



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

PROCEEDINGS
OF THE
SIXTH INTERNATIONAL CONFERENCE
OF
AGRICULTURAL ECONOMISTS

HELD AT
DARTINGTON HALL
ENGLAND
28 AUGUST TO 6 SEPTEMBER 1947

GEOFFREY CUMBERLEGE
OXFORD UNIVERSITY PRESS
LONDON NEW YORK TORONTO
1948

THE MOVEMENT OF FARM POPULATION

OPENING ADDRESS

J. P. MAXTON

Institute of Agrarian Affairs, Oxford, England

THIS subject has many varied aspects. The intention is that it should be discussed from any angle that any members care to raise as being particularly the concern of themselves or of their countries.

Some movement which is now of importance is exceptional in that it was caused by the war. But for the war it would never have taken place. Further movement of the kind stopped with the war, and some of the effect ceased. Yet most of it has long-term effects. The obvious case is that of displaced persons. Many of these were moved by the Germans from occupied countries to Germany itself for war labour. Others came from the Russian-occupied countries at various times and are unwilling or unable to go back. In other places the war created the attraction of special war industry and its rewards. That took place in some instances between countries, but was mostly a problem within the countries organized for war.

Some problems of mobility, however, have very long-established roots, although in pre-war days we would have stressed the immobility rather than the movement. The war gave rise in many ways to an unusual degree of movement, but, on the other hand, post-war conditions have made other problems of immobility more acute.

It is necessary to sort out some of the different kinds of mobility under their various heads. There is, first of all, the movement from country to country. That takes place for many reasons, especially during war-time. Cases already mentioned are those of displaced persons and of people who were attracted from one country to another because of the rewards and opportunities which war offers. In more normal times the movement from country to country is a different problem. Immigration laws, like the other restrictive tendencies of the inter-war period, became more and more strict. The main issue in the case of immigration is not simply one of movement but of absorption and settlement, with the difficulties of adjusting alien people, language, and standards of living to another country.

Next, mainly within countries but in some cases also across

national boundaries, there is the movement from agriculture to industry. That movement has been going on steadily, in highly industrialized countries particularly, and to some extent in all countries. In the majority it has not been as quick as circumstances would have required. The problem was, and still is, one of offering suitable opportunities in industry in countries where industry is limited. Where opportunities are offered mobility out of agriculture is continuous, but it is believed never to have been quite fast enough up till now to cause any serious shortage to agriculture. The position always has been felt to be that agriculture had, if anything, an excess rather than a deficiency of labour, no matter how quickly people were moving from agriculture into industry. In some countries in those war and post-war years the cry is that the movement out of agriculture has left it deficient. But it is barely established yet as a fact.

It has been argued in Britain, for instance, that agriculture is threatened with a severe famine of labour when the German prisoners and other forms of supplementary labour have drifted back to where they came from, or to their normal activities. It is contended that that must be met by attracting people to agriculture. But the situation has still to be tested, and it may mean merely that agriculture will adapt itself to the smaller amount of available labour, especially as labour has become one of its most expensive commodities. Nevertheless, a country like Britain, with its 6 per cent. engaged in agriculture, has reached the stage where a greater interchange between agriculture and industry can take place on comparatively level terms. Up till now, the attraction has been from agriculture to industry because industry has offered the better opportunities, financially and in some other respects. Now that, in Great Britain at least, the rewards of labour and management on farms have become more attractive financially, and offer opportunities of a better life than formerly, there may be a more equal choice which many people who have been absorbed in industry will exercise in favour of going back to agriculture. It might be said that it is the first time that the choice has been a comparatively equal one.

Next there is the mobility between rural life and urban life. That is in many ways the same problem in most countries as mobility between agriculture and industry. It is only in those areas where it is possible to combine rural life and industrial employment that there is a difference in meaning. These areas are increasing in number and size with modern transport, and it is thought in many parts that the movement from rural living to urban living, which was a general

trend for so many generations, may now be in process of being reversed. Questions arise as to the content of this new rural life and what relationship it has to agriculture and the production of farm products. The general tendency has been to make rural living a dormitory life with the same facilities and advantages which one expects from week-ending in the country. On the other hand, there is a tendency towards making this interchange of rural living with industrial employment something more than that, by having part-time holdings with which to supplement the urban earnings, but particularly by something of physical recuperation (some people would go so far as to call it the restoration of the spiritual fibre) by working part of the time with natural things in a country way of living.

Then there is the movement which has been going on for long enough between poor land and good land, both within countries and from one country to another. That is a constant drift, sometimes both ways, but mainly with new-comers coming in to settle the poor land. In the current circumstances it may be that the poor land is just now being subjected to a pressure for settlement which was not common in peace-time, and that, likewise, good land is not so easily obtained by the people who wish to move on. Farming on the good land is sufficiently easy and profitable to make the occupiers disinclined to retire or go elsewhere, so that there is a damming back on the poor land as well as a pressure from new-comers.

This kind of movement, however, is not one of the more important public aspects of population movement. It is very largely an individual movement, and involves no questions of public policy, except perhaps where poor land comes to be neglected and derelict, and the country is anxious that its resources even in poor land should not degenerate into that state. That feeling is very much abroad at the present time. On the other hand, in the between-war period, there was an opposite point of view which often caused great effort to be directed to the possibility of moving people away from poor land which they had settled and which could not provide them with an adequate livelihood in conditions as they were then. In both cases this kind of movement in and out of poor land becomes an issue of public policy.

So far the aspects of movement mentioned, with the exception of war displacement, have implied a permanence of settlement. But there is also the whole question of temporary shifts of labour, mainly of the casual type. It is usually associated with particular crops, the hop-pickers in Kent, the sugar-beet lifters who crossed European

borders in pre-war days to take part in the harvesting of that laborious crop. Some of it is not seasonal as in the cases quoted, but is transitional, e.g. reclamation, drainage, buildings, &c. Post-war conditions, and particularly the circumstances of a very full employment in other industries, may have raised an entirely new situation. How much of that seasonal movement was voluntary because people liked it and found it attractive for various reasons, and how far was it a reflection of low wages and uncertain employment in other forms of economic activity? In either case, different circumstances are prevailing now which may become permanent, with serious results on crops and operations dependent on this type of movement.

Switching to a somewhat different kind of mobility we have an age mobility. People in their adventurous years and later in their earning years move to countries where, in the first case, they find new interests and, in the second, they are able to earn more money by greater opportunities to work for higher wages. These are not necessarily movements towards new settlement. The folk may have no intention to settle finally in the new areas. They may intend to work there in their earning years, and in later life retire to their old country or their old country-side. In the end the majority may settle, but, to begin with, it is a temporary urge. This age mobility, with others of its kind, is rather a current which runs across the main streams. It may be from country to country, from agriculture to industry, from rural to urban, from poor land to good land, and so on. There is, in any case, greater potential mobility at the active-earning age. The shifts that take place in later life may be a return movement, and those that take place among children are conditioned by the movement of parents.

There is an undercurrent in all the discussion that movement is in the main a movement of low-standard peoples to higher-standard areas. The advantages to the people who move in these circumstances are fairly obvious, and the obstacles are those of inertia and of finding the means to make the shift. To begin with, at least, there is an implied willingness to work for wages (or a lower standard of living in other respects) which are below the level of the area to which they have moved. That may be a gain to certain areas and certain industries. Few countries, however, of advanced social existence are content with the position. Problems arise from the cheap competitive labour, and low-standard people may involve a community in the salvage of some of the social wreckage and social maladjustments which result. The tendency is, therefore, not only that they themselves learn to seek the same standard of living as

others in the neighbourhood, but also that the community to which they have moved tries to bring them up to a minimum level with the indigenous population, rather than let them remain as a low-class population living in its midst. That is the social tendency in modern organized countries, but the fact remains that, in some of these countries, forms of economic activity have been established and maintained on the assumption of low-standard peoples being available to carry them on. It may be that it can be maintained by a constant influx of new low-standard peoples who in time graduate out to a better way of living, while others come in to take their place. But in other places it is not so. The low-standard population persists; the low standard of living becomes chronic; and some forms of economic activity are dependent on the chronic state of low living.

So much for a brief indication of the types of movement. The other major aspect of the problem is how labour or population generally can be moved in the desired direction. As already said, the great difficulty in the past has been to induce sufficient movement in most parts of the world. In these more recent times there has been too much movement in certain directions and not enough in others. How are these maladjustments (both of the present time and as they may arise at any time in the future) to be remedied?

There are three main methods employable, each dependent on a different principle: (1) to direct the labour; (2) to provide incentives, with the deliberate intention of trying to get labour to move in certain directions, but without using the compulsion which is implied in the first method; and (3) to leave labour and incentives to be determined by the free operation of forces, and in the hope or expectation that a proper adjustment will be brought about automatically.

Direction involves not only examining how and where labour should be transferred from one region to another, or from one occupation to another, but also that it is made compulsory by the authority of the State. Experience of that, of course, has been plentiful during the war, and there is a natural tendency to assume that it can be and should be applicable to those circumstances which, in the post-war world, may be just as urgent for the welfare of the community as the war necessities were. At the same time, it seems probable that most countries have no desire to perpetuate that kind of compulsory allocation of labour. It would be done only under the gravest necessity. Also people would be unwilling to consent to it, either as a general principle for everyone, or still more in the

application to themselves. There would be greater resistance to it, more evasion, and, as a result, the method would be much less effective than in war-time, even if it were accompanied by greater penalties than were imposed in war-time. The penalties would have to be greater because of the greater resistance to be overcome.

On the other hand, there is considerable uneasiness with regard to the third method of simply leaving matters to be adjusted by the free play of forces. Even the most confident adherents to the general principle of free enterprise recognize that there are places and occasions when some deliberate movement of population is necessary. It is necessary at the present time if only for the purpose of transferring displaced persons to areas where they can be usefully and happily settled and employed. That cannot be left very well entirely to free enterprise. In other respects as well, however, there is a good deal of hesitation at leaving matters entirely to this method.

The second method seems likely to be the most generally favoured, and the most generally effective. It implies that the need for transferring labour from one country to another, or from one industry to another, be studied and measured as far as possible, and that some means other than direct compulsion be worked out whereby those transfers can be induced. The method of higher wages (or, in general, of rewards in the money sense) is the obvious one. But there are others. Thus at the present time in England it is thought that greater inducement would be offered to men to return from industry to agriculture if it were possible for agriculture to offer them houses—perhaps, to begin with, any kind of house, but, later, houses with the modern conveniences of a reasonably standard urban house. It is also thought that if rural living were provided with the main amenities which are provided in the towns the worker would be more willing to return to agricultural employment.

In general, however, these are merely examples of the common principle of offering special rewards, and they may take the form of special goods and perquisites. It is recognizable, of course, that many of the incentives currently effective have force now only because of the innumerable scarcities which the possession of money alone does not overcome. It may be assumed that as time goes on these incentives will have less force, and wages and money rewards in general will become paramount again. In some circumstances, as in the case of housing in this country, that may not be for many years yet. Other more permanent factors are the incentives which are associated with prestige, possibly with leisure, better conditions for old age and retirement, and so on. These do not necessarily

change in their influence with the receding of the war years. On the other hand, they vary enormously as from one person to another, and also, of course, for the age-group of the particular person concerned. Men in their very active years of work may not be very much impressed at all by the special facilities offered for old age and retirement. Men in their later middle years are more likely to be. Similarly with questions of education facilities, with honours and prestige, responsibility, and so on. These do vary in effectiveness, and one method which is effective at one time for one age-group is not necessarily effective at other times and for other age-groups.

The point really is that the incentive has to be flexible and adjustable to meet changing circumstances, and also to be defined so as to be applicable to different kinds of labour and, particularly, different age-groups. That, of course, is true even when we are considering merely the question of wages.

It seems true, however, that these circumstances involve a high degree of discrimination, whereas many of the modern standards affecting labour, and, to some extent, even the returns to farmers themselves, are founded on the idea of equal basic minima. They are deliberately framed to avoid discrimination. There is a possible incompatibility between the non-discriminating basic standards and the planning of incentives for the movement of population.

DISCUSSION

W. HARWOOD LONG, *University of Leeds, England.*

I would like to refer to two sentences early on in this paper, where Mr. Maxton writes that the situation of getting more people into agriculture and its results have still to be tested. 'It may mean merely that agriculture will adapt itself to the smaller amount of available labour, especially as labour has become one of its most expensive commodities.' And later on he says at the end of that paragraph: 'It might be said that it is the first time that the choice has been a comparatively equal one.' I want to say a word or two on the implications of that state of affairs as they occur to me in the position of British agriculture. Agriculture in most parts of the world has been a matter of family farming, except for such parts as the Junker estates in East Prussia, on some of the bigger estates in Hungary, and in certain districts in a few other countries. The only example of widespread capitalist farming in the past has been the British Isles. Even here a lot of family farming persists, particularly in the hillier and wetter parts of the country. At the same time

12 per cent. of the regular labour on farms is to be found on those employing twenty men or more and the average is about two regular hired men per holding. This means that the importance of wage labour and wages in agriculture in this country is much greater than in almost any other country in the world.

Now the point which I want to discuss is what the implications of this may be if the future of agriculture, or rather the future of the food-supply, results in the state of affairs that we knew in the earlier years of this century. The position of labour in agriculture has become such that agricultural wages approximate fairly closely to the wages in other industries. There is no doubt that the scarcity of food justifies this state of affairs at present, and it is not surprising that wages have gone up to the extent that they have done. So far as the immediate future is concerned it is difficult to imagine that the demand for food will not justify wages at their present level as related to industrial wages and for some time to come. But there are agricultural economists, better placed than I to forecast the future, who are already of the opinion that the present position will not last and that there will be in the future a much greater amount of food available for consumption than at present. (As a consumer I devoutly hope that there will be.) It seems to me that in such a case the level of agricultural wages will put the farmers of this country in a difficult position, for they will not be able to resort to the family farmer's solution of the problem of over-production—a tightening of belts and a lower standard of living. The higher percentage of total costs that is absorbed by paid labour in this country than in most others, and the difficulty of reducing labour costs, will tend towards causing food to be produced cheaper abroad than here. The choices, it seems to me, in a country like this where agricultural wages are not likely to fall significantly relative to industrial wages, will probably be either that the efficiency of farming will have to be increased to maintain the cost of production at no higher than world prices, or that the size of holdings will have to be reduced to such a size that paid labour can be cut out or minimized. The further alternative of the industrial community subsidizing farming to such an extent as to enable industrial rates of wages still to be paid seems to me to be more practical for a creditor country than for a debtor country. The point, then, that I am attempting to make is that in the event of food becoming more plentiful than it is at the present time, so that the production of food becomes relatively less well paid than the production of industrial goods, the tendency in this country will be towards a reduction in the size of farms to cut out the paid labour,

and family farming will tend to become more widespread. This state of affairs seems to have been foreseen some twenty years ago when the Agricultural Tribunal of Investigation reported in 1924, and I will, if I may, close by quoting a statement of the position as they saw it then. 'The wage labourer,' they said, 'may rightly object to hours of labour and rates of pay which place him in a position materially inferior to that enjoyed by workers in other industries. The family farmer, however, is working for himself. His wife and children, when engaged upon the holding, are working for the family advantage. In these conditions it is not regarded as a hardship by the persons concerned if they work long hours for a small reward nor do we regard such a state of things in any way as anti-social.'

I suggest, then, that the future trend in this country is likely to be towards a reduction where necessary in the size of farm businesses to the extent to which they may be operated as family holdings.

EDGAR THOMAS, *University of Reading, England.*

There are only two points that I would like to make in this discussion and they occurred to me on reading Mr. Maxton's introduction.

I can hang my first point on to this sentence of Mr. Maxton's: 'There is an undercurrent in all the discussion that movement is in the main a movement of low standard peoples to higher standard areas.' That is a very important generalization. It is easy to prove that, up to the present anyway, a high standard of living has gone hand in hand with the process of industrialization. But I believe that I am right in saying that round about 1939 something like 50 per cent. of the manufacturing industry of the world was still concentrated in the hands of the United States, Great Britain, and Germany. Other countries with very little manufacturing industry felt that they were becoming increasingly dominated by the industrialized countries. It is very natural, therefore, for these countries to think that by industrializing themselves they also will achieve a higher standard of living. But there is need for great caution in accepting this point of view as universally applicable; and for this reason: an examination of the position in the industrialized countries which in the past have enjoyed the higher standards of living will show that they also happen to be the countries which have had access to those economic resources which alone can make a higher standard of living possible. Unless such economic resources are available it does not necessarily follow that the mere process of

industrialization will achieve a higher standard of living. Indeed, it may well be that it is not possible for many countries to achieve a much higher standard of living so long as they depend on the economic resources to be found within their national boundaries. It is for this reason that the problem of raising the standard of living over large areas of the world must be regarded as an international problem and, therefore, a very fitting subject for discussion in a Conference such as this.

The second point I can hang on to the latter part of Mr. Maxton's remarks when he comes to the ways and means of arranging the mobility of peoples. Here I want to speak more specifically of conditions in this country, though I suppose that what is true of this country applies also to the other more highly industrialized countries of the world. Mr. Maxton quite rightly rules out the direction of labour in any conditions other than those of war. But there is one method of control which is not mentioned by Mr. Maxton. It is not a positive but a negative method, for it aims not at making certain things happen but at hindering certain things from happening. In economic affairs it seems to me that this negative control is often very much safer, because we can be very much more certain about the things which we do not want than we can be that we want other things. I can make my point clear by referring in turn to the two movements under discussion—the movement from rural to urban communities, and the movement from farming to non-farming occupations. We do know one thing very definitely in this country about the movement from rural to urban communities. We do know that we do not want any further conglomerations of peoples in senselessly large towns. Therefore we are moving in the direction of having legislation to hinder the enlargement of certain urban areas. That is one method and a very effective and safe method of organizing the mobility of peoples. Turning to the movement from farming occupations to other occupations, I am one of those who still holds the somewhat unpopular view that it may be that there are still too many people engaged in British agriculture. But the point I want to make is that we are beginning in this country to regard the occupation of farming land as something which demands a certain amount of technical, may I call it professional, ability. Indeed, the trend of our latest legislation is towards having certain negative safeguards here again. Thus when a person who occupies agricultural land is not making the best use of it as such, it is possible to have him removed from its occupation. These negative controls of the use of agricultural land may have the effect if not of

reducing the agricultural population at least of making it for the first time more selective and more qualified professionally.

There is just one last word which I wish to say. I must admit to a certain surprise that Mr. Maxton should have been guilty of what I am going to criticize now in his introductory remarks, for it was he who, in a previous paper which he read to the Manchester Statistical Society some years ago, called attention to the point I want to make. It is this. In talking about the mobility of peoples much harm is done by the use of the phrase 'agriculture and industry', because it suggests an antithesis which is completely false. It seems to me that it is our job as agricultural economists to insist above everything that agriculture is only one of many industries. Perhaps if we do make that insistence we shall have gone far to release agriculture of its inferiority complex, and incidentally to clarify much loose talk about this question of the mobility of peoples between farming and other industries.

C. V. DAWE, *University of Bristol, England.*

I am afraid I am unable to rise to the heights to which some of the previous speakers have risen in taking what I call a world survey of this problem, but I would like to make an attempt to measure some of the movement of farm population in this country. It may sound rather parochial in an international conference of this type to refer to conditions in a small country like England and especially to a few counties of it, but I do feel that in this discussion we ought not just to admit the existence of movement of farm population, we ought to try to get some assessment of its extent. In our National Farm Survey, which as most of you know was recently undertaken, it was shown that 15 per cent. of the farmer population in England had occupied their farms since 1914. In Wales it was as much as 21 per cent. From these figures there seemed to be a greater movement of farm population in England as compared with Wales. I am not qualified at all to speak about Wales, but there must obviously be some underlying reason for such a wide discrepancy. One's first reaction is to think that it is due to the isolated position of Wales. But if you turn to individual counties of England you get figures which are just as bad or worse than Wales, and thus this movement, or lack of movement, cannot be attributed to isolation. For example, in the figures for the London and Middlesex area, which, of course, cannot be called isolated, we find that the proportion of farmer population which had their farms before 1914 is as high as 27 per cent. If we move to Northumberland, which I suppose can be called an isolated area, the figure there is 22 per cent.

In the next county of Cumberland, which has roughly the same amount of isolation or inaccessibility, whichever you prefer, the figure is only 13 per cent. It seems very difficult to account for the movement or lack of movement of farmer population in neighbouring counties of this type.

At the other end of England, in Devon, parts of which are very remote, only 10 per cent. of the farmers had held their farms since 1914. This proportion might at first sight lead one to imagine that there is rather more stability there than elsewhere, but again it is difficult to say. Recently we had occasion to examine a block of 400 farms on marginal land, above the 800-ft. contour line, on the Somerset part of Exmoor, which, like the Devon Dartmoor, is a fairly remote area. We found that one-third of the occupiers had left their holdings during the last five years. This rapid movement may possibly be attributed to the fact that it is a bad agricultural area, but nevertheless these figures do seem rather startling.

That, very briefly, is a sketch of the movement of farmers themselves—not of the farm-workers—but before we come to the workers, let us examine the position of farmers' sons and daughters. We do not have much information on this. We can only have recourse to our population census and try to extract some data from there. If we look at the percentages of the total agricultural population by age-groups, we find that there must be a considerable movement of farmers' sons and daughters since there is a rise in the proportion of this total population between the ages of 18 and 24, and a decline in the age-group 25-9. The assumption is that they leave farming, or at least move from their parents' farms to other farms or go into other industries. The census shows that there is an appreciable movement or gradation from the status of a dependent member of a farmer's family to farming on one's own at about the age of 30, for the percentage of farmers in the total agricultural population jumps from $5\frac{1}{2}$ per cent. in age-group 25-9 to $8\frac{3}{4}$ per cent. in group 30-4, almost double.

Now in regard to the agricultural workers themselves we have, of course, a whole series of statistics of the numbers of workers in the country at different periods. From the population census we find a steadily increasing proportion of total workers employed on farms from age-group 14-15 to group 25-9. But the age-group 30-4 shows a marked decrease, seeming to indicate that a considerable proportion of workers leave farms possibly to try to farm on their own at the age of 30. Thus while in age-group 25-9 there are about 12 per cent. of all agricultural workers, in group 30-4 there are only $8\frac{1}{2}$ per cent.

Admittedly, the proportion tends to fall as age increases but the fall at this point is much greater than the steady decline which occurs in later years.

Another source of information is the annual statistics published by the Ministry of Agriculture. Confining ourselves to the regular workers we find that during the decade terminating in 1921 there was an increase in male workers of 104,000, about 20 per cent., and female workers also slightly increased by 5,000 or 7 per cent. With the break in the peak post-war prices and wages that occurred between 1921 and 1923-4 the total number of regular workers declined by 60,000 or $8\frac{3}{4}$ per cent. Of this, men over 21 declined by 30,000 or $6\frac{1}{2}$ per cent., men under 21 by 16,000 or $10\frac{1}{4}$ per cent., and women by 14,000 or 19 per cent.

With the settling down of the country after the restoration of the gold standard in 1925—although it had a somewhat depressing effect—we find that between 1923 and 1931 male workers over 21 increased by 8,000 or 1.9 per cent., but during the same period men under 21 declined by 22,000 or $15\frac{3}{4}$ per cent. Women, however, increased by 5,000 or $8\frac{1}{2}$ per cent.

From then onwards we had a general decline, to which, in the last few years, the demands of war have contributed. But in the eight years between 1931 and 1939, 58,000 adult male workers left farming, together with 21,000 males under 21 and 24,000 women and girls.

It is noteworthy that between 1941 and 1944 the total number of men (all ages) declined by 10,000, whereas women increased by 18,000. As is well known, the decline in regular male workers during the war occurred *pari passu* with an increase in arable land area of 5 million acres, nearly a 50 per cent. increase.

We cannot say exactly why we get these movements. Some reasons are fairly obvious. Men move into industry or become farmers on their own and so leave the employed class for the employer class and so on. But I do not want to weary you with the general decline of the agricultural working population over the last thirty or forty years. The figures can easily be turned up.

The opening paper refers sometimes to farm population and sometimes to rural population. The rural population I take to be a wider concept than farm population, and there is a useful source of information on the movements of rural population in the National Register for the United Kingdom which was produced in 1939. We have there a picture of certain movements between what we would call the rural areas and the urban areas. But the picture is not clear,

if you take it over a period of years, because we have had a growth of towns, boundaries of towns extended, smaller towns coming into existence, and a general blurring of the line between towns and country-side. We have, for example, a growth not only in cities or urban towns such as Bristol, but we have smaller towns, seaside resorts which have grown enormously in the last ten or twenty years and which have extended their boundaries several miles into the surrounding country-side, and I suppose convert the rural population into a town population. But if you attempt to get figures you are met with the big difficulty that you cannot say just when and how you should draw the boundary lines, and you get varying figures of density of population according to the boundaries you draw.

Thus in England and Wales, omitting London, we find that between 1931 and 1939 there was a decline of 4.2 per cent. in the population of county boroughs, which I suppose we may roughly regard as the large cities. But when we examine the rest of the country we find a considerable relative increase. The populations of municipal boroughs and urban districts taken together experienced an increase in population of 10.3 per cent. between 1931 and 1939 and rural districts increased by 14.6 per cent.

In other words, the density of population declined from $15\frac{1}{2}$ to $14\frac{3}{4}$ persons per acre for county boroughs, increased from 3 to 3.3 for municipal boroughs and urban districts, and increased from 0.22 to 0.25 per acre for rural districts.

In the county of Devon, the population of municipal boroughs and urban districts increased by 5.5 per cent. between 1911 and 1921 and by 4.6 per cent. between 1921 and 1931, but whereas the rural districts decreased in the earlier decade by 2.1 per cent. they increased by 3.9 per cent. in the latter decade. It is interesting to note that in Devon the number of persons per acre in 1931 was 0.1 for rural districts and nineteen times that (1.9) for municipal boroughs and urban districts. But the standard of housing and accommodation was approximately the same, namely, 0.68 persons per room in rural districts and 0.65 in municipal boroughs and urban districts—I will not say anything about the quality of the houses and cottages.

The University of Bristol has recently been carrying out a Social Survey of the three neighbouring counties of Gloucester, Somerset, and Wiltshire, and they have tracked population data right back to the year 1801. They show that the proportion of the population in those counties which was rural gradually decreased until 1931, and the town population was increasing, but the trend is now reversing itself.

The rural population is coming back relatively to the town population. That, I think, is no doubt due to the gradual transference of industry—light industry—from the industrial north to the south of England, for it is possible to put light industries into country districts. In time you get those factories, as it were, roped into a neighbouring town, and the rural population begins to take the appearance of an urban population. Your young people especially who would previously have been classed as agricultural workers, or sons and daughters of farmers, would now be classed as some sort of factory worker. More generally we shall influence our distribution of population as between the country and the town either by a definite wages policy or by putting a ring round our large cities and saying you can expand no farther. Satellite towns, for example, will tend to get the same age distribution or population in rural areas as in town areas. All this will cause a shift in population which will not occur of its own volition but will be, as it were, laid down from above. We cannot, however, follow this any farther, I am afraid, because we are now in the middle of it, and we do not know to what extent the Government will proceed along these lines.

Any deliberate policy by the Government to encourage the settlement of persons from other countries in England, or any attraction of our people by the Overseas Dominions must alter the general trend of population and its distribution. Further, any deliberate policy of encouraging or stabilizing or protecting the agricultural industry will likewise influence movements of agricultural population.

SIR MANILAL NANAVATI, *Indian Agricultural Economics Society.*

I have an entirely different tale to tell. Till now the discussion has been about the movement of agricultural population into industries and ways and means to bring a part of that population back into agriculture. In India, however, during the last seventy-five years the movement has been entirely in the opposite direction, that is, from industries into agriculture. In 1880, nearly 56 per cent. of the population was employed in agriculture and 12·3 per cent. in industries, and now nearly 72 per cent. is employed in agriculture and 9·7 per cent. in industries. The total increase in the population during the whole period has been about 55 per cent., from 250 millions in 1881 to 389 millions in 1941. This means that the pressure of population on land is increasing and, as a consequence, the man-land ratio has gone down, the holdings are getting smaller and fragmented more and more.

From the last census returns it appears that this continuous ruralization has come to a stop. The urban population is rapidly increasing and further increase in the proportion of rural population is not likely. But this does not mean that further absolute increase in population within agriculture will not take place. The pressure of population within agriculture may still continue to be felt with disastrous results like the famine of 1943 which took a toll of at least a million and a half lives.

The pressure on soil is thus getting more and more acute in spite of the fact that during 1880 and 1920 we lost nearly 60 million lives as a result of epidemics, famines, and pestilence. Since 1900, nearly 27 million acres of new land has been brought into cultivation and 10 million acres added to the area under irrigation. But still the pressure has been so great that the number of landless labourers has risen from 19 millions in 1891 to nearly 40 millions.

The question is how to relieve the land of this pressure. Two ways naturally suggest themselves; first, rapidly to industrialize the country and, second, to reorganize agriculture from within. We have ample resources—water, mineral, and others—that could be rapidly exploited so as to absorb more men into industries. India has built up a nucleus of modern industries and now that she is coming into her own the pace of industrialization can be greatly quickened. When new industries are started people from rural areas would readily migrate into industries, as most of our present industrial labour is recruited from rural areas. But the rapidity of recruitment will depend upon the sanitary improvements, housing conditions in the industrial areas, and the general amenities of city life. No less will it depend upon the location of industries and the training that the rural population receives in trades, and in handicrafts, to equip them for non-agricultural pursuits. Such training, however, is sadly lacking at present. There is a large class of men in agriculture who originally were engaged in small rural industries and who by tradition are more suited for industrial life. These men could be easily trained and sent out to provide labour for new industries. The industrial training which is now imparted is taken advantage of by the higher and middle classes only and does not reach the small men on uneconomic holdings or landless labourers in the village. They need a somewhat different type of training.

But if agriculture is to prosper and to provide a reasonable standard of living to the average farmer and produce ample food for the population and also raw materials for some of the industries, comprehensive measures are necessary so that the unwanted men may be

pushed out in the course of readjustment. This can be done by measures of land reforms which are well known to most of the European countries—check the fragmentation of holdings and their subdivision, consolidate the fragments, stop the land passing into the hands of the non-cultivating owners who take no interest in its exploitation, enforce rigid tenancy laws by which rents are controlled to such an extent that there is no incentive for absentee landlords to hold land, stop share-cropping, &c. By systematic efforts at land reforms prosperity can be brought to agriculture, while the surplus and unwanted population is diverted towards industry, trade, service, and other professions.

There is yet scope for the reclamation of waste lands, which are nearly 90 million acres, and for the extension of irrigation so as to stabilize agriculture and make it produce more. There is ample scope for the improvement in the technique of agriculture which in the present condition of land exploitation is giving the lowest of yields. All these measures, if taken simultaneously and carried out systematically, will give us the desired results. They will make agriculture prosperous and raise the standard of living of the farmers, who will be fewer in number than hitherto but fitter and better equipped.

We can consider nearly 25 per cent. of the men employed in agriculture as surplus. These men should be taken out of it and diverted towards industry, trade, and the professions. If mass unemployment is to be avoided as a result of comprehensive agrarian reforms, the industrial development should synchronize with land reforms. This is not an impossible ideal to achieve. It can be worked out, provided we have peace in the country and an efficient administration. The future appears promising since the post-war reconstruction plans drawn up by the provincial Governments have taken cognizance of this over-crowding in agriculture and have planned for speeding up industrialization as one of the measures for reducing the pressure on land.

R. KELLER AQUIAGA, *Chicaro School of Agriculture, Spain.*

My purpose in making these observations is to stimulate discussion, especially among those members who come from countries which have completely different conditions from those prevailing in England. There is a great difference between the situation of agriculture in England and in Spain. In England only about 6 per cent. of the population is working in agriculture. In Spain there is 60 per cent., and we should remember that in Spain there are less than

20 million hectares in cultivation, only 1 million of which are under irrigation. That is important because only the irrigated areas are valuable. The rest have very poor yields. For instance, the yield of wheat is only seven to one. The population which lives on agriculture is therefore excessive, and the standard of living is necessarily low. In this and some other respects there is a great similarity with what has been said about India. In the case of greater and larger holdings, the wages have to be very low, and in the small holdings the returns are not enough to support a family. In the case of small holdings the problem is most grave at the time when the property is transmitted by inheritance. The laws of inheritance, or more correctly the customs of inheritance, require that the property of a father who dies be divided among all the sons or all the family. The subdivision therefore of the property is extreme, because Spanish families are very numerous indeed. The holdings grow more and more incapable of supporting a family. There are now some holdings or fields belonging to a proprietor which are only 16 square metres, 19 square yards, which is nothing. This has produced a great movement of the population from the country to the town naturally, but the towns are not industrialized enough to absorb the movement and therefore there is a demand for emigration to other countries, or was. As you know, emigration nowadays is almost completely restricted and the problem arises that all the surplus population which used to emigrate to South America especially, and to Central America, is now completely unemployed. In Spain, therefore, one has to recollect that this movement of the population from the country to the town is explicable and cannot be prevented because the possibilities of irrigation are limited. However, the day of mechanization of the country-side—of the farms—is more on the way. This mechanization has already been initiated but it is only beginning. One of the chief results of all this is that in the large holdings there are social problems because of the great number of workers and the necessarily reduced wages that have to prevail, while on the small holdings the farmer has to cultivate poorer and poorer land, which is always aggravating the situation. These poor lands from the economic point of view should be devoted only to forestry or cattle-grazing.

S. C. LEE, *University of Nanking, China.*

Our conditions in China are very similar to those in India of which Sir Manilal Nanavati has spoken. I am not going to attempt any details of the drift from the rural areas to the cities. I just want

to mention the general trends of rural population movement in three distinctive periods.

The first, the pre-war period, is that from 1910 up to 1931. As you all know, China is an agricultural country and also over-populated. The population pressure is even greater than it is in India. But before 1930 and beginning from 1910 our people used to have two directions of outlet, one to the north-east free province, the so-called Manchuria or Manchukuo until the country was entered by the Japanese. From 1910 to 1919 the exodus of population from the northern parts was about from 5 million to 10 million people a year to the north-east province, and then beginning from 1915 up to 1929 the average exodus of all population to the north-eastern province was, on an average, about 10 million people a year. The second movement was that of people from the south coastal provinces which are also over-populated. They moved to the Malay States, to the Dutch Indies, Siam, Indo-China, and Burma. I do not remember the exact number of people that moved to those places, but the total number may be about 7 million. This movement of rural population solved part of our population problem before the war.

After 1931, by the Japanese invasion of Manchukuo, the Japanese stopped our population movement into the north-eastern provinces, and then, of course, things were getting worse in the northern provinces. That was up to the Japanese invasion of China, which began on July 7, 1937. Beginning from December of that year people moved from the coastal provinces inland to the west. Up to the end of 1944 the total number we have statistics of is about 50 million from the eastern coastal provinces. Of course, these are large numbers of people. They are coming back to the eastern provinces, but a small part of this 50 million people has been establishing itself in the western provinces. Some of the young people have been married and are established either in agricultural or in small-scale businesses. I should say at least three-fifths or 30 million people will come back in the next 3 or 5 years to the eastern provinces of China.

Then there is the period after the war that begins from 1946 till now. In the areas occupied by the Japanese all the young people were compelled to become either labourers or soldiers in the Japanese army. So the occupied areas were short of labour. As soon as the Japanese went out of those occupied areas, they left a vacuum for the Communists, and the Communists did a very great deal of harm to the social structure of our society. They induced all the young people, men and women, to join the Communist forces, and in about 6 provinces all people aged from 16 up to 45, at least 70 per cent. of

the people living in the villages, have been compelled to join the Communist army or to do compulsory labour for them. So that now some of these provinces, although they have been recovered by the Central Government, are very short of agricultural labour. I do not know what method there is to restore the agricultural labour in these provinces. Of course, there is this opportunity to introduce small-scale machinery into rural areas in China, but, on the other hand, we do not have the exports or American dollars or English sterling to purchase small-scale machinery which would be applicable in our rural districts.

These are the important points in connexion with population movement. There are other aspects which are closely connected with agricultural labour and with the movement of rural labour which I shall raise in the discussions to-morrow on the Flexibility of Land Tenure, Capital, and Credit Systems.

G. MEDICI, *Istituto di Economia Agraria, Rome, Italy.*

Perhaps it is useful to make some general observations about this problem in Italy. As elsewhere, Italy over the last seventy-five years has had a marked increase in population which from a total of 26·8 million inhabitants in 1871 has risen to 46 million in 1947. At the same time the percentage of male population working in agriculture decreased from 20·9 to 14·7. The percentage of agricultural population has constantly decreased, whilst from an absolute point of view there has been but a very small increase. During the same period agricultural production increased rapidly. I think that all of us can agree with the general conclusion that a transformation from a primitive agriculture into a modern one is possible only when the shift of farm population is free and when the system of land tenure and the general economic system do not hinder the shifting from one job to another. For this reason the system in Europe is less flexible than in the countries of the new world. This lack of flexibility is one of the reasons of poverty, and perhaps it is the poverty which is the cause of the rigidity.

As an earlier speaker has said, when we look at the world we find that the essentially rural countries are poor, and that they can improve their standard of living only by a transfer of population from rural activity to non-rural activity. In Northern Italy, where a highly progressive and intensive agriculture is accompanied by a good industrial activity, a fair standard of living prevails. Carlo Cattaneo, a great Italian writer of the last century, once remarked paradoxically that good agriculture is born in towns. Agriculture owes its progress

to the investment of capital which was formed in trade and industry, later in agricultural enterprises. It is essential to foster free movements of farm population, because only in this way is it possible to apply modern machinery and to achieve the same rate of production with less use of man-power. The wonderful progress in economic activity during last century was possible not only because of free trade, but because trade was accompanied by widespread emigration. The greatest decrease in rural population occurred in England with its great industrial revolution and corresponding increase in industrial workers. It was possible because emigration was free, and the economic system preserved great flexibility. To-day the situation is quite different. Even if we could hope for free trade between the civilized countries, movement of population is hindered by law and the short-sighted attitude of too many governments towards immigration. Free trade should begin with free movement of populations.

This problem is vital because everywhere there is an impending surplus of man-power in agriculture. This general conclusion is not a contradiction of what we see to-day in many countries; in Italy there is a large number of farm-workers available, but this surplus is only a small part of the real surplus that would be available if a system of economic management of farms were applied. In other countries the apparent scarcity of farm-workers is merely a reflection of the tardy progress of their agricultural development. Looking ahead, I feel strongly that the future of agriculture—particularly in Europe—depends upon a widespread shift of farm population to non-agricultural activities.

B. R. SHENOY, *Department of Research Statistics, Reserve Bank of India.*

I think I understood Professor Thomas to say that industrialization and high standard of living need not necessarily go together and that if, before the war, the two coexisted in the United Kingdom, the U.S.A., and in Germany, it was not entirely owing to the advanced state of industrial development in these countries; it was due more to the easy accessibility to resources which they commanded.

Now this would seem to go contrary to the way of thinking in which most of us have been brought up. I, at any rate, have all along been accustomed to believe that the most effective method of raising the living standard in countries situated such as India, i.e. mainly agricultural countries, is to diversify employment. This in their case must mean industrialization, applying this term in its widest sense so as to cover not merely factories and their products but also the development of transport, the credit system, and marketing.

Progress in these directions will enable the withdrawal into industries of surplus agricultural labour, while at the same time rendering possible more effective exploitation of land through mechanization of agriculture and the application of modern methods of scientific cultivation.

At the moment, in India, there are about 200 people or more per 1,000 acres of land, and I believe that by British standards of mechanization you do not need more than 50 workers for a farm of 1,000 acres. If the tractor and similar devices are to be brought on the land, the split-up and scattered holdings must first be consolidated, and this will necessitate the displacement of about 150 men from agriculture.

It is not implied, however, that the entire displaced labour should be found employment in industries. Part of it may become absorbed in the country-side itself in occupations that must come into existence from the expenditure of the larger incomes which mechanization will bring. Part will be required for servicing the machines, to supply spare parts, and so on. But there will be left a surplus which will be large or small according to circumstances. Professor Thomas himself thinks that there is an excess of population on land even in the United Kingdom. If so, the excess in countries such as India must be very considerable.

And let us for a moment inquire how the United Kingdom, the U.S.A., and Germany did gain access to the resources which we are told provides the correct explanation for their high living standards. If expropriation is not suggested, this was clearly done through exchange; that is, a higher level of production with which to effect the exchange was the real basis of the command over the resources acquired or the root cause of the higher standard. And, as already indicated, a higher level of production can be attained, in the Indian context, only through industrialization.

This renders it exceedingly difficult to appreciate the view-point of Professor Thomas and it would be helpful if he would kindly clarify the position in case I have misunderstood him.

In reply, *Professor Thomas* said: I am very grateful for this question because obviously I did not succeed in making myself clear and this gives me an opportunity of clarifying what I had in mind. Perhaps I ought to say that in talking about the industrialization of countries within national frontiers I was thinking mainly in terms of the Western World. I was thinking in particular that the sequence of industrialization and higher standards of living which had been experienced in some countries of the West would not necessarily obtain if applied to many of the smaller nations of Europe. The

point I really wanted to make was that where the process of industrialization was conceived as a means towards self-sufficiency then in many countries it would not lead to an improvement of the standard of living. When I said that the problem of the improvement of the standard of living for many countries was mainly a matter of international relations I meant, of course, that it was essentially a matter of international trade, and that is precisely what Mr. Shenoy wants to make clear.

A. W. ASHBY, *Agricultural Economics Research Institute, Oxford, England.*

Although I have been unable to apply myself to the subject of this paper until I came into the room, it does seem to me to be so fundamental to a number of the subjects which we have to discuss later that I can scarcely refrain from trying to make a contribution. I have not even now been able to order my thinking as I would like to do, and, as a preliminary, I would like to return first to the paper which Mr. Maxton read, and try to give you a shorter, if not a simpler, analysis of some of the transfers that he has mentioned.

We can, I think, define these transfers: first of all, as geographical transfers without a change of occupation, from agriculture to agriculture within the same political area; second, geographical transfers plus political transfers without change of occupation, the typical emigration of the nineteenth century from eastern and southern Europe, and in part from northern Europe to the United States and Canada; third, geographical transfer with industrial transfer from agriculture to other non-agricultural occupations; fourth, geographical plus industrial plus political transfers. We also have had, right through the history of civilization, industrial transfer in location, that is, industrial transfer without a change of residence. There were also mentioned transfers from poor land to better land. I would like to extend that and say transfers from the poorer to the better *resources*, or from the poorer to the richer resources. But not only that: because I think it is absolutely essential to this discussion to remember that resources in themselves are never absolute, and never final. The resources of any people depend on its surface soil, its rivers, its sea boundaries, on its minerals, and so forth, but those resources in reality depend on the level of technical knowledge and organizing capacity. What the Americans, I believe, call 'know-how' largely determines how much *effective* resources there are. Just remember the condition of this country from the time at which Totnes was founded until, say, 1760: we had all the coal which we have since used underlying our soils, we also had all the iron ores distant from woodlands and the

traditional smelting areas. But we never used them because we did not know how, perhaps because we had not the need. It is necessary to remember that resources are not absolute, but are relative at all times to the stage of technical development of peoples; they are relative also to capital supply. The capital supply itself is partly the result of technical advances. But increases in supply of capital have arisen in agriculture and preceded advances in other industries.

There is also a form of transfer which has been important which Mr. Maxton did not mention; those from areas of political or religious restrictions to areas of relative freedom, a type of transfer which in part laid the foundations of the United States. Unfortunately in these days that is not a type of transfer which we can expect because most of the political States have tied up their citizens so tightly that they just cannot migrate to areas of freedom, or if they could obtain release other States would not accept them. I might add that not all restrictions on transfers are imposed by the State. There are certainly many others besides those of immigration laws. Almost from time immemorial various craft and trade groups have been trying to build economic walls round themselves either to regulate or to prevent entry into them. It is one of the common features of trade-union organization the world over, whenever the union gets into a position at which it can impose restrictions. There are others besides which perhaps I need not mention. What I really want to say to you is this: that modern civilization, Western civilization in particular, has rested and does still rest on the possibilities of transfers from agriculture to industry, using the term industry in a sense in which I will endeavour to explain in a moment. Western civilization—Western material civilization—has grown up out of the intelligence of the people who created it to serve their objects. Progress was made, and is continued, in order that people may have the foodstuffs for full growth, full physical development for a normal span of life; that they may have adequate clothing, not only for protection but for aesthetic expression and for some display; that they shall have adequate housing for the same purposes, and that they may have all the other material supplies which go to make up both our material civilization and our standard of living. Without technical progress and the rise of economic efficiency in agriculture, modern material civilization as we know it and enjoy it could never have arisen. Progress, both in agriculture and organized industrial development, is necessary to help the poorer backward peoples along the road which Western civilization has travelled. I would go even so far as to say that without an initial rise in the efficiency of agriculture it

would have been impossible to start this process of raising material civilization. Let me put the position to you in this way. Those of you who have studied technical advances in industry and agriculture and the rise of economic efficiency in either of them know that if you are taking all industry or all agriculture in any country it is very rare that the rate of progress or increase has been more than 1 per cent. a year. It has touched 2 per cent. in some phases of agriculture. It has, I believe, touched 2 per cent. for very short periods over the whole of industry in the United States. But throw your mind back to civilization when the bulk of people were engaged in food production: say there were 90 per cent. engaged in food production and 10 per cent. in other occupations, mainly government or occupations of that sort. Then if you were to attain a 1 per cent. increase over the whole of your population, you would get it by 1.011 per cent. on 90 per cent. On the other hand, you would require 10 per cent. increase in efficiency on your remaining 10 per cent. in the industrial group to give 1 per cent. over the whole group. Just one illustration. In India, using the round figures of 80 per cent. in agriculture and 20 per cent. in other occupations; if they were to seek a 1 per cent. increase in their productivity, they would get it by 1.0125 on 80 per cent., but would require 5 per cent. to get it on the 20.

But the main point is this: until agriculture raises its efficiency, its technical efficiency in particular, and begins to produce a regular and reliable surplus of foodstuffs which can be transferred to the feeding of a non-agricultural population, the rise of industry as we know it is quite impossible. And, not only so, but if we were ever to contemplate a position in which we were obtaining all our increase in efficiency from the industrial sector of the population, and none of it in the agricultural sector, then by all the economic forces, by all the economic rules, the benefits of the increase in efficiency would remain with those who produced it, and would not in the main be distributed over the whole population, especially as the group of 20 per cent., or whatever the small figure may be, has a very much higher power of providing protection for itself and its standards of living than the preponderant majority of 70 or 80 may have.

But for some of us there are more practical considerations perhaps. If you are looking at this country, Mr. Maxton has told you that we have about between 5 and 6 per cent. of our occupied persons in England and Wales in agriculture. In round figures, 5 per cent. in England, 10 per cent. in Wales; I do not remember what the proportion for Scotland is, but I believe for Great Britain the general proportion is in the neighbourhood of 7 per cent. But, if you are looking

at smaller areas like administrative counties, we have only 2 per cent. in Lancashire, 2 per cent. in Glamorgan, and the highest proportion we have in England and Wales is 40 per cent. in three counties, Rutland, Montgomery, Radnor. That 40 per cent. is extremely important because those are three areas in which there is, practically speaking, no industry except for the service of agriculture. There are some through communications, like railways, telegraphs, and so forth, but in those areas there is practically no industry serving an external population. And those of you who believe in the virtues of small rural communities, mainly based on agricultural populations, should not complain of the growth of urban and industrial agglomerations but should be thankful that they have arisen. Postulating the same growth of industries and their spread over the general geographical area of industrial countries the absence of agglomeration would have meant that very large numbers of the present rural communities would have suffered radical change. Many of them would have added to the present rural population (i.e. families dependent on agriculture and families dependent on ancillary services to farms and agricultural homes) considerable elements of industrial population. There would have been much admixture of occupations and large communities where the small rural types now exist. The rural communities would have lost their close character. As regards this country, given industrial dispersal, no substantial rural area could have preserved anything like 40 per cent.—or in the twentieth century, even 20 per cent.—of its population dependent on agriculture. And remember that every step forward in the technical and economic progress of agriculture enables a smaller number or proportion of the people to feed the whole. It should bring to the agricultural population higher incomes, higher material resources; it should give them higher command over the non-food commodities and services produced and supplied by other groups.

And if you begin to examine a self-supporting rural community, which is living on a fairly high technical and economic standard of production in agriculture, you will find that 40 per cent. require the other 60 per cent. to serve them in building houses and maintaining healthy conditions, in baking bread, in supplying groceries, clothing, fuel and light, furnishings, postal, telegraphic, and telephonic communications, railway communications, and modern transport, distribution, and services in all their forms. That is the condition of the expansion of life for individuals and families in rural communities: the condition of the expansion of possibilities for the development of personal capacities in all our individuals and our families. We have,

in fact, not distributed industry in that form, but we have, of course, distributed it where it can produce most economically in relation to raw materials, or in relation to other requirements of production, and sometimes in relation to where the people prefer to live. But I would emphasize that if we are going to continue with technical and economic progress in agriculture, we do ourselves create the necessity of these transfers. The results of the labour of the transfers should come back to us in materials and in services for raising the standard of living of the agricultural community itself.

I said a moment ago that I would endeavour to say what I mean by industrialization. When we use the term simply and easily, I presume many of us visualize the factory industries and their products. That is not the only meaning of industrialization. If you are looking closely at the industrial evolution of this country I think you will find that the building of the turnpikes—the main roads of England—the improvement of the secondary roads, and the building of the canals in the eighteenth century were amongst the most important parts of the earlier industrialization of this country. At any rate, apart from the shipment by sea and a little movement by river, this building of transport facilities in roads and canals was absolutely essential to the development of the other things which we call industries. And that remains true of the less-developed countries to-day that, where they have labour in good physical condition, where they have organizing capacity, where, as I said a moment ago, they have food-supplies surplus to the requirements of the agricultural population, and where, in addition, they have relatively simple materials, in stone or cement, or anything of the kind, they can set about road-building, river improvement, canal-building, they can even set about building the great dams which will provide for irrigation and for electrification, and that is the basis of industrial development in the backward countries.

On the question which was asked just before I began to speak, in the simpler economic sense it may not matter to a people whether they produce the industrial commodities themselves or whether they get them on the basis of exchange for agricultural commodities; the real question is whether they get them or not. Some countries have got them largely on the basis of that exchange. That exchange, unfortunately, in these days is subject to all sorts of political tampering, all sorts of political muddling one might add, and because of the separation of peoples into national States and the intense sentiments which have developed in the last half-century round national States, it appears that that form of exchange is no longer quite so certain

and reliable in operation as it was up to 1914. But the positions are something like this: that the *per capita* supply, that is, production plus imports minus exports, of finished factory products, other than foodstuffs, round about the early thirties was about 250 dollars a head in the United States, about 110-12 dollars in the United Kingdom and Germany, about 28 dollars in Japan, about 22 dollars in Russia, and about 3 dollars in China. And that indicates what is the real deprivation of some of these peoples in manufactured commodities, if you think of manufactured commodities in the terms of which I was thinking of them a few minutes ago, as the means (other than foodstuffs) by which we protect ourselves in health, the means by which we secure to ourselves a normal term of life, the means which in the end we use for development of personal capacities and personality in individuals.

As I said a moment ago, the main requirements of advance in industrialization are technical knowledge, organizing capacity, and the appreciation of the values obtainable by industrialization, plus the will to save or to postpone consumption, for the purpose of increasing future production. We must, however, admit that under some circumstances the deprived agricultural peoples can improve their positions by improving the yields of their crops. They may vary their crops to obtain more varied and satisfactory dietaries. Under certain conditions they may increase or vary their livestock production and again improve their dietaries. They may not only produce more or better food, but produce more of non-food materials for local uses, more 'manufactured' materials for local consumption, and the improvement of local conditions of living. Where conditions are favourable, by improved and varied methods of production, they may produce real surpluses for exchange with other commodities and services and again improve their conditions of living and increase their satisfactions. But wherever local materials are available or producible they can go farther, they can start in a fresh direction by building and construction; building better habitations, providing better and more adequate water-supplies and sanitation, building schools and local institutions, building and maintaining better local roads, and, under appropriate governmental organization, building main and trunk roads or providing for water transport or generation of electricity as the case may be. And even, for this is the very remarkable thing, with relatively little external capital, they may build railroads. The railroads of the United States made a great contribution to the economic advance of that country and to the modes and standards of living of their people; they did not make

so much contribution to the British investors who helped to build them. There is a very nice simple story that a representative of some London bondholders went to Chicago to see what was happening to a railroad in which they were interested. They met the general manager and the local directors in a hotel there, and the Americans knowing what was coming said: 'Well, they were damned poor rails you sold us.' The British reply was: 'But nothing like as rotten as the bonds with which you paid for them.' In railroad-building a large part of the capital investment was in laying the roads and building the stations, which, with a surplus of foodstuffs and the existence of local labour and materials, technical skill, and organizing capacity, can be done within the nation itself. Metals and rolling stock will, of course, be required; and here exchange capacity or further capital, skill, and organizing capacity will be necessary.

I am not arguing that in these days the process will not take the form of capital saving and capital investment, but where the actual material conditions exist efficient and forward-looking Governments find capital anyway.

Those are just some of the thoughts on this paper. I will just repeat that all the time when we are working at the technical and the economic progress of agriculture we are ourselves creating the necessity of transfers out of agriculture into other occupations. That transfer is as necessary and is as valuable to the agricultural population as to any other part. Our main business is to see that the transfers are carried out with the least necessary pain and with the least loss to those who must move, and to the greatest advantage of the whole community. While we may say that the deprived peoples need more, or more regular, better or more nutritive foodstuffs, their deprivations in respect of non-agricultural—i.e. 'manufactured'—commodities are much greater, almost certainly more important to them, than their low levels of nutrition. In any case, no modern family or community can afford to use all its resources, whether of purchase or production, for procuring foodstuffs. With each increase in purchasing or producing power it will seek to balance the satisfactions obtainable in consumable goods and services in their many forms.

R. W. BARTLETT, *University of Illinois, U.S.A.*

Dean Young made an apology before we started this morning about the people from the United States when he said: 'Of course you recognize that several of us are from the midwestern part of the American continent, namely, the corn-belt states, and it is quite

possible that our thoughts and opinions are pretty much provincial.' With that as a preface to my own position I would like to raise two or three questions concerning this whole problem, particularly for England, and base these questions upon one or two statements made in the welcome this morning.

Lord Huntingdon in his statement said that the two basic problems of England were coal and food. I would like to go behind this and ask: 'Are these necessarily the basic problems?' Mr. Elmhirst stated that the basic purpose of agricultural economists is to aid in improving the standards of living of the people whom they are serving. And he also stated that we should assume an objective approach to this problem. I would like to raise two questions, not for answers by any particular individual, but to stimulate thinking on the broad problems which England is facing.

The first question is: Is there any objective evidence that the standard of living of the people of England will be improved by pouring more and more capital and more and more labour into improving the coal industry and into the production of food within the country?

The second question: Has objective study been made which would show whether or not the pouring of a greater proportion of capital and labour into some of the younger countries of the Dominions might not prove more productive in improving the standards of living of the people in England and in the Dominions as a whole? Let us first look at the question from a viewpoint of using more capital. There are two proposals that have been suggested in regard to the use of capital in improving the coal production in England. One is for the English people to use capital and initiate some of the labour-saving devices that are used by the American miners so that coal can be mined more efficiently. I think probably that this proposal is true. Another question which goes along with this is: Is the availability of coal in the English mines such that its production after the use of such labour-saving machinery can be made as efficient as, say, the production of coal in Canada or in other countries of the Dominions? This question seems to me pertinent from two viewpoints: one is from the viewpoint of improving the standard of living of the English people. If, after one invests more and more capital in coal-mining, the standards of living of the English people do not improve, is that capital properly spent? Is it possible that the mass-production industries now in use in England might be developed more cheaply in some of the other Dominions or in Canada than to try and improve them in England?

If a country is going to sustain its present political and economic status it has to bring about an increase in the standard of living. One may start at a very low level like that just discussed by Dr. Lee of China. People in all countries want an improved standard of living. Realistically one recognizes that in each country one must start from where they now are.

Another question: Might it not be possible for Canada, Australia, New Zealand, and South Africa to develop still more some of their food industries and to ship the finished products to other parts of the world? They have already manufactured many raw products during the past four or five years. I have been particularly interested in the development of industries in Canada. Three weeks ago when I was passing through Canada, an editorial of one of the papers said that they would like to have more people come to Canada from England if that could be fitted into the British plan.

Our friends Simpson and Morey from Australia tell us that they would like to increase their population from 7 million to 20 million people during the next three or four decades. One of my American friends who recently spent a year in South Africa said that many people in that country were anxious to develop their industries and increase their population.

In conclusion may I repeat: Is more home production of food and coal the basic problem for Britain? Would export of capital and labour to their Dominions improve living standards of the people of Britain and the Dominions as a whole?

L. J. NORTON, *University of Illinois, U.S.A.*

There is one subject in Mr. Maxton's paper which has not been completely covered: The problem of training people so that they can move effectively from one job to another. The paper seemed to indicate that a man could shift from one place or job to another with just about equal proficiency. I do not think that this is true. Newspapers in the U.S.A. have recently reported arrival of Dutch farmers in the United States. They always arrive by aeroplane—at least those who are reported in the papers—and they always have a large family of children. I do not know whether there is a policy of exporting Dutchmen with large families. May I say that we are very happy to have these Dutch families in our country. I was recently in Holland for two days, and I think that the training of Dutch dairy farmers would be very satisfactory for them to go on to a dairy farm in the United States. I was on several Dutch grain farms and saw a number of hired men who would certainly be useful on our grain farms in

Illinois, but it would take a year, I am sure, to train them to be qualified grain farmers. They would need to learn the skills and tasks of our more mechanized type of agriculture. In the transfer of people from job to job and from country to country, education and training are extremely important.

In the United States, and particularly in the part to which Dean Young referred, our farmers and rural communities have within the last generation seen to it that a high-school education is available to the children of every farmer and every farm-worker. That was not true twenty-five years ago in Illinois. Indiana started it before Illinois did, but we now have everywhere our state high schools where young men and women who want to do so can get twelve years of education in their home community. I think our farmers and rural communities pay for these schools, and they are expensive, in part because they want their sons and daughters, who may go to the cities, to have an even break with other people's children. It is a part of this training that I am talking about. Alongside of providing the education needed for admission to our colleges, practically all of these schools have good vocational courses where the boys are introduced to the elements of training in agriculture and the girls to training in home economics. I am sure that American farmers feel that training is extremely important in the transfer of people at the desired economic level.

I was very much struck with Professor Ashby's point that if you want to build roads, &c., in non-industrialized areas, it can be done largely with local materials and local labour. I am not sure what the point of the following story is, but I think it ties in with what I am saying about training: on the aeroplane in which I came over—it was the New York to Karachi flight—about half of the passengers were American workmen. They were going to the last place in the world that I would have expected American workmen to go to work, Afghanistan. Who was providing the capital to fly American workmen from New York—some of them had just flown in from California—to Afghanistan, I do not know. All of these men were specialists. One was a man who knew how to use heavy earth-moving machinery; another was a machinist; two of them were powder experts; and an engineer was in charge. Somebody in Afghanistan must want to speed up construction work. I told a couple of Englishmen about this on the train coming down from Glasgow the other night and one of them said they probably wanted to blow up the Khyber Pass, which I take it the British have been defending for many years. I told them that I thought their jobs

might be to build better roads in this pass. My point in this story is the same that I made above: in moving people effectively from one place to another they need to be trained for their new jobs, even if it is to be a hard-rock miner and how to use explosives. The problem of the proper type of education and training involved in moving people both into and out of agriculture is extremely important.

I had the pleasure during the past week of seeing a small bit of England and Scotland. I want to take this opportunity to thank the people who are here who helped to make this trip profitable; I never received so courteous treatment anywhere, never expect to get better, and saw a great many things in a very limited time. Two of the men who helped me on this trip, men who had not been born on farms, were planning to go into the business of farming. Both were getting good training before they started. So what I am saying about training I have seen practised here.

On Mr. Long's point as to what British farmers with large farms and with hired labour will do if prices go down, as many of us think they will, although there are still differences of opinion amongst us, I would suspect (and now, having spent a week in England, I am an expert on all English questions!) that your farms would go into production of things for which they have special advantages more than they do at the moment under the force of the grim necessity to produce the maximum quantities of food. This necessity I think is in part the answer to the questions which my colleague Dr. Bartlett has raised. When this emergency is over your farms will shift back to the production of things for which you have local advantage in supplying food for 47 million people, namely, the fluid milk and the fruits and the vegetables and the other perishable things which are advantageously produced at home. But also (I know that several of the English economists will disagree with me on this because they have done so privately) I think that at least in your crop production you will find ways of increasing the productivity of a day's labour. I am not saying that you will do this in your livestock production because there are not such great opportunities there. You can give good reasons, and the farmers too, why this cannot be done, but, following up Professor Ashby's point, if the will to do it exists and the necessity for doing so develops, farmers will find ways of using labour in crop production more effectively.

J. COKE, *Department of Agriculture, Ottawa, Canada.*

Most of this discussion has centred round the problems of countries in which surplus population exists. I come from a country in which

we have a relatively small population. The trend in population in Canada between rural and the urban population has been in favour of urbanization. We have about 25 per cent. of our people living on farms, and in the paper which Mr. Maxton presented I thought I detected too little emphasis upon the development of technicollogical improvements, e.g., mechanization of agriculture. In our country we are moving quite rapidly in the direction of mechanization, the trend in the size of farms is towards larger units, and, we think, more efficient units. Therefore the surpluses which we produce (not with the regularity that Professor Ashby would like) are the result of increased mechanization and a larger output per worker in agriculture. That should be borne in mind when we consider the movement of people from one country to another. We, too, have had movements from poorer land to better land with assistance in some cases in western Canada by both provincial Governments and the Dominion Government. And we have had movements from urban centres to pioneer districts. That has been a consciously developed programme in some provinces, particularly in the Province of Quebec, but it is not entirely confined to that province.

There is one thing that occurred to me which has not been brought up here this afternoon. Since this Conference was organized and even since we last met there has been a development in many countries towards social security. In our own country we have family allowances and other benefits paid to individuals, and I was wondering as the discussion went along whether anybody had made a study of how individuals would be affected in this respect in attempting to move from one country to another. It is not only special benefit payments but also the security, for example, of wage regulations. In Great Britain farm-labourers have a statutory minimum wage. We have nothing of that sort in Canada. It is therefore a question that needs exploration as to how much the individual might better his position in moving from, say, Great Britain to Canada.

We have had in our country a great deal of discussion about the movement of peoples across our own borders. There has been some relaxation in the regulations governing the admission of people into Canada. The people who already have families or relatives in Canada may gain entrance to the country. There have been special measures taken to bring in groups of people, including some Polish soldiers and some from Holland. Those are special arrangements. The overall policy, however, has been halted by lack of transportation and by critical housing situations in many large areas in the

country. I mention these because I think perhaps we tend to under-emphasize some of the difficulties in free movement of people under present circumstances, including this one I have mentioned particularly, namely, the variations in social security available to people in different parts of the world.

O. B. JESNESS, *University of Minnesota, U.S.A.*

One answer should perhaps be made to my good friend Professor Ashby with respect to the aid which we received in the financing of the building of our railroads. A good many Americans would take delight in hearing that there was at least one occasion when we got the best of the British in a trading deal. I anticipate that more than one American would be inclined to remind Professor Ashby that, if not the investors in the bonds, then at least the British people secured some gains in the form of cheap food. Some people might be inconsiderate enough to suggest that perhaps you are getting some repayment at the present time.

But leaving facetiousness aside, it was a delight to me to have Professor Ashby outline this problem in his very effective and lucid manner. I do not propose to raise any additional question at this hour, but merely want to take a moment to express what seems to me to be some of the things which this problem we have been discussing to-day means. Professor Ashby well stated that what determines our level of living is what we produce and how efficiently we produce it and he also made the point that this is more than a national question. As I see this whole problem of population, it is one that must be viewed not merely with respect to policies within a given country, but must also be recognized as a very fundamental aspect of world problems. How well we live (contrary to popular opinion) is not determined so much by the way in which resources are utilized within a given country, but how well the resources are utilized the world over and what our relationships are in the matter of exchanging the products of that utilization. As we think over what our policy should be with respect to population and over the consequences of our agricultural policies, we ought to be more concerned with their longer-run effects. I am certain that in my own country we have programmes relating to agriculture on the way to-day which are tending to interfere rather than aid in the desirable adjustments of population, and I seem to detect both from my visit and from previous reading some evidences of the same thing in Great Britain. I doubt, in fact, if any nation here represented is free from that taint. We are motivated in our programmes entirely too much by conditions of the

moment. We yield to expediency and then we wonder why certain of these broader problems such as those in the field of population descend upon us at a later date. This imposes some grave responsibilities on all of us, whether we are classified as population economists or not, to try to think through these problems and to see them in their larger relationships.