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URBANIZATION OF LOW-STANDARD RURAL FAMILIES

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THE need for a common and unmixed perspective in an appraisal of the socio-economic area—urbanization of low-standard rural families—prompts a quick review of the desirable ends for population adjustments in any economy and in the world at large. The objectives, from the standpoint of the individual family, must include: access to at least minimum quantities of goods and services; opportunities to live richer and fuller lives; and freedom from persistent moral stress. The objectives from the standpoint of a particular social group or country must include the above with full recognition that maintenance of national integrity and world security will affect the general level of living at any given time. Land tenure, land use, taxation, and fiscal policies should be such that no particular social group is burdened more than others when viewed in terms of the objectives for the individual family. Obviously the human aims of urbanization or de-urbanization must go much beyond a dollars and cents evaluation of standards of living. The aims can best be summarized by the statement that there is no limit to the level to which it is desirable for the human race to raise itself. Specifically there must be opportunities for better living and the raising of a new generation equipped for better living than the present one. Food, housing, health, education, and security are the concrete things from which this better living can be the result.¹ The criteria, then, for the consideration of urbanization or de-urbanization are: will such population adjustments increase the real income of individual families and groups of families in a particular community or particular economy, and will they lead to richer and fuller lives? Four major sets of conditions must be considered: one, a mature economy in which the use of resources and real income in rural and urban types of employment approach a par-level concurrently; two, a transitional economy shaken by technological advancements; three, a restorational economy shafted through and through by catastrophe; and four, an economy with only embryonic developments. Secular, cyclical, and irregular influences will affect the immediate ends of urbanization differently

¹ J. D. Black *et al.*, *Farm Management*, p. 89. The MacMillan Co., New York, 1947.

in each. All are important in the world of to-day, and much of the security of the world of to-morrow depends upon an improved lot for low-standard families in each of these sets of conditions.

CONCEPTS

Before proceeding it should be explained that urbanization is dealt with in this discussion as a phase in the main type of shift from agriculture into other lines of employment. A completely defensible definition is not provided for the term 'urbanization'. The implied concept is that urban families do not derive their livelihood directly from the land, and that they live as a part of a concentration of people that is large enough and so organized that the public and private services commonly associated with urban living are provided. Low-standard families are considered to be those whose level of living is below the minimum requirements considered to be desirable for buoyant health and adequate shelter, education, and security with full recognition of differences in systems of values to be found in various countries. No attempt is made to treat the mixtures of opportunities and problems associated with employment shifts within rural areas and between part-time and full-time farming.

IN A MATURE ECONOMY

Here the concept of a mature economy is one in which the real income on farms reflects an efficient utilization of the trade techniques of the times, and the real incomes are roughly equivalent to those of the general levels of incomes in other lines of endeavour. The main core of the American Corn Belt provides, perhaps, the best example of a significant part of an economy wherein the resources on farms are used nearly as efficiently and almost as fully as those in urban concentrations. Sweden presents another example of relatively mature economic conditions. Such a balance in adjustment is a prerequisite to maximization of the social and private net product with a minimum of inconsistency between the two. There remains under such conditions a fringe group in both urban and rural situations who could use their limited skills and energies to greater advantage in other fields of employment. These maladjustments, however, are of the kinds inherent in any society where there are dynamic influences such as simple technological advancements and changes in consumer tastes occurring at irregular intervals. Likewise these maladjustments may stem from cyclical swings in business activity. Elements within a mature and competitive economy normally will have auto-corrective tendencies in so far as secular

shifts in economic activity are concerned. The providing of complete information, the full development of educational processes, and a minimization of restraints such as labour union restriction of entry into particular trades, should provide a framework within which the balance between the urban and rural segments of such an economy can be maintained satisfactorily by individual choice without direct group or governmental action. Even though an economy is a relatively mature one in the sense of rural-urban balance it cannot operate in isolation. It is tied inescapably into the agriculture and the economies of other countries, all of which show interdependence and subjection to powerful common influences in spite of institutional barriers and short-run manipulations.

IN A TRANSITIONAL ECONOMY

Generating forces from technological advancements which strike at the foundational combinations of productive agents often set up a chain of economic adjustments which modify greatly the usual relationship between real incomes in rural and urban communities. By so doing these new technologies precipitate a transitional phase in economic progress which may last for a generation and more. Specialization by occupation and then by areas and regions grew out of technological advancements and the development of trade. The necessity for people to live close to the land to obtain food, housing, and shelter has been lessened as an ever-increasing proportion of the human race has moved through the several stages from 'direct appropriation' to the highly developed types of economies in the present-day western world. Frequently the social costs of this progress have been unduly excessive with the unsteady gyrations which have resulted from unguided and often misunderstood trial and error changes. Concurrent and aftermath adjustments often include shifts from urban to rural employment. But the net trend has been towards urbanization. In the United States the proportion of the labour force engaged in agriculture pursuits has declined steadily at the average rate of $\frac{1}{2}$ per cent. a year for the past century.

On the farm, the simple technological changes which can be easily fitted into established production practices and farming systems normally cause more than a ripple of adjustments. For the most part they add to the returns to each factor of production as well as to the social net product. Examples are the development of hybrid corn, the introduction of disease-resistant crop varieties, and the direct application of ammonia to intertilled crops as a source of nitrogen. Such changes increase the productivity and the returns to land,

labour, management, and capital as long as market gluts are avoided. Generally the magnitude of a given simple technological change or an irregular sequence of them is not large enough to stimulate large-scale population adjustments.

Of much greater significance are the complex technological changes which are economy-shaking in nature. They alter the basic combinations of productive agents. The effect may be to change either the capacity or the efficiency of one or more factors of production for the others. The return to individual units of one factor, e.g. labour, may be increased because of added productivity, but the aggregate return to labour may be lessened. New potentialities are attained for the enhancement of the social net product. The production organization as it matures with the new technologies in use would reflect a new set of resource combinations, new levels of real income, a revamped value structure for fixed investments, and eventually the striking of a new balance between urban and rural populations, if an implicit assumption of manpower mobility is accepted.

The cotton-south in the United States is now in the throes of a transition caused by complex technological changes centred mainly upon the shift from mule to tractor power, and the development of the hill drop planter, the flame cultivator, chemical defoliation, and mechanical cotton-pickers and strippers.

Prior to the introduction of the all-purpose tractor during the late twenties, the primary considerations on cotton farms and plantations were the most economical use of mule power and man-labour in relation to the acres of cotton which a family could chop, hoe, and pick. Commonly during the period 1932-6 the share-cropper families on Delta plantations averaged from 2.7 to 2.9 workers per family. They worked an average of 166 days per year and received net incomes averaging about 200 dollars per worker, excluding perquisites, or about \$1.20 per day. Generally a family with from two to three workers would have 12-14 acres of cotton.¹ These were the conditions under which mechanization began its development in the alluvial areas of the southern states.

The improved all-purpose tractor can be used for tillage and row-crop cultivation, to expedite field-work at critical times, to harvest small grains and hays, and to work heavier types of soils more effectively. The size of adapted tractor equipment and the added flexibility with tractors for power greatly increase the amount of work which one man can do for some field operations but not for others

¹ E. L. Langsford and B. H. Thibodeaux, *Plantation Organization and Operation in the Yazoo-Mississippi Delta Area*, Bureau of Agricultural Economics, U.S.D.A., May 1939.

in the prevailing farming systems. Notable exceptions are thinning a thick drill of cotton to a stand, controlling grasses and weeds with available equipment and practices, and harvesting cotton. The farmer choosing between mule power and tractor power under such circumstances has had this question to answer: Will it pay to mechanize tillage and cultivation for row crops and tillage and harvesting for small grains and hays when it is essential to have enough resident labour to pick most of the cotton? Without the resident labour it is necessary to assume a high risk in obtaining the services of transient workers at picking time. With efficient tractor-manpower combinations, only the drivers and the service and management personnel are needed except for short seasons. On a plantation with 750 acres of cropland, five three-plough tractors could replace 32 mules; but such a complete shift would involve very high production risks if dependence were placed upon the labour from these five resident families and from migratory hands and workers from town for hand chopping, hoeing, and picking 450-500 acres of cotton. The current arrangements then hinge upon complex arrangements with share-cropper and day workers for partial mechanization.

It is difficult to conceive of ways in which returns over costs can be at reasonable levels with mechanization where cotton yields are less than 200 lb. of lint per acre, corn yields at 15 bushels, and oat yields from 30 to 40 bushels. There are many, many farms in the eastern Cotton Belt where such conditions exist. They stay in cotton production because they can grow cotton with the least comparative disadvantage of any farm enterprise suited to the conditions as they have evolved. They are willing to continue to grow cotton even at this disadvantage because it is a high-valued labour-intensive crop which enables farm families to obtain some cash return for their labour and a higher cash return than they could get on a year-round basis for their labour on other crops or livestock.

Until major adjustments occur in size of farm and in the size and type of mechanized equipment now available it is unlikely that full mechanization would be feasible except on a small proportion of farms in the eastern Cotton Belt. The rate of mechanization and the rate of population adjustments, particularly in the south-eastern states, will be conditioned strongly by the price-level, employment opportunities available to cotton labour, and the existing wage-levels.

Mechanization has progressed far in such cotton-growing areas of south-western United States as the High Plains of Texas and other areas with limited weed-control problems and relatively small-growing, short-staple cottons. The High Plains area is characterized

by large-scale row-crop farming in which cotton and grain sorghums occupy about 80 per cent. of the cropland. Farming is done almost exclusively with tractor equipment and principally with four-row units. One man can handle 450 acres with four-row equipment, 150 acres with two-row tractor equipment, 180 acres with two-row horse-drawn implements, and 100 acres with single-row horse-drawn equipment with extra help for hoeing and harvesting in this area. Operators of family-sized farms grow from 150 to 250 acres of cotton on units of 300-500 acres of cropland.¹

Cotton yielding 400 lb. of lint per acre could be grown with fully mechanized methods in the alluvial Yazoo-Mississippi delta with 15-30 hours of man-labour, depending upon the amount of hoeing required for weed control. With current production practices about 120 hours are required per acre. The importance of an 80 per cent. reduction in total man-labour requirements would be no greater than the accompanying effect upon the seasonal pattern of labour requirements. For example, at picking time the hours of labour with hand methods could be reduced from 80 to 90 hours to 4-4½ hours with the one-row, spindle-type picker. As such changes are made, investments of more than 50 dollars per acre will be required for farm machinery alone on minimum efficient-sized operating units. These changes as they come about slowly will be of such magnitude that they will generate a chain of fundamental adjustments from the south which will not reach a new maturity for several decades.

So far the process of mechanizing agriculture in cotton-growing areas has been the direct result of shortages of manpower growing out of Second World War conditions. The social effects have therefore been negligible up to now. The real contributions, however, of mechanization and the associated technological advancements will come only as the costs involved become sufficiently low to enable mechanization to push its way on to an ever-increasing number of operating units.

If this pushing process, which is in a strict sense a substitution of capital equipment for labour—conditioned by the development of new skills and managerial capacity—is carried to the point of providing an efficient agriculture in the south, then about one-third of the working population on farms in 1943 would not be needed in this efficient agriculture.² There is a real danger when one first looks at this

¹ A. C. Magee *et al.*, 'Information Basic to Farm Adjustments in the High Plains Area of Texas', *Texas Bull.*, 652, 1944.

² F. J. Welch, 'Cotton in the Agricultural Economy of the South', an address presented at the Cotton Research Congress, Dallas, Texas, July 1947.

statistic, in considering this one-third of the workers on southern farms in the United States as potential 'economic extras'. They can be so considered only in a temporary sense and only with reference to agricultural employment. From the standpoint of the economy of the south, of the United States, and of the world they represent another group of human resources to challenge the leadership in private lines of endeavour and in public agencies to find ways and means of utilizing efficiently their capacity to contribute to the social net product.

Within the south there are numerous water-power and physical resources with which this labour can be fitted into new industrial enterprises. It must be recognized, too, that in the cotton-growing areas the better portions of the farm-land have been used much more intensively, although with limited efficiency, than the agricultural lands of second and third quality. The development of these farm resources with these new technologies will require relatively large capital investments. The risk elements involved are probably greater than most of the present landowners will be willing to tackle. The potential owner-operators do not have the capital. Hence the need for a new type of 'venture funds' in the south.

The question is often raised whether employment—even in the poor agricultural areas—would provide a better living on the farm or whether transfer from one occupation to another would be merely a swap from one set of evils to another. Careful attention should be given to the possible effects of the introduction of new industries upon the individual family and its members.

A colleague, Miss Dorothy Dickens, of the Mississippi Agricultural Experiment Station, has compared the levels of living in families where the women have been employed in cotton textile mills and cotton-garment plants, with those of women who assisted in the production of one or more farm products offered for sale. All of the families studied were located in towns and small cities and on farms in poor farming areas.¹ Miss Dickens concludes that single industrial women had more cash to spend than single farm women, but their situation as compared with farm women was not always better. The garment plants studied had selected women with better education who were generally reared in families of somewhat better socio-economic status than were the textile women. The real income of the garment-plant women compared quite favourably with that of the farm girl

¹ Dorothy Dickens, *Some Contrasts in the Levels of Living of Women Engaged in Farm, Textile Mill, and Garment Plant Work*, Mississippi Agricultural Experiment Station Bulletin, No. 364, 1941.

whose family head was a farm owner. In Miss Dickens's appraisal the situation of the garment-plant women was much better than that of the farm girl whose family head was a non-owner. In this underprivileged, little-schooled class of non-owner farm-working sons and daughters is a large potential supply of white labour, but a supply that needs more training before it will be readily employable in industries. Unfortunately this is true for much of the coloured population also.

Ninety per cent. of the people employed in the textile and garment mills studied were reared in the county in which the plant was located, or in an adjacent county. In comparisons with census statistics it can be noted that daughters of white tenants had about a quarter of the chance of being employed that owner-daughters had. Supervisors in the garment plants particularly preferred young women because of the shorter time and expenditures involved in training. The young group learn more quickly and have a longer earning period. The dividing-line appeared to be at about 35 years of age.

When a new plant goes into an undeveloped area in the south they quite often use schooling as the main guide in their recruiting of personnel. They feel that little schooling goes along with other limited environmental factors of restricted backgrounds and experiences, and a lack of confidence and poise that such backgrounds give. The neediest quite often do not turn out to be the best workers. The earnestness or zeal which rural people have when they first enter into industrial employment often makes up in part for some of their other limitations. There is no reason to place too much dependence upon such enthusiasm. A much better alternative is to intensify greatly the education and training programmes, particularly in areas where local resources are not adequately supporting training programmes. It would appear in the cotton-growing areas of the southern United States that the higher the percentage of tenancy in a county the greater the difficulty will be of getting industries established, yet the greater will be the need.

The economic possibilities of balancing agriculture in cotton-growing areas with industry are of outstanding significance. They do not, however, and will not, represent a full solution to the problems of population adjustment growing out of technological transitions in the south. The process of out-migration which has been characteristic of the south for generations will have to continue as one of the main correctives and very likely at an accelerated rate, particularly from those sections which do not have favourable power supplies and physical resources.

IN A RESTORATION ECONOMY

The disruptions of the economic processes in highly developed economies by war ravages of industrial plant capacity, of transport and service facilities, of family groups, and of sizeable proportions of workers in the vigorous age-range group, makes havoc-mending truly a difficult job.

Before tackling the problem of urbanization under restoration conditions recognition should be given again to the fact that physical and human resources including power (and with allowances for differences in skills) must be utilized as efficiently and as fully in urban as in rural areas if the maximum social net product is to be realized. In the short-run period it is easily conceivable that de-urbanization of workers and their families would aid in restarting economic processes in some of the countries of western and central Europe. Often there is more opportunity to absorb displaced workers quickly in farming, lumbering, and some types of mining than in manufacturing and productive services. Adding to the total production of first-stage products, even with greatly diminished returns per worker, may do more to refill economic channels and to revive trade to gain needed exchange than to attempt to absorb too many workers in the reconversion process, to use too many of them immediately in housing and public works, and to see too many of them in standby positions waiting for the pipe-lines for goods and the need for their productive services to reach levels which would again mean full-measure contributions to the economy. Such de-urbanization would bring a greater share of the population closer to the food sources, and would tend to reduce somewhat the discontent which brews best in the concentrations of economic maladjustment, regardless of the causes. Under restoration conditions 'low standard' considerations must play a secondary role at first.

A quarter-century of economic restoration, development, and maturation is more nearly the setting in which human resource adjustment, in the sense of progressive elimination of low-standard families, can become the first consideration in war-ravaged countries.

Some of the more pressing human problems must, however, be dealt with at the same time as economic restorations are attempted. First among these are the multiple tragedies of forcefully displaced persons, particularly the children, adrift from family connexions. These must be placed in the resources pattern and in the hearts of countries in North and South America, in Africa, and possibly in Australia, where a substantial proportion of these people can be

given an opportunity for rehabilitation. Perhaps immigration with limited time restrictions would help where public opinion appears to be set against further immigration on a permanent basis, or hinging altogether upon selective immigration. There are thousands of displaced persons who would gain immensely in health, in release from moral stress, and in regained confidence from a ten-year sojourn in a country with relatively more facilities, although the problem of going elsewhere would have to be solved in the interim.

It is easy to get the impression that there is a real lack of common aims in organization and of 'follow-through' in handling this international problem. A more rapid solution could aid greatly in stepping up the rate of restoration of many western and central European countries.

It is self-evident that permanent immigration from some of the restoration economies would be desirable to improve the man-land-capital combinations in the long run as well as the alleviation of current food shortages. Selections in terms of urban and rural people with varying types of desirable skills might provide a more practical approach than the current tendency to think only in terms of numbers of people and of the exclusion of undesirables.

IN AN ECONOMY WITH EMBRYONIC DEVELOPMENT

There are a multitude of economic, social, political, and religious reasons why some of the oldest countries in the world must be considered to have economic development, in a modern sense, in a beginning or embryonic stage, e.g. China, India, Poland, Bulgaria. Each of these countries would like to look forward to the economic and social gains which accompanied the Industrial Revolution and the improvements in transportation and finance which were associated with it.

The United States was fortunate in that its Industrial Revolution came while the soil and other natural resources were still abundant.¹ Much of the capital needed to finance industrialization and mechanization came out of current income. In a densely populated country such as India, nothing is left over at the end of the year and capital accumulated very slowly. The accumulation of skill and of managerial experience likewise occur at a slow rate. Within the capacity of physical resources and power potential for industrialization then capital, skills, and management aids will need to be brought in from outside countries if rapid strides are to be made. In many instances institutional obstacles will have to be eliminated. Beyond the

¹ J. D. Black *et al.*, *Farm Management*, p. 125. The MacMillan Co., New York, 1947.

capacity of the industrial resources and a balancing in use with agriculture in any economy then out-migration is the only alternative left for improvements for low-standard rural or urban families. If borrowed capital, skills, and management are not forthcoming from outside resources then one way or another the accumulation must be made through long-term savings and training programmes. A century and more will be required for these accumulations to be made and utilized effectively to bring about sufficient transitions to make a substantial contribution to an urban-rural population balance with desirable standards of living in countries such as China and India. Social scientists seeking ways and means for human betterment and with the thought in mind that there is no limit to the level to which it is desirable for the human race to raise itself must interest themselves in exploring every possibility whereby the rate of improvements in these embryonic economies can be accelerated and their social net product maximized.

NEED FOR A HALF-CENTURY APPRAISAL OF RESTORATION AND DEVELOPMENT

Commonly the problems of optimum ratios of population to land and to industrial resources are viewed with a restricted time-period in mind.

The differences between the four fairly distinct sets of economic conditions outlined above require that population and resources relationships be dealt with first in terms of the particular economy. Then the relationship should be dealt with in terms of that economy as an interdependent along with the economies of other countries because of their tendency to move in unison as a result of powerful common influences and the necessity of utilizing mutual interdependence to advantage if better living is to be obtained the world around.

The serious war plight of so much of Europe and Asia prohibits the success of any fully fledged effort which might be made by surplus countries to fill economic channels in restorational economies sufficiently to get them back quickly to an efficient level of operation. Such approach of direct transfusion would require tremendous quantities of food, production equipment, raw materials, and often semi-processed products. This is the kind of an approach which might be accomplished in a short time if there were only two or three countries which had been thoroughly upset.

The practical alternative is obvious. Included steps are savings and borrowings to accumulate capital, recombination of rural and

urban production factors to increase efficiency, and the alleviation of the situation as much as possible through consumption controls. The dependence upon surplus countries should be to fill emergency gaps and to supply the items which it would be mutually beneficial for the surplus countries to supply from the standpoint of comparative advantage. Without a long-run viewpoint in which the restoration in the war-torn countries is developed in line with a desirable future pattern for agriculture in that country, then later difficulties from unbalanced urban-rural or agricultural-industrial allocations will present intensified problems of low-standard families.

The world surplus is not sufficient to lend substantial aid to both restorational and embryonic economies at once. The moral stress in most restorational countries reflects systems of values derived from high levels of living. The intensity of this moral stress and future contributions which these countries can make prompt dealing with their problems first, but in terms of a twenty- to twenty-five-year time-span.

As progress is made in restorational countries it is suggested that both the surplus and the partially restored countries, as they can, provide direct aid by providing capital, organizational or management capacity, and training for the development of skills for development of the embryonic economies.

For contributions in the first phase—restoration—the surplus countries must be willing to accept imports as partial check-offs. They should be willing also to accept contributions which the restorational countries make for development elsewhere as compensatory action. Such an arrangement would provide the original contributing countries with partial payments in goods and a second contribution to world betterment. The present surplus countries would need to contribute also to the embryonic countries. Original contributing countries would eventually share in the heightened plane of world trade and benefit from the increased business activity. The resultant restorations and economic development would do much to raise nutrition, housing, clothing, and health above desirable standards for a high proportion of the world population. In addition it would do much to engender a spirit of international co-operation which offers much for future maintenance of world security.

The plea here is not for acceptance of the above suggestions developed strictly from a qualitative analysis and a limited understanding of the problem. Instead it is a plea for a competent, objective, and courageous group of social scientists to set upon the job of charting a half-century course of restoration and development for the

free peoples of the world. Without such a perspective it is difficult to see how the short-run policies, spawned by expediency under different sets of economic and political conditions, can avoid adding to the aggregate number of low-standard families and in many instances worsening their plight. It will bear repeating that much of the security of the world of to-morrow depends upon an improved lot for low-standard families. The acute need for a long-term appraisal of opportunities for human betterment from an integrated approach to restoration in war-torn countries and advancement in under-developed countries is the challenge of the century.