion of trade. Demand will expand rapidly for many types of imported raw materials and capital goods to combine with labor. The immediate need for foreign exchange is often viewed by planners as unfortunate. However, what is not recognized is that development of a growing domestic market for labor intensive industrial products may prepare the way for eventual export. The experience of Japan and Taiwan and more recently of India demonstrates the large potential for exports of labor intensive goods, not only to other low income countries, but also to advanced industrial nations where labor has become increasingly dear. Success in exports may even allow supplement of domestic agricultural production with food imports to sustain a somewhat faster growth of employment than would otherwise be possible. Commercial food imports by Communist China appear to have allowed a much more employment oriented approach than that followed by the Soviet Union. India could profitably develop rice imports from Thailand for the same purpose.

In the long run, expansion of trade is to be preferred to aid as trade encourages specialization in those types of commodities which use more of labor relative to capital. However, foreign aid can play a particularly useful role during the interim period when demand for imports of capital and raw materials outstrips the long run export capability.

VI

The developmental approach outlined above provides a positive alternative to the capital-intensive, import-displacing, low-employment growth pattern followed by many low income countries. At the theoretical level, our approach emphasizes a consumer goods orientation. We contend that this would accelerate growth of employment, savings and exports. We have shown how release of the food constraint is a sine qua non for such an approach. Several factors play a crucial role in determining whether the potentials offered by technological breakthrough in agriculture are fully exploited.

First, although the magnitude and the momentum of the agricultural revolution may be disputed, the revolution is a fait accompli in the important sense that the concept of agricultural development has been drastically changed. However, if the myriad scientific, administrative, institutional and political intricacies of the "green revolution" are not attended diligently the revolution may halt.

Second, both to accelerate growth in agricultural production and broaden distribution of benefits, effective policies are needed to extend the "green revolution" to small farmers, to prevent displacement of tenants, to confine farm mechanization to the few socially desirable functions and to expand rural employment through diversification of agriculture and development of productive rural public works programs.

Third, success in agriculture provides opportunity for a fresh look at industrialization policies. Governments of many countries are geared to the ideology of large public sector capital-intensive enterprises and are often neither willing nor equipped administratively to cater to the needs of a more atomistic employment oriented type of industrial development. Public sector investment need not be deemphasized, but it may need to be redirected. New industrial policies may need to be coupled with encouragement to private investment and discouragement to import oriented conspicuous consumption by high income groups.

Fourth, export markets must be sought more zealously. Industrialized countries have often followed a policy of too much rhetoric and too little action on the question of allowing imports of competitive products from low income countries. On the other hand, the onus often lies with the low income countries' lack of initiative, poor quality standards, and

delays in deliveries of goods. Improved agricultural and employment conditions should give impetus to the reform of export and import policies.

Fifth, a strong argument must be made for accelerating the flow of aid to low income countries. American aid in particular has dwindled to appallingly low levels while the poor countries are lectured for not sharing the income of their faster growing regions with their laggard ones. The agricultural breakthroughs, in which foreign assistance may claim a significant credit, provide new potential for self-sustained growth in low income countries. Our analysis emphasizes the need for a careful examination of the manner in which growth is fostered through aid and a clear need for a short run increase in aid while growth of agricultural production is accelerating.

To maintain a high growth rate in food production and to foster employment oriented industrialization obviously requires policies in low income countries that go beyond the tokenism of socialist slogans and symbolic nationalizations. It also requires more from the high income countries than pious lectures about free trade and boot strap development.